

TENDER

BID NO: SCMU3-23/24-0484-HO

**Upgrading of Security Infrastructure at Livingstone PEPH
Hospital Complex (Gqeberha, Nelson Mandela Bay Health
District)**

NAME OF COMPANY:

CSD Nr:

CRS Nr (CIDB):

CLOSING DATE: 5 April 2024

TIME: 11:00 am

Deliver to:

**EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,
situated at the following address:**

**GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 (OPPOSITE ENGINE
GARAGE), BHISHO
6001**

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THE TENDER

1.PART T1 - TENDERING PROCEDURES

PART T1.1: TENDER NOTICE AND INVITATION TO TENDER

1.1. T1.1.Tender Notice and Invitation to Tender

The Eastern Cape Department of Health invites contractors with a CIDB Grading of **CIDB 7 GB** or higher in the following Class of works (**CIDB 7GB or higher**) to tender for the “**Upgrading of security infrastructure at Livingstone PEPH Hospital Complex**” for a **Twenty (20) month** contract. The contract will be based on the JBCC Edition 6.2 of 2018 and **The Eastern Cape Department of Health** will enter a contract with the successful tenderer.

BID DOCUMENTS MAY BE OBTAINED FROM THE ECDOH & TREASURY WEB SITES AT NO COST:

There will be a compulsory briefing meeting on **5 March 2024 @ 11h00, at PE Provincial Hospital, Gqeberha, Nelson Mandela Bay Health District, Eastern Cape Province**. Prospective bidders to meet at the **Buckingham Road Main entrance parking area** inside the hospital site, **11h00**. After the presentation at PE Provincial Hospital, prospective bidders will continue to conduct a site visit at Protea Flats.

Queries & Technical enquiries relating to the issue of these documents may be addressed in writing to Ms. T Notshe via email: thabisa.notshe@echealth.gov.za Phone: 040 608 9501

The closing time for receipt of tenders by **The Eastern Cape Department of Health** is **11:00am on 5 April 2024**. Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted. Bids must be submitted in sealed envelopes clearly marked “**TENDER: Upgrading of security infrastructure at Livingstone PEPH Hospital Complex BID NO: SCMU3-23/24-0484-HO**” must be deposited in the bid/tender box of:

EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,

situated at the following address:

GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 (OPPOSITE ENGINE GARAGE), BHISHO.

It is the responsibility of the tenderer/s to ensure that bid documents /proposals are submitted on or before closing time and the correct location as the department will not take responsibility of wrong delivery. Tenderers using courier services for delivery of their bid documents must ensure the delivery is at the correct place / location and time as the department will not be held responsible for wrong delivery. Not delivered to Departmental officials. The Department will not accept responsibility if bids received by officials are not timely deposited in the Bid Box.

Tenders may only be submitted on the tender documentation that is issued. Tenderers must be registered on the National Treasury Central Supplier Data Base and proof of registration must be submitted with the proposal (<https://secure.csd.gov.za>). Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

B. BID EVALUATION:

This bid will be evaluated in Two (2) Stages as follows:

Stage One: Compliance, responsiveness to the bid rules and conditions, thereafter they will be evaluated in terms of Price & Specific Goals

Stage Two: Price & Specific Goals in terms of the Preferential Procurement Regulations of 2022.

PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT (PPPFA) Price & Specific Goals

POINTS WILL BE AWARDED AS FOLLOWS:

Maximum points on Price	-	90 points
Maximum points for Specific Goals	-	10 points

Maximum points

- **100 points**

C. BID SPECIFICATIONS, CONDITIONS AND RULES

The minimum specifications, bid conditions and rules are detailed in the bid document under Tender Data.

The specifications, rules, special conditions of bid, evaluation criteria, and rules for evaluation for compliance to local content and other bid conditions are detailed in the document.

Tender validity period is **90 days**.

D. TENDER SUBMISSIONS:

Bids must be submitted in sealed envelopes clearly marked: **“Upgrading of security infrastructure at Livingstone PEPH Hospital Complex” SCM U3-23/24-0484-HO**” must be deposited in the tender / bid box:

EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,

situated at the following address:

GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 (OPPOSITE ENGINE GARAGE), BHISHO.

E. ENQUIRIES WITH REGARD TO THIS ADVERT MAY BE DIRECTED TO:

Ms. T Notshe via email: thabisa.notshe@echealth.gov.za

PART T1.2: TENDER DATA

1.2. T1.2 Tender Data

The conditions of tender are the latest edition of SANS 10845-3, *Standard conditions of tender*. SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3 *and* as contained in **Annexure C of Standard for Uniformity in Construction Procurement (Board Notice 423 of 2009 Government Gazette No 42622 of August 2019)**. Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause number	Tender Data
3.1	The Employer is the Eastern Cape Department of Health
3.2	The tender documents issued by the employer comprise the following documents: THE TENDER Part T1: Tendering procedures T1.1 - Tender notice and invitation to tender. T1.2 - Tender data Part T2: Returnable documents T2.1 - List of returnable documents T2.2 - Returnable schedules THE CONTRACT Part C1: Agreements and Contract data C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Dispute Resolution Mechanism Part C2: Pricing data C2.1 - Pricing Instructions C2.2 - Bills of Quantities Part C3: Scope of work C3 - Scope of work Part C4: Site information C4 - Site information
3.3	The tender documents issued by the employer comprise the documents listed on the contents page
3.4	The employer's agent is: Sakhiwo FM Consortium (Pty) Ltd 1 Rochester Street Vincent East London Via email: benjy@sakhiwo.com Phone No. 043 727 0791
3.5	The language for communications is English
3.6	The competitive negotiation procedure shall be applied.
3.7	Procurement Method: Two (2) stage procurement procedure shall be applied.
4	Tender's obligations

4.1	<p>The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <p>a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for a CIDB CIDB 7GB or Higher class of construction work; and</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; in GB class of works. 2. the combined contractor grading designation calculated in accordance with the Construction industry Development Regulations using the CIDB Joint Venture calculator is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a CIDB 7GB or higher class of construction work or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations.(Three contractors registered in contractor grading designation 6 of which the lead partner must be registered in the class of work under consideration OR two contractors registered in contractor grading designation 6 of which one is the lead partner registered in the class of work under consideration plus two contractors registered in contractor grading designation 5 within the class of work under consideration OR one grade 7 lead partner within the class of work under consideration plus any grade combination contractors in any class of work. <p>4. Joint Venture Agreement. 5. Combined SBD6.1 Specific Goals Points claim form.</p>
4.2	<p>The employer will compensate the tender as follows JBCC Edition 6.2 of 2018 with Government Clauses. The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.</p>
4.3	<p>It is the responsibility of the tenderer to check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.</p>
4.4	<p>Confidentiality and copyright of documents Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.</p>
4.5	<p>Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are incorporated into the tender documents by reference.</p>
4.6	<p>Acknowledge receipt of addenda to the tender documents, which the employer may issue, and, if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.</p>
4.7	<p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list. Tender documents will not be made available at the clarification meeting</p>
4.8	<p>Seek clarification <i>Request clarification of the tender documents, if necessary, by notifying the employer at least 5 (Five) working days before the closing time stated in the tender data.</i></p>
4.9	<p>Tenderers are required to state the rates and currencies in Rands. Include in the rates, prices, and the tendered total of the prices (if any), all duties, taxes which the law requires to be paid [except value added tax (VAT)], and other levies payable by the successful tenderer, that are applicable 14 days before the closing time stated in the tender data. Show the VAT payable by the employer separately as an addition to the tendered total of the prices. Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data. State the rates and prices in monetary value of the contract unless otherwise instructed in the tender data.</p>

4.10	Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer or to correct errors made by the tenderer and ensure that all signatories to the tender offer initial all such alterations. Do not make erasures using masking fluid.
4.11	Main tender offers are not required to be submitted together with alternative tenders.
4.12	No alternative tender offers will be considered
4.13.1	Parts of each tender offer communicated on paper shall be submitted as an original. Submit a) the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with a translation of any documentation in a language other than the language of communication established in 3.5, and b) the parts communicated electronically by the employer or its agents on paper format with the tender.
4.13.2	Sign the original and all copies of the tender offer where required in terms of the tender data. State in the case of a joint venture which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer. NOTE The employer holds all authorized signatories liable on behalf of the tenderer.
4.13.3	A tender security in the amount of N/A is required and shall remain valid for a period not exceeding N/A days after the closing date for tender offers. The form of the tender security shall not differ substantially from the sample provided in Annex D of SANS 10845-3.
4.13.4	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are: EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE, situated at the following address: GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 (OPPOSITE ENGINE GARAGE), BHISHO. Tender / Bid identification details: Upgrading of security infrastructure at Livingstone PEPH Hospital Complex BID NO: SCMU3-23/24-0484-HO Closing time and date: As per Tender advertisement
4.13.5	The tenderer is required to submit with his tender the following compulsory certificates: 1) a copy of the CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services. <i>In the case of a Joint Venture/Consortium/Sub-contractors each party must submit a separate CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services.</i> 2) CIDB Grading certificate or CRS number. 3) COIDA Letter of Good standing from the Department of Labour and/or FEM
4.13.6	A two-envelope procedure will not be required.
4.13.7	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted. The tenderer accepts that the employer does not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
4.14	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Proof of posting shall not be accepted as proof of delivery.

	Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of the standard conditions of tender in this part of SANS 10845 apply equally to the extended deadline.
4.15.1	The tender offer validity period is 90 days . Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data. If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period, with or without any conditions attached to such extension. Extend the period of the tender security, if any, to cover any agreed extension requested by the employer.
4.15.2	Placing of contractors under restrictions / withdrawal of tenders If any tenderer who has submitted a tender offer or a contractor who has concluded a contract has, as relevant: withdrawn such tender or quotation after the advertised closing date and time for the receipt of submissions; after having been notified of the acceptance of his tender, failed or refused to commence the contract; had their contract terminated for reasons within their control without reasonable cause; offered, promised or given a bribe in relation to the obtaining or the execution of such contract; acted in a fraudulent, collusive or anti-competitive or improper manner or in bad faith towards the Provincial Government; or, made any incorrect statement in any affidavit or declaration with regard to a preference claimed and is unable to prove to the satisfaction of the Provincial Government that the statement was made in good faith or reasonable steps were taken to confirm the correctness of the statements, such tenderer/s may be placed under restriction from tendering with the state. Procedures are outlined in the EC SCM Policy for Infrastructure procurement and Delivery Management and also on cidb Inform Practice Note #30. Excerpts of the policy can be availed on request of any interested tenderer.
4.16	Access shall be provided for the following inspections, tests and analysis: N/A
4.17	the preferred tenderer will be required to submit an approved insurer undertaking to provide the Performance Bond / Guarantee / Surety / Security to the format and/or standard
5	Employer's undertakings
5.1	The Employer will respond to requests for clarification received up to Five (5) working days before the tender closing time. If, as a result of the issuing of addenda, it is necessary to extend the closing time stated in the tender data, grant such extension and notify all respondents accordingly.
5.2	The employer shall issue addenda until Five (5) working days before tender closing time.
5.3	Tenders will be opened immediately after the closing time for tenders at 11:00am hours .
5.4	Do not disclose to tenderers, or to any person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.
5.5	Determine, after opening and before detailed evaluation, whether each tender offer that was properly received a) complies with the requirements of the standard conditions of tender in this part of SANS 10845, b) has been properly and fully completed and signed, and c) is responsive to the other requirements of the tender documents. A responsive tender is one that conforms to all the terms, conditions, and scope of work of the tender documents, without material deviation or qualification. A material deviation or qualification is one which, in the employer's opinion, would d) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the scope of work, e) significantly change the employer's or the tenderer's risks and responsibilities under the contract, or f) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. Reject a non-responsive tender offer, and do not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.
5.6	Arithmetical errors, omission, and discrepancies

	<p>Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.</p> <p>For Vat related discrepancies, National and Provincial Treasury prescripts in relation to VAT procedures apply.</p>																
5.7.1	<p>The financial offer will be reduced to a comparative basis using the Tender Assessment Schedule.</p> <p>Table F.1: Formulae for calculating the value of A</p> <table border="1"> <thead> <tr> <th>Formula</th> <th>Comparison aimed at achieving</th> <th>Option 1^a</th> <th>Option 2^a</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Highest price or discount</td> <td>$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$</td> <td>$A = P/P_m$</td> </tr> <tr> <td>2</td> <td>Lowest price or percentage commission / fee</td> <td>$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$</td> <td>$A = P_m/P$</td> </tr> <tr> <td colspan="4"> ^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration. </td> </tr> </tbody> </table>	Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a	1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$	$A = P/P_m$	2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$	$A = P_m/P$	^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			
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5.7.2	<p>The procedure for the evaluation of responsive tenders is Method 2: Administrative compliance, Price and Preference</p> <p>Stage 1: Administrative requirements and Mandatory requirements</p> <p>Stage 2: Price and preference (90/10 system)</p>																

STAGE ONE: ADMINISTRATIVE REQUIREMENTS AND MANDATORY REQUIREMENTS

A. Bidders' proposals must meet the following minimum requirements and supporting documents must be submitted with the completed bid document in a sealed envelope in the bid box at the closing date and time. Failure to comply will automatically eliminate the bid for further consideration:

1. Bid Document (This Document must be submitted in its original format)
2. Bids which are late, incomplete, unsigned or submitted by facsimile or electronically, will not be accepted.
3. Bidder must be registered with CIDB in the correct grading and class of works as per the tender notice and requirements. It is the responsibility of the bidder to keep the status on CIDB active throughout bidding process (advert till award stage).
4. Bidders must be a legal entity.
5. Form of offer and Acceptance (fully completed and signed)
6. SBD4 must be duly completed and signed. Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract, such interest must be disclosed on question 2.3.1.
7. Compulsory Enterprise Questionnaire (Completed and signed) (JV partners must complete separate Questionnaire forms and submit) (% split to be indicated for each JV partner)
8. If the offer is "Vat Inclusive", the VAT registration number of service provider must be indicated and if a service provider is not a VAT Vendor but include VAT in its prices, the successful service provider will be given 21 days to register as a VAT Vendor with SARS, after the issuing of an appointment letter. If a bidder is a VAT vendor/registered, the bidder is required to explicitly state the VAT amount. VAT vendors must include VAT at 15% in the bid offer(s).
9. Resolution to Sign (if applicable)
10. Attendance of compulsory briefing meeting
11. This tender will be awarded as a whole. All trades listed in the Bills of Quantities or Pricing schedule must be priced for (except provisional sums and allowances), failure to do so will result in increase commercial risk of the bid and may lead to elimination or passing over of the bidder.
12. The tenderer is required to submit with his tender the following compulsory certificates:
13. A copy of the CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services. In the case of a Joint Venture/Consortium/Sub-contractors each party must submit a separate CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services.
14. CIDB Grading certificate or CRS number.
15. COIDA Letter of Good standing from the Department of Labour and/or FEM
16. ECDOH SCM Policy applies.
17. Returnable Schedule: SBD1-Invitation to bid must be completed and signed
18. The bidder must be registered on the Central Supplier Database (CSD) before the Tender Closing Date.
19. All bidders' tax matters must be in order prior award. Bidders' tax matters will be verified through CSD.
20. Declaration of Employees of the State or other State Institutions.
21. Due Diligence In-Loco Inspection of the Bidder / or JV. As part of its due diligence obligations, the Department of Health reserves the right to do an In-Loco inspection of the offices and premises of the Bidder / or JV to verify the existence of the business ENTERPRISE as declared on the SBD1 form.
22. In the event where the In-Loco Inspections find inconsistencies and or misrepresentation in terms of what has been declared in the Bid submission, the Bidder will be notified of such inconsistencies and or misrepresentations in writing and allowed 7 (seven) days to rectify such.
23. As part of the due diligence Bid evaluation process a technical risk analysis of the Bid submission including the Bills of Quantities will be carried out by the Bid Evaluation Committee with the support of the Built Environment Professional Team, to check and

confirm whether the tender price submitted is market related and does not pose a commercial risk to the Client.

24. In the event where the Bidder that's scored the highest points and the Technical Risk Analysis outcome indicated commercial risk to the Client, the Client reserves the right to award the Bid to the second highest scorer of Bid points.
25. The Bidder who complies with the Due Diligence In-Loco Inspection evaluation criteria, may then be considered for recommendation for award.
26. In the event where the Bidder has failed to rectify the inconsistencies and or misrepresentations within the 7 (seven) day period, the Health Department shall consider the Bidder who scored the 2nd highest points to be considered for award.
27. The Department will contract with the successful bidder by signing a formal contract.
28. Wherever a brand name is specified in this document (i.e. specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.
29. Protection of personal information: Consent (POPIA)
30. The successful tenderer (after being informed) will be required to bring along an unsigned copy of the form of contract to be signed by parties (e.g. JBCC Edition 6.2 of 2018 with Government Clauses)
31. A fixed construction guarantee of 10% must be provided as security, in the event that the considered bidder fail to provide this security, the client will consider the next highest scoring bidder for award.

STAGE TWO: EVALUATION POINTS ON PRICE AND SPECIFIC GOALS / PPPFA OF 2022

The **90/10 preference point system** shall be applied for the purposes of this bid as per the requirements of the *Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000)* and B-BBEE/ PPPFA Regulations of 2022

Criteria	Points
POINTS ON PRICE	90
SPECIFIC GOALS	10
TOTAL	100

The 90/10 preference point system for acquisition of services, works or goods exceeding Rand value of R50 million:

(a) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a Rand value equal to, or above R 30 000 and up to Rand value of R 50 000 000 (all applicable taxes included):

The financial offer will be scored using the following formula:

$$A = (1 - \frac{(P - P_m)}{P_m})$$

The value of value of W_1 is:

- 1) **90** where the financial value inclusive of VAT of all responsive tenders received have a value in **excess of R50 000 000** or
- 2) **80** where the financial value inclusive of VAT of one or more responsive tender offers have a value that **equals or is less than R 50 000 000**.

5.7.3	The procedure for the evaluation of responsive tenders is Method 2 (Administrative, price and specific goals)
5.7.4	The quality criteria and maximum score in respect of each of the criteria are as follows: N/A
5.7.5	Each evaluation criteria will be assessed in terms of five indicators – N/A
5.7.6	The prompts for judgment and the associated scores used in the evaluation of quality shall be as follows: N/A
5.8	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) unless it is a foreign supplier with no local registered entity b) the tenderer is in good standing with SARS according to the Central Supplier Database. Bidders must submit a CSD no. or tax status compliance pin. c) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; d) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. e) the tenderer has not: <ol style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect. f) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process. g) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract.

	<ul style="list-style-type: none"> h) Bids which are late, incomplete, unsigned or submitted by facsimile or electronically will not be accepted. i) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer. j) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. A letter of Good standing from the Labour Department is a compulsory mandatory requirement. k) the tender has offered a market related offer. If the offer is believed not to be market related, the department through its Supply Chain Management bid committees will attempt to negotiate the offer with identified bidder/s to a reasonable amount. Bidders are not allowed to increase their tender offers during this process. l) A Resolution of signatory form has been completed and signed by director/s or a letter bearing a letterhead of the tenderer has been attached (specific to this bid) to the bid submission; it must be duly signed by all directors and submitted the bid. Only a duly authorized official can sign the bid. m) Prospective bidders must register on CSD prior submitting bids (open tenders). Any prospective bidder found to have Tax matters not in order with SARS (verified through CSD) during the evaluation process (after being given an opportunity to rectify tax matters) will be eliminated and not be considered further in the process. Preferred bidder/s will be afforded an opportunity to rectify their tax affairs within 7 days. A bidder that fails to rectify its tax matters with SARS will be eliminated. n) NOTE: The amount reflected on the Form of Offer and Acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the Form of Offer and Acceptance has no value or figure, the bidder will be regarded as having made no offer. o) The department reserves the right not to award the bid to the most favourable tenderer, if any of the situations occur: if it is not assisting in the advancement of designated groups; risk profile of the favourable firm is too high; the bidder has been awarded a considerable number of projects by the department or provincial government; has performed unsatisfactorily in the past, etc.
	<ul style="list-style-type: none"> p) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract. q) Bids which are late, incomplete, unsigned or submitted by facsimile or electronically will not be accepted. r) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer. s) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. A letter of Good standing from the Labour Department is a compulsory mandatory requirement. t) the tender has offered a market related offer. If the offer is believed not to be market related, the department through its Supply Chain Management bid committees will attempt to negotiate the offer with identified bidder/s to a reasonable amount. Bidders are not allowed to increase their tender offers during this process. u) A Resolution of signatory form has been completed and signed by director/s or a letter bearing a letterhead of the tenderer has been attached (specific to this bid) to the bid submission; it must be duly signed by all directors and submitted the bid. Only a duly authorized official can sign the bid.

	<p>v) Prospective bidders must register on CSD prior submitting bids (open tenders). Any prospective bidder found to have Tax matters not in order with SARS (verified through CSD) during the evaluation process (after being given an opportunity to rectify tax matters) will be eliminated and not be considered further in the process. Preferred bidder/s will be afforded an opportunity to rectify their tax affairs within 7 days. A bidder that fails to rectify its tax matters with SARS will be eliminated.</p> <p>w) NOTE: The amount reflected on the Form of Offer and Acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the Form of Offer and Acceptance has no value or figure, the bidder will be regarded as having made no offer.</p> <p>x) The department reserves the right not to award the bid to the most favourable tenderer, if any of the situations occur: if it is not assisting in the advancement of designated groups; risk profile of the favourable firm is too high; the bidder has been awarded a considerable number of projects by the department or provincial government; has performed unsatisfactorily in the past, etc.</p>
5.9	The number of paper copies of the signed contract to be provided by the employer is 1.
	<p>The additional conditions of tender are:</p> <ul style="list-style-type: none"> • Wherever a brand name is specified in this document (i.e., specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.
T.2.1	List of returnable documents
1	<p>Documentation to demonstrate eligibility to have tenders evaluated i.e. List all documentation to demonstrate eligibility to have a submission evaluated.</p> <ul style="list-style-type: none"> • Appropriate CIDB grading suitable for the works (as stated in 4.1).
2	<p>Returnable Schedules required for tender evaluation purposes.</p> <p>The tenderer must fully and appropriately complete and sign the following returnable schedules as relevant:</p> <ul style="list-style-type: none"> • SBD 1, SBD 4 (Mandatory) • SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 • Proposed amendments and qualifications. (Mandatory) • Schedule of Proposed Subcontractors • Protection of personal content: Consent POPIA (Mandatory) • Valid CIDB Certificate of Tenderer (Mandatory) • Valid Department of Labour COIDA Letter of Good Standing Certificate and/or FEM. (Mandatory) • Proof of Specific Goals Claimed • Proof of Registration on the National Treasury Central Supplier Data Base (CSD) (Mandatory) • Particulars of Electrical installation subcontractor • Particulars of HVAC installation subcontractor • Particulars of ICT & Access Control installation subcontractor • Part C1.1 Form of Offer and Acceptance (Mandatory) • Part C1.2 Contract Data (Mandatory) • Part C2.2 Bills of Quantities including electrical & mechanical Bills of Quantities (Handwritten Priced. Not typed) (Mandatory) • Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted). (Mandatory) • Record of addenda issued (Only if addenda is issued) (Mandatory) • Resolution for Signatory (Mandatory) • Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture) (Mandatory) • Proof of Registration on the National Treasury Central Supplier Data Base (CSD). A CSD Report for a contractor with valid and correct information (Mandatory)

3	<p>Other documents required for tender evaluation purposes. The tenderer must provide the following returnable documents:</p> <ul style="list-style-type: none"> • None
4	<p>Only authorized signatories may sign the original and all copies of the tender offer where required. In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated. In the case of a COMPANY submitting a tender, include a copy of a <u>resolution by its board of directors</u> authorizing a director or other official of the company to sign the documents on behalf of the company. In the case of a CLOSE CORPORATION submitting a tender, include a copy of a <u>resolution by its members</u> authorizing a member or other official of the corporation to sign the documents on each member's behalf.</p> <p>In the case of a PARTNERSHIP submitting a tender, <u>all the partners</u> shall sign the documents, unless one partner or a group of partners has been authorized to sign on behalf of each partner, in which case <u>proof of such authorization</u> shall be included in the Tender. In the case of a JOINT VENTURE/CONSORTIUM submitting a tender, include <u>a resolution of each company</u> of the joint venture together with a <u>resolution by its members</u> authorizing a member of the joint venture to sign the documents on behalf of the joint venture.</p> <p><u>Accept that failure to submit proof of authorization to sign the tender shall result in the tender offer being regarded as non-responsive.</u></p>
5	<p>Information and data to be completed in all respects Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as nonresponsive.</p>
6	<p>Canvassing and obtaining of additional information by tenderers The Tenderer shall not make any attempt either directly or indirectly to canvass any of the Employer's officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon. The Tenderer shall not make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.</p>
7	<p>Prohibitions on awards to persons in service of the state The Employer is prohibited to award a tender to a person -</p> <ol style="list-style-type: none"> a) who is in the service of the state; or b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or c) a person who is an advisor or consultant contracted with the Department or municipal entity. <p>In the service of the state means to be -</p> <ol style="list-style-type: none"> a) a member of:- <ol style="list-style-type: none"> a any municipal council; b any provincial legislature; or c the National Assembly or the National Council of Provinces; d) a member of the board of directors of any municipal entity; e) an official of any Department or municipal entity; f) an employee of any national or provincial department; g) provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); h) a member of the accounting authority of any national or provincial public entity; or i) an employee of Parliament or a provincial legislature. <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
8	<p>Awards to close family members of persons in the service of the state Accept that the notes to the Employer's annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child, or parent of a person in the service of</p>

	<p>the state (defined in clause 8 above), or has been in the service of the state in the previous twelve months, including -</p> <ul style="list-style-type: none"> a) the name of that person; b) the capacity in which that person is in the service of the state; and c) the amount of the award. <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
9	<p>Respond to requests from the tenderer The employer will respond to requests for clarification up to 5 (five) working days before the tender closing time.</p>
10	<p>Opening of tender submissions Tenders will be opened immediately after the closing time for tenders</p>
11	<p>Scoring quality / functionality: Not applicable to this tender</p>
12	<p>Cancellation and re-invitation of tenders</p> <p>An organ of state may, prior to the award of the tender, cancel the tender if-</p> <ul style="list-style-type: none"> (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or (b) funds are no longer available to cover the total envisaged expenditure; or (c) no acceptable tenders are received. (d) Tender validity period has expired. (e) Gross irregularities in the tender processes and/or tender documents. (f) No market related offer received (after attempts of negotiation processes) <p>Where applicable, the decision to cancel the tender will be published in on the Tender Notice Board of the SCM Department and if applicable, on the CIDB website and in the Tender Bulletin or the media in which the original tender invitation as advertised.</p>
13	<p>Dispute resolution mechanism will be done through the SCM Department and thereafter the Adjudication route.</p>
14	<p>The department, when it takes action against the tenderer or person awarded the contract on a fraudulent basis, considers the provisions of Regulation 14: The remedies provided for in Preferential Procurement Regulations 2022 do not prevent an institution from instituting remedies arising from any other prescripts or contract.</p>
15	<p>Where the employer terminates the contract due to default of the contractor in whole or in part, the employer may decide to: a) Refer the breach in contract to the CIDB for investigation as a breach of the CIDB Code of Conduct in terms of the CIDB Regulations; or b) may impose a restriction penalty on the contractor in terms of Section 14 of the Preferential Procurement Regulations. The outcomes of such investigations in terms of both the CIDB Regulations and the Preferential Procurement Regulations may prohibit the contractor from doing business with the public sector for a period not exceeding 10 years.</p>

2.PART T2 - RETURNABLE DOCUMENTS

ASSESSMENT OF STAGE 1 ADMINISTRATIVE REQUIREMENTS AND MANDATORY REQUIREMENTS:

The bidder shall not proceed to the next stage of evaluation if the bidder fails to submit all the mandatory information as listed here below:

BIDDER TO INDICATE BELOW IF MANDATORY DOCUMENTS WERE SUBMITTED WITH TENDER:

16	MANDATORY DOCUMENT TO BE SUBMITTED WITH BID:	<u>YES</u>	<u>NO</u>
	SBD 1 Part of invitation to bid and terms and conditions for bidding		
	SBD 4 Declaration of interest		
	SBD 6.1 Preference points claim form in terms of the Preferential procurement regulations 2022		
	Proposed amendments and qualifications		
	Protection of personal content: Consent		
	Valid CIDB Certificate of Tenderer		
	Valid Department of Labour COIDA Letter of Good Standing Certificate and/or FEM		
	Part C1.1 Form of Offer and Acceptance (Fully signed and completed)		
	Part C1.2 Contract Data		
	Part C2.2 Bills of Quantities (Including electrical and mechanical Bills of Quantities) (Fully priced) (Handwritten Priced. Not typed)		
	Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted).		
	Record of addenda issued (Only if addenda is issued)		
	Resolution for Signatory		
	Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture)		
	Proof of Registration on the National Treasury Central Supplier Data Base (CSD) Full CSD report)		
	Particulars of Electrical Installation Sub-contractor		
	Particulars of HVAC Installation Sub-contractor		
	Particulars of ICT & Access Control Installation Sub-contractor		

2.1. T2.1 List of Returnable Documents

The tenderer must complete the following returnable documents:

1 Returnable Schedules required for bid/quotation evaluation purposes.

- SBD 1, SBD 4
- SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022
- Proposed amendments and qualifications.
- Schedule of Proposed Subcontractors
- Particulars of Electrical installation subcontractor
- Particulars of HVAC installation subcontractor
- Particulars of ICT & Access control subcontractor
- Protection of personal content: Consent
- Valid CIDB Certificate of Tenderer
- Valid Department of Labour COIDA Letter of Good Standing Certificate and/or FEM.
- Proof of Specific Goals Claimed
- Part C1.1 Form of Offer and Acceptance
- Part C1.2 Contract Data
- Part C2.2 Bills of Quantities (Including electrical and mechanical Bills of Quantities)
- Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted).
- Record of addenda issued (Only if addenda is issued)
- Resolution for Signatory
- Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture)
- Proof of Registration on the National Treasury Central Supplier Data Base (CSD)

2 Other documents required for bid/quotation evaluation purposes.

- Nil

3 Returnable Schedules that will be incorporated into the contract

- SBD 1, SBD 4
- SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022
- Proposed amendments and qualifications.
- Schedule of Proposed Subcontractors
- Particulars of Electrical installation subcontractor
- Particulars of HVAC installation subcontractor
- Particulars of ICT & Access Control installation subcontractor
- Protection of personal content: Consent
- Valid CIDB Certificate of Tenderer
- Valid Department of Labour COIDA Letter of Good Standing Certificate and/or FEM.
- Proof of Specific Goals Claimed
- Part C1.1 Form of Offer and Acceptance
- Part C1.2 Contract Data
- Part C2.2 Bills of Quantities (Including electrical and mechanical Bills of Quantities)

2.1. SBD 1 – PART A - INVITATION TO BID

PART A INVITATION TO BID

SBD 1

CSD registered service providers (CIDB Grading of CIDB 7GB Contractor or higher) are hereby invited to bid for the services required by the Eastern Cape Department of Health					
BID NUMBER:	SCMU3-23/24-0484-HO	CLOSING DATE:	5 April 2024	CLOSING TIME:	11:00
DESCRIPTION:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT					
EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE, situated at the following address: GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 (OPPOSITE ENGINE GARAGES), BHISHO					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Ms. T Notshe	CONTACT PERSON	Ms. T Notshe		
TELEPHONE NUMBER	040 608 9501	TELEPHONE NUMBER	040 608 9501		
E-MAIL ADDRESS	thabisa.notshe@ehealth.gov.za	E-MAIL ADDRESS	thabisa.notshe@ehealth.gov.za		
SUPPLIER INFORMATION					
NAME OF BIDDER (Entity as registered on CSD)					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
An SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 IS TO BE SUBMITTED TO CLAIM DEPARTMENTAL SPECIFIC GOAL POINTS					
<p>a) Service providers must submit proof of its Specific Goals points claimed / status of contributor.</p> <p>b) The Specific Goals supporting documents required to verify claimed points are in line with the specified requirements include:</p> <ul style="list-style-type: none"> • Historically Disadvantaged Individuals Ownership: Proof of ownership (CIPRO certificate) with id no. • Women Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no. • Youth Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no. • Disability Ownership: Proof of ownership (CIPRO certificate) with valid medical documentary proof. • Military Veterans Ownership: Proof of ownership (CIPRO certificate) with valid proof of veteran status. • Locality Ownership: Proof of business address (municipal account or valid lease agreement) • Updated CSD report 					
NAME OF BIDDER (Entity as registered on CSD)					

Ownership Details (as registered on CSD)

Name & Surname	Describe Category of Ownership (HDI, Women, Youth, Disabled, Military Veteran)	ID No.	% Percentage of Ownership
TOTAL OWNERSHIP AS REGISTERED ON CSD			

2.2. SBD 1 - PART B – TERMS AND CONDITIONS FOR BIDDING

PART B TERMS AND CONDITIONS FOR BIDDING

<p>1. BID SUBMISSION:</p> <p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.</p> <p>1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.</p> <p>1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.</p>
<p>2. TAX COMPLIANCE REQUIREMENTS</p> <p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.</p> <p>2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.</p> <p>2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.</p> <p>2.5 SUBMISSION OF A COIDA LETTER OF GOOD STANDING FROM DEPARTMENT OF LABOUR AND/OR FEM IS MANDATORY</p> <p>2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.</p> <p>2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p> <p>2.8 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.”</p>
<p>3. SPECIAL CONDITIONS OF BID</p> <p>3.1 The Eastern Cape Department of Health shall do an In-LoCo inspection of the Bidders premises, to verify the following details:</p> <p>i. The existence of the business ENTERPRISE as declared on the SBD1 form.</p> <p>ii. The existence of the resources as declared on the SBD1 forms, Pricing Schedules and relevant mandatory returnable schedules.</p> <p>3.2 In the event where the In-LoCo Inspections find inconsistencies and or misrepresentation in terms of what has been declared on the SBD1 forms, Pricing Schedules and relevant mandatory information, the Bidder will be notified of such inconsistencies and or misrepresentations in writing and allowed 7 (seven) days to rectify such.</p> <p>3.3 The Bidder who complies with the In-LoCo Inspection evaluation criteria, may then be considered to proceed to the Evaluation Stage 2.</p> <p>3.4. In the event where the Bidder has failed to rectify the inconsistencies and or misrepresentations within the 7 (seven) day period, the Health Department shall consider the Bidder who scored the 2nd highest points to be inspected, and if compliant, recommended to proceed to the Evaluation Stage 2.</p> <p>3.5. In the event where the recommended Bidder has failed to comply with the conditions as set out in the letter of award, the client shall notify the recommended Bidder of his/her failure to comply and recommend for award the next bidder that scored the highest points. The Conditions as set out in the letter of award are as follow:</p> <p>i. Proof of having All risk, public liability and support insurances as stipulated in the contract.</p> <p>ii. Submission of a Construction Safety, Health and Environmental Plan.</p>

iii. Contract Guarantee (as selected in the tender document)

3.6. An appointment letter/acceptance letter does not constitute a contract or commencement date of a contract. The recommended Bidder is required to sign an official contract with the Department.

3.7. As part of the due diligence Bid evaluation process a technical risk analysis of the Bid submission including the Bills of Quantities will be carried out by the Bid Evaluation Committee with the support of the Built Environment Professional Team, to check and confirm whether the tender price submitted is market related and does not pose a commercial risk to the Client.

3.8. In the event where the Bidder that's scored the highest points and the Technical Risk Analysis outcome indicated commercial risk to the Client, the Client reserves the right to award the Bid to the second highest scorer of Bid points.

3.9 A fixed construction guarantee of 10% must be provided as security, in the event that the considered bidder fail to provide this security, the client will consider the next highest scoring bidder for consideration.

SIGNATURE OF BIDDER:

DATE:

.....

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g., company resolution)

2.3. Compulsory Enterprise Questionnaire

Compulsory Enterprise questionnaire

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

** Complete only if sole proprietor or partnership and attach separate page if more than 3 partners*

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: The attached SBD 4 must be completed for each tender and be attached as a tender requirement.

Section 7: The attached SBD 6.1 must be completed for each tender and be attached as a requirement.

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004; iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed

Date

Name

Position

2.4. SBD 4

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

.....
.....

¹ *the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.*

3 DECLARATION

I, the undersigned, (name).....
in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

..... Signature	..... Date
..... Position	..... Name of bidder

² **Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.**

2.5. RECORD OF ADDENDA TO BID DOCUMENTS

BID DESCRIPTION	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)		
SCMU NUMBER	SCMU3-23/24-0484-HO		
I / We confirm that the following communications received from the Department of Health before the submission of this tender offer, amending the tender documents, have been taken into account in this bid offer: (Attach additional pages if more space is required)			
Item	Date	Title or Details	No. of Pages
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Attach additional pages if more space is required.

Signed

Date

.....

Name

Position

.....

Tenderer

.....

2.6. PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

BID DESCRIPTION	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
SCMU NUMBER	SCMU3-23/24-0484-HO

Page	Clause /Item	Proposal

The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct

Signed

Date

Name

Position

Enterprise name

2.7. RESOLUTION FOR SIGNATORY

BID DESCRIPTION	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
SCMU NUMBER	SCMU3-23/24-0484-HO

A. CERTIFICATE OF AUTHORITY FOR SIGNATORY

Signatory for companies shall confirm their authority hereto by attaching a duly signed and dated copy of the relevant resolution of the board of directors to this form or on company letter head.

An example is given below:

“By resolution of the board of directors passed at a meeting held on _____

Mr/Ms _____, whose signature appears below, has been duly authorised to

sign all documents in connection with the tender for Contract No. _____

and any Contract which may arise there from on behalf of (Block Capitals) _____

SIGNED ON BEHALF OF THE COMPANY: _____

IN HIS/HER CAPACITY AS: _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

WITNESSES:

DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	

If you cannot complete this form, attach a separate sheet (in a company letter head, project specific and signed by all directors):

B. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms
, authorized signatory of the company
, acting in the capacity of lead partner, to
 sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

BID DESCRIPTION	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
------------------------	---

SCMU NUMBER	SCMU3-23/24-0484-HO
--------------------	----------------------------

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner:		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....

2.8. SCHEDULE OF PROPOSED SUBCONTRACTORS

BID DESCRIPTION	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
SCMU NUMBER	SCMU3-23/24-0484-HO
<p>We notify you that it is our intention to employ the following Subcontractors for work in this contract. The Subcontractors will all be CIDB registered and their CIDB Registration number shall be submitted below. This should also be declared on SBD 6.1 form.</p> <p>If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.</p> <p>We confirm that all subcontractors who are or to be contracted are registered on Central Supplier Database (CSD).</p>	

No.	Name and address of proposed Subcontractor	Sub-Contractor CIDB Grading	Sub-Contractor CIDB No.	Nature, extent of work, Year completed, Value of sub-contract	Contact details: Name of person and phone No.
1					
2					
3					
4					
5					

The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct

Signed

Date

Name

Position

Enterprise name

2.8.1 PARTICULARS OF ELECTRICAL CONTRACTOR

Project Name:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Tender No:	SCMU3-23/24-0484-HO

Name of Electrical Contractor:	
Address:	
Electrical Contractor registration number at the Electrical Contracting Board of S.A.:	

The required CIDB grading is: **3EB or higher**

Bidders are required to provide contactable references as below.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK	REFERENCE NAME AND CONTACT NUMBER

Signed Date

Name Position

Tenderer.....

2.8.2 PARTICULARS OF HVAC CONTRACTOR

Project Name:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Tender No:	SCMU3-23/24-0484-HO

Name of HVAC Contractor:	
Address:	
HVAC Contractor registration number at SAQCC Gas approved installer	

The required CIDB grading is: **1ME or higher**

Bidders are required to provide contactable references as below.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK	REFERENCE NAME AND CONTACT NUMBER

Signed Date

Name Position

Tenderer.....

2.8.3 PARTICULARS OF ICT & ACCESS CONTROL CONTRACTOR

Project Name:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Tender No:	SCMU3-23/24-0484-HO

Name of ICT & Access Control Contractor:	
Address:	

Bidders are required to provide contactable references as below.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK	REFERENCE NAME AND CONTACT NUMBER

Signed Date

Name Position

Tenderer.....

2.9. SBD 6.1

SBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

Bid Description:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Tender No:	SCMU3-23/24-0484-HO

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

The applicable preference point system for this tender is the 80/20 or 90/10 preference point system.

The lowest/ ~~highest~~ acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 90/10 PREFERENCE POINT SYSTEMS

A maximum of 90 points is allocated for price on the following basis:

90/10

$$Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 90 points is allocated for price on the following basis:

90/10

$$Ps = 90 \left(1 + \frac{Pt - Pmax}{Pmax} \right)$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that,

if it is unclear whether the 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- (a) an invitation for tender for income-generating contracts, that either the 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- (b) any other invitation for tender, that either the 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Historically Disadvantaged Individuals Ownership	20% (2)	
Women Ownership	20% (2)	
Youth Ownership	20% (2)	
Disability Ownership	20% (2)	
Military Veterans Ownership	10% (1)	
Locality (Eastern Cape Contractors can claim 1 point)	10% (1)	
TOTAL	100% (10)	

Table 2: Detailed description and definition of various categories of the specific goal points that can be claimed.

No.	Detailed description and definition of various categories	Portfolio of Evidence as part of the returnables
1	<p>Historically Disadvantaged Individuals Ownership: [Historically Disadvantaged Individual (HDI). Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) (“The Interim Constitution”) and /orWho is a female; and/orWho has a disability]. A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. • The next digit (C) shows if you're an SA citizen status with 0 denoting that you were born a SA citizen and 1 denoting that you're a permanent resident. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
2	<p>Women Ownership: A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
3	<p>Military Veterans Ownership: According to the 2011 Military Veterans act, a military veteran is any South African who rendered military service to any of the military organisations, former statutory and liberation armies, which were involved on all sides of South Africa's liberation war from 1960 to 1993; served in the then Union Defence Force.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid proof of veteran status.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no. with valid proof of veteran status.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>

4	Disability Ownership: The CRPD (Convention on the Rights of Persons with Disabilities) defines persons with disabilities to include those who have long term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis.	1)Proof of ownership (CIPRO certificate) with id no. with valid medical documentary proof.
		2)Proof of ownership (CSD report) with id no. with valid medical documentary proof.
		3)Certified copy of ID of all owners.
5	Youth Ownership: Who are Youth in South Africa? The national Youth Policy defines youth as any persons between the ages of 14 and 35 years.	1)Proof of ownership (CIPRO certificate) with id no.
		2)Proof of ownership (CSD report) with id no.
		3)Certified copy of ID of all owners.
6	Locality Ownership: Proof of business address (municipal account or valid lease agreement) (Eastern Cape Contractors can claim 1 point)	1) Copy of Municipal billing account with an address in the Eastern Cape Province.
		2)Copy of a Lease Agreement with an address in the Eastern Cape Province.

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

- (a) disqualify the person from the tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

<p>.....</p> <p>SIGNATURE(S) OF BIDDER(S)</p>	
SURNAME AND NAME:	.....
DATE:	.....
ADDRESS:	.....

**2.10.PROOF OF REGISTRATION ON THE NATIONAL
TREASURY CENTRAL SUPPLIER DATABASE (CSD
REPORT)**

(ATTACH HERE)

**2.11.VALID CIDB CERTIFICATE OF A TENDERER
(ATTACH HERE)**

**2.12.VALID DEPARTMENT OF LABOUR COIDA LETTER OF
GOOD STANDING CERTIFICATE AND/OR FEM
(ATTACH HERE)**

**2.13.PROOF OF SPECIFIC GOALS POINTS CLAIMED
(ATTACH HERE)**

Table 2: Detailed description and definition of various categories of the specific goal points that can be claimed.

No.	Detailed description and definition of various categories	Portfolio of Evidence as part of the returnables
1	<p>Historically Disadvantaged Individuals Ownership: [Historically Disadvantaged Individual (HDI). Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) (“The Interim Constitution”) and /orWho is a female; and/orWho has a disability]. A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. • The next digit (C) shows if you're an SA citizen status with 0 denoting that you were born a SA citizen and 1 denoting that you're a permanent resident. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
2	<p>Women Ownership: A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
3	<p>Military Veterans Ownership: According to the 2011 Military Veterans act, a military veteran is any South African who rendered military service to any of the military organisations, former statutory and liberation armies, which were involved on all sides of South Africa's liberation war from 1960 to 1993; served in the then Union Defence Force.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid proof of veteran status.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no. with valid proof of veteran status.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>

4	<p>Disability Ownership: The CRPD (Convention on the Rights of Persons with Disabilities) defines persons with disabilities to include those who have long term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis.</p>	1)Proof of ownership (CIPRO certificate) with id no. with valid medical documentary proof.
		2)Proof of ownership (CSD report) with id no. with valid medical documentary proof.
		3)Certified copy of ID of all owners.
5	<p>Youth Ownership: Who are Youth in South Africa? The national Youth Policy defines youth as any persons between the ages of 14 and 35 years.</p>	1)Proof of ownership (CIPRO certificate) with id no.
		2)Proof of ownership (CSD report) with id no.
		3)Certified copy of ID of all owners.
6	<p>Locality Ownership: Proof of business address (municipal account or valid lease agreement) (Eastern Cape Contractors can claim 1 point)</p>	1) Copy of Municipal billing account with an address in the Eastern Cape Province.
		2)Copy of a Lease Agreement with an address in the Eastern Cape Province.

2.14.PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)

PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)

The introduction of The Protection of Personal Information Act (POPIA) ensures the regulation of personal information through its entire life cycle of collection, transfer, storing and deletion. As part of its business activities, the Department of Health obtains and requires access to personal data from a wide range of internal and external parties, including without limitation bidders who respond to requests for proposals that are published by the Department of Health from time to time. The Department of Health confirms that it shall process the information disclosed by Bidders for the purpose of evaluating and subsequently awarding/appointing a successful Bidder.

The Department of Health hereby states that it does not and will never modify, amend, or alter any personal information submitted to it by a Bidder. Not unless directed to do so by an order of court, the Department of Health does not disclose or permit the disclosure of any personal information to any Third Party without the prior written consent of the owner of the information.

Similarly, Bidders will from time-to-time access and be seized with information of a personal nature pertaining to the Department of Health. Some of the information may because of legislative compliances be available in the public domain, whilst some is uniquely provided to bidders in pursuit of procurement or other business-related activities. In this regard, the Department of Health requires that Bidders which receive or have access to its personal information, process any such information in a manner compliant with the requirements of the POPIA.

AGREEMENT

1. The Department of Health and the Bidder (the Parties) agree and undertake that upon obtaining and having access to personal information relating to either of them, they shall always ensure that:
 - a) They process the information only for the express purpose for which it was obtained.
 - b) Information is provided only to designated and authorized personnel who require the personal information to carry out the Parties' respective obligations in terms of the Procurement processes.
 - c) They will introduce, and implement all reasonable measures ensure the protection of all personal information from unauthorized access and/or use.
 - d) They have taken appropriate measures to safeguard the security, integrity, and authenticity of all personal information in its possession or under its control.
 - e) The Parties agree that if personal information will be processed for any other purpose other than the one for which the accessing of the information was intended, explicit written consent will be obtained prior to the execution of such reason.
 - f) The Parties shall carry out regular assessments to identify all reasonably foreseeable internal and external risks to the interception of personal information in its possession or under its control and shall implement and maintain appropriate controls in mitigation of such risks.
2. The Parties agree that they will promptly return or destroy any personal data in their possession or control which belongs to the other Party once it no longer serves the purpose for which it was collected, subject to any legal retention requirements. The information will be destroyed in such a manner that it cannot be reconstructed to its original form, linking it to any individual or organization.
3. Bidder's Obligations

- a) The Bidder is required to notify the Information Officer of Department of Health, in writing as soon as possible after it becomes aware of or suspects any loss, unauthorized access or unlawful use of any of the Department of Health’s personal information.
- b) The Bidder shall, at its own cost, promptly and without delay take all necessary steps to mitigate the extent of the loss or compromise of personal data.
- c) The Bidder shall be required to provide the Department of Health with details of the persons affected by the compromise and the nature and extent of the compromise, including details of the identity (if known) of the unauthorized person who may have accessed or acquired the personal data.
- d) The Bidder undertakes to co-operate with any investigation relating to security breach which is carried out by or on behalf of Department of Health.

On behalf of the Bidder:

..... Signature	..... Date
..... Position	..... Name of the Bidder

On behalf of the Client:

..... Signature	..... Date
..... Position	..... Name of Client Representative

3. THE CONTRACT

3.1. PART C1 - AGREEMENTS AND CONTRACT DATA

3.1.1. PART C1.1: FORM OF OFFER AND ACCEPTANCE

FORM OF OFFER AND ACCEPTANCE

Bid Description	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
SCMU number	SCMU3-23/24-0484-HO

OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS

.....

Rand (in words);

R(in figures) (or other suitable wording)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature

.....
 Name

.....
 Capacity

for the tenderer

.....
 (Name and address of organization)

Name and signature
 of witness Date

ACCEPTANCE

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1 Agreements and contract data, (which includes this agreement)

Part C2 Pricing data

Part C3 Scope of work.

Part C4 Site information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within 3 weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer’s agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.¹

Signature

.....
Name Ms S Gede

**Capacity:
Acting Head of the Eastern Cape Department of Health**

for the Employer

**Eastern Cape Department of Health
Dukumbana Building, Independence Avenue
BHISHO**

(Name and address of organization)

Name and signature _____
of witness Date

Schedule of Deviations

1 Subject _____
Details _____

2 Subject _____
Details _____

3 Subject _____
Details _____

4 Subject _____
Details _____

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation,

clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender/ quotation documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

¹As an alternative, the following wording may be used:

Notwithstanding anything contained herein, this agreement comes into effect two working days after the submission by the employer of one fully completed original copy of this document including the schedule of deviations (if any), to a courier-to-counter delivery / counter-to-counter delivery / door-to-counter delivery /door-to-door delivery /courier service (delete that which is not applicable), provided that the employer notifies the tenderer of the tracking number within 24 hours of such submission. Unless the tenderer (now contractor) within seven working days of the date of such submission notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties

3.1.2. PART C1.2: CONTRACT DATA

The Joint Building Contracts Committee® - NPC CONTRACT DATA For use by ORGANS OF STATE and other PUBLIC SECTOR BODIES Principal Building Agreement Edition 6.2 - May 2018

A PROJECT INFORMATION

A1.0 Works [1.1]

Project name	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Reference number	SCMU3-23/24-0484-HO
Works description	Refer to document C3 – Scope of Work

A2.0 Site [1.1]

Erf / stand number	Refer to document C4 – Site Information
Township / Suburb	PE Provincial Hospital is in Mount Croix, Gqeberha. Livingstone Hospital is in Korsten, Gqeberha. Protea Flats is in Central, Gqeberha
Site address	Refer to document C4 – Site Information
Local authority	Nelson Mandela Bay Municipality - Gqeberha

A3.0 Employer [1.1]

Official Name of Organ of State / Public Sector Body	Eastern Cape Department of Health
Business registration number	N/A
VAT/ number	N/A
Country	South Africa
Employer's representative: Name	Ms. S. Gede Acting Head of Department Eastern Cape Department of Health
Telephone number	040 608 9501
Physical address	EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE, GLOBAL LIFE CENTRE, SCM UNIT, C/O PHALO AVENUE AND R63 BHISHO.

A4.0 Principal Agent [1.1]

Name	Sakhiwo FM Consortium (Pty) Ltd / B4 Architects		
Legal entity of above	Sakhiwo FM Consortium (Pty) Ltd	Contact person	
Practice number		Telephone number	043-727 0791
		Mobile number	
Country	South Africa	E-mail	benjy@sakhiwo.com
Postal address	1 Rochester Street, Vincent, East London	Postal Code	5201
Physical address	1 Rochester Street, Vincent, East London	Postal Code	5201

A5.0 Agent [1.1]

Discipline	Architect		
Name	B4 Architects CC		
Legal entity of above	B4 Architects CC	Contact person	Bryan Brinkman
Practice number		Telephone number	041- 581 1217
		Mobile number	076 981 1974
Country	South Africa	E-mail	B4.bryanb@b4arch.co.za
Postal address	Unit 12 Bloomingdales Office Park, 34 Ninth Avenue, Walmer, Gqeberha	Postal Code	6070
Physical address	Unit 12 Bloomingdales Office Park, 34 Ninth Avenue, Walmer, Gqeberha	Postal Code	6070

A6.0 Agent [1.1]

Discipline	Quantity Surveyor		
Name	SVP Quantity Surveyors and Project Managers (Pty) Ltd		
Legal entity of above	SVP Quantity Surveyors and Project Managers (Pty) Ltd	Contact person	Elize Newman
Practice number		Telephone number	045-839 5260
		Mobile number	083 415 4222
Country	South Africa	E-mail	elize@svpqtn.co.za
Postal address	63a Berry Street, Queenstown	Postal Code	5320
Physical address	63a Berry Street, Queenstown	Postal Code	5320

A7.0 Agent [1.1]

Discipline	Civil Engineer		
Name	Keon Consulting Engineers		

Legal entity of above	Keon Consulting Engineers	Contact person	Grant Kucherera	
Practice number		Telephone number	041 363 0189	
		Mobile number	083 956 1584	
Country	South Africa	E-mail	gkucherera@keon.co.za	
Postal address	5 th Avenue Office Park, Corner 5 th Avenue and Newton Street, Newton Park, Gqeberha		Postal Code	6055
Physical address	5 th Avenue Office Park, Corner 5 th Avenue and Newton Street, Newton Park, Gqeberha		Postal Code	6055

A8.0 Agent [1.1]

Discipline	Structural Engineer			
Name	Keon Consulting Engineers			
Legal entity of above	Keon Consulting Engineers	Contact person	Grant Kucherera	
Practice number		Telephone number	041- 363 0189	
		Mobile number	083 956 1584	
Country	South Africa	E-mail	gkucherera@keon.co.za	
Postal address	5 th Avenue Office Park, Corner 5 th Avenue and Newton Street, Newton Park, Gqeberha		Postal Code	6055
Physical address	5 th Avenue Office Park, Corner 5 th Avenue and Newton Street, Newton Park, Gqeberha		Postal Code	6055

A9.0 Agent [1.1]

Discipline	Electrical Engineer			
Name	RNA Consulting Engineers (Pty) Ltd			
Legal entity of above	RNA Consulting Engineers (Pty) Ltd	Contact person	Eric Ceba	
Practice number		Telephone number	041-581 2807	
		Mobile number	072 997 6968	
Country	South Africa	E-mail	ericc@rnaconsulteng.co.za	
Postal address	87 Heugh Road, Walmer, Gqeberha		Postal Code	6070
Physical address	87 Heugh Road, Walmer, Gqeberha		Postal Code	6070

A10.0 Agent [1.1]

Discipline	Mechanical Engineer			
Name	RNA Consulting Engineers (Pty) Ltd			
Legal entity of above	RNA Consulting Engineers (Pty) Ltd	Contact person	Travis Warne	

Practice number		Telephone number	041-581 2807	
		Mobile number	083 381 8985	
Country	South Africa	E-mail	travisw@rnaconsulteng.co.za	
Postal address	87 Heugh Road, Walmer, Gqeberha		Postal Code	6070
Physical address	87 Heugh Road, Walmer, Gqeberha		Postal Code	6070

A11.0 Agent [1.1]

Discipline	Occupational Health and Safety Agent			
Name	Xaks Consulting (Pty) Ltd			
Legal entity of above	Xaks Consulting (Pty) Ltd	Contact person	Xavier Redcliffe	
Practice number		Telephone number	067 847 4367	
		Mobile number	078 546 3529	
Country	South Africa	E-mail	Xavier.redcliffe@xaks.co.za	
Postal address	16 Sir Thomas Muir Drive Vanes Estate, Uitenhage		Postal Code	6229
Physical address	16 Sir Thomas Muir Drive Vanes Estate, Uitenhage		Postal Code	6229

A12.0 Agent [1.1]

Discipline				
Name				
Legal entity of above		Contact person		
Practice number		Telephone number		
		Mobile number		
Country		E-mail		
Postal address			Postal Code	
Physical address			Postal Code	

B CONTRACT INFORMATION

B 1.0 Definitions [1.1]

Bills of quantities: System/Method of measurement	Standard System of Measuring Building Work (Seventh Edition) as amended
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B 2.0 Law, regulations, and notices [2.0]

Law applicable to the works , state country [2.1]	Republic of South Africa
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B 3.0 Offer and acceptance [3.0]

Currency applicable to this agreement [3.2]	South African Rand
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B 4.0 Documents [5.0]

The original signed agreement is to be held by the principal agent [5.2], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost [5.6]	Three (3)

Documents comprising the agreement	Page numbers
The JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30
The JBCC® Principal Building Agreement - Contract Data for Organs of State and other Public Sector Bodies, Edition 6.2 May 2018	1 to 18
The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30


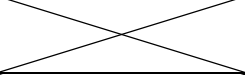
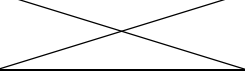
Contract drawings – description	Number	Revision	Date
As per Drawings listed C3			

B 5.0 Employer's Agents [6.0]


Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [6.2]
Principal Agent

Principal agent's and agents' interest or involvement in the works other than a professional interest [6.3]
None

B 6.0 Insurances [10.0]

Insurances by employer			Amount including tax	Deductible amount including tax
Yes / No:	No			
Contract works insurance:				
	New works [10.1.1] (Contract sum or amount)			
or	Works with practical completion in sections [10.2] (contract sum or amount)			
or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works)			
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance			
	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance			
	Escalation, professional fees and reinstatement costs if not included above			
Total of the above contract works insurance amount				
Supplementary insurance [10.1.2; 10.2]				
Public liability insurance [10.1.3; 10.2]				
Removal of lateral support insurance [10.1.4; 10.2]				
Other insurances [10.1.5]				
Yes/ No?	No	If yes, description 1		
Yes/ No?	No	If yes, description 2		

and/or

Insurances by Contractor			Amount including tax	Deductible amount including tax
Yes / No:	Yes			
	New works [10.1.1] (Contract sum or amount)		N/A	N/A
or	Works with practical completion in sections [10.2] (contract sum or amount)		N/A	N/A
or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works)		To the minimum value of the contract sum + 10%	With a deductible not exceeding 5% of each and every claim
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance		N/A	

	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance	N/A	
	Escalation, professional fees and reinstatement costs if not included above	N/A	
Total of the above contract works insurance amount		To the minimum value of the contract sum + 10%	With a deductible not exceeding 5% of each and every claim
Supplementary insurance [10.1.2; 10.2]		No	
Public liability insurance [10.1.3; 10.2]		R5 million	
Removal of lateral support insurance [10.1.4; 10.2]		No	
Other insurances [10.1.5]			
Yes/ No?	No	If yes, description 1	
Hi Risk Insurance [10.1.5.1]			
Yes/ No?	No	If yes, description 2	

B 7.0 Obligations of the employer [12.1]

Existing premises will be in use and occupied [12.1.2]		Yes / No?	Yes
If yes, description	PE Provincial Hospital and Livingstone Hospital are working hospitals and construction will take place within these premises. Protea Flats are currently occupied, on all other floors, however working area in penthouse is vacant. The Contractor will, throughout the entire period of the works, be responsible for the proper and adequate protection of property and the public and ECDOH personnel from damage or injury resultant from the works and for the proper security of the site at all times during the course of the works. Further, the Contractor must allow for all temporary hoardings, required by the Local Authorities, National Building Regulations. OHS Act and or demanded by his own requirements. Allowance must further be made for periodic adjustment of any hoardings and for their eventual removal and for making good. All additional temporary fencing hoardings etc. required, not measured in Bills of Quantities must be priced for in the Preliminaries of these Bills of Quantities		
Restriction of working hours [12.1.2]		Yes / No?	Yes
If yes, description	The completion of the project is urgent and work shall be executed during normal working hours i.e. 7h00 until 17h00 daily including weekends. Work required to be executed outside of these hours must be arranged with the Facilities Manager and the Chief Executive of the hospital, in advance		
Natural features and known services to be preserved by the contractor [12.1.3]		Yes / No?	No
If yes, description			
Restrictions to the site or areas that the contractor may not occupy [12.1.4]		Yes / No?	Yes
If yes, description	Work areas and restricted areas shall be defined at Site Handover		
Supply of free issue [12.1.10]		Yes / No?	No
If yes, description			

B 8.0 Nominated subcontractors [14.0]

Yes / No?	No	If yes, description of specialisation
		Specialisation 1
		Specialisation 2
		Specialisation 3
		Specialisation 4
		Specialisation 5
		Specialisation 6
		Specialisation 7
		Specialisation 8
		Specialisation 9

B 9.0 Selected subcontractors [15.0]

Yes / No?	No	If yes, description of specialisation
		Specialisation 1
		Specialisation 2
		Specialisation 3
		Specialization 4
		Specialization 5
		Specialisation 6
		Specialisation 7
		Specialisation 8
		Specialisation 9
		Specialisation 10

B 10.0 Direct contractors [16.0]

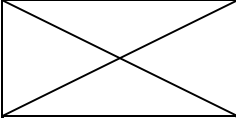
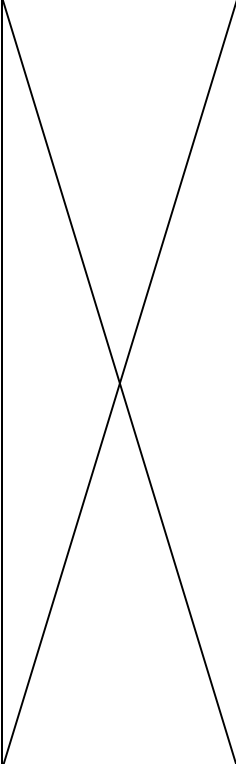
Yes / No?	No	If yes, description of extent of work
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]

B 11.0 Description of sections [20.1] – REFER TO SCOPE OF WORK FOR DETAILS

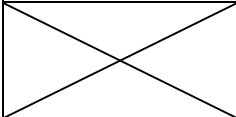
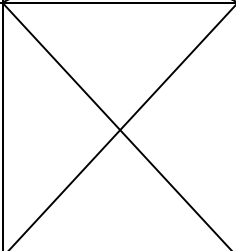
Section 1	<p>Livingstone Hospital: Replace in place existing galvanised palisade fence, concrete palisade fencing and galvanised mesh security fencing, with 2.4m high new Rigid Mesh Security Mesh Fencing, including making good to concrete pavement where old fence removed, repairs to face brick boundary, etc.</p> <p>Work at Livingstone Hospital can commence immediately, however must be completed within 6 months from contract commencement date.</p>
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Section 2	<p>PE Provincial Hospital: Replacement of boundary walls with new 2.4m high new Rigid Mesh Security Mesh Fencing and construction of 2 new guardhouses at PE Provincial Hospital, paving and all related work.</p> <p>Electrical installation</p> <p>Work at PE Provincial Hospital can only commence as soon as work at Livingstone Hospital is complete (Practical Completion). (Livingstone Hospital to be completed within 6 months of commencement date)</p>
Section 3	<p>Protea Flats :</p> <ul style="list-style-type: none"> • Replacement of the existing steel fire escape stairs (10 storeys) - to be completed before commencement of other renovations at Protea Flats – to be completed within 4 months of commencement of works, can commence immediately after site handover. <p>Protea Flats – repairs and renovation work to building can commence when new steel fire escape has been completed.</p> <ul style="list-style-type: none"> • Repairs to the external envelope of the building, including the roof, internal and external facades. • Alterations and full redecoration of the top floor “penthouse” to be suitable for offices • All associated external works Electrical, HVAC and ICT/Access Control installation <p>Refer to scope of works (C3) for detailed scope and sequence of works</p>
Section 4	N/A
Section 5	N/A
Section 6	N/A
Section 7	N/A

B 12.0 Possession of site [12.1.5], practical completion [19.0; 20.0] and penalty [24.0]

Practical completion for the works as a whole	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		working days	Period in months	Penalty amount per calendar day (excl. tax)
		10 Working days	20 Calendar months Project as a whole (Section 1, 2 & 3) (Shutdown period included). The contract duration includes a monthly allowance of 3 working days for adverse weather conditions [23.1.1] during which rainfall exceeds 10mm per day or excessive wind. (Duration of construction per Section shall be determined by Contractor to a maximum of 20 Calendar months overall)	1.5c/R100 of Contract amount as a whole

or where **sections** are applicable N/A

Practical completion of a section of the works	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		Working days	Period in months	Penalty amount per calendar day (excl. tax)
		10 Working days	Work at Livingstone Hospital not to exceed 6 months, to be completed before work at PEPH can commence.	0.25c/R100 of Contract amount

Section 2	X	10 Working days	Work at PE Provincial Hospital may commence when work at Livingstone Hospital complete (Practical Completion reached)	0.78c/R100 of Contract amount
Section 3	X	10 Working days	Protea Flats: New steel fire escape to be completed within 4 months from contract commencement date before renovations to internal, external and roof can commence.	0.47c/R100 of Contract amount
Section 4	X			
Section 5	X			
Section 6	X			
Section 7	X			
Section 8	X			
Remainder of the	X			

Criteria to achieve practical completion not covered in the definition of practical completion
No further Criteria

B 13.0 Defects liability period [21.0]

Extended defects liability period: Refer B17.0 [21.13]	Yes / No?	Yes
If yes, description of applicable elements	All works	

B 14.0 Payments [25.0]

Date of month for issue of regular payment certificates [25.2]	30th		
Contract price adjustment / Cost fluctuations [25.3.4; 26.9.5]	Yes / No?	Yes	Base date = Tender closing date
If yes, method to calculate	CPAP calculated with Haylett formulae based on indices as provided by Stats SA		
Employer shall pay the contractor within: [25.10]	Thirty (30) calendar days		

B 15.0 Dispute resolution [30.0]

Adjudication [30.6.1; 30.10] Name of nominating body	Refer to Part C1.3 Dispute Resolution Mechanism	
Applicable rules for adjudication [30.6.2]	Adjudication in accordance with the CIDB adjudication process	
Arbitration [30.7.4; 30.10]	Yes / No?	No
If Yes, name of nominating body		
*If No, then dispute will be referred to litigation		
Applicable rules for arbitration [30.7.5]	N/A	

B 16.0 JBCC® General Preliminaries – selections

Provisional bills of quantities [B2.2]		Yes / No?	Yes
Availability of construction information – is the construction information complete? [B2.3]		Yes / No?	Yes
Previous work - dimensional accuracy - details of previous contract(s) [B3.1]	N/A		
Previous work - defects - details of previous contract(s) [B3.2]	N/A		
Inspection of adjoining properties - details [B3.3]	N/A		
Handover of site in stages - specific requirements [B4.1]	Refer to B11 (Contract Data)		
Enclosure of the works - specific requirements [B4.2]	Hoarding to working areas.		
Geotechnical and other investigations - specific requirements [B4.3]	N/A		
Existing premises occupied - details [B4.5]	Working Areas will not be occupied however PEPH and Livingstone Hospital will remain operational hospitals		
Services - known - specific requirements [B4.6]	No		
Water [B8.1]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Electricity [B8.2]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Ablution and welfare facilities [B8.3]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
Communication facilities - specific requirements [B8.4]	No specific requirements		
Protection of the works - specific requirements [B11.1]	No specific requirements		
Protection / isolation of existing works and works occupied in sections - specific requirements [B11.2]	No specific requirements		
Disturbance - specific requirements [B11.5]	No specific requirements		
Environmental disturbance - specific requirements [B11.6]	No specific requirements		

B 17.0 Changes made to JBCC® documentation

Reference may be made to other documents forming part of this **agreement**

1.1 Definitions

AGREEMENT: The completed Form of Offer and Acceptance, the completed **JBCC®** Principal Building Agreement and **JBCC® contract data for organs of state and other public sector bodies, the contract drawings, the priced document** and any other documents reduced to writing and signed by the authorised representatives of the **parties**

CONSTRUCTION PERIOD: The period commencing on the date of possession of the **site** by the **contractor** and ending on the date of **practical completion**

CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion

COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule

DEFAULT INTEREST: No Clause

GUARANTEE FOR CONSTRUCTION: A security in terms of the ECDOH's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD]

CONTRACT DATA FOR ORGANS OF STATE AND OTHER PUBLIC SECTOR BODIES: The document listing the Organs of State and other Public Sector Bodies' requirements and the project specific information

INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing to the State, and will be the rate as determined by the Minister of Justice and Constitutional Development from time to time 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing by the State

LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer

PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of Clause 25.3

PRINCIPAL AGENT: The person or entity appointed by the **employer** and named in the **contract data for organs of state and other public sector bodies**. In the event of a principal agent not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by the employer's representative as named in the **contract data for organs of state and other public sector bodies**

3.0 Offer and Acceptance

Amend 3.3 to read as follows:

This **agreement** shall come into force on the date as stated on the Form of Offer and Acceptance and continue to be of force and effect until the end of the **latent defects** liability period [22.0] notwithstanding termination [29.0] or the certification of **final completion** [21.0] and final payment [25.0]

4.0 Cession and Assignment

Replace Clause 4.3 with the following:

Where a contractor cedes any right or any monies due to or to become due under this agreement as security in favour of a financial institution, the prior written consent of the employer, which consent shall not be unreasonably withheld, must be obtained

5.0 Documents

Replace Clause 5.4 with the following:

The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference

Replace Clause 5.5 with the following:

The parties may publish or disclose on any platform only the contract scope and contract amount

6.0 Employer's Agents

Replace Clause 6.5 with the following:

Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer shall appoint another principal agent and/or an agent

Add the following as 6.7:

In terms of the clauses listed hereunder, the **employer** has retained its authority and has not given a mandate to the **principal agent**. The **employer** shall sign all documents in relation to clauses 4.2, 14.1.2, 14.1.4, 14.4.1, 14.6, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12 and 28.4

8.0 Works Risk

Replace Clause 8.4 with the following:

The **contractor** shall bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **contractor** may deem necessary

9.0 Indemnities

9.2.7: Add the following to the end of the first sentence: "... due to no fault of the **contractor**"

9.2.9 No Clause

9.2.10 No Clause

Add the following as clause 9.3:

The employer's rights to claim damages for the contractor's omissions and actions will not be affected.

10.0 Insurances

Add the following as 10.1.5.1:

Hi risk Insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable sub-surface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

10.1.5.1.1 Damage to **the works**

The contractor shall, from the date of possession of the **site** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

10.1.5.1.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property, or personal property, or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.1.5.1.3

It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the date of possession of the site, but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.1.5.1.4

The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

11.0 Securities

Amend 11.10 to read as follows:

There shall be no lien or right of retention held by any **contractor** in respect of the works executed on **site**

12.0 Obligations of the Parties

12.1.1 No Clause

Replace Clause 12.1.5 with the following:

Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if applicable, after the contractor complied with the terms of 12.2.22

12.1.6 No Clause

12.1.8 No Clause

Replace Clause 12.2.2 with the following:

The priced Bills must be submitted as part of the returnable documents. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum

Replace Clause 12.2.5 with the following:

Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0] [CD]

Replace Clause 12.2.13 with the following:

Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor

Add the following as Clause 12.2.22:

Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

Add the following as Clause 12.2.23:

The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0]

19.0 Practical Completion

Replace Clause 19.5 with the following:

On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section.

21.0 Defects Liability Period and Final Completion

Clause 21.0

Replace Clause 21.1 with the following:

The defects liability period for the works shall commence on the calendar day following the date of practical completion and end at midnight (00:00) ninety (90) calendar days from the date of practical completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6], whichever is the later (if we use practical completion)

Replace Clause 21.6 with the following:

On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent

And/or

On the expiry of the defects liability period as indicated in B13, for items indicated in B13 and on receipt of the contractor's notice to the principal agent, the principal agent shall:

- (1) inspect the works and within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or
- (2) issue the certificate of final completion to the contractor with a copy to the employer for that part of the works where defects liability period has expired

21.6.1 Omit Clause

21.6.2 Omit Clause

Add the following as Clause 21.13:

The ninety (90) calendar days defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B13

Add the following as Clause 21.14:

Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have being added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied. [B12.0

23.0 Latent Defects Liability Period

22.3.2 No Clause

24.0 Penalty for Late and Non-completion

Replace Clause 24.1 with the following:

Where the contractor fails to bring the works, or a section thereof, to practical or final- completion by the applicable completion date [CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [CD]

Replace Clause 24.2 with the following:

Where the employer elects to levy such penalty the employer, or the principal agent on instruction from the employer, shall give notice thereof to the contractor. The principal agent shall determine the penalty due from the later of the date for practical- works-, or final- completion [CD], or the revised date for practical- works-, or final- completion, up to and including the earlier of:

Replace Clause 24.2.1 with the following:

The actual or deemed date of practical or final- completion, of the works, or a section thereof [23.7.1]

25.0 Payment

Replace Clause 25.2 with the following:

The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount

Add the following to Clause 25.3:

25.3.12 Tax Invoice

25.5 No Clause

Replace Clause 25.6 with the following:

Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.

25.7.5 No clause.

Replace Clause 25.10 with the following:

The employer shall pay the contractor the amount stipulated in an issued payment certificate, correct in all material respects, within thirty (30) calendar days from the date of receiving the payment certificate, invoice and all other substantiating documentation for items certified in the payment certificate

25.10: Delete the words “and/or **compensatory interest**”

Replace Clauses 25.12 to 25.12.3 with the following:

Clause 25.12

The value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

25.12.1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion

25.12.2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

25.12.3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26

25.12.4 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.

25.14.2: Not applicable

26.0 Adjustment of the Contract Value and Final Account

Ref Clause 6.7 [CD] – Clause 26.1

Omit Clause 26.4.3

Ref Clause 6.7 [CD] – Clause 26.7

Replace Clause 26.10 with the following:

The principal agent shall prepare the final account in consultation with the employer and issue the final account, to the contractor within sixty (60) working days of the date of practical completion

27.0 Recovery of Expense and/or Loss

Clause 27.0

Replace Clause 27.1.2 with the following:
Interest due to late payment only

Replace Clause 27.1.4 with the following:
Interest due to late payment only

27.1.5 No Clause

Replace Clause 27.5 with the following:

Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a written demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security

29.0 Termination

Clause 29.0

Add the following as Clause 29.1.4:

The contractor's estate has been sequestered, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

Add the following as Clause 29.1.5:

The contractor has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

Add the following as Clause 29.1.6:

Honour his obligations in terms of Clauses 10.1.5.1.3, 11.4.1 and 12.2. sub-Clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.

Replace Clause 29.7 with the following:

The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3]

Replace Clause 29.9 with the following:

The employer has the right of recovery against the contractor, where applicable, [CD] from:

The payment reduction until the final payment is made;

29.14.1 No Clause

29.14.3 No Clause

29.14.4 No Clause

29.14.5 No Clause

29.14.6 No Clause

29.14.7 No Clause

29.15 No Clause

29.16 No Clause

29.17.3 No Clause

29.17.6 No Clause

29.21.5 No Clause

29.22 No Clause

29.23 No Clause

29.25.3 No Clause

29.25.4 No Clause

29.27 No Clause

30.0 Dispute Resolution

Replace Clause 30.2 with the following:

Where such disagreement is not resolved within ten (10) working days of receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation

30.3 to 30.7.7 No Clauses

Replace Clause 30.8 with the following:

The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:

30.8.1 No Clause

Replace Clause 30.8.2 with the following:

The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties

Replace Clause 30.8.3 with the following:

Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.

Replace Clause 30.9 with the following:

Institution of Litigation shall be commenced, and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse.

30.10 No Clause

30.12 No Clause

C TENDERER'S SELECTIONS

C 1.0 Security [11.0]

Guarantee for construction: Option A only	Option:	A
Option A	Fixed construction guarantee of 10% of the contract amount	
Guarantee for payment by employer [11.5.1; 11.10]	Not Applicable	
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]	Not Applicable	

C 2.0 Contractor's annual holiday periods during the construction period

Year 1 contractor's annual holiday period	start date		end date	
Year 2 contractor's annual holiday period	start date		end date	
Year 3 contractor's annual holiday period	start date		end date	

C 3.0 Payment of preliminaries [25.0]

Contractor's selection: Select Option A or B	Option:	
Where the contractor does not select an option, Option A shall apply		

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 4.0 Adjustment of preliminaries [26.9.4]

Contractor's selection: Select Option A or B	Option:	
---	----------------	--

Where the contractor does not select an option, Option A shall apply

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in sections is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**

Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site. Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

Adjustment Methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**

Option A	<p>The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor, apportioned to sections where completion in sections is required</p> <p>Fixed - An amount which shall not be varied</p> <p>Value-related - An amount varied in proportion to the contract value as compared to the contract sum. Both the contract sum and the contract value shall exclude the amount of preliminaries, contingency sum(s) and any provision for cost fluctuations</p> <p>Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p>
Option B	<p>The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p> <p>The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred</p>

Failure to provide particulars within the period stated

Option A	<p>Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply:</p> <p>Fixed - Ten percent (10%) Value-related - Fifteen percent (15%) Time-related - Seventy-five per cent (75%)</p> <p>Where the apportionment of the preliminaries per section is not provided, the categorized amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent</p>
Option B	<p>Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply</p>

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) Of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations

3.1.3. JBCC GUARANTEE FOR CONSTRUCTION (PRO-FORMA)



Guarantee for Construction

For use with the JBCC® Principal Building Agreement edition /date

GUARANTOR DETAILS AND DEFINITIONS

Guarantor:

Physical Address:

Guarantor's signatory 1: Capacity

Guarantor's signatory 2: Capacity

Employer:

Contractor:

Principal Agent:

Works:

Site:

Contract Sum: Accepted amount inclusive of tax Currency

Amount in words:

Guaranteed Sum: The maximum aggregate amount Currency

Amount in words:

Guarantee for Construction: (Insert Variable or Fixed)

Expiry Date:

AGREEMENT DETAILS

Sections: Total number / not applicable Last Section

Principal Agent issues JBCC® format Recovery Statement, Interim Payment Certificates, the Final Payment Certificate, the Certificate of Practical Completion and the Certificate of Final Completion

1.0 GUARANTEE FOR CONSTRUCTION (Variable)

1.1 Where a Guarantee for Construction (Variable) in terms of the Agreement has been selected this clause 1.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:-

GUARANTOR'S LIABILITY

1.1.1 Maximum Guaranteed Sum (not exceeding 10.0% of the contract sum) in the amount of:

Amount in words:

PERIOD OF LIABILITY

From and including the date of issue of this Guarantee for Construction and up to and including the date of issue of the Interim Payment Certificate certifying in excess of 50% of the contract sum



1.1.2 Reducing to the Guaranteed Sum (not exceeding 6.0% of the contract sum) in the amount of:

From and including the day after the date of the aforesaid Interim Payment Certificate and up to and including the date of issue of the only Certificate of Practical Completion or last Certificate of Practical Completion where there are sections

Amount in words:

1.1.3 Reducing to the Guaranteed Sum (not exceeding 4.0% of the contract sum) in the amount of:

From and including the day after the date of the applicable Certificate of Practical Completion and up to and including the date of issue of the only Certificate of Final Completion or the last Certificate of Final Completion where there are sections

Amount in words:

1.1.4 Reducing to the Guaranteed Sum (not exceeding 2.0% of the contract sum) in the amount of:

From and including the day after the date of the applicable Certificate of Final Completion and up to and including the date of issue of the Final Payment Certificate where payment is due to the Contractor, whereafter this Guarantee for Construction shall expire. Where the Final Payment Certificate reflects payment due to the Employer, this Guarantee for Construction shall expire upon payment of the full amount certified

Amount in words:

1.2 The Guarantor's liability limits set out in 1.1.1 to 1.1.4 shall apply in respect of any claim received by the Guarantor during the guarantee validity period

2.0 GUARANTEE FOR CONSTRUCTION (Fixed)

2.1 Where a Guarantee for Construction (fixed) in terms of the Agreement has been selected this clause 2.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

Maximum Guaranteed Sum (not exceeding 10.0% of the contract sum) in the amount of:

PERIOD OF LIABILITY

From and including the date of issue of this Guarantee for Construction and up to and including the date of the only Certificate of Practical Completion or the last Certificate of Practical Completion where there are sections, whereafter this Guarantee for Construction shall expire

Amount in words:

3.0 The Guarantor acknowledges that:

3.1 Any reference in this Guarantee for Construction to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention to create a suretyship;

3.2 Its obligation under this Guarantee for Construction is restricted to the payment of money; and

3.3 Reference to a Recovery Statement or an Interim or Final Payment Certificate, or a Certificate(s) of Practical or Final Completion shall mean such certificate issued by the Principal Agent.

4.0 Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:



- 4.1 A copy of a first written demand notice issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an Interim or Final Payment Certificate has not been made in terms of the Agreement and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2 A first written demand notice issued by the Employer to the Guarantor at the Guarantor's Physical Address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the issue of the first written demand notice in terms of 4.1 and that the sum certified has not been paid to date. The Employer herewith calls up this Guarantee for Construction and demands payment of the sum certified from the Guarantor; and
- 4.3 A copy of the applicable payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in 4.0
- 5.0. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand notice from the Employer to the Guarantor at the Guarantor's Physical Address calling up this Guarantee for Construction stating that:
- 5.1 The Agreement has been terminated due to the Contractor's default and that the Guarantee for Construction is called up in terms of 5.0. The demand shall enclose a copy of the notice of termination; or
- 5.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Guarantee for Construction is called up in terms of 5.0. The demand notice shall enclose a copy of the court order.
- 6.0 The aggregate amount of payments to be made by the Guarantor in terms of 4.0 and 5.0 shall not exceed the Guarantor's maximum liability in terms of 1.0 or 2.0.
- 7.0 Where the Guarantor is a registered insurer and has made payment in terms of 5.0, the Employer shall within one hundred and eighty (180) calendar days of receipt of payment submit an expense account to the Guarantor showing how all monies received in terms of the Guarantee for Construction have been expended, or will be expended, and shall refund to the Guarantor any surplus amount. All monies refunded to the Guarantor in terms of this Guarantee for Construction shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date of payment by the Guarantor to the Employer until the date of refund.
- 8.0 Payment by the Guarantor in terms of 4.0 or 5.0 shall be made within seven (7) calendar days upon receipt of the first written demand notice to the Guarantor.
- 9.0 The Employer shall have the absolute right to arrange its affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim its release from this Guarantee for Construction on account of any conduct alleged to be prejudicial to the Guarantor.
- 10.0 The Guarantor chooses the Physical Address stated above for all notices and correspondences in relation to this Guarantee.
- 11.0 This Guarantee for Construction is neither negotiable nor transferable and shall expire in terms of either 1.1.4 or 2.1, or payment in full of the Guaranteed Sum or on the Expiry Date, whichever is the earlier, whereafter no claims will be considered by the Guarantor. This original Guarantee for Construction shall be returned to the Guarantor after it has expired.
- 12.0 This Guarantee for Construction, with the required demand notices in terms of 4.0 or 5.0, shall be regarded as a liquid document for the purpose of obtaining a court order.
- 13.0 Where this Guarantee for Construction is issued in the Republic of South Africa this Guarantee for Construction shall be governed by the laws of the Republic of South Africa. A competent court in the Republic of South Africa shall have sole jurisdiction in terms of this Guarantee for Construction. Where this Guarantee for Construction is issued outside the Republic of South Africa, the laws of the guarantor who issued this Guarantee for Construction shall prevail. A competent court, in the jurisdiction in which the guarantor is domiciled shall prevail.

Signed at:

Date:

Guarantor's Signatory 1: _____

Guarantor's Signatory 2: _____

Witness: _____

Witness: _____

Guarantor's seal or stamp

3.1.4. PART C1.3: DISPUTE RESOLUTION MECHANISM

3.1.5. C1.3 CIDB ADJUDICATOR'S AGREEMENT

C1.3 CIDB ADJUDICATOR'S AGREEMENT

This agreement is made on the day of between:
 (name of company / organization) of

 (address) and
 (name of company / organization) of

 . (address) (the Parties) and (name) of

 (address) (the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated
 ... and known as
 and these disputes or differences shall be/have been* referred to adjudication in accordance
 with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may
 be or has been requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by: _____
 Name: _____
 who warrants that he / she is
 duly authorized to sign for and
 on behalf of the first Party in the
 presence of

SIGNED by: _____
 Name: _____
 who warrants that he / she is
 duly authorized to sign for and
 behalf of the second Party in
 the presence of

SIGNED by: _____
 Name: _____
 the Adjudicator in the presence
 of

Witness	_____	Witness:	_____	Witness:	_____
Name:	_____	Name	_____	Name:	_____
Address:	_____	Address:	_____	Address:	_____
Date:	_____	Date:	_____	Date:	_____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. € Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. € Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R. This fee shall become payable in equal amounts by each Party within days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due in 30 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

* Delete as necessary

4.PART C2 - PRICING DATA

4.1. PART C2.1: PRICING INSTRUCTIONS

C2.1 Pricing Instructions

- 1 The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work as amended) published and issued by the Association of South African Quantity Surveyors (Seventh Edition), 2015. Where applicable the:
 - a) Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Civil Engineering Works.
 - b) Mechanical work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Mechanical Engineering Works.
 - c) Electrical work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Electrical Engineering Works.
- 2 The agreement is based on the JBCC Edition 6.2 of 2018 with Government Clauses, prepared by the Joint Building Contracts Committee, The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 3 Preliminary and General requirements are based on the [preliminaries for the use of JBCC Edition 6.2– May 2018](#). Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 4 It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 5 The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Principal Agent or Engineer and can be viewed at any time during office hours up until the completion of the works.
- 6 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 7 The bills of quantities forms part of and must be read and priced in conjunction with all the other documents forming part of the contract document, The Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings, The document “Construction Works: Specifications: General Specification(PW371-A)Edition 2.0” is obtainable on the Department’s website(<http://www.publicworks.gov.za/> under “Consultants Guidelines”), and shall be read in conjunction with the **bills of quantities** / lump sum document and be referred to for the full descriptions of work to be done and materials to be used The document “Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.0” is issued together with the drawings and shall be read in conjunction with the drawings and the **bills of quantities** / lump sum document
- 8 Where any item is not relevant to this specific contract, such item is marked N/A (signifying “not applicable”)
- 9 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities

- 10 The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- 11 The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract.
- 12 Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 11 but taking into account the revised period for completing the works.
- 13 The amount or items of the Preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
- 14 Where no provision is made in the Bills of Quantities to indicate which of the three categories in 13 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a) 10 percent is Fixed
 - b) 15 percent is Value Related
 - c) 75 percent is Time Related
- 15 The adjustment of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 16 The tender price must include Value Added Tax (VAT). All rates, provisional sums, etc. in the bills of quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.
17. The Contractor shall adhere to "The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)", and yearly pronounced increases for duration of contract.
18. Voting day / Election day 2024 will be a statutory public holiday and contractor must make provision in his bid. No further claims will be entertained in this regard.

4.2. PART C2.2 – BILLS OF QUANTITIES

PAGE BOQ1 - BOQ386

Item No		Quantity	Rate	Amount
	<p><u>SECTION No. 1: PRELIMINARIES</u></p> <p><u>BILL No 1: PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the above mentioned documents for the full intent and meaning of each clause</p> <p>The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the above mentioned documents</p>			
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

Brought Forward			R
<p><u>PREAMBLES FOR TRADES</u></p> <p>The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained</p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p> <p>If any discrepancy in any of the documents forming part of the contract is found, then the contract data and or amendments within the special conditions of contract and herein shall prevail in cases of conflict between any of the documents</p> <p><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></p> <p>Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement</p> <p>Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p>			
Carried Forward			R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

Brought Forward

R

PRICING OF PRELIMINARIES

Contractors are required to price all individual items in the preliminary and general section of the bill of quantities and should not lump the items into a single sum or amount. This fully priced schedule must be included as part of the priced bill of quantities returnable with tender submission

In the event that the contractor, due to causes of his own making, fails to achieve the targets set out in his construction programme and his performance is not in accordance with the contract, payment of the time related Preliminaries will be paid in proportion to the value of the monthly progress payment and not in accordance with the projected cash flow for this item. The principal agent shall review the status quo and revert to paying the contractor in accordance with the contract once the contractor has demonstrated improvement of their performance and the principal agent is satisfied that the contractor is performing diligently.

Similarly the full amount of the fixed portion of the Preliminaries will be paid only once the successful contractor has fully complied with deliverables under this section

Should the **contractor** select Option A in the **contract data** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

A Clause 1.0 - Definitions and interpretation

Pricing of bills of quantities

Carried Forward

R

Section No. 1
 Bill No. 1
 PRELIMINARIES AND GENERAL
Q515B

Brought Forward		R
<p>The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained</p> <p>Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary</p> <p>Contractors are reminded that some of the works are to be undertaken under restrictive site conditions, over steep terrain, in dense vegetation, protected environments etc.</p> <p>In addition to the usual rates priced for standard measured items in the bills of quantities, contractors shall provide for all additional plant, labour, equipment, temporary works, temporary access ways and any additional supervision, transport, security, special plant and equipment to navigate restrictive site conditions and all things necessary for the completion of the works within this bills of quantities. The rates or amounts tendered for these items shall also include for the contractors management, attendance, profit, costs for removal and reinstatement of the ground conditions, vegetation, etc. in the state and condition prior to the works being undertaken.</p> <p>In addition to the usual rates priced for compliance with</p>		
Carried Forward		R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

Brought Forward		R
<p>law and regulation in relation to inspections, warranties, guarantees, tests, analysis, commissioning and all things necessary for compliance, the contractor is expected to include in the rates, prices and the tendered total of the prices for all inspections, warranties, guarantees, tests, analysis, commissioning and all things necessary for compliance, payable by the contractor.</p> <p>Such items include but are not limited to: - Electrical Compliance Certificate - Plumbing Compliance Certificate - Structural Steel Compliance Certificate - Lightning Certificate - Soil Protection Certificate - Concrete test results and cube certificates - Compaction Test results and certificates - Waterproofing guarantee certificates - TR1 and TR2 prefabricated roof truss certificates - Roof covering certificate - Soil compaction certificates - Electrical and Mechanical test certificates - Plumbing and drainage pressure test certificates - Fire Compliance Certificate - Entomology Certificate - SANS 10400-A:2010 compliance certificates - Any other requirement as per the latest National Building Regulation</p> <p>Contractors are reminded and hereby given the opportunity to allow for and price all costs related to the abnormal working conditions referred to herein as no claims for additional costs will be entertained for any omission on the part of contractor</p> <p>Clause 3.9 amended to read 'The priced document shall not be used as a specification for material and goods and the quantities should not be used for procurement purposes.</p> <p>All procurement of material will be based on actual site measurements and not on drawings, specifications or the bill of quantities</p> <p><u>Abbreviated descriptions</u></p>		
Carried Forward		R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

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<p>The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice</p> <p><u>Legal status of contractor</u></p> <p>If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <ol style="list-style-type: none"> 1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement 2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons 3. The contractor shall not alter its composition or legal status without the prior written consent of the employer 				
A	F:..... V:..... T:.....	Item		
B	Clause 2.0 - Law , regulations and notices F:..... V:..... T:.....	Item		
C	Clause 3.0 - Offer and acceptance F:..... V:..... T:.....	Item		
D	Clause 4.0 - Cession and assignment F:..... V:..... T:.....	Item		
	Carried Forward		R	
Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B				

	Brought Forward			R
A	<p><u>Clause 5.0 - Documents</u></p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>Priced document as specification</p> <p>Clause 5.4 is deemed to be deleted</p> <p>The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any</p>			
B	<p><u>Electronic issue of drawings</u></p> <p>Some drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]</p> <p>F:..... V:..... T:.....</p>	Item		
C	<p><u>Clause 6.0 - Employer's agents</u></p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:</p> <p>1. <u>Architect</u></p> <p>1.1 Duties [6.2] :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.2 Contract instructions [6.2; 17.1] :</p>			
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

	Brought Forward		R
1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement			
1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works			
1.2.3 The site [13.0]			
1.2.4 Compliance with the law , regulations and bylaws [2.1]			
1.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works			
1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]			
1.2.7 Removal or re-execution of work			
1.2.8 Removal or substitution of any materials and goods			
1.2.9 Protection of the works			
1.2.10 Making good physical loss and repairing damage to the works [23.2.2]			
1.2.11 Rectification of defects [21.2]			
1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion			
	Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B			

	Brought Forward		R
1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums			
1.2.14 Appointment of a subcontractor [14.0; 15.0]			
1.2.15 Work by direct contractors [16.0]			
1.2.16 On suspension or termination, protection of the works , removal of construction equipment and surplus materials and goods [29.0]			
2. <u>Quantity surveyor</u>			
2.1 Duties [6.2] :			
The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works			
2.2 Contract instructions [6.2; 17.1] :			
2.2.1 No contract instructions delegated to the quantity surveyor			
3. <u>Civil and structural engineer</u>			
3.1 Duties [6.2] :			
The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works			
3.2 Contract instructions [6.2; 17.1] :			
3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement			
	Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B			

	Brought Forward			
3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works			R	
3.2.3 The site [13.0]				
3.2.4 Compliance with the law , regulations and bylaws [2.1]				
3.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works				
3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]				
3.2.7 Removal or re-execution of work				
3.2.8 Removal or substitution of any materials and goods				
3.2.9 Protection of the works				
3.2.10 Making good physical loss and repairing damage to the works [23.2.2]				
3.2.11 Rectification of defects [21.2]				
3.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion				
3.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums				
4. <u>Mechanical engineer</u>				
	Carried Forward		R	
Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B				

	Brought Forward		R
<p>4.1 Duties [6.2] :</p> <p>The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>4.2 Contract instructions [6.2; 17.1] :</p> <p>4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>4.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>4.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>4.2.6 Removal or re-execution of work</p> <p>4.2.7 Removal or substitution of any materials and goods</p> <p>4.2.8 Protection of the works</p> <p>4.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>4.2.10 Rectification of defects [21.2]</p>			
	Carried Forward		R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

	Brought Forward		R
<p>4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p>5. <u>Electrical/Electronics engineer</u></p> <p>5.1 Duties [6.2] :</p> <p>The electrical engineer is responsible for all aspects of electrical and electronics engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>5.2 Contract instructions [6.2; 17.1] :</p> <p>5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p>			
	Carried Forward		R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

	Brought Forward		R
5.2.6	Removal or re-execution of work		
5.2.7	Removal or substitution of any materials and goods		
5.2.8	Protection of the works		
5.2.9	Making good physical loss and repairing damage to the works [23.2.2]		
5.2.10	Rectification of defects [21.2]		
5.2.11	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
5.2.12	Expenditure of budgetary allowances, prime cost amounts and provisional sums		
6.	<u>Health and safety consultant</u>		
6.1	Duties [6.2] :		
	The health and safety consultant is responsible for all aspects of health and safety of the works . Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works . He shall:		
6.1.1	Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended		
6.1.2	Prepare and update the health and safety specification for the works		
6.1.3	Agree with the contractor the health and safety plan for the works		
	Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B			

	Brought Forward		R
	6.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations		
A	6.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to		
B	F:..... V:..... T:.....	Item	
C	Clause 7.0 - Design responsibility F:..... V:..... T:.....	Item	
<u>Insurances and securities (A8-A11)</u>			
D	Clause 8.0 - Works risk F:..... V:..... T:.....	Item	
E	Clause 9.0 - Indemnities F:..... V:..... T:.....	Item	
F	Clause 10.0 - Insurances Clause 10.1.1 - Contracts Works Insurance 'the contractor shall be responsible for effecting and maintaining the contract works insurance for the full duration of the contract period. The insured amount for the full scope of works shall be 120% of the contract amount Clause 10.1.2 - Supplementary Insurance Clause 10.1.3 - Public Liability Insurance Clause 10.1.4 - Removal of Lateral Support Insurance - N/A Clause 10.1.5 - Other Insurances - N/A F:..... V:..... T:.....	Item	
<u>Clause 11.0 - Securities</u>			
Carried Forward			
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		R

	Brought Forward		R
A	<p>Clause 11.1 - Guarantee for construction</p> <p>F:..... V:..... T:.....</p> <p>The contractor shall provide to the employer a guarantee for construction within fifteen (15) working days of acceptance of the contractor's tender.</p> <p>Clause 11.5 - Guarantee for payment</p> <p>The employer shall not provide to the contractor a guarantee for payment. The contractor shall waive his lien or right of continuing possession of the works [11.10]</p> <p>F:..... V:..... T:.....</p> <p><u>Extension of waiver of lien</u></p> <p>The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]</p> <p>F:..... V:..... T:.....</p> <p><u>Execution (A12 - A17)</u></p>	Item	
B	<p>Clause 12.0 - Obligations of the parties</p>		
C	<p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p> <p>F:..... V:..... T:.....</p>	Item	
D			
E			
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p> <p>F:..... V:..... T:.....</p> <p><u>Statutory and other notices</u></p>	Item	
B	<p>The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard</p> <p>F:..... V:..... T:.....</p>	Item	
C	<p>It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>F:..... V:..... T:.....</p>	Item	
D	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item	
E	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	Clause 15.0 - Selected subcontractors F:..... V:..... T:.....	Item	
B	<u>Clause 16.0 - Direct contractors</u> In respect of direct contractors the contractor shall:		
C	1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials F:..... V:..... T:.....	Item	
D	2. Allow the use of personnel welfare facilities, where provided F:..... V:..... T:.....	Item	
E	3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation F:..... V:..... T:.....	Item	
F	4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc. provided by the contractor , in common with others having the like right, while it remains erected on the site [16.1] F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		

	Brought Forward		R
A	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p> <p><u>Completion (A18 - A24)</u></p>	Item	
B	Clause 18.0 - Interim completion	N/A	
C	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item	
D	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item	
E	<p>Clause 21.0 - Defects liability period and final completion</p> <p>The maintenance period shall be 12 months.</p> <p>F:..... V:..... T:.....</p>	Item	
F	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p><u>Clause 23.0 - Revision of the date for practical completion</u></p> <p>Adverse weather conditions</p> <p>The contract duration includes a monthly allowance of 3 working days for adverse weather conditions [23.1.1] during which rainfall exceeds 10mm per day or excessive wind. These days shall be reflected on the critical path of the construction programme. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the date for practical completion will not be adjusted. Where the actual delays incurred for adverse weather conditions exceed the programmed delays and such delays have impacted on the critical path of the construction programme, the date for practical completion will be adjusted should the requirements of Clause 23.0 be satisfied</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:..... T:.....</p>	Item	
C	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p>	Item	
D	<p><u>Payment (A25 - A27)</u></p> <p><u>Clause 25.0 - Payment</u></p>		
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p> <p>Clause 25 amended to read 'The employer shall pay to the contractor the amount certified in interim payment certificate within thirty (30) calendar days of the date of issue of the payment certificate or the contractors tax invoice whichever is the later date'</p> <p>Materials and goods stored off site shall not be included in the amount authorised for payment unless the requirements for an Advanced Payment Guarantee are met</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>F:..... V:..... T:.....</p>	Item	
C	<p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

Brought Forward		R
<p>Tenant installation/user requirements delayed</p> <p>There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p> <p>The contractor shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be considered</p> <p>The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission</p>		
A	Cost of claims	
	<p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs</p> <p>F:..... V:..... T:.....</p>	Item
	Carried Forward	R
<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p>Claims from subcontractors</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p> <p><u>Suspension and termination (A28 - A29)</u></p>	Item	
C	<p>Clause 28.0 - Suspension by the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
D	<p>Clause 29.0 - Termination</p> <p>F:..... V:..... T:.....</p> <p><u>Dispute resolution (A30)</u></p>		
E	<p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item	
F	<p><u>Agreement</u></p>		
G	<p>The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p> <p>F:..... V:..... T:.....</p>	Item	
H	<p><u>Contract data</u></p> <p>Tenderer's selections</p>		
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	Before submission of his tender the contractor is to complete the tenderer's selections in the contract data F:..... V:..... T:.....		
	<u>SECTION B: GENERAL PRELIMINARIES</u>		
	<u>Definitions and interpretation (B1)</u>		
B	Clause 1.1 - Definitions F:..... V:..... T:.....	Item	
C	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item	
	<u>Documents (B2)</u>		
D	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item	
E	Clause 2.2 -Provisional Bills of quantities Yes F:..... V:..... T:.....	Item	
F	Multiple procurement A portion of the works are also measured in SMME Packages as a separate Section. F:..... V:..... T:.....	Item	
G	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item	
H	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item	
	Carried Forward		R
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	Brought Forward		R
	<u>Previous work and adjoining properties (B3)</u>		
A	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item	
B	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item	
C	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item	
	<u>The site (B4)</u>		
D	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item	
E	Clause 4.2 - Enclosure of the works Hoarding will be required to isolate areas; this hoarding has been allowed for in the Bills of Quantities. F:..... V:..... T:.....	Item	
F	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item	
G	Clause 4.4 - Encroachments The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachment F:..... V:..... T:.....	Item	
H	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		

	Brought Forward		R
A	Clause 4.6 - Services - known F:..... V:..... T:..... <u>Management of contract (B5)</u>	Item	
B	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item	
C	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item	
D	Clause 5.3 - Technical meetings F:..... V:..... T:..... <u>Samples, shop drawings and manufacturer's instructions (B6)</u>	Item	
E	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item	
F	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item	
G	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item	
H	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:..... <u>Deposits and fees (B7)</u>	Item	
I	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item	
	Carried Forward		R
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	Brought Forward		R
	<u>Temporary services (B8)</u>		
A	Clause 8.1 - Water F:..... V:..... T:.....	Item	
B	Clause 8.2 - Electricity F:..... V:..... T:.....	Item	
C	Clause 8.3 - Ablution and welfare facilities Clause 8.3 - Ablution and welfare facilities in compliance to the provisions of the Construction Regulations 2014 issued in terms of the Occupational Health and Safety Act, 1993 as amended: Section (30): Sub-section (1)(a) - Shower facilities after consultation with the employees or the employees representatives, or at least one shower facility for every 15 persons; Sub-section (1)(b) - at least one sanitary facility for each sex and for every 30 workers; Sub-section (1)(c) - changing facilities for each sex and Sub-section (1)(d) - sheltered eating areas F:..... V:..... T:.....	Item	
D	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item	
	<u>Prime cost amounts (B9)</u>		
E	Clause 9.1 - prime cost amounts F:..... V:..... T:.....	Item	
	<u>Attendance on subcontractors (B10)</u>		
F	Clause 10.1 - General attendance F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		

	Brought Forward		R
A	Clause 10.2 - Special attendance F:..... V:..... T:..... General (B11)	Item	
B	Clause 11.1 - Protection of the works F:..... V:..... T:.....	Item	
C	Clause 11.2 - Protection/isolation of existing works and works occupied in sections F:..... V:..... T:.....	Item	
D	Clause 11.3 - Security of the works The contractor shall be briefed on the restrictions of movement, servitudes, access control, buildings in use, security requirements and security clearances and working hours, due to being occupied and under the employers control at all times. The contractor shall not extend his operations into any restricted or undefined areas. Work shall be carried out during normal working hours. Any extended times or approval or overtime work shall be considered and approved by the PA. The contractor shall comply with the employers rules for the control of delivery of materials and goods into the site and for the removal of such items from the site. The Contractor will be responsible for ensuring the security and protection of all material, hand tools, power tools, plant, equipment, machinery, etc. stored on the site. The Contractor will be required to make arrangements with the Employer, through the Principal Agent, for the use of and reimbursement for the security measures currently in force and operational on the site F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		

	Brought Forward		R
A	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item	
B	<u>Clause 11.5 - Disturbance</u>		
C	Disturbance All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever F:..... V:..... T:.....	Item	
D	<u>Clause 11.6 - Environmental disturbance</u>		
E	Controlling all forms of pollution The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc. F:..... V:..... T:.....	Item	
F	The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works F:..... V:..... T:.....	Item	
G	Clause 11.7 - Works cleaning and clearing F:..... V:..... T:.....	Item	
	Carried Forward		R
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	Brought Forward		R
A	Clause 11.8 - Vermin F:..... V:..... T:.....	Item	
B	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item	
C	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item	
D	Clause 11.11 - Advertising F:..... V:..... T:.....	Item	
<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
E	<u>Warranties for materials and workmanship</u> Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer , from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so		
F	The warranty will not be enforced if the work is damaged by defects in the execution of the works , in which case the responsibility for replacement shall rest entirely with the contractor F:..... V:..... T:.....	Item	
Carried Forward			
	Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B		R

	Brought Forward		R
A	<p><u>Overtime</u></p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p><u>Cooperation of the contractor for cost management</u></p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item	
C	<p><u>Health and safety</u></p>		
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price the Pricing schedule for Health, Safety and Environment as per the pricing schedule on Page BOQ40 as part of the Preliminaries Section.</p> <p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p><u>The contractor shall:</u></p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p><u>Temporary fire escape staircase</u></p> <p>Provide temporary staircase, to serve as fire escape for 10 storey building, for duration of the dismantling, removing existing steel fire escape staircase and metal screens (elsewhere measured), until construction of new steel fire escape and metal screens (elsewhere measured) is completed and approved by the engineer/principal agent. Temporary access staircase to be in accordance with Health and Safety regulations as specified in the Project Health and Safety specifications and signed off by OHS Consultant and relevant Engineer, prior to use.</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p><u>Temporary access staircase</u></p> <p>Temporary access staircase to serve as contractor's access to roof of 10 storey building for all construction work, for required period of construction duration (maximum 20 Months). Temporary access staircase to be in accordance with Health and Safety regulations as specified in the Health and Safety project specifications and signed off by OHS Consultant and relevant Engineer, prior to use.</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward		R
A	<p>Reporting by the Contractor</p> <p>The Contractor is required to complete a CONTRACTOR'S MONTHLY REPORT which is to be submitted together with the Contractor's payment claim.</p> <p>Payment of the Contractor is conditional on this information being accurate and timeously provided.</p> <p>Payment shall be subject to the Contractor giving the Employer a tax invoice for the amount due.</p> <p>The Contractor is to take note of the following requirements -</p> <p>At the bottom of the CONTRACTOR MONTHLY REPORT, the Site Agent, Clerk of Works, CLO or Contractor must sign the document as proof that the people indicated have worked the number of days.</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

	Brought Forward			R
A	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item		
B	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer</p> <p>The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p>	Item		
C	<p>Socio-Economic Deliverables</p> <p>The Tenderer must allow for all costs (including any profit or attendance) associated with the administration, appointment, training and/or payment of the CLO, Built Environment Interns, Training of Local Labour, Students as applicable and included in this tender document (refer PROVISIONAL SUMS section). No additional claims in this regard shall be entertained.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>			

	Brought Forward		R
A	<p>SMME Contractors as Sub-Contractors to the Principal Contractor</p> <p>The Tenderer must allow for all costs applicable that they may feel will be associated with the successful integration, development of and completion of SMME Sub-contractors' work to the approval of the Principal Agent on this project. A portion of the building work is allocated to SMME Sub-contractors (refer SMME PACKAGES section). Contractors will be required to supply verified monthly statements/schedules (verified by their auditors) indicating the % achieved for that month. A cumulative schedule also needs to be maintained for each month that has passed. The Tenderer must also note that some SMME Packages as specified in the SMME PACKAGES section may consist of various smaller SMME sub-contractors within each specified package (split per link), the cost for this must be included in this item.</p> <p>Any additional costs that the Tenderer may deem applicable due to the use of SMME Sub-contractors, should be allowed for in this item (Preliminaries, OHS, Profit and Attendance, etc.), as no claim for any additional costs attributable to the incorporation and development of SMME Sub-contractors on this project will be entertained after the tenders are submitted.</p> <p>F:..... V:..... T:.....</p>	Item	
B	<p>SMME Monitoring</p> <p>Provision for pricing for the employment, on a full time basis for the duration of the contract, SMME Monitoring. All costs associated with the completion of the SMME Monitoring duties, provision of office facilities and tools of trade are deemed to be priced hereunder. No additional claims in this regard shall be entertained. The above is in strict accordance with the Specification for the Employment of SMME Sub-contractors and all costs should be included in this item for the employment for Monitoring.</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL Q515B</p>		

Brought Forward

R

SUMMARY OF CATEGORIES

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

Carried Forward

R

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Important note to Principal Contractor

Prior to pricing the principal contractor must familiarize him/herself with the Occupational Health and Safety Act and Regulations, (Act 85 of 1993), read with Construction Regulations 2014, other relevant Regulations, It is imperative for the Contractor to familiarize him/herself on the Client's project specific requirements defined in the Project Specific Health and Safety Specifications when pricing the works. Specific requirements are defined in the Project Specific Health and Safety Specifications

Pricing schedule for Health, Safety, Environmental and Biological Risks

	Description	Unit	Qty	Rate	Total
	Health & Safety				
1	One full time Construction Health and Safety Officer (CHSO) Full time attendance on site of a SACPCMP-registered CHSO from the start of construction until the end of project handover and provisions of telecommunication. The Construction Health and Safety Officer (CHSO) should be overseeing all the three sites.	20 Months	1		R
2	Competent Health and Safety Representatives should be appointed for each site. Should the contractor working on two site at the same time, each site should have a separate health and safety representative appointed that is full time on site.	20 Months	2		
3	Competent first aider should be appointed for each site. Should the contractor working on two sites at the same time, each site should have a separate first aider appointed that is full time on site.	20 Months	2		
4	Competent fire fighter should be appointed for each site. Should the contractor working on two sites at the same time, each site should have a separate fire fighter appointed that is full time on site.	20 Months	2		
5	Provision for Health and Safety Management Plans and File (three sites)	No	3		R
6	Provision for fall protection plan and implementation at Protea Flats. Provision for anemometer Provision of fall prevention and fall arrest equipment Toe board to be fitted on existing railings on the roof	Item			R
7	Allow for the necessary Workman's Compensation Fund or approved Insurer contributions for the duration of the project with and including renewals	Item			R
8	Employee medical certificates of fitness Medical examination to include height work assessment. Annual and exit medicals to be included.	Item			R

9	Emergency Equipment based on the risk exposure and emergency rescue. stretchers, neck brace, first aid kits, firefighting equipment Considering two sites will be constructed at a time the contractor should make provision for emergency equipment on both sites.	Item			R
10	<p>Provision for safe access scaffolding.</p> <p>Provision for two safe access scaffold staircases at the Protea Flats. Specialist scaffolding contractor to perform all high-rise access staircase and scaffolding erection and dismantling.</p> <p>1) Temporary emergency staircase (fire escape) replacing the existing fire escape staircase for a maximum period of a four-month duration. Ten storeys high (Item to be priced in Main Contractor's Bills of Quantities - Preliminaries & General Item A/32)</p> <p>2) Temporary staircase to provide access to the roof for the construction work for the duration of the project. (Twenty month period. (Item to be priced in Main Contractor's Bills of Quantities – Preliminaries & General Item B/32))</p> <p>Provision for scaffold to perform all other works safely as part of the scope of works taking into consideration all three sites.</p>	Item			R
		Item			Item to be Priced in P &G Item A on page 32
		Item			Item to be Priced in P &G Item B on page 32
		Item			R
11	Mandatory training such as risk assessments, OHS Act, awareness, first aider, working at heights	Item			R
12	Provide, supply and maintenance for each worker the following SANS approved personal protective equipment & clothing as per the site-specific risk assessments:	Item			R
	<ul style="list-style-type: none"> Hard Hats 				
	<ul style="list-style-type: none"> Overall/work suit (100% Cotton) 	Item			R
	<ul style="list-style-type: none"> Safety boots/shoes (Steel-Toe) 	Item			R
	<ul style="list-style-type: none"> Ear Plugs/Muffs 	Item			R
	<ul style="list-style-type: none"> Dust Mask FFP2 	Item			R
	<ul style="list-style-type: none"> Safety goggles 	Item			R

	<ul style="list-style-type: none"> Hand gloves 	Item			R
	<ul style="list-style-type: none"> Reflector vests 	Item			R
	<ul style="list-style-type: none"> Safety harness 	Item			R
13	Construction information, warning signage, posters, construction work permit number sign	Item			R
14	Allow for fire extinguishers and firefighting equipment	Item			R
15	Safe lifting equipment for lifting and lowering pipes, lifting tackles and slings	Item			R
16	Provision for traffic management	Items			R
17	Provision for Asbestos removal works (Registered Asbestos Contractor and Specialist Monitoring of AIA)	Items			R
	Biological Risk				
18	Provision for appropriate PPE	Item			R
19	Provision for signage	Item			R
20	Provision for additional hand washing stations.	Item			R
	ENVIRONMENTAL				
21	Dust control measure for the prevention of dust nuisance	Months			R
22	Provision for spill kits, drip trays	Item			R
23	Housekeeping – provide for the waste bins, safe collection and disposal of waste material from site by an approved method.	Months			R
TOTAL FIXED COSTS (EXCL VAT) CARRIED FORWARD TO PRELIMINARIES AND GENERAL ITEM A ON BOQ PAGE 31 (BILLS OF QUANTITIES)					
TOTAL TIME RELATED COSTS (EXCL VAT) TO PRELIMINARIES AND GENERAL ITEM A ON BOQ PAGE 31 (BILLS OF QUANTITIES)					
TOTAL (EXCL VAT) CARRIED FORWARD TO PRELIMINARIES AND GENERAL ITEM A ON BOQ PAGE 31 (BILLS OF QUANTITIES)					

CERTIFICATE OF ACQUITTANCE WITH TENDER DOCUMENTS

Name of Company _____

I/We _____

Hereby certify that I/we acquainted ourselves with the project specifications and all conditions contained herein as laid down by the State for the carrying out of construction work for which I/We submit our response.

I/We further agree that the State shall recognise no claim from me/us for relief based on allegations that I/We overlooked any tender requirements or failed to take into account the purpose of completing the documentation as required.

Signed at _____ on this _____ day of _____ 20__

For and on behalf of Contractor

Name in block letters

ID of Signatory

Contractor's Signature

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO. 1</u></p> <p><u>RENOVATIONS</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>Bidder to take cognisance that work in Section 2 will be done on the external facade of the 10 storey building, new fire escape staircase , work on the roof of the 10 storey building and internal work in penthouse flat on top floor of 10 storey building. Bidders to familiarise themselves with temporary access staircase requirements and required access scaffolding to all external working areas as indicated in the Health and Safety Specification annexed to the Bid Document and sequence of works and price accordingly in the Health and Safety Bills of Quantities and Preliminaries and General (additional access scaffolding and 2 temporary access staircases) (Items A/31, A/32 and B/32 in P&G) to required for all working areas, fall protection, etc. as well as all other Health and Safety requirements. No further claims in this regard will be entertained.</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 1 Renovations Q515B</p>			
			R	

Brought Forward				R
A	All material become the property of the Contractor and are to be removed by him from the site. All debris and rubbish arising from the alterations are to be immediately carted away and the site left clear and unencumbered.		Item	
B	Any breaking up, breaking down, etc. and removal of existing work must be done with the greatest care to prevent any form of structural or other damage to work or items not due to be removed. If any such damage may occur it will be made good by the Contractor on his own expense		Item	
<u>FLOORS AND FLOOR FINISHES</u>				
C	Take up and remove existing vinyl tiles/vinyl sheeting floor covering from cement screed and prepare screed to receive new vinyl sheeting (elsewhere measured)	m2	43	
D	Take up and remove existing carpet tiles from cement screed and prepare screed to receive new vinyl sheeting (elsewhere measured)	m2	169	
E	Take up and remove existing external tiles from cement screed on penthouse balcony	m2	103	
F	Break up and remove existing screed / grano approximately 30mm thick from concrete surface bed and prepare latter to receive new screed (measured elsewhere)	m2	315	
G	Take off and remove existing timber skirting from plastered wall and repair wall surface to receive new (elsewhere measured)	m	208	
H	Take off and remove existing vinyl skirting 75mm high from plastered wall and repair wall surface to receive new (elsewhere measured)	m	72	
I	Break up and remove existing concrete steps, not exceeding 300mm wide and 170mm high	m	4	
Carried Forward				R
Section No. 2 Bill No. 1 Renovations Q515B				

Brought Forward			R
A	Repair floor face where intersecting half brick walls are broken down, break down wall to 170mm below surface bed slab, fill with sand to underside of surface bed, saw cut edge of concrete 20mm deep on both sides and break back both sides to create rough edge and fill joints with wet to dry Epidermix 344 epoxy. Cast new slab 110mm wide and 100mm thick including Mesh 193 reinforcement and edge off with cement plaster screed in patching, including neat flush intersections with existing	m	4
B	Ditto, but for one brick walls	m	3
C	Cut through concrete floor not exceeding 120mm thick for column footing size 250 x 250mm wide, cut existing mesh (if any) on centre, bend up and preserve and remove existing concrete floor	No	2
D	Cut through concrete floor not exceeding 120mm thick for column footing size 500 x 500mm wide, cut existing mesh (if any) on centre, bend up and preserve and remove existing concrete floor	No	4
<u>CONCRETE SPALLING ON EXTERNAL WALLS (VARIOUS AREAS EACH SIZE APPROXIMATELY 200mm x 1000mm HIGH)</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			

E	Remove all spalled concrete and scabble to expose sound concrete aggregate and reinforcement	m2	160
F	Clean exposed surfaces with compressed air to remove loose particles and dust, and apply an approved bonding slurry and corrosion protection primer (Sika Mono Top-610 or similar approved) in accordance with the manufacturer's specifications.	m2	160
G	Apply an approved structural repair mortar (Sika Mono Top-610 or similar approved) in accordance with the manufacturer's specifications	m2	160
Carried Forward			R
Section No. 2 Bill No. 1 Renovations Q515B			

Brought Forward									
<u>INTERNAL WALLS AND WALL FINISHES</u>									
A	Repair plastered face of brick walls where adjoining half brick wall is demolished, including neat flush intersection of new to existing finishes	m	12						
B	Repair plastered face of brick walls where adjoining one brick wall is demolished, including neat flush intersection of new to existing finishes	m	12						
C	Hack off and remove existing white glazed tiles including plaster backing from brick walls and prepare the surface to receive new tiles (elsewhere measured)	m2	43						
D	Break down and remove existing half brick wall	m2	12						
E	Break down and remove existing one brick wall	m2	9						
F	Carefully break out and remove half brick skin from existing wall in patching and remove existing corroded conduit, prepare surface to receive new half brick skin (measured elsewhere)	m2	60						
G	Hack off and remove internal plaster from brick walls, for half brick skin to be removed (measured elsewhere), including all necessary cleaning	m2	60						
H	Remove loose and peeling internal paint by scraping, sanding or other suitable means, feather the edges with 100 grit sandpaper and ensure surface is dust free. Remove surface contaminants using Polycell Sugar Soap solution with a bristle broom or scrubbing brush to prepare existing plaster to receive new paint (elsewhere measured)	m2	927						
I	Hack off and remove internal plaster from brick walls, concrete columns and beams and prepare to receive new plaster (measured elsewhere), including all necessary cleaning	m2	94						
Carried Forward									
								R	
Section No. 2 Bill No. 1 Renovations Q515B									

Brought Forward		R
<u>EXTERNAL WALLS AND WALL FINISHES</u>		
A	Break down and remove existing damaged facebrick from external facade in patching and prepare to receive new facebrick (elsewhere measured)	m2 12
B	Remove loose and peeling paint from external facade by scraping, sanding or other suitable means, feather the edges with 100 grit sandpaper and ensure surface is dust free. Remove surface contaminants using Polycell Sugar Soap solution with a bristle broom or scrubbing brush to prepare existing plaster to receive new paint (elsewhere measured)	m2 3,388
C	Hack off and remove external plaster from roof chimney brick walls and prepare to receive new plaster (measured elsewhere), including all necessary cleaning	m2 2
D	Carefully break open and form 400 x 340 x 230mm deep openings in one and half brick wall and prepare to receive concrete pads (elsewhere measured) for fixing of steel from new steel staircase to existing walls (steel staircase elsewhere measured) at each intermediate landing of 10-storey steel fire escape staircase	No 33
E	Carefully break open and form 350 x 350 x 230mm deep opening in one and half brick wall and prepare to receive concrete pads (elsewhere measured) for steel beams over existing watertank roof (elsewhere measured)	No 4
<u>Brick up openings at watertank on roof</u>		
F	Brick up existing opening, size approximately 500 x 350mm high, in one brick wall, repair plastered finish to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, preparation of top of existing brick work to receive new brickwork, cutting toothing, neat flush intersections of new to existing finishes, etc.	No 5
Carried Forward		R
Section No. 2 Bill No. 1 Renovations Q515B		

**Upgrading of security infrastructure
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Brought Forward							
						R	
<u>Sundries</u>							
A	Take off and remove existing steel curtain tracks approximately 1100mm long from plastered brick walls and repair wall faces	No	19				
<u>DOORS</u>							
<u>Take out and remove existing door frames and doors from walls to be demolished</u>							
B	Take out and remove existing timber door and timber frame, size 813 x 2032mm high, from half brick wall to be demolished	No	2				
<u>Take out and remove existing door frames and doors from walls to be replaced with new doors and frame</u>							
C	Take out and remove existing timber door and timber frame, size 813 x 2032mm high from half brick wall and prepare opening to receive new aluminium door and frame size 883 x 2082mm (aluminium door measured elsewhere)	No	1				
D	Take out and remove existing timber door and timber frame, size 813 x 2032mm high from one brick wall and prepare opening to receive new timber door and timber frame size 813 x 2032mm (elsewhere measured)	No	1				
<u>Take out and remove existing door frames and doors from walls to be replaced with new fittings</u>							
E	Take out and remove existing timber door and timber frame, size 883 x 2100mm high from 440mm solid brick wall and prepare opening to receive new joinery fitting of same size (measured elsewhere)	No	1				
Carried Forward						R	
Section No. 2 Bill No. 1 Renovations Q515B							

Brought Forward				R
<u>Break out and remove existing doors and frames and brick up openings</u>				
A	Break out timber frame and timber door, size approximately 813 x 2032 high, with lock, etc, from half brick wall, prepare top of existing brickwork and brick up opening with brickwork in cement mortar, finish off with plaster to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	2	
B	Break out timber frame and timber door, size approximately 813 x 2032 high, with lock, etc, from one brick wall, prepare top of existing brickwork and brick up opening with brickwork in cement mortar, finish off with plaster to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	2	
<u>Break opening through half brick wall for new door</u>				
C	Break opening, size 883 x 2082 high, through half brick wall for new aluminium door (measured elsewhere), repair reveals and lintels with brickwork in cement mortar as well as plastered finish to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	1	
<u>Break opening through one brick wall for new door</u>				
D	Break opening, size 600 x 1800 high, through one brick wall for new galvanized steel frame (measured elsewhere), repair reveals and lintels with brickwork in cement mortar as well as plastered finish to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	1	
Carried Forward				R
Section No. 2 Bill No. 1 Renovations Q515B				

Brought Forward		R
A	Break opening, size 813 x 2032 high, through one brick wall for new timber frame (measured elsewhere) , repair reveals and lintels with brickwork in cement mortar as well as plastered finish to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support , neat flush intersections of new to existing finishes, etc.	1
	No	
<u>Brick up openings in existing walls</u>		
B	Prepare top of existing brickwork and brick up opening in one brick wall, size approximately 1000 x 2100mm high with brickwork in cement mortar, finish off with plaster to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	1
	No	
<u>ALUMINIUM CURTAIN WALLS AND DOORS</u>		
<u>Take out and remove existing aluminium glazed curtain walls and doors from walls to be replaced with new curtain walls and doors</u>		
C	Take out and remove existing aluminium curtain wall and door, size 2260 x 2350mm high overall from 270mm cavity brick wall and prepare opening to receive new aluminium curtain wall and door of the same size (elsewhere measured)	1
	No	
D	Take out and remove existing aluminium curtain wall and door, size 3245 x 2350mm high overall from 270mm cavity brick wall and prepare opening to receive new aluminium curtain wall and door of the same size (elsewhere measured)	1
	No	
E	Take out and remove existing aluminium curtain wall and door, size 3555 x 2350mm high overall from 270mm cavity brick wall and prepare opening to receive new aluminium curtain wall and door of the same size (elsewhere measured)	1
	No	
Carried Forward		R
Section No. 2 Bill No. 1 Renovations Q515B		

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Brought Forward		R
A	Take out and remove existing aluminium curtain wall, size 12489 x 2350mm high overall from 270mm cavity brick wall and prepare opening to receive new aluminium curtain wall and door of the same size (elsewhere measured)	No 1
<u>WINDOWS</u>		
B	Remove existing sealant around all external aluminium windows and prepare to receive new sealant (elsewhere measured)	m 3,626
C	Remove existing damaged glass panels from aluminium windows (various floors in occupied residences), and prepare to receive new glass (elsewhere measured) - (Lead time of 6 weeks to be allowed on programme to notify occupants of flats to arrange for access and working time in the specific unit/flat)	m2 28
D	Remove existing glass panels from steel window sashes, fixed with putty and prepare to receive new glass (elsewhere measured)	m2 3
E	Service existing residential type steel window frame, size 2980 x 700mm high, including all necessary bending, servicing of hinges and replacing of ironmongery, etc. (replacement of broken glass measured elsewhere)	No 1
<u>Take out and remove existing top hung aluminium window sections to be replaced (Lead time of 6 weeks to be allowed on programme to notify occupants of flats to arrange for access and working time in the specific unit/flat)</u>		
F	Take out and remove damaged aluminium top hung window section, size 500 x 825mm high, including window furniture, etc. from existing aluminium window, prepare frame to receive new aluminium top hung window section of the same size (new window section measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No 4
Carried Forward		R
Section No. 2 Bill No. 1 Renovations Q515B		

Brought Forward						
	R					
A	Take out and remove damaged aluminium top hung window section, size 500 x 900mm high, including window furniture, etc. existing aluminium window, prepare frame to receive new aluminium top hung window section of the same size (new window section measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.					
		No	5			
	<u>Take out and remove existing steel windows to be replaced</u>					
B	Take out and remove existing steel window, size 1000 x 900mm high, with sills, lintels, etc. from 270mm cavity wall, prepare opening to receive new aluminium window of the same size (new window measured elsewhere) repair reveals and lintels with plastered finish to both sides in patching and paint primer and undercoat to receive final coats (measured elsewhere) including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.					
		No	1			
	<u>Break out and remove existing steel window and brick up opening</u>					
C	Break out steel window, size approximately 762 x 928mm high, and brick up opening with 270mm thick brickwork, repair plaster both sides including necessary cutting, temporary support, preparation of top of existing brick work to receive new brickwork, cutting toothing, neat flush intersections of new to existing finishes, etc.					
		No	1			
	<u>CEILINGS</u>					
D	Take down and remove existing gypsum plaster ceiling boards/suspended ceilings, including brandering/ceiling grids, insulation, cornices, etc.					
		m2	183			
E	Take down and remove existing damaged gypsum plaster eaves ceiling boards, including brandering, cornices, etc.					
		m2	44			
	Carried Forward					
	Section No. 2 Bill No. 1 Renovations Q515B					R

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Brought Forward				R
A	Take down and remove existing drywall partitioning 2600mm high, including support structure, insulation, doors, etc.	m	54	
<u>ROOFS</u>				
B	Carefully take off and remove existing torch on waterproofing from concrete surfaces (plant room roof and tank)	m2	166	
C	Carefully take off and remove existing torch on waterproofing from concrete roof in patches to receive new (elsewhere measured)	m2	105	
D	Carefully take down and remove existing marine plywood timber boards (roof sheeting), including existing torch-on waterproofing from roof structure and prepare to receive new (measured elsewhere)	m2	305	
E	Carefully scrape out all existing joint sealants from roof expansion joints and prepare for new sealant (elsewhere measured)	m	219	
F	Carefully take off and remove existing 160mm diameter asbestos downpipe, bends and junctions from existing brickwork and prepare to receive new downpipes (measured elsewhere), <u>removal and disposal all in accordance and compliance with Asbestos Abatement Contractor of 2020</u>	m	15	
G	Carefully disconnect and remove existing 1135 litre asbestos water tank, approximately 1400mm diameter wide from inside the lift plant room area and prepare to receive new tank (measured elsewhere) <u>removal and disposal all in accordance and compliance with Asbestos Abatement Contractor of 2020</u>	No	1	
H	Take off and remove existing timber fascia and barge boards, not exceeding 300mm wide, from roof timbers	m	64	
I	Take off and remove existing galvanised gutters from existing timber roof structure and prepare to receive new gutters (measured elsewhere)	m	48	
Carried Forward				R
Section No. 2 Bill No. 1 Renovations Q515B				

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Brought Forward			R
A	Take off and remove existing 75mm diameter galvanised downpipes from existing brickwork and prepare to receive new downpipes (measured elsewhere)	m	28
B	Carefully take down and remove existing timber roof structure, purlins, etc. and prepare to receive new (measured elsewhere)	m2	80
C	Carefully take down and remove existing 225 x 76mm timber beams, including 175 x 76mm joists from roof structure and prepare to receive new (measured elsewhere)	m	170
D	Carefully take out existing fullbore inlet and cover from concrete and prepare to receive new (measured elsewhere)	No	10
E	Clean out all existing cast iron fullbore water inlets, to be free of all vegetation and dirt	No	10
F	Clean out existing halfround open stormwater channels approximately 200mm wide and 100mm deep on roof and balcony areas to be free of all vegetation and dirt to receive new waterproofing (elsewhere measured)	m	53
<u>TIMBER FITTINGS</u>			
G	Remove existing timber floor cupboard approximate size 1050 x 298 x 2100mm high overall, from plastered wall and concrete floor with cement plaster screed and repair wall and floor faces	No	1
H	Remove existing timber floor cupboard approximate size 3060 x 560 x 2100mm high overall, from plastered wall and concrete floor with cement plaster screed and repair wall and floor faces	No	1
I	Remove existing timber floor cupboard approximate size 3128 x 425 x 2100mm high overall, from plastered wall and concrete floor with cement plaster screed and repair wall and floor faces	No	1
Carried Forward			R
Section No. 2 Bill No. 1 Renovations Q515B			

**Upgrading of security infrastructure
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Brought Forward		R
A	Remove existing timber floor cupboard with worktop approximate size 7200 x 500 x 910mm high overall, from plastered wall and concrete floor with cement plaster screed and repair wall and floor faces	No 1
B	Remove existing timber shelving approximately 400mm wide including wallbands and steel brackets from plastered wall and repair wall faces	m 28
C	Remove existing timber pelmet 22 x 300mm high including brackets from plastered wall and repair wall faces	m 21
D	Take out, remove and store temporarily boardroom table size 1800 x 900mm , and reinstate after completion or hand over to client	No 2
E	Take out, remove and store temporarily dining room chairs, and reinstate after completion or hand over to client	No 12
F	Take out, remove and store temporarily two-seater couch size approximately 1800 x 900mm, including temporary storage, and hand over to client	No 2
G	Take out, remove and store temporarily TV Unit/ Sideboard unit size approximately 1500 x 900mm, including temporary storage, and hand over to client	No 2
H	Take out, remove and store temporarily side table size approximately 900mm diameter, including temporary storage, and hand over to client	No 1
<u>IRONMONGERY</u>		
I	Carefully remove mirror, size 450 x 450mm high from plastered walls, repair finishes	No 3
J	Take off and remove existing glazed soap holders from tiled walls	No 6
K	Take off and remove existing chromium plated toilet roll holders plugged to plastered brick walls	No 3
Carried Forward		R
Section No. 2 Bill No. 1 Renovations Q515B		

Brought Forward			R
<u>METALWORK</u>			
A	Remove existing rubber overmolding from steel handrail approximately 100mm wide and prepare to receive new paint (elsewhere measured)	m	129
<u>PLUMBING AND DRAINAGE</u>			
B	Cut through, take off and remove existing galvanised or copper piping not exceeding 50mm diameter, including fittings and brackets from roof space, plastered walls, etc., cut back and seal off piping into walls and repair finished faces	m	60
C	Cut through, take off and remove existing 40mm PVC piping, including fittings and brackets from plastered walls, and repair finished faces where necessary	m	50
D	Ditto, but for 50mm pipes	m	14
E	Ditto, but for 110mm pipes	m	10
F	Ditto, but for 110mm Bent access pan connector	No	2
G	Take off and remove taps, shower roses, shower gratings, etc. from existing piping	No	1
H	Take off and remove from plastered brick walls existing vitreous china wash hand basin, complete with fittings, taps, traps, pipes (sealed off into walls or floors), etc. and repair finished faces <u>(wash hand basin to be handed back to end user for re-use elsewhere)</u>	No	3
I	Ditto, but existing sink	No	1
J	Take off and remove from plastered brick walls existing vitreous china low-level water closet, complete with cistern, fittings, flush pipe, water pipes (sealed off into walls), etc. and repair finished faces <u>(water closet to be handed back to end user for re-use elsewhere)</u>	No	3
K	Ditto, but existing bath	No	1
Carried Forward			R
Section No. 2 Bill No. 1 Renovations Q515B			

Brought Forward		R
<u>DRAINING AND CLEANING OF WATER TANKS</u>		
A	Drain one half of existing roof water tank by closing inlet and draining water by residents using the water, close outlet when the level is 100mm from the bottom. Drain remainder to stormwater outlet. Clean the inside surface of empty part of the tank, thoroughly hose down with water and brushed until properly cleaned off all dirt and other foreign matter as well as cleaning of the roof. The floor of half of the tank shall then be flooded to a depth of 150 mm with chlorinated water and dosed at the rate of 150 grams of chloride or lime to every cubic meter of water. The entire inside surface shall again be scrubbed using this water. On completion the floor of the tank shall be swept clean. The chlorinated water shall be stored until the free chlorine level has dropped to an acceptable level. Excess dirt swept from the floor into the sump may be discharged subject to written approval being obtained from the Local Authority, entire process to be repeated for other half of tank. Overall tank size approximate 4m x 6m x 2.5m high (each half 4m x 3m x 2.5m high)	Item
<u>TEMPORARY HOARDING</u>		
B	Provide temporary Hoarding internally by means of closing off passages, doorways, etc. with softboard and timber frames, to create working areas	m2 30
<u>SUNDRIES</u>		
C	Allow the amount of R50,000.00 (Fifty Thousand Rand) for repairs to the steel lid of the lift motor room area	Item 50,000.00
D	Profit on above item.	Item
E	Attendance on ditto.	Item
F	Allow the amount of R50,000.00 (Fifty Thousand Rand) for the removal of all detritus material, junk, mesh screen, anchors and plugs from the roof area	Item 50,000.00
G	Profit on above item.	Item
Carried Forward		R
Section No. 2 Bill No. 1 Renovations Q515B		

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	Brought Forward		R
A	Attendance on ditto.	Item	
B	Allow the amount of R20,000.00 (Twenty Thousand Rand) for localised minor repairs to existing balustrading on roof	Item	20,000.00
C	Profit on above item.	Item	
D	Attendance on ditto.	Item	
E	Allow R15,000.00 (Fifteen Thousand Rand) for plumbing repairs (connections and leaks) to vertical stacks	Item	15,000.00
F	Profit on above item.	Item	
G	Attendance on ditto.	Item	
H	Allow R15,000.00 (Fifteen Thousand Rand) for the removal of dead pigeons and pigeon faeces within the roof and ceiling voids	Item	15,000.00
I	Profit on above item.	Item	
J	Attendance on ditto.	Item	
	<u>BUDGETARY ALLOWANCE</u>		
K	Allow R250,000.00 (Two Hundred and Fifty Thousand Rand) for work or cost which cannot be entirely foreseen, defined or detailed at tender stage. This amount shall be used at the discretion of the Quantity Surveyor if required.	Item	250,000.00
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 1			
Renovations			
Q515B			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 2</u></p> <p><u>EARTHWORKS</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of material to be excavated</u></p> <p>Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 2 Earthworks Q515B</p>			

	Brought Forward		R	
	<p><u>Excavation for working space in rock</u></p> <p>Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be</p> <p><u>Filling</u></p> <p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material</p> <p><u>Testing</u></p> <p><i>Prices for filling are to include for all necessary density tests in accordance with SABS 1200D</i></p> <p><u>Subterranean water</u></p> <p>No information regarding subterranean water is available. The tenderer must acquaint himself of the presence and depth of subterranean water and allow therefor in his prices</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p><u>EARTHWORKS</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p><u>EXCAVATION, FILLING, ETC</u></p> <p><u>Excavation in earth or compacted filling not exceeding 2m deep</u></p>			
A	Concrete bases for steel staircase	m3	1	
	Carried Forward		R	
	<p>Section No. 2 Bill No. 2 Earthworks Q515B</p>			

Brought Forward			R
<u>Extra over all excavations for carting away</u>			
A	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	1
<u>Risk of collapse of excavations</u>			
B	Sides of trench and hole excavations not exceeding 1,5m deep	m2	5
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 93% Mod. AASHTO density</u>			
C	Backfilling to trenches, holes, etc	m3	1
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>			

<u>30MPa/19mm concrete</u>			
D	Concrete bases for steel staircase	m3	1
<u>Rough formwork to sides</u>			
E	Concrete bases	m2	2
<u>REINFORCEMENT</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>			

<u>Mild steel rod reinforcement to structural concrete work</u>			
F	8mm Diameter bars	t	0.035
Carried Forward			R
Section No. 2 Bill No. 2 Earthworks Q515B			

Brought Forward				R
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>				
A	10mm Diameter bars	t	0.070	
B	12mm Diameter bars	t	0.105	
C	16mm Diameter bars	t	0.140	
<u>EXTERNAL PLASTER</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i>				

<u>One coat 1:5 cement plaster on brickwork</u>				
D	On concrete bases	m2	5	
<u>PAINTWORK</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>				

<u>Clean down, prepare and apply one coat Plascon Professional Gypsum Plaster Primer (PP700) and apply two coats Plascon Professional Hygiene Low Sheen (PHL)THL paint:</u>				
E	Concrete bases	m2	5	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 2				
Earthworks				
Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 3</u></p> <p><u>CONCRETE FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (C2.1 Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Type of cement</u></p> <p>All cement used in concrete work is to be OPC cement, no cement containing fly ash will be allowed</p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Representative/Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Representative/Agent. (Test cubes are measured separately)</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 3 Concrete, Formwork and Reinforcing Q515B</p>			

Brought Forward		R
<p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p> <p>Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described</p>		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 3 Concrete, Formwork and Reinforcing Q515B</p>		R

Brought Forward									
<p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p>									
<u>REINFORCED CONCRETE</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>									
<hr style="width: 20%; margin: auto;"/>									
<u>25 MPa/19 mm concrete in</u>									
A	Roof slabs cast on permanent Bond-Dek formwork (formwork elsewhere measured)	m3		6					
B	Ring Beams	m3		2					
<u>30 MPa/19 mm concrete in</u>									
C	Ramps	m3		1					
D	Concrete pads cast in openings in brickwork (openings measured elsewhere) for fixing steel staircase structure at intermediate landings (No. 33 size of pads 400 x 230 x 340mm)	m3		1					
E	Concrete pads cast in openings in brickwork (openings measured elsewhere) for fixing steel beam roof structure for watertank (10th storey) (No. 4 size 350 x 230 x 350mm)	m3		1					
<u>TEST BLOCKS</u>									
F	Making and testing set of three 150 x 150 x 150 mm strength test cubes	No		8					
<u>CONCRETE SUNDRIES</u>									
Carried Forward									
<p>Section No. 2 Bill No. 3 Concrete, Formwork and Reinforcing Q515B</p>									

Brought Forward				R
<u>Existing concrete surface beds, slab, etc.</u>				
A	Scrabble existing internal concrete floor surface to expose aggregate to receive new concrete ramp (measured elsewhere)	m2	2	
B	Ditto, but to vertical side of existing concrete step 150mm high	m	2	
C	Scrape open crack in existing concrete slab and remove all debris, fill crack with Sika Injection-201 or similar approved product and prepare surface to receive paint (measured elsewhere)	m	20	
<u>Wet to dry epoxy or similar approved bonding agent</u>				
D	On existing scabbled concrete ramp	m2	2	
E	Ditto, but to vertical side of existing concrete step 150mm high	m	2	
<u>Finishing top surface of concrete smooth with a wood float in</u>				
F	Ramp	m2	2	
G	Roof slabs	m2	44	
<u>FORMWORK</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Rough formwork to sides and soffits</u>				
H	Ring beams	m2	11	
I	Sloping edges, risers, ends and reveals not exceeding 300mm high	m	2	
Carried Forward				R
Section No. 2 Bill No. 3 Concrete, Formwork and Reinforcing Q515B				

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Brought Forward			R
<u>Rough formwork to sides of:</u>			
A	Concrete pads	m2	10
<u>Boxing in rough formwork to form:</u>			
B	Boxing in rough formwork to form 650 x 650mm opening in concrete slabs	m	5
<u>Sundries</u>			
C	Drilling holes 150mm deep in existing concrete slab or step to receive 10mm diameter bars	No	8
D	Y10 dowel bars 150mm long grouted into existing concrete slab	No	4
E	Y10 dowel bars 300mm long, once bent, grouted into existing concrete slab	No	4
<u>Brick wall and concrete pad joint</u>			
F	450mm long Galvanised hoop irons size 38 x 2mm fastened onto concrete pad with and including Hilti nails either side of pad built into brickwork	No	148
<u>Softboard</u>			
G	10mm "Sajex" or other approved cane fibre filler board in expansion joint between brick wall and concrete pads including tacking to face of wall backing cord	m2	13
H	10mm "Sajex" or other approved cane fibre filler board in expansion joint between brick wall and concrete ramp not exceeding 150mm high	m	1
<u>Grey polysulphide sealant, including bond breaker, primer, etc</u>			
I	10mm Wide x 10mm deep in expansion joints	m	1
<u>PERMANENT FORMWORK</u>			
Carried Forward			R
Section No. 2 Bill No. 3 Concrete, Formwork and Reinforcing Q515B			

Brought Forward				R
<u>1.2mm Thick Bond-Dek permanent formwork to soffits of:</u>				
A	Roof slabs not exceeding 250mm thick	m2	44	
<u>Sundries</u>				
B	19mm Thick shear studs, 115mm long, fixed to Bond-Dek slab (slab elsewhere measured)	No	64	
<u>REINFORCEMENT</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				

<u>Mild tensile steel rod reinforcement to structural concrete work</u>				
C	8mm Diameter bars	t	0.06	
<u>High tensile steel rod reinforcement to structural concrete work</u>				
D	10mm Diameter bars	t	0.12	
E	12mm Diameter bars	t	0.86	
F	16mm Diameter bars	t	0.03	
G	20mm Diameter bars	t	0.06	
<u>Fabric reinforcement</u>				
H	Type 311 fabric reinforcement in concrete roof slabs	m2	44	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 3				
Concrete, Formwork and Reinforcing				
Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO. 4</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Wall ties</u></p> <p>Descriptions of solid walls (except if built in English bond) and cavity walls shall be deemed to include metal wall ties complying with SABS 28 and of the butterfly or of the modified PWD type, of the required length with each end built at least 75mm deep into brickwork, spaced at not more than 1m centres alternatively to every third course of brickwork</p> <p><u>Cavity walls etc</u></p> <p>Descriptions of cavity walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 4 Masonry Q515B</p>			

Brought Forward				R
<u>Face bricks</u>				
Bricks shall be ordered timeously to obtain uniformity in size and colour				
<u>Pointing</u>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				

<u>SUPERSTRUCTURE</u>				
<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>				

<u>Brickwork of clay bricks in 6:1 cement mortar</u>				
A	Half brick walls	m2	4	
B	Half brick wall lining to be bonded onto existing brickwork at end including tie-inns every 2nd course	m2	6	
C	Half brick wall lining in patching to be bonded onto existing brickwork at end including tie-inns every 2nd course	m2	60	
<u>BRICKWORK SUNDRIES</u>				
<u>Joints formed of jointex</u>				
D	10mm Jointex in vertical joint built in vertically between brick walls not exceeding 300mm wide	m	20	
<u>Brick reinforcement</u>				
E	75mm Wide reinforcement built in horizontally	m	55	
F	150mm Wide reinforcement built in horizontally	m	20	
Carried Forward				R
Section No. 2 Bill No. 4 Masonry Q515B				

	Brought Forward				R
	<u>Prestressed concrete lintels</u>				
A	115mm Wide lintels in lengths not exceeding 3m	m	10		
	<u>FACE BRICKWORK</u>				
	<u>External facings in approved face bricks (FBX) (allow a PC Amount of R8,500.00 per thousand bricks delivered to site, excluding VAT), face bricks in stretcher bond with well raked and smoothed joints (85mm gauge). Colour and type to Architect's approval</u>				
B	Extra over brickwork for face brickwork in patching (9th storey external facade)	m2	12		
	Carried Forward to Summary of Section No. 2				R
	Section No. 2				
	Bill No. 4				
	Masonry				
	Q515B				

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>RENOVATIONS TO EXISTING PROTEA FLATS</u>			
	<u>BILL NO 5</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</i>			

	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<u>Ensure that surfaces are dry, sound and clean, and apply SikaTop Seal-107 Za or similar approved to plastered surfaces all in strict accordance with manufacturer's instructions</u>			
A	On existing plastered internal walls in patching	m2	280	
B	On newly plastered internal walls in patching	m2	70	
	<u>ABE Flexothane 27 polyurethane sealing compound installed as per manufacturers specifications</u>			
C	Around aluminium windows (external facade)	m	3,626	
	Carried Forward			R
	Section No. 2 Bill No. 5 Waterproofing Q515B			

Brought Forward			R
<u>JOINT SEALANTS, ETC</u>			
A	All joints/surrounds to wash hand basin to be sealed with Sikaflex -11 FC+ (colour white).	m	16
<u>Substrate to be clean, dry and sound, insert a suitable backing rod and insert Sikaflex Pro-3 joint sealants into the joint and ensure it is firmly tooled against the joint sides installed as per manufacturers specifications</u>			
B	To existing concrete roof expansion joints (balcony area and flats roof)	m	219
<u>MOISTURE BARRIER TO FLOOR</u>			
<u>Two coats Vaporite moisture barrier to substrate and allow to dry, evenly apply a slurry coat consisting of equal parts by volume of Bondite Primer and Levelite F30 using a broom or brush and allow to dry, all in accordance with manufacturer's specifications</u>			
C	Floors	m2	202
<u>DAMP-PROOFING OF ROOFS</u>			
<u>One layer dual reinforced Derbigum SP4 torch on waterproofing membrane with glass reinforced. To be installed with a 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls, all in accordance with manufacturer's specifications</u>			
D	On flat concrete roofs to falls	m2	88
E	On flat concrete roofs to falls in patching	m2	105
F	On flat marine ply timber boarded roof	m2	305
G	Vertically to turn-ups (200mm high turn-ups)	m2	66
H	Horizontally top top of upstand beams (350mm girth)	m2	66
Carried Forward			R
Section No. 2 Bill No. 5 Waterproofing Q515B			

	Brought Forward			R
A	Open stormwater channels on roof (500mm girth)	m2	27	
B	To vertical edge of roof (maximum 1000mm girth)	m2	30	
C	Chimney capping	m2	2	
<u>DAMP-PROOFING OF TANKS</u>				
<u>One layer dual reinforced Derbigum SP4 torch on waterproofing membrane with glass reinforced. To be installed with a 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls, all in accordance with manufacturer's specifications</u>				
D	On tank floors	m2	42	
E	On tank walls	m2	80	
<u>BITUMINOUS ALUMINIUM PAINT ON WATERPROOFING</u>				
<u>Prepare and apply two coats bitumous aluminium paint, all in accordance with manufacturer's specifications</u>				
F	On new waterproofing	m2	662	
G	On new waterproofing to channels	m2	27	
<u>Clean down existing waterproofing, prepare and apply two coats bitumous aluminium paint, all in accordance with manufacturer's specifications</u>				
H	On existing waterproofing	m2	195	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 5				
Waterproofing				
Q515B				

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>RENOVATIONS TO EXISTING PROTEA FLATS</u>			
	<u>BILL NO 6</u>			
	<u>ROOF COVERINGS, ETC</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 124 for JBCC CPAP purposes</i>			
	<u>RAINWATER DISPOSAL</u>			
	<u>Seamless Aluminium guttering secured to fibre cement fascia board with 20 x 3mm dual purpose brackets at 600mm centres using gutter bolts, including a 50 x 20mm high overflow spiggot, including expanded aluminium mesh leaf guard set over gutter with 100 x 75 Industrial aluminium downpipe (elsewhere measured) installed strictly according to manufacturer's specifications</u>			
A	150 x 150mm Eaves gutters to falls, with front edge, on and including 25.8 x 2.38mm aluminium gutter brackets fixed to fascia at 500mm centres and gutter pop-riveted to front of bracket	m	24	
B	Extra over eaves gutter for outlet with nozzle for 100 x 75mm pipe	No	3	
	Carried Forward			R
	Section No. 2 Bill No. 6 Roof covering Q515B			

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Brought Forward		R
A	100 x 75 mm Rainwater downpipes, fixed to walls, straps at 1500mm centres using nail plugs, with downpipes riveted and silicon sealed to gutter outlets	7
B	Extra over for shoe	3
<u>Cast Iron rainwater downpipe</u>		
C	160mm Cast iron rainwater downpipe fixed to brick walls (10 storeys)	33
D	160mm Cast iron bend	2
E	160mm Cast iron junctions	8
<u>Fullbores</u>		
F	100mm Diameter Saint Gobain fullbore side outlet (Code 3585)	10
<u>BUDGETARY ALLOWANCE</u>		
G	Allow R100,000.00 (One Hundred Thousand Rand) for work or cost which cannot be entirely foreseen, defined or detailed at tender stage. This amount shall be used at the discretion of the Quantity Surveyor if required.	Item
		100,000.00
Carried Forward to Summary of Section No. 2		
Section No. 2		R
Bill No. 6		
Roof covering		
Q515B		

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 7</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screws sunk and pelleted</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 7 Carpentry and Joinery Q515B</p>			

	Brought Forward			R
	<p>The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted</p> <p>Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing</p> <p>Descriptions of floors, ceilings, joinery, etc shall be deemed to include for all square cutting</p> <p>Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc shall be deemed to include for angles, ends, etc</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 126 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p><u>EAVES, VERGES, ETC</u></p> <p><u>Pressed fibre cement</u></p>			
A	<p>15 x 225mm Nutec Fascia board bolted to steel purlins (elsewhere) with corrosion proof gutter bolts at maximum 1000mm centres butt jointed with and including standard fascia jointing plates at all joints</p>	m	84	
	<p><u>ROOFS, ETC</u></p> <p><u>Stocklam Grade 7 timber beams, etc.</u></p>			
B	<p>100 x 400mm Timber beam</p>	m	69	
	Carried Forward			R
	<p>Section No. 2 Bill No. 7 Carpentry and Joinery Q515B</p>			

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Brought Forward			R
A	225 x 76mm Timber beams, including 175 x 76mm joists	m	190
B	76 x 50mm Timber upstand to edge of roof	m	20
<u>Marine plywood boards to be installed as timber decking roof sheeting</u>			
C	18mm Thick boards fixed to timber beams (elsewhere measured)	m2	625
D	21mm Thick boards fixed to timber beams (elsewhere measured)	m2	58
<u>DOOR FRAMES, ETC FIXED TO BRICKWORK OR PARTITIONING WALLS</u>			
<u>Wrought Meranti</u>			
E	44 x 12mm Architrave	m	30
F	114 x 32mm Rebated door frame including 69 x 12mm beading	m	15
G	90 x 44mm Rebated door frame	m	15
<u>PELMET</u>			
H	22 x 350mm Solid SA Pine pelmet fixed to wall above and adjacent to window	m	3
<u>SKIRTINGS</u>			
I	22 x 69mm Standard SA Pine skirting plugged	m	176
J	13 x 69mm Hardwood skirting plugged including 19 x 19mm hardwood quadrant	m	31
<u>DOORS, ETC</u>			
Carried Forward			R
Section No. 2 Bill No. 7 Carpentry and Joinery Q515B			

Brought Forward				R
<u>Solid heavy duty laminated flush door with Hardboard on both sides (with concealed edges)</u>				
A	40mm Door 813 x 2047mm high	No	3	
<u>Sundries:</u>				
<u>Class B Rocklite fire doors with Cromadeck clad on both sides and Chromadeck channel surround</u>				
B	46mm Thick Single Door size 813 x 2032mm high with 120 minute fire rating	No	11	
<u>Class B Rocklite fire doors with commercial veneer clad on both sides and chromadeck channel surround</u>				
C	46mm Thick Double door size 1290 x 2032mm high in two unequal leaves with 120 minute fire rating	No	9	
<u>Extra for openings in doors and commercial veneer cladding for aluminium viewpanels (viewpanels elsewhere measured)</u>				
D	Extra for 100 x 300mm opening for aluminium framed glazed or louvred panel (elsewhere)	No	9	
<u>COUNTERS, CUPBOARD AND WORK TOPS</u>				
<u>FLOOR CUPBOARD</u>				
<u>All internal shelves to be 16mm Melamine faced board, fixed into position. Exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving). All doors and casework to be 16mm thickness.</u>				
<u>Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.</u>				
<u>All Doors to be 16mm Melamine faced board edged on all sides with 2mm high impact edging. (Colour: to match door face). All doors to be hung on 32mm continuous piano hinge (yellow zink passivated</u>				
Carried Forward				R
Section No. 2 Bill No. 7 Carpentry and Joinery Q515B				

<p style="text-align: right;">Brought Forward</p> <p><u>finish), full length of door.</u></p> <p><u>All casework and drawer fronts to be 16mm Melamine faced board with 2mm high impact edging to all exposed edges.</u></p> <p><u>All cupboards to be lockable with UNION 452-25PL (brass cylinder cupboard locks or similar approved.</u></p> <p><u>All drawers to be fitted with UTA 45mm full extension ball bearings slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.</u></p> <p><u>Backing board to units with open shelving to be 16mm Melamine faced board to match shelving colour</u></p> <p><u>Backing board to units with closable cupboards to be 3.5mm white faced hardboard</u></p> <p><u>Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.</u></p> <p><u>All handles to be Raiel Milano grip flat handles in Matt Chrome.</u></p> <p><u>All bases to be solid SA Pine, treated for moisture resistance prior to fixing with intermediary studs at max 450ccs. Bases to be painted 1 coat Plascon pink wood primer (UC2) prior to installation.</u></p> <p><u>Kickplates to be 97 x 2mm Aluminium flat bar (raw finish) glued to timber base backing.</u></p> <p><u>All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. All exposed edges to be finished with POST FORMED END TRIM in colour to be confirmed. All junctions in tops to be flush jointed (no steel joiner strips to be used)</u></p> <p><u>All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square/ rectangular / circular and to be closed up neatly with 4mm white faced Masonite board cut to square around penetration.</u></p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 7 Carpentry and Joinery Q515B</p>		R	

Brought Forward				R
<p><u>All junctions between unit and wall to be closed with appropriate continuous spacers – NO POSTFORM JOINERS MAY BE USED -No gaps / holes</u></p> <p><u>Seal between all worktops, sanitary ware, tiling and wall with SIKAFLEX FC – 11 (for sanitary ware and/or wet areas) and SIKASIL –C everywhere else.</u></p> <p><u>Purpose made</u></p>				
A	883 x 260 x 2100mm High floor cupboard, comprising bottom panel, side panel, four fixed shelves and top panel from 16mm Melamine faced board with 2mm PVC high impact edging on 100 x 22mm solid SA pine base, sealed all around with SikaSII-C, all in accordance with <u>Drawing 305-019-JDT-001</u>	No	1	
B	Unit consisting of two 450 x 416 x 2650mm High floor cupboards, comprising bottom panel, side panel, five fixed shelves, door and top panel and 1535 x 420 x 900mm High drawer cupboard, comprising bottom panel, side panel, twelve drawers and worktop, all from 16mm Melamine faced board with 2mm PVC high impact edging on 100 x 22mm solid SA pine base, sealed all around with SikaSII-C, all in accordance with <u>Drawings 305-01-9-JDT-002 & 002a</u>	No	1	
C	Unit consisting of 4570 x 600 x 900mm High floor corner cupboard, comprising bottom panel, side panel, fixed shelves, two single doors, two double doors and worktop and 1350 x 316 x 700mm High wall cupboard, comprising bottom panel, side panel, fixed shelves to centre panel, two single doors, and top panel, all from 16mm Melamine faced board with 2mm PVC high impact edging on 100 x 22mm solid SA pine base, sealed all around with Sikaflex FC-11, all in accordance with <u>Drawings 305-019-JDT-003 & 003a</u>	No	1	
Carried Forward				R
Section No. 2 Bill No. 7 Carpentry and Joinery Q515B				

Brought Forward							
A	1812 x 366 x 2650mm High double floor cupboard, comprising bottom panel, side panel, dividing panel, four fixed shelves and double door per cupboard and top panel from 16mm Melamine faced board with 2mm PVC high impact edging on 100 x 22mm solid SA pine base, sealed all around with SikaSII-C, all in accordance with <u>Drawing 305-019-JDT-004</u>	No	1				
B	2412 x 375 x 2312mm High double shelving cupboard, comprising bottom panel, side panel, divider panel, ten fixed shelves per cupboard and top panel from 16mm Melamine faced board with 2mm PVC high impact edging on 100 x 22mm solid SA pine base, sealed all around with SikaSII-C, all in accordance with <u>Drawing 305-019- JDT-106</u>	No	1				
C	250 x 200 x 2300mm High timber pipe duct enclosure, comprising side panel and face from 16mm Melamine faced board with 2mm PVC high impact edging, fixed to 38 x 38mm solid SA pine supports fixed to wall, sealed all around with SikaSII-C, all in accordance with <u>Drawing 305-019-JDT-107</u>	No	1				
<u>Desks</u>							
D	Reception desk overall size 2600mm x 848mm wide complete (All in accordance with <u>Drawings 305-019-JDT-105, 105a & 105b</u>)	No	1				
Carried Forward to Summary of Section No. 2							R
Section No. 2 Bill No. 7 Carpentry and Joinery Q515B							

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 8</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 129 for JBCC CPAP purposes</i></p> <p><u>INSULATION</u></p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 8 Ceilings, Partitioning and Access Flooring Q515B</p>			

Brought Forward							
	<u>135mm Thick Isover Aerolite flexible non-combustible lightweight fibre Glasswool thermal ceiling insulation (nominal density 12kg/m3) closely fitted with ends butted firmly between tie beams and laid loose on top of branding between roof timbers. All strictly to manufacturer's specifications</u>						
A	Ceiling insulation		m2				
	<u>SUSPENDED CEILINGS</u>						
	<u>Note:</u>						
	Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility inseting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)						
	<u>SUSPENDED SKIMMED BULKHEADS</u>						
	<u>Gyproc Rhinoboard plasterboard ceiling 6.4mm consisting of steel branders fixed at 400mm centers in one direction onto which Rhinoboard is fixed, printed side up, at right angles to the roof structure. All joints to be covered with Gyproc Rhino tape and then plasterd with a 3-6mm coat of Gyproc Rhinolite or Gyproc cretestone plaster applied as per manufacturer instructions complete with SABISA certificate</u>						
B	Soffits of bulkheads, suspending not exceeding 1m below timber trusses / purlins		m2				
C	Sides of bulkheads 150mm high, suspending not exceeding 1m below timber trusses / purlins		m				
D	Standard Donn corner bead to external corners		m				
	<u>SUSPENDED SKIMMED CEILINGS</u>						
	Carried Forward						R
	Section No. 2 Bill No. 8 Ceilings, Partitioning and Access Flooring Q515B						R

Brought Forward							
	<u>Gyproc Rhinoboard plasterboard ceiling 6.4mm fixed to 38 x 38 timber branderling (measured elsewhere) at 400mm centers in one direction onto which Rhinoboard is fixed, printed side up, at right angles to the roof structure. All joints to be covered with Gyproc Rhino tape and then plasterd with a 3-6mm coat of Gyproc Rhinolite or Gyproc cretestone plaster applied as per manufacturer instructions complete with SABISA certificate</u>						
A	Plasterboard skimmed ceilings	m2					
	<u>CEILINGS TO EAVES OVERHANGS</u>						
	<u>12mm Thick Nutec screw-up fiber cement ceiling to eaves overhang complete with H-profile PVC joining strips fixed to 25 x 38mm SA Pine branderling (elsewhere measured) fixed to timber purlins. Install all strictly to manufacturer's specifications. Colour to Architect's approval.</u>						
B	Fibre cement ceilings	m2					
	<u>NAILED UP CEILINGS</u>						
	<u>SA Pine branderling fixed to timber purlins</u>						
C	25 x 38mm SA Pine branderling	m2					
D	38 x 38mm SA Pine branderling	m2					
	<u>CORNICES</u>						
E	20 x 15mm Shadowline plaster trim cornices, plugged.	m					
	<u>PARTITIONING SYSTEMS</u>						
	<i>NOTE: The following items shall be deemed to fall into Work Group No 138 for JBCC CPAP purposes</i>						
Carried Forward							R
Section No. 2 Bill No. 8 Ceilings, Partitioning and Access Flooring Q515B							

Brought Forward		R
<p><u>Drywall gypsum board partition systems</u></p> <p>Drywall partitioning shall comprise galvanised steel top and bottom tracks and natural anodised aluminium head channel, vertical studs at maximum 600mm centres, friction fitted or pop-riveted to top and bottom tracks with 0,6mm galvanised steel sheeting on one side and covered on both sides with 12,5mm gypsum plasterboard, screwed to studding with 25mm Drywall screws at maximum 220mm centres</p> <p>Boards are to have staggered butt joints and the joints are to be finished with 48mm wide tape and two coats jointing compound applied in strict accordance with the manufacturer's instructions</p> <p>All screw heads are to be spotted and all areas of jointing compound shall receive one coat plaster primer before finishing</p> <p>Finishes to partitioning are measured elsewhere</p> <p>Partitions are to be constructed of Gypsum plasterboard fixed to steel framing as per Rhino Drywall System 3, using 2 layer plasterboard to each side of studding. All studding, fixing and boarding to be in accordance with the manufacturer's instructions as detailed. It is essential that suitable 230 x 50mm SA Pine framing pieces be fixed between studs where required for the fixing of sanitary fittings etc.</p> <p>All services are to be fitted inside the partitions before the cladding to the second face is fitted in position. Showers and any other wet work areas to be covered with moisture resistant boards and fire walls to be covered with Rhino fire stop boards. Allowance to be made for additional timber for fixing of services inside and outside of partitions</p> <p><u>Gyprox X Roc" Drywall steel stud partitioning</u></p>		
Carried Forward		R
<p>Section No. 2 Bill No. 8 Ceilings, Partitioning and Access Flooring Q515B</p>		

Brought Forward			R
<p><u>Gypwall Firestop drywall, consisting of 2 layers Gyproc Firestop fixed to both sides of the framework using sharp point screws 3.5mm diameter x 25mm (for base layer) and 3.5mm diameter x 42mm (for face layer) at maximum 220mm centres. Base layer of 15mm Gyproc Firestop and Face layer of 12.5mm Gyproc Firestop. All joints to be staggered on framework of Donn Ultrasteel studs 63.4mm x 35mm friction fitted into top and bottom Donn Ultrasteel track 63.5mm x 25mm at 600mm centres. Apply Gyproc Rhinotape to all joints and Donn corner bead to all external corners. Install Isover Cavitybatt 63mm thick, in cavity. Apply two coats of RhinoGlide jointing compound to all joints, angles and accessories. Skim the entire surface using one layer of Gyproc RhinoLite. All in accordance to the manufacturer's recommendations and Architects approval.</u></p>			
A	Drywall 2600mm high	m	54
B	Extra over partition 2600mm high for vertical abutment	No	18
<u>Doors</u>			
C	Extra over partition for forming opening for double door size 1290 x 2032mm high including additional framing, etc (door, door frame, ironmongery, etc measured elsewhere)	No	9
<u>FIRE BLANKET</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 129 for JBCC CPAP purposes</i>			
<u>Install fire blanket with minimum weight of 430gr/m2 and 0.96kg, maximum temperature 550°C</u>			
D	Fire blanket size 1200 x 1200mm	No	1
Carried Forward to Summary of Section No. 2			R
Section No. 2 Bill No. 8 Ceilings, Partitioning and Access Flooring Q515B			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 9</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 130 for JBCC CPAP purposes</i></p> <p><u>VINYL SHEETING</u></p> <p><u>Polyflor Forest PuR or equal approved heterogeneous heavy commercial vinyl floor sheeting 2,0mm thick, laid in acrylic adhesive spread with a notched trowel, joints welded with a fully flexible coloured Polyflor Welding Rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, on well prepared cement screed (elsewhere) to match required level with a hygrometer reading showing a moisture content of less than 70% – all installed strictly to manufacturers specifications (Polyflor 011-609 3500) – Sheet and welding rod colours to Architects approval.</u></p>			
A	Seamless vinyl floor sheets on floors	m2	90	
	Carried Forward			R
	<p>Section No. 2 Bill No. 9 Floorcovering Q515B</p>			

Brought Forward			R
	<u>Polyflor Palettone PuR or equal approved life long polish free homogeneous vinyl floor sheeting 2,0mm thick, laid in acrylic adhesive spread with a notched trowel, joints welded with a fully flexible coloured Polyflor Welding Rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, on well prepared cement screed (elsewhere) to match required level with a hygrometer reading showing a moisture content of less than 70% – all installed strictly to manufacturers specifications (Polyflor 011-609 3500) – Sheet and welding rod colours to Architects approval.</u>		
A	Seamless vinyl floor sheets on floors	m2	104
	<u>Polyflor Quattro PuR or equal approved vinyl floor sheeting 2,0mm thick, laid in acrylic adhesive spread with a notched trowel, joints welded with a fully flexible coloured Polyflor Welding Rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, on well prepared cement screed (elsewhere) to match required level with a hygrometer reading showing a moisture content of less than 70% – all installed strictly to manufacturers specifications (Polyflor 011-609 3500) – Sheet and welding rod colours to Architects approval.</u>		
B	Seamless vinyl safety floor sheets on floors	m2	8
<u>SKIRTINGS, NOSINGS, ETC</u>			
<u>Vinyl covered skirting fixed with and including adhesive</u>			
C	Polyflor MC210C 50 x 100mm set in coved skirting over 20 x 20mm cove former (elsewhere measured)	m	14
D	"Polyflor Polycove CF 20" cove former, size 20mm high x 20mm wide	m	14
E	Sika Sikacryl-S to seal top edge of skirting	m	14
<u>SEALERS</u>			
Carried Forward			R
Section No. 2 Bill No. 9 Floorcovering Q515B			

	Brought Forward				
A	<p style="margin: 0;"><u>Two coats floor dressing as recommended by the manufacturer of the floor coverings on vinyl flooring (stripping and sealing)</u></p> <p style="margin: 0;">On floors</p>	m2	202	R	
	<p>Carried Forward to Summary of Section No. 2</p> <p>Section No. 2 Bill No. 9 Floorcovering Q515B</p>			R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 10</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 132 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>IRONMONGERY TO DOORS</u></p> <p><u>All locks to be on a master and grand master key system - 2 keys to be provided for each lock</u></p> <p><u>The following ironmongery are measured according to the type (combination) to be used as per Dormakaba - all in accordance with schedule 305-019-Dorma 001 annexed at the back of the Bills of Quantities</u></p> <p><u>The following in Hardware set 01</u></p>			
A	Stainless steel 120 x 40mm rectangular flush pull handle (Code: DFP-SS-025)	No	4	
B	Stainless steel narrow stile cylinder escutcheon (Code: DCE-105 S.S)	No	2	
	Carried Forward			R
	<p>Section No. 2 Bill No. 10 Ironmongery Q515B</p>			

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Brought Forward			R
A	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
B	Stainless steel narrow stile hook lock operating with Euro-profile cylinder, 174 x 45mm case, 290 x 22mm forend, 35mm backset and 18mm throw (Code: D02935 SS)	No	1
<u>The following in Hardware set 02</u>			
C	Powder coated 100 x 44mm sinkless aluminium hinge, centre pin with standard alignment grooving (Code: 1040)	No	3
D	Stainless steel cylinder deadlock, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset (Code: D037D SS)	No	1
E	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
F	Standard stainless 400 x 30mm heavy duty offset pull handle BTB (Code: DPH206 BTB)	No	2
G	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	1
H	Silver mechanical hold open Cam action slide channel door closer with EN 3 closing force and compliant with EN 1154 (Code TS91B HO - SL)	No	1
I	Stainless steel round cylinder escutcheon (Code: DCE-002 S.S)	No	2
<u>The following in Hardware set 03</u>			
J	Stainless steel 102 x 75 x 3mm double ball bearing butt hinge (Code: DBB-SS-009)	No	2
K	Stainless steel cylinder deadlock, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset (Code: D037D SS)	No	1
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

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Brought Forward			R
A	Satin nickel 40.5mm Euro-profile E-SP 5 pin single cylinder (Code: DSC204101 MK)	No	1
B	Stainless steel round cylinder escutcheon (Code: DCE-002 S.S)	No	1
C	Stainless steel 120 x 40mm rectangular flush pull handle (Code: DFP-SS-025)	No	1
D	Stainless steel adjustable roller bolt (Code: DBC-SS-022)	No	1
<u>The following in Hardware set 04</u>			
E	Powder coated 100 x 44mm sinkless aluminium hinge, centre pin with standard alignment grooving (Code: 1040)	No	3
F	Stainless steel cylinder sash, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset with 61mm centres (Code: D036S SS)	No	1
G	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
H	Stainless steel lever handle on rose with cylinder escutcheons (Code: TH120 Cyl S.S)	No	2
I	Stainless steel wall door stop (Code: DDH-SS-020)	No	1
<u>The following in Hardware set 05</u>			
J	Stainless steel 102 x 75 x 3mm double ball bearing butt hinge (Code: DBB-SS-009)	No	3
K	Stainless steel bathroom sash lock, 102 x 78mm case, 155 x 22mm forend and 57mm backset with 57mm centres (Code: D036S SS)	No	1
L	Stainless steel lever handle on 170 x 170mm plate with bathroom/WC furniture RH (Code: TH120 BP WC RH S.S)	No	2
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

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Brought Forward			R
A	Stainless steel hat and coat hook (Code: DHC-SS-030A)	No	1
B	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	2
<u>The following in Hardware set 06</u>			
C	Stainless steel 102 x 75 x 3mm double ball bearing butt hinge (Code: DBB-SS-009)	No	3
D	Stainless steel cylinder sash, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset with 61mm centres (Code: D036S SS)	No	1
E	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
F	Stainless steel lever handle on 170 x 170mm plate with cylinder cut out (Code: TH120 BP Cyl S.S)	No	2
G	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	1
<u>The following in Hardware set 07</u>			
H	Powder coated 100 x 44mm sinkless aluminium hinge, centre pin with standard alignment grooving (Code: 1040)	No	3
I	Stainless steel cylinder sash, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset with 61mm centres (Code: D036S SS)	No	1
J	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
K	Stainless steel lever handle on rose with cylinder escutcheons (Code: TH120 Cyl S.S)	No	2
L	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	1
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

Brought Forward			R
<u>The following in Hardware set 08</u>			
A	Anodised 100mm sinkless aluminium hinge, centre pin (Code: 2040)	No	6
B	Silver parallel arm hold open EN 3-6 with adjustable strength and hydrolic speed control, tested to EN 1154 (Code TS83 PA HO)	No	1
C	Standard stainless 400 x 30mm heavy duty offset pull handle BTB (Code: DPH206 BTB)	No	2
D	Stainless steel wall door stop (Code: DDH-SS-020)	No	2
E	Anodized aluminium single magnetic lock with 600lbs holding force	No	1
F	Anodized aluminium L-bracket for 600lbs maglock	No	1
G	Access control by specialist consisting of 1 x biometric/card reader, 1 x 1-button intercom, 1 x touch free door release, 1 x emergency break glass unit and 1 x wall mounted audio only handset	No	1
H	Stainless steel cylinder deadlock, 116.5 x 78mm case, 168 x 22mm forend and 57mm backset (Code: D037D SS)	No	1
I	Stainless steel round cylinder escutcheon (Code: DCE-002 S.S)	No	1
J	Satin nickel 63mm Euro-profile E-SP 5 pin double cylinder (Code: DDC206301 MK)	No	1
<u>The following in Hardware set 09 to fire doors</u>			
K	Silver parallel arm non hold open EN 3-6 door closer with adjustable strength and hydrolic speed control, tested to EN 1154 and approved to AS1905 Part 1 Fire Resistant Doors, fixed with M5 fixing screws (Code: TS83 PA)	No	11
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

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Brought Forward			R
A	60 x 245 x 1.6mm Thick grade 304 stainless steel fixing plate with pre drilled holes and 4 x M5 screws (Code: TS83-SS-FP)	No	11
B	Two point locking panic bar for single door leaf (2201. 2104. PHX02. PHX04) (Code: PHA2 S SD)	No	11
<u>The following in Hardware set 10 to fire doors</u>			
C	Silver electro mechanical hold open co-ordinated door closer system for rebated doors between 1220 and 1350mm wide with EN 3 closing force, hydraulic speed control and compliant with EN 1154. Door co-ordinators tested to EN 1158 and door closer CERTI FIRE approved and fixed with M5 fixing screws (Code TS91B G-SR EMF 1 VK)	No	18
D	220 x 400 x 1.2mm Thick stainless steel plate with 8mm pre drilled holes and 5mm radius fillet to all corners, fixed to door with 4 x M4 patent male/female fixing screws (Code: TS91 EN3 FP)	No	18
E	Brushed stainless steel pull handle on 170 x 170 x1.2mm thick grade 430 stainless steel plate with cylinder cut out left, plate to have 4 x countersunk holes for screw fixing (Code: DHP-430-CL-SF 170X170)	No	9
F	Brushed stainless steel pull handle on 170 x 170 x1.2mm thick grade 430 stainless steel plate with cylinder cut out right, plate to have 4 x countersunk holes for screw fixing (Code: DHP-430-CR-SF 170X170)	No	9
G	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	9
<u>The following in Hardware set 11</u>			
H	Stainless steel 102 x 75 x 3mm double ball bearing butt hinge (Code: DBB-SS-009)	No	3
I	Stainless steel bathroom sash lock, 102 x 78mm case, 155 x 22mm forend and 57mm backset with 57mm centres (Code: D036S SS)	No	1
Carried Forward			R
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Brought Forward			R
A	Stainless steel lever handle on 170 x 170mm plate with bathroom/WC furniture RH (Code: TH120 BP WC RH S.S)	No	2
B	Stainless steel hat and coat hook (Code: DHC-SS-030A)	No	1
C	Stainless steel floor mounted door stop (Code: DDS-SS-017)	No	1
D	150 x 150mm Stainless steel male/female sign (Code: DSS-132 MF)	No	1
<u>BATHROOM FITTINGS</u>			
E	Kimberly Clark Professional REFLEX rolled towel dispenser (code: 426125) in stainless steel, 395 x 330 x 270mm high.	No	2
F	Kimberly Clark Professional stainless-steel disposer (code: 426135), 390 x 350 x 285mm high.	No	2
G	Kimberly Clark Professional MR2 bath tissue dispenser in stainless steel (code: 426130), 270 x 145 x 140mm high).	No	2
<u>PINNING BOARDS</u>			
<u>Vitrex System 2300 (011 826 6549) or equally approved pin boards with "Flortime Premier" carpet to pinning board</u>			
H	Standard 1500mm x 1000mm pin board all installed strictly to manufacturer's specifications, plugged	No	7
<u>WRITING BOARDS</u>			
<u>Vitrex System 2200 (011 826 6549) or equally approved white boards</u>			
I	White writing board 1500 x 1000mm high installed strictly to manufacturer's specifications	No	7
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

Brought Forward			R
<u>BLINDS</u>			
<u>Block out roller blinds complete with tracks, pelmets and working mechanisms. Size of blinds to be measured to fit within the window reveal and fixed to underside of lintel. Controlled by hand operated lift and tilt cords. Installed strictly to manufacturer's specification and colour and sample to be pre-approved by Architect</u>			
A	Blind size 700 x 1150mm high	No	3
B	Blind size 1100 x 1150mm high	No	3
C	Blind size 690 x 2450mm high	No	1
D	Blind size 2100 x 1150mm high	No	3
E	Blind size 1560 x 2450mm high	No	1
F	Blind size 3232 x 2450mm high	No	1
G	Blind size 3555 x 2450mm high	No	1
H	Blind size 4490 x 2450mm high	No	1
I	Blind size 6840 x 2450mm high	No	1
<u>LETTERS, NAMEPLATES, ETC</u>			
<u>FIRE SIGNAGE</u>			
<u>Photo luminescent sign with white background and red pictogrammes. Sign to be mounted to walls or doors. Pictogrammes to be cased as indicated as follow:</u>			
J	600 x 150mm Sign plate with Pictogram Type F1	No	2
K	300 x 150mm Sign plate with Pictogram Type F13	No	2
L	300 x 150mm Sign plate with Pictogram Type F19	No	1
Carried Forward			R
Section No. 2 Bill No. 10 Ironmongery Q515B			

Brought Forward				R
A	300 x 150mm Sign plate with Pictogram Type F28 <u>Photo luminescent sign with white background and black lettering. Sign to be mounted to walls or doors. Pictogrammes to be cased as indicated as follow:</u>	No	1	
B	150 x 150mm Sign plate with Pictogram Type E15 <u>WAY FINDING / DIRECTIONAL SIGNAGE</u> <u>4mm Thick aluminium composite board with vinyl sticker. Board to be wall mounted (Way finding signage).</u>	No	1	
C	800 x 300mm Sign with vinyl sticker <u>Green backing plate, with white pictogrammes. Engraving to be filled in, coloured white. Plate to be wall mounted (Fire escape directional signage).</u>	No	2	
D	300 x 150mm Sign plate with Pictogram Type E2	No	2	
E	300 x 150mm Sign plate with Pictogram Type E3	No	3	
F	450 x 150mm Sign plate with Pictogram Type E19 <u>Green backing plate, with white pictogrammes. Engraving to be filled in, coloured white. Plate to be suspended from ceiling (Fire escape directional signage).</u>	No	1	
G	300 x 150mm Sign plate with Pictogram Type E1 on either side	No	2	
H	300 x 150mm Sign plate with Pictogram Type E3 on either side	No	2	
I	450 x 150mm Sign plate with Pictogram Type E18 on either side	No	1	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 10				
Ironmongery				
Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 11</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><i>NOTE:</i> <i>The following items shall be deemed to fall into Work Group No 134 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>WORKSHOP DRAWINGS</u></p> <p>A Preparation of workshop drawings for steel fire escape staircase for approval by Principal Agent before manufacturing</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 11 Structural Steel Q515B</p>			

**Upgrading of security infrastructure
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Brought Forward				R
A	Preparation of workshop drawings for steel trusses for approval by Principal Agent before manufacturing	Item		
B	Preparation of workshop drawings for access panels and cat ladders for approval by Principal Agent before manufacturing	Item		
<u>STEEL FIRE ESCAPE STAIRCASE FOR 10 STOREY BUILDING ERECTED ON OUTSIDE OF BUILDING ALL IN ACCORDANCE WITH DRAWING J117-S10 REV A AND DRAWING 305-019-DET-002 ANNEXED TO BACK OF BILLS OF QUANTITIES</u>				
<u>The following in welded and bolted galvanised steel columns, beams, stringers etc. (Steel grade S335JR)</u>				
C	200 x 75mm Parallel flange channel	t	9.308	
D	120 x 120 x 4mm Square hollow section column	t	2.048	
E	100 x 50 x 6mm Channel	t	1.652	
F	80 x 80 x 8mm Angle section	t	1.772	
G	Galvanized angle and flat sections in connections, brackets, etc.	t	0.596	
<u>Sundries</u>				
H	240 x 240 x 10mm Thick galvanised base plate	No	2	
I	380 x 240 x 10mm Thick galvanised base plate	No	2	
J	240 x 240 x 20mm Thick non-shrink grout between concrete and underside of base plate	No	2	
K	380 x 240 x 20mm Thick non-shrink grout between concrete and underside of base plate	No	2	
Carried Forward				R
Section No. 2 Bill No. 11 Structural Steel Q515B				

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Brought Forward				R
<u>Galvanised Nuts and bolts, etc.</u>				
A	M16 Grade 8.8 bolts	No	1,696	
B	M16 Chemical anchors 120mm long	No	8	
C	M20 Chemical anchors 120mm long	No	8	
<u>Landings</u>				
D	RS40 galvanised Rectagrid landings each size approximately 2600 x 1105mm wide welded and bolted to steel structure (In no. 11)	m2	32	
E	RS40 galvanised Rectagrid landings each size approximately 1880 x 1250mm wide welded and bolted to steel structure (In no. 11)	m2	26	
F	RS40 galvanised Rectagrid landings each size approximately 2000 x 1250mm wide welded and bolted to steel structure (In no. 10)	m2	15	
<u>Treads</u>				
G	RS40 galvanised Rectagrid treads, each tread approximately 1250 x 300mm wide welded and bolted to steel structure (In no. 176)	m2	67	
<u>HANDRAILS, BALUSTRADING, TO STEEL FIRE ESCAPE STAIRCASE</u>				
Carried Forward				R
Section No. 2 Bill No. 11 Structural Steel Q515B				

	Brought Forward					
	<p><u>Galvanised mild steel balustrade and handrail overall height 979mm high, consisting of 2 no. equal sections approximately 1414mm wide. Balustrade frame to be formed from 50 x 50mm steel angle consisting of a top rail, bottom rail and vertical sides, bolted to top of steel stair stringer (elsewhere measured), including high density galvanised mesh fencing infill panels, with apertures size 76 x 25mm approximate panel size 1400 x 900mm high, fixed to frame, including handrail consisting of 60 x 10mm thick flat steel bar and 2 no. 50 x 25 x 5mm unequal angles welded with short leg to u/s of handrail and top of balustrade frame. Bolt through angle to fix balustrade to handrail, including 60 x 10mm thick flat bar bolted between handrail at each landing. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u></p>				R	
A	Raking balustrade and handrail fixed to steel stairs	No	33			
	Carried Forward				R	
	Section No. 2 Bill No. 11 Structural Steel Q515B					

	Brought Forward						
	<p><u>Galvanised mild steel balustrade and handrail overall height 979mm high, approximately 1380mm wide. Balustrade frame to be formed from 50 x 50mm steel angle consisting of a top rail, bottom rail and vertical sides, bolted to top of steel stair stringer (elsewhere measured), including high density galvanised mesh fencing infill panels, with apertures size 76 x 25mm approximate panel size 1380 x 900mm high, fixed to frame, including handrail consisting of 60 x 10mm thick flat steel bar and 2 no. 50 x 25 x 5mm unequal angles welded with short leg to u/s of handrail and top of balustrade frame. Bolt through angle to fix balustrade to handrail, including 60 x 10mm thick flat bar bolted between handrail at each landing. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u></p>					R	
A	Horizontal balustrade and handrail fixed to intermediate landings	No	11				
	Carried Forward					R	
	Section No. 2 Bill No. 11 Structural Steel Q515B						

Brought Forward							
<p><u>Galvanised mild steel balustrade and handrail overall height 979mm high, approximately 1880mm wide. Balustrade frame to be formed from 50 x 50mm steel angle consisting of a top rail, bottom rail and vertical sides, bolted to top of steel stair stringer (elsewhere measured), including high density galvanised mesh fencing infill panels, with apertures size 76 x 25mm approximate panel size 1880 x 900mm high, fixed to frame, including handrail consisting of 60 x 10mm thick flat steel bar and 2 no. 50 x 25 x 5mm unequal angles welded with short leg to u/s of handrail and top of balustrade frame. Bolt through angle to fix balustrade to handrail, including 60 x 10mm thick flat bar bolted between handrail at each landing. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u></p>							R
A	Horizontal balustrade and handrail fixed to floor level landings	No		11			
<p><u>Galvanised mild steel handrail with overall height 100mm high. Handrail consisting of 60 x 10mm thick flat steel bar, including an 8mm flat bar with a 50mm upstand welded on one side to the u/s of the handrail to and welded to a 40 x 180 x 6mm thick wall plate on the other side to create a 200mm offset from the wall, including a 6mm support flange, bolted to wall. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u></p>							
B	Horizontal handrail fixed to wall	m		22			
C	Raking handrail fixed to wall	m		33			
<p><u>THE FOLLOWING IN GALVANIZED WELDED METAL FENCE PANELS WITH FRAME</u></p>							
Carried Forward							R
<p>Section No. 2 Bill No. 11 Structural Steel Q515B</p>							

Brought Forward			R
	<u>Purpose made panels for side of 10 storey steel staircase, approximate size 1040 x 2990mm high, consisting of 50 x 50mm steel angle frame bolted to 100 x 50mm steel channel (measured elsewhere), including high density galvanised mesh fencing infill panels, with apertures size 76 x 25mm, fixed to frame with approved system clips. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u>		
A	Fencing panels to steel staircase	No	22
	<u>Purpose made panels approximate size 2280 x 2990mm high, fixed to side of 10 storey steel staircase, consisting of 50 x 50mm steel angle frame bolted to 100 x 50mm steel channel (measured elsewhere), including high density galvanised mesh fencing infill panels, with apertures size 76 x 25mm, fixed to frame with approved system clips. All welds to be continuous and all holes, drilled and welding to be complete before galvanising, all in accordance to Drawing 305-019 DET-002 Stair Balustrade Details annexed at the back of these Bills of Quantities</u>		
B	Fencing panels to steel staircase	No	11
<u>STEEL TRUSSES, ETC.</u>			
<u>Galvanised welded beams, purlins, rafters, etc.</u>			
C	254 x 146 x 31mm (31.3 kg/m) I-beam	t	0.665
D	200 x 75mm Parallel flange channel	t	0.240
<u>The following in galvanised welded bracing, sag rods, gusset plates, etc. bolted to steel structure, etc.</u>			
E	80 x 80 x 6mm Angle section bracing	t	0.200
F	100 x 100 x 10mm Angle section	t	0.150
Carried Forward			R
Section No. 2 Bill No. 11 Structural Steel Q515B			

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Brought Forward			R
<u>The following in welded and bolted galvanised steel columns</u>			
A	114 x 4.0mm Circular hollow section column	t	0.132
<u>Sundries</u>			
B	250 x 250 x 10mm Thick galvanised base plate	No	4
C	250 x 250 x 20mm Thick non-shrink grout between concrete and underside of base plate	No	4
D	200 x 400 x 10mm Thick galvanised cap plate	No	4
E	Galvanized angle and flat sections in connections, brackets, etc.	t	0.250
<u>Galvanised Nuts and bolts, etc.</u>			
F	M20 Chemical anchors 120mm long	No	8
G	M16 Chemical anchors 120mm long	No	56
H	M16 Grade 8.8 bolts	No	4
<u>THE FOLLOWING IN NO. 3 ACCESS PANELS (SIZE 750 x 750mm) OVER WATER TANKS AND LIFT MOTOR ROOM</u>			
<u>4.5mm Thick galvanised chequer plate</u>			
I	720 x 720mm Plate, with 25mm edge bent 90 degrees (38.6kg/m ²), complete with opening size 60 x 10mm for locking mechanism	No	3
<u>The following in galvanised welded frames etc. bolted to concrete structure, etc.</u>			
J	50 x 50 x 6mm Angle section frame	t	0.033
Carried Forward			R
Section No. 2 Bill No. 11 Structural Steel Q515B			

**Upgrading of security infrastructure
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Brought Forward			R
<u>Galvanised Nuts and bolts, etc.</u>			
A	150mm Long fishtail lugs, from 50 x 8mm thick galvanised flat bar, welded to angle frame (elsewhere measured) at 300mm centres and other end cast into concrete beam (elsewhere measured)	No	36
<u>Locking mechanism for access panels</u>			
B	Allow the amount of R15,000.00 (Fifteen Thousand Rand) for locking mechanisms and hinges for three access panels over water tank		Item 15,000.00
C	Profit on above item.		Item
D	Attendance on ditto.		Item
<u>THE FOLLOWING IN NO. 2 ACCESS CAT LADDERS (SIZE 2700 x 400mm)</u>			
<u>The following in galvanised welded frames, rungs etc. bolted to concrete structure, etc.</u>			
E	65 x 10mm Thick galvanised flat stringer bars (5.1kg/m) fixed to wall with M16 chemical anchors (elsewhere measured)	t	0.054
F	20mm Diameter galvanised rung bars (2.47kg/m) welded to 65 x 10mm galvanised flat stringers (elsewhere measured)	t	0.018
<u>Sundries</u>			
G	220 x 50 x 6mm Thick galvanised brackets, made from flat bar with a 90 degree bend, welded to 65 x 10mm stringer (elsewhere measured), including 18mm diameter hole for M16 chemical anchor (elsewhere measured)	No	16
<u>Galvanised Nuts and bolts, etc.</u>			
H	M16 Chemical anchors 120mm long	No	16
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 11			
Structural Steel			
Q515B			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 12</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>STEEL FRAMED, TIMBER SLATTED DUCT DOOR</u></p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 12 Metalwork Q515B</p>			

Brought Forward			R
<p><u>Steel framed, timber slatted duct door all in accordance with Drawing 305-019-DOR-002 Door Type DT05</u></p>			
A	40 x 40mm Galvanised steel hollow section door frame, size 600 x 1800mm high fixed to plastered brick walls	No	1
B	40 x 40 x 5mm Thick galvanised steel angle frame structure around timber backing board, overall size 520 x 1720mm high (measured elsewhere)	No	1
C	16mm Thick Supawood backing board size 520 x 1720mm high painted black fixed to 40 x 40 x 5mm galvanised angle (measured elsewhere) with galvanised screws	No	1
D	20 x 76mm Hardwood slats, 520mm long fixed to backing board (measured elsewhere) with galvanised screws	No	20
E	20 x 240mm Hardwood slat, 520mm long fixed to backing board (measured elsewhere) with galvanised screws	No	1
<p><u>PRESSED STEEL GALVANIZED DOOR FRAMES</u></p>			
<p><u>Purpose made grade 316, 1.6mm thick galvanized steel frames suitable for 190mm deep opening in concrete walls including for 3 heavy duty stainless steel hinges per door leaf</u></p>			
F	Frame for fire door 813 x 2032mm high	No	11
<p><u>Purpose made grade 316, 1.6mm thick galvanized steel frames suitable for 119mm deep opening in drywall partitioning including 3 heavy duty stainless steel hinges per door leaf</u></p>			
G	Frame for double fire door 1290 x 2032mm high overall	No	9
Carried Forward			R
<p>Section No. 2 Bill No. 12 Metalwork Q515B</p>			

Brought Forward		R
<p><u>REPLACE EXISTING DAMAGED ALUMINIUM WINDOWS SECTIONS AND FIT NEW ALUMINIUM SECTIONS</u></p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 140 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>Lead time of 6 weeks to be allowed on programme to notify occupant/s of flats to arrange for access and working time in the specific unit / flat.</u></p> <p><u>Natural anodised aluminium window sections, constructed from 50 x 30mm frame and mullions fitted to existing aluminium windows (All to AAAMSA Standards and Architects approval) plugged to brickwork or concrete:</u></p> <p><u>Natural anodised top hung opening section glazed with 6.38mm Solarvue Neutral HL/12AG clear Low E Inner glass for all panels, including standard window furniture complete with screws and bolts installed strictly according to AAAMSA standards and specifications</u></p>		
A	Top hung opening section, overall size 500mm x 825mm high	No 4
B	Top hung opening section, overall size 500mm x 900mm high	No 5
<p><u>ALUMINIUM WINDOWS</u></p> <p><u>Natural anodised aluminium window, constructed from 50 x 30mm frame and mullions (All to AAAMSA Standards and Architects approval) plugged to brickwork or concrete:</u></p>		
Carried Forward		R
<p>Section No. 2 Bill No. 12 Metalwork Q515B</p>		

	Brought Forward			R
	<p><u>Purpose made polyester powder coated (white) aluminium door, constructed from 80 x 30mm frame and mullions, glazed with 6.38mm Clear Laminated Safety Glass, hinges, sealant, etc. plugged to brickwork or concrete (Ironmongery measured elsewhere) All to AAAMSA Standards and Architects approval and in accordance</u></p>			
A	<p>Single door size 883 x 2082mm high overall all in accordance with <u>Drawing 305-019-DOR-001 Door Type DT02 annexed to the back of these Bills of Quantities</u></p>	No	2	
	<p><u>ALUMINIUM SHOPFRONTS</u></p> <p><u>Purpose made natural anodised aluminium shopfronts, constructed from 80 x 30mm frame and mullions, glazed with 6.38mm Clear Laminated Safety Glass, hinges, sealant, etc. plugged to brickwork or concrete (Ironmongery measured elsewhere) All to AAAMSA Standards and Architects approval and in accordance</u></p>			
B	<p>Single door with panels, size 3379 x 2650mm high overall all in accordance with <u>Drawing 305-019 SHF-001 Shopfront Type SF01, 02 & 03 annexed to the back of these Bills of Quantities</u></p>	No	1	
C	<p>Single door with panels, size 3178 x 2060mm high overall with 75% opacity white vinyl decal fitted to inside of glazing in panels below 900mm from finished floor level all in accordance with <u>Drawing 305-019-SHF-002 Shopfront Type SF04 & Drawing 305-019 DOR-001 Type DT03 annexed to the back of these Bills of Quantities</u></p>	No	1	
	Carried Forward			R
	<p>Section No. 2 Bill No. 12 Metalwork Q515B</p>			

	Brought Forward				
	<p><u>Purpose made natural anodised aluminium shopfronts, constructed from 80 x 40mm frame and mullions, double glazed with 6.38mm Solarvue Neutral HL/12AG Tinted Low E Inner glass, hinges, sealant, etc. plugged to brickwork or concrete (Ironmongery measured elsewhere) All to AAAMSA Standards and Architects approval and in accordance</u></p>			R	
A	<p>Single door with panels, size 2260 x 2350mm high overall all in accordance with <u>Drawing 305-019-SHF-E01 Shopfront Type SFE01 & 02 annexed to the back of these Bills of Quantities</u></p>	No	1		
B	<p>Single door with panels, size 3245 x 2350mm high overall all in accordance with <u>Drawing 305-019-SHF-E02 Shopfront Type SFE03 annexed to the back of these Bills of Quantities</u></p>	No	1		
C	<p>Single door with panels, size 3555 x 2350mm high overall all in accordance with <u>Drawing 305-019-SHF-E03 Shopfront Type SFE07 annexed to the back of these Bills of Quantities</u></p>	No	1		
D	<p>Shopfront panels, size 12489 x 2350mm high overall all in accordance with <u>Drawing 305-019-SHF-E02 Shopfront Type SFE04, 05 & 06 annexed to the back of these Bills of Quantities</u></p>	No	1		
	<p><u>ROTATING COWLS</u></p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>Hot dipped galvanised rotating cowl to top of chimney flue installed as per manufacturers specifications</u></p>				
E	<p>Cowl size 350 x 500mm high extreme</p>	No	1		
	<p>Carried Forward to Summary of Section No. 2</p>			R	
	<p>Section No. 2 Bill No. 12 Metalwork Q515B</p>				

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>RENOVATIONS TO EXISTING PROTEA FLATS</u>			
	<u>BILL NO 13</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes			
	<hr/>			
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
A	32mm thick on floors	m2	20	
B	75mm High coved skirting against walls	m	28	
	<u>SCREEDS</u>			
	<u>1:3 Cement plaster screeds on concrete</u>			
C	30mm Thick on floors with steel trowelled finish	m2	306	
D	Average 80mm Thick on concrete roofs with steel trowelled finish to falls and currents	m2	193	
	Carried Forward			R
	Section No. 2 Bill No. 13 Plastering Q515B			

Brought Forward			R
<u>Patching of existing screed</u>			
A	All holes in existing screed to be filled with Patchite patching compound as manufactured by iTe Products in strict accordance with their specifications and treat with Bondite keying agent	m2	315
<u>SPECIALIST FLOOR COVERINGS</u>			
<u>Levelite F30 self-levelling compound as manufactured by iTe products, to a thickness of 5mm as part of the iTe Products screed preparation system</u>			
B	Floors	m2	202
<u>Flowcrete Rustik 10mm decorative stone carpet set in resin, all in accordance with the manufacturer's specifications</u>			
C	On screeds to balcony stormwater channel	m2	8
<u>INTERNAL PLASTER</u>			
<u>One coat 1:4 cement plaster on brickwork to receive wall tiling</u>			
D	On existing walls	m2	24
E	On narrow widths	m2	4
<u>One coat 1:4 cement plaster to brickwork with steel trowel to receive an approved high quality paint.</u>			
F	On new walls	m2	78
G	On existing walls	m2	71
H	On narrow widths	m2	6
<u>2mm Thick approved skim finishing plaster</u>			
I	2mm Thick skim finishing plaster to plastered walls	m2	155
Carried Forward			R
Section No. 2 Bill No. 13 Plastering Q515B			

	Brought Forward			R
	<u>EXTERNAL PLASTER</u>			
	<u>One coat 1:5 cement plaster on brickwork</u>			
A	On existing walls	m2	45	
B	On existing chimney capping	m2	2	
C	On narrow widths in patching	m2	7	
	<u>SUNDRIES</u>			
D	3mm Aluminium straight edge trim in floors (Code: ASE030)	m	9	
	Carried Forward to Summary of Section No. 2			R
	Section No. 2			
	Bill No. 13			
	Plastering			
	Q515B			

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>RENOVATIONS TO EXISTING PROTEA FLATS</u>			
	<u>BILL NO 14</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 144 for JBCC CPAP purposes</i>			

	<u>WALL TILING</u>			
	<u>300 x 600 x 10mm Thick GWC-4-1 Essence White Matt rectified ceramic wall tiles with 2mm joints between tiles in TAL White grouting fixed to walls with approved tile adhesive to plastered walls and waterproof tile grouting to joints</u>			
A	On walls	m2	14	
B	On narrow widths	m2	2	
C	In splashbacks	m2	1	
	<u>200 x 200 x 6mm Thick GWC 197 Gloss White ceramic wall tiles wit 2mm joints between tiles in TAL White grouting, in suitable tiling adhesive.</u>			
D	On walls	m2	7	
	Carried Forward			R
	Section No. 2 Bill No. 14 Tiling Q515B			

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	Brought Forward				R
A	In splashbacks	m2	4		
	<u>SUNDRIES</u>				
B	Aluminium square edge trim around tiles	m	31		
	<u>FLOOR TILING</u>				
	<u>Provide the PC amount of R1000,00/m² supplied and delivered to site for Mosaic tiles, install with Tal tile adhesive as recommended by tile manufacturer on well-prepared screed (elsewhere measured) to suit required level. Finish all joints with COPROX waterproof grout. All strictly to manufacturer's specifications. Colour and type to Architect's approval</u>				
C	On shower floors	m2	1		
	<u>Provide the PC amount of R450,00/m² supplied and delivered to site for non-slip balcony tiles, install with Tal tile adhesive as recommended by tile manufacturer on well-prepared screed (elsewhere measured) to suit required level. Finish all joints with COPROX waterproof grout. All strictly to manufacturer's specifications. Colour and type to Architect's approval</u>				
D	On balcony floor	m2	103		
	Carried Forward to Summary of Section No. 2				R
	Section No. 2				
	Bill No. 14				
	Tiling				
	Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 15</u></p> <p><u>INTERNAL PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SANITARY FITTINGS</u></p> <p><u>NOTE:</u> All sanitary fittings shall be sealed next to walls, fitting sides and shelves with an approved type non-fungal sustaining white silicon</p> <p style="text-align: center;">_____</p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Concrete pipes</u></p> <p>Pipes shall be jointed with interlocking joints</p>			
	Carried Forward		R	
	<p>Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B</p>			

	Brought Forward		R
<p><u>UPVC pipes and fittings</u></p> <p>Soil, waste and vent pipes and fittings shall be tempered, chemical resistant pipes with butt welded joints</p> <p><u>UPVC pressure pipes and fittings</u></p> <p>Pipes for water and fire supply shall be High Impact uPVC of the Class stated</p> <p>Pipes shall have cast iron clamped joints. Fittings shall be galvanised mild steel with clamped joints</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers, Capillary solder fittings shall comply with ISO 2016.</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Lead pipes and fittings</u></p> <p>All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel</p>			
	Carried Forward		R
<p>Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B</p>			

	Brought Forward		R
<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets, etc shall be deemed to include wire balloon gratings</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p> <p>"Soft rock" and "Hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions and the Engineer's drawings.</p>			
	Carried Forward		R
<p>Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B</p>			

<p>Brought Forward</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:</p> <p style="padding-left: 40px;">SABS 1200 L: Medium-pressure pipelines SABS 1200LD: Sewers SABS1200LE: Stormwater drainage</p> <p>Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches)</p> <p>Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes)</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>Petrolatum anti-corrosion tape</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p>			<p>R</p>
<p>Carried Forward</p> <p>Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B</p>			<p>R</p>

	Brought Forward			R
<p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Paper lagging</u></p> <p>Prices for piping must include for all piping not exceeding 30mm to be wrapped with two layers of stout brown paper and tied with wire prior to building in</p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 148 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>QUALITY CONTROL AND TESTING</u></p> <p>NOTE: IT IS A STRICT CONDITION OF THIS PLUMBING CONTRACT THAT THE CONTRACTOR SHOULD CONDUCT QUALITY CONTROL TESTS AND INSPECTIONS ON AN ONGOING BASIS</p> <p><u>SANITARY FITTINGS</u></p> <p><u>White glazed vitreous china</u></p> <p><u>B1 Wash hand basin</u></p> <p>A Cobra Arrive vitreous china square basin with one taphole, overflow or chainstay hole, size 645 x 473mm wide, compatible with Cobra Arrive square semi-pedestal (code: CARPESQ1-6DT01) and standard sized Cobra basin mixers, to be hung in accordance with manufacturer's specifications</p> <p>B Cobra Karoo (code: KO-951) single-lever plain basin mixer with temprature control cartridge, 1/2" BSP female inlets. Mixer to be fitted with angle valves (code: 832-10)</p>	<p>No</p> <p>No</p>	<p>2</p> <p>2</p>		
	Carried Forward			R
<p>Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B</p>				

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
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Brought Forward			R
A	Cobra unslotted basin waste with 63mm diameter flange, 80mm long shank and 1 1/4" BSP male outlet connection including click type integral plug (code: COB-309-32)	No	2
B	50mm Du Bois PVC trap	No	2
<u>WC1 and WC2 Toilet</u>			
C	Uniset (code: 38643001) for WC flushing cistern GD2 with small maintenance access, sound-insulating EPS module for masonry in 830 x 470 x 130mm rail adaptors for modular fixing with 2 x WC fixing bolts. 90mm diameter ceramic outlet bend with depth adjustable 90 x 110mm diameter reducer, inlet and outlet connection	No	2
D	Skate Cosmopolitan actuator plate (code: 3873200) for dual flush for pneumatic discharge valve, AV1 vertical and horizontal installation, 156 x 197mm ABS GROHE Starlight chrome finish and GROHE Ecojoy technology for less water	No	2
E	GROHE Bau Ceramic wall-hung WC (code: 39 427 000), for concealed cistern horizontal outlet washdown, rimless flush volume 3/6l	No	2
F	GROHE Bau Ceramic WC seat (code: 39 493 000), soft close and quick release function	No	2
<u>Stainless steel sink</u>			
G	Franke NVN611 1.6mm Stainless steel single end bowl drop-in sink size 800 x 460mm (Code 101.0167.171 / 811023), hole to be punched and not drilled	No	1
H	Cobra Tucana single lever sink mixer tap (code TC-970) with swivel outlet 1/2" BSP female inlet including sink mixer swivel outlet and 400mm long flexible inlets (S1)	No	1
I	40mm Du Bois PVC trap	No	1
Carried Forward			R
Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B			

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Brought Forward			R
A	50mm Junction	No	2
B	50mm Access junction	No	2
C	110mm Bend	No	8
D	110mm Junction	No	1
E	110mm Tee	No	2
F	110mm Access bend	No	2
G	110mm Straight pan connector	No	2
<u>TESTING</u>			
H	Testing waste pipe system		Item
<u>WATER SUPPLY</u>			
<u>Class 2 copper pipes for compression fittings in accordance with SABS 460</u>			
I	15mm Pipes chased into brick walls	m	32
J	22mm Pipes chased into brick walls	m	14
K	15mm Pipes fixed to concrete ceiling with M10 rubber lined hanger brackets including M10 threaded rod not exceeding 500mm long and M10 drop-in anchor	m	18
L	22mm Pipes fixed to concrete ceiling with M10 rubber lined hanger brackets including M10 threaded rod not exceeding 500mm long and M10 drop-in anchor	m	14
<u>Extra over for fittings</u>			
<u>Extra over Class 2 copper pipes for brass capillary soldered fittings</u>			
M	15mm Fittings	No	30
Carried Forward			R
Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B			

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Brought Forward			R
A	22mm Fittings	No	10
B	15mm Brass Shut -off valve jointed to copper pipe including adaptors	No	6
C	22mm Brass Shut- off valve jointed to copper pipe including adaptors	No	6
<u>SERVICE FIRE FIGHTING EQUIPMENT</u>			
D	Service existing fire hose reel to SABS 543 complete with 20mm diameter rubber hose 30m long, chromium plated stopcock, shut-off nozzle and wall bracket	No	1
E	Service existing 4.5kg DCP fire extinguisher including hanger fixed to and including timber backing board.	No	2
F	Service existing 5kg DCP fire extinguisher including hanger fixed to and including timber backing board.	No	2
G	Service existing 2kg CO2 fire extinguisher including hanger fixed to and including timber backing board.	No	2
H	Service existing 5kg CO2 fire extinguisher including hanger fixed to and including timber backing board.	No	2
<u>FIRE EQUIPMENT, ETC ON WALL MOUNTED HANGERS</u>			
I	Fire hose reel to SABS 543 complete with 20mm diameter rubber hose 30m long, chromium plated stopcock, shut-off nozzle and wall bracket	No	1
J	4.5kg CO2 fire extinguisher including hanger fixed to and including timber backing board.	No	6
<u>WATER SUPPLIES TO FIRE APPLIANCES</u>			
<u>Galvanised steel pipes</u>			
K	25mm Pipes fixed to walls with M10 rubber lined hanger brackets including M10 threaded rod not exceeding 500mm long and M10 drop-in anchor	m	15
Carried Forward			R
Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B			

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
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Brought Forward					R
A	25mm Pipes fixed to concrete ceiling with M10 rubber lined hanger brackets including M10 threaded rod not exceeding 500mm long and M10 drop-in anchor	m	30		
<u>Extra over galvanised steel pipes for steel fittings</u>					
B	25mm Fittings	No	12		
C	65 x 32mm Reducing socket	No	6		
D	32 x 25mm Reducing socket	No	4		
E	65 x 25 x 25mm Reducing tee	No	4		
<u>INTERNAL FIRE HYDRANTS</u>					
<u>Hot dipped galvanised screwed steel pipes and fittings as described</u>					
F	80mm Diameter pipe 2500mm long	No	1		
G	80 x 65mm Diameter reducing socket	No	1		
H	80mm Diameter long radius bend female threaded	No	1		
<u>Hydrant hose and fittings</u>					
I	65mm Diameter hydrant hose 30m long complete with couplings, clack washer, lip seal, hand wheel and valve spanner	No	1		
<u>Pressure testing of fire hydrant</u>					
J	Pressure testing of fire hydrant at highest point			Item	
<u>TESTING</u>					
K	Pressure testing water pipe system			Item	
<u>NEW TANK TO ROOF</u>					
Carried Forward					R
Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B					

**Upgrading of security infrastructure
 at Livingstone PEPH Hospital Complex
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	Brought Forward			R	
	<u>Low profile vertical storage JoJo tank, fitted inside lift motor room on the building roof</u>				
A	1500 Litre tank, diameter 1410mm x 1200mm high	No	1		
	<u>PUMP, PIPEWORK, FITTINGS AND CONNECTIONS TO NEW TANK TO ROOF</u>				
B	Allow the amount of R20,000.00 (Twenty Thousand Rand) for pumps, pipework, fittings and connections for the water tank		Item		20,000.00
C	Profit on above item.		Item		
D	Attendance on ditto.		Item		
Carried Forward to Summary of Section No. 2				R	
Section No. 2 Bill No. 15 Internal Plumbing and Drainage Q515B					

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 16</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 150 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>GLAZING TO ALUMINIUM WINDOWS</u></p> <p><u>Lead time of 6 weeks to be allowed on programme to notify occupants of flats to arrange for access and working time in the specific unit/flat</u></p> <p><u>6.38mm Clear normal strength PVB Laminated safety glass</u></p>			
A	Panes exceeding 0,1 and not exceeding 0,5 square metre in area	m2	7	
B	Panes exceeding 0,5 and not exceeding 1 square metre in area	m2	11	
	Carried Forward			R
	<p>Section No. 2 Bill No. 16 Glazing Q515B</p>			

Brought Forward							
R							
<u>6.38mm Obscure normal strength PVB Laminated safety glass</u>							
A	Panels exceeding 0,1 and not exceeding 0,5 square metre in area	m2	10				
<u>GLAZING TO STEEL WINDOWS</u>							
<u>6.38mm Clear normal strength PVB Laminated safety glass</u>							
B	Panels exceeding 0,1 and not exceeding 0,5 square metre in area	m2	2				
C	Panels exceeding 0,5 and not exceeding 1 square metre in area	m2	1				
<u>PANELS, MIRRORS, ETC</u>							
<u>6mm Silvered float glass copper backed mirrors with bevelled edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u>							
D	Mirror, size 600 x 400mm	No	2				
R							
Carried Forward to Summary of Section No. 2							
Section No. 2							
Bill No. 16							
Glazing							
Q515B							

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>BILL NO 17</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>PAINTWORK TO PLASTERED SURFACES</u></p> <p><u>Spot prime bare and repaired areas with Plascon Professional Gypsum and Plaster primer (PP 700) and allow to dry for 16 hours, finish with two coats of Plascon Professional Superior Low Sheen (PEM 1000/TLS) with 1 hour drying time between coats. All to manufacturer's detail specification or equal approved. Colour to Architects approval</u></p>			
A	On existing internal plastered walls	m2	748	
B	On newly plastered internal walls	m2	154	
	Carried Forward			R
	<p>Section No. 2 Bill No. 17 Painting Q515B</p>			

Brought Forward			R
<p><u>Spot prime bare and repaired areas with Plascon Professional Gypsum and Plaster primer (PP 700) and allow to dry for 16 hours, finish with two coats of Plascon Kitchen & Bathrooms (KBM/TKM) with 2 hours drying time between coats. All to manufacturer's detail specification or equal approved. Colour to Architects approval</u></p>			
A	On existing plastered internal walls	m2	88
B	On newly plastered internal walls	m2	19
<p><u>Clean down, prepare and apply one coat Plascon Professional High Alkali Plaster Primer (PP950) and apply two coats Plascon Professional Aquarista (PHB 800 / THB) paint:</u></p>			
C	On existing external plastered walls	m2	3,385
<p><u>Spot prime bare and repaired areas with Plascon Professional Gypsum and Plaster primer (PP 700) and allow to dry for 16 hours, finish with two coats of Plascon Professional Superior Low Sheen (PEM 1000/TLS) with 1 hour drying time between coats. All to manufacturer's detail specification or equal approved. Colour to Architects approval</u></p>			
D	On existing concrete ceilings	m2	60
<p><u>ON FIBRE CEMENT</u></p>			
<p><u>Prepare and prime with Plascon Plaster Primer (PP700) and apply two coats Plascon Wall and All paint on:</u></p>			
E	On fibre cement fascia and barge boards	m2	40
F	Fibre cement ceilings at eaves	m2	54
G	Existing fibre cement ceilings	m2	44
<p><u>ON PLASTER BOARD</u></p>			
Carried Forward			R
<p>Section No. 2 Bill No. 17 Painting Q515B</p>			

Brought Forward			R
	<u>Prepare surfaces and remove all loose material. Apply one coat professional Gypsum and Plaster primer (PP 700) to achieve a continuous film and allow to dry for 16 hours, finish with two coats of Plascon Polvin Super Acrylic (EPL/TAP) with 1 hour drying time between coats. All to manufacturer's detail specification or equal approved. Colour White.</u>		
A	Skimmed ceilings and bulkheads	m2	173
	<u>Prepare surfaces and remove all loose material. Apply one coat professional Gypsum and Plaster primer (PP 700) to achieve a continuous film and allow to dry for 16 hours, finish with two coats of Plascon Kitchen & Bathrooms (KBM/TKM) with 2 hours drying time between coats. All to manufacturer's detail specification or equal approved. Colours to Architect's approval.</u>		
B	Skimmed ceilings	m2	16
	<u>Prepare surfaces and remove all loose material. Apply one coat professional Gypsum and Plaster primer (PP 700) to achieve a continuous film and allow to dry for 16 hours, finish with two coats of Professional Superior Low Sheen (PEM 1000/TLS) with 2 hours drying time between coats. All to manufacturer's detail specification or equal approved. Colours to Architect's approval.</u>		
C	On drywall partitioning	m2	281
	<u>ON METALWORK</u>		
Carried Forward			R
Section No. 2 Bill No. 17 Painting Q515B			

Brought Forward			R
<p><u>Ensure surfaces are clean and dry. Apply Plascon Galvanised Iron Cleaner (GIC1) to all bare galvanised areas. Surface to be dry, sound and clean. Allow to react for 1 minute and rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water break-free. Prime with one coat of Plascon Galvanised Iron Primer (GIP1) to achieve continuous film and allow 24 hours to dry, apply one coat Plascon Universal Undercoat (UC1) to achieve continuous film and allow 16 hours to dry. Finish with two coats of Plascon Velvaglo Water Based (VLW/TVW) to achieve complete obliteration allowing 4 hours drying time between coats</u></p>			
A	On new door frames	m2	21
B	Structural steel roof structure	m2	30
C	Structural steel staircase	m2	812
D	Structural steel catladder	m2	18
E	Galvanised steel door frame for duct door not exceeding 300mm girth	m	9
<p><u>Clean down, prepare and apply Plascon Galvanised Iron Cleaner (GIC1) to all bare galvanised areas. Surface to be dry, sound and clean. Allow to react for 1 minute and rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water break-free. Prime with one coat of Plascon Galvanised Iron Primer (GIP1) to achieve continuous film and allow 24 hours to dry, apply one coat Plascon Universal Undercoat (UC1) to achieve continuous film and allow 16 hours to dry. Finish with two coats of Plascon Velvaglo Water Based (VLW/TVW) to achieve complete obliteration allowing 4 hours drying time between coats</u></p>			
F	On existing window frames (measured flat both sides)	m2	30
Carried Forward			R
<p>Section No. 2 Bill No. 17 Painting Q515B</p>			

Brought Forward			R
<p><u>Surface to be dry, sound and clean with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Sand wood to a smooth finish with 150 - 22- grit paper in the direction of the grain. Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet and allow 6 - 8 hours to dry, then sans smooth. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2). Apply one coat Plascon Wood Primer (UC 2) and one coat of Plascon Universal Undercoat (UC 1) with an overcoating time of 16 hours, and finish with two coats of Plascon Waterbased Velvaglo (VLW/TVW) with 4 hours drying time between coats,or equal approved. Colour to Architects approval</u></p>			
A	On doors	m2	103
B	On timber pelmet	m2	2
C	On door frames not exceeding 300mm girth	m	15
<p><u>Remove loose and peeling paint by scraper or hand sanding, feather edges and dust off. Surface to be dry, sound and clean with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Sand wood to a smooth finish with 150 - 22- grit paper in the direction of the grain. Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet and allow 6 - 8 hours to dry, then sans smooth. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2). Apply one coat Plascon Wood Primer (UC 2) and one coat of Plascon Universal Undercoat (UC 1) with an overcoating time of 16 hours, and finish with two coats of Plascon Waterbased Velvaglo (VLW/TVW) with 4 hours drying time between coats,or equal approved. Colour to Architects approval</u></p>			
D	On existing doors	m2	32
E	On existing door frames not exceeding 300mm girth	m	45
Carried Forward			R
<p>Section No. 2 Bill No. 17 Painting Q515B</p>			

	Brought Forward				R
	<u>Stop, fill, sand down and prepare wood surface.</u> <u>Apply one coat wood primer, one coat universal</u> <u>undercoat and two coats semi-gloss, chip resistant</u> <u>Enamel paint:</u>				
A	On new skirtings	m	176		
B	On existing window sill	m	16		
Carried Forward to Summary of Section No. 2					R
Section No. 2 Bill No. 17 Painting Q515B					

Item No		Quantity	Rate		Amount
	<p><u>SECTION 2</u></p> <p><u>RENOVATIONS TO EXISTING PROTEA FLATS</u></p> <p><u>EXTERNAL WORKS</u></p> <p><u>BILL NO 18</u></p> <p><u>GENERAL SITE WORKS</u></p> <p><u>PREAMBLES</u></p> <p><u>Tenderers are advised to study the "South African Bureau of Standards Standardized Specification for Civil Engineering Construction" (SABS 1200) before pricing this Bill, as these specifications shall apply to this Contract.</u></p> <p><u>Nature of ground</u></p> <p>Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><u>DEMOLITIONS</u></p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/>				
	Carried Forward				
	<p>Section No. 2 Bill No. 18 External works Q515B</p>			R	

**Upgrading of security infrastructure
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Brought Forward			R
A	Break down and remove existing steel carport with mono pitch sloping roof approximately 65m ² on plan and average 3.5m high, comprising of 100 x 100mm square hollow section columns, column bases and steel roof covering on steel roof structure complete with foundations, etc., including any necessary excavations, filling, compaction, roughly levelling ground surface, carting away, etc	No	1
<u>NEW ASPHALT SURFACE</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
<u>Breaking up and removing</u>			
B	Break up and remove existing damaged tarmac, not exceeding 40mm thick including preparation, roughly levelling ground surfaces, ramming, etc.	m ²	200
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>			
C	Reduced levels under roads	m ³	60
<u>Extra over bulk excavation in earth for excavation in</u>			
D	Intermediate rock	m ³	6
E	Hard rock	m ³	3
<u>Extra over all excavations for carting away</u>			
F	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site, area as identified by Contractor approximately 500m from the excavations (Measured nett- no allowance made for bulking)	m ³	60
Carried Forward			R
Section No. 2 Bill No. 18 External works Q515B			

Brought Forward			R
<u>Keeping excavations free of water</u>			
A	Keeping excavations free of all water other than subterranean water	Item	
<u>Compaction of surfaces</u>			
B	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density	m2	200
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 95% Mod. AASHTO density</u>			
C	Subbase under roads	m3	30
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>			
D	Subbase under roads	m3	30
<u>Approved weed killer (Certificate to be provided before payment)</u>			
E	Hyvar X or other equally approved soil herbicide at a rate of 50 gram/m2 under paving etc.	m2	200
<i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i>			
<u>Asphalt</u>			
F	Tack coat of 30% cationic stable grade emulsion (0.45L/m ²)	m2	200
G	Prime coat - MC-30 cut-back bitumen (Applied at a rate of 0.91L/m ²)	m2	200
H	40mm Asphalt surfacing - 60/70 penetrating B12 road grade bitumen to be medium continuously graded and compacted to above stated thickness	m2	200
Carried Forward			R
Section No. 2 Bill No. 18 External works Q515B			

Brought Forward							
<u>CARPORT</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							
<u>EXCAVATIONS</u>							
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>							
A	Columns bases	m3	1				
<u>Extra over all excavations for carting away</u>							
B	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking)	m3	1				
<u>Risk of collapse of excavations</u>							
C	Allow for risk of collapse to sides of excavations to column bases, trenches, etc. from ground level to not exceeding 1.5m deep	m2	2				
<u>Earth filling obtained from the excavations compacted to 95% Modified AASHTO density</u>							
D	Backfilling to trenches, holes, etc.	m3	1				
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>							
<u>REINFORCED CONCRETE</u>							
<u>25MPa/19mm concrete</u>							
E	Columns bases	m3	1				
Carried Forward							R
Section No. 2							
Bill No. 18							
External works							
Q515B							

Brought Forward							
REINFORCEMENT							
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>							

Mild steel reinforcement							
A	8mm Diameter bars	t		0.03			
High tensile steel reinforcement to structural concrete work							
B	10mm Diameter bars	t		0.12			
PROFILED METAL SHEETING AND ACCESSORIES							
<i>NOTE: The following items shall be deemed to fall into Work Group No 124 for JBCC CPAP purposes</i>							

<u>Global Roofing Solutions 686mm cover IBR 686 profile roll-formed in continuous lengths from 0.53mm thick AZ150 spelter G550 COLORPLUS® Thunderstorm finish topcoat and Cool Grey backing coat roof sheeting, fixed to steel intermediate purlins at MAX 2100mm centres and eaves and ridge purlins at MAX 1800mm centres (final spacing to be calculated by an Engineer) using Hex Flange Head + EPDM Seal self-drilling No. 3 drill point, No. 12-14 x 65mm long fasteners (fastener lengths may vary depending on the insulation used or requirements). Purlin fixed to second, fourth and sixth crest of each sheet and at all crests at sheet ends, all following the manufacturer's specifications by a GRS approved contractor.</u>							
C	Roof sheeting with pitch not exceeding 25 degrees, fixed to steel purlins	m2		65			
Carried Forward							
Section No. 2 Bill No. 18 External works Q515B							

Brought Forward			R
<p><u>0.53mm thick AZ150 spelter G550 COLORPLUS® flashing with Thunderstorm finish topcoat and Cool Grey backing coat roof sheeting all in strict accordance with manufacturer's specification. Colours and type to Architect</u></p>			
A	Head wall flashing concealed fix 375mm girth two times bent along girth and notched on site to suit roof profile	m	13
B	Counter flashing 185mm girth two times bent along girth. Including cutting into brick/concrete wall and sealed with Sikaflex-FC approved soft sealer, fixed in accordance with manufacturer's specifications. Complete with metal and poly closer without any joints	m	13
<p><u>RAINWATER DISPOSAL</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 124 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>0.8mm Ogee profiled pre-coated seamless aluminium gutters including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 600mm centres installed strictly according to manufacturer's specifications</u></p>			
C	150 x 100mm Eaves gutters to falls, with front edge, on and including gutter brackets fixed to steel roofs	m	13
D	100 x 75 mm Rainwater downpipes, fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings	m	8
E	Extra over eaves gutter for outlet with nozzle for 100 x 75mm pipe	No	2
F	Extra over for shoe	No	2
<p><u>EAVES, VERGES, ETC</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 126 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/>			
Carried Forward			R
<p>Section No. 2 Bill No. 18 External works Q515B</p>			

Brought Forward			R
<u>Pressed fibre cement</u>			
A	12 x 225mm Fascia board including galvanised steel H-profile jointing strips, bolted to steel purlins (elsewhere) with corrosion proof gutter bolts at maximum 1000mm centres butt jointed with and including standard fascia jointing plates at all joints	m	13
B	12 x 225mm Barge board including galvanised steel H-profile jointing strips, bolted to steel purlins (elsewhere) with corrosion proof gutter bolts at maximum 1000mm centres butt jointed with and including standard fascia jointing plates at all joints	m	10
<u>GALVANISED STEEL COLUMNS & BEAMS</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 134 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin: auto;"/>			
<u>Galvanised welded beams, purlins, rafters, etc.</u>			
C	100 x 100 x 4mm Square hollow section columns	t	0.139
D	225 x 75 x 20 x 2.5mm Cold formed lipped channel beam	t	0.202
E	175 x 75 x 20 x 2.5mm Cold formed lipped channel purlins, with and including angle section cleats bolted on	t	0.608
F	50 x 50 x 5mm Angle section bracing	t	0.087
G	Angle and flat sections in connections, brackets, hinge joints, etc.	t	0.255
<u>Sundries</u>			
H	300 x 300 x 12mm Thick base plate	No	3
I	300 x 300 x 25mm Thick non-shrink grout between concrete and underside of base plate	No	3
J	M16 Diameter grade 8.8 bolts	No	66
Carried Forward			R
Section No. 2 Bill No. 18 External works Q515B			

Brought Forward						
A	M20 U- bolt 240mm wide and 475mm long	No	6			R
	<u>PAINTWORK, ETC TO NEW WORK</u>					
	<i>NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>					
	<u>ON METAL</u>					
	<u>Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Surface to be dry, sound and clean. Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Allow to react for 1 minute and rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water break-free. Prime with one coat of Galvanised Iron Primer (GIP 1) with an overcoating time of 2 hours. Apply undercoat and finish with two coats of Wall & All (WAA) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C5 - coastal/marine environment. Colour to Architects approval.</u>					
B	On steel columns, beams, angles	m2	70			
	<u>ON FIBRE CEMENT</u>					
	<u>Prepare and prime with plaster primer (Thinned 1:5 with mineral turpentine) and two coats exterior quality premium polyurethane alkyd paint</u>					
C	On fibre cement fascia and barge boards	m2	11			
Carried Forward to Summary of Section No. 2						R
Section No. 2						
Bill No. 18						
External works						
Q515B						

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>RENOVATIONS TO EXISTING PROTEA FLATS</u>			
	<u>BILL NO 19</u>			
	<u>TEMPORARY SECURITY FENCING (HOARDING)</u>			
	<u>Demolitions</u>			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
A	Take down, dismantle and store temporarily for re-use, existing palisade fencing panels 1650mm high, fixed to brick columns (3 palisade panels)	m	13	
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
	<u>Site clearance</u>			
B	Allow for clearing site for the width of 1 000 mm where fencing runs are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling	m	114	
	<u>TEMPORARY MILD STEEL WELDMESH FENCE</u>			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>			
	<u>Timber posts</u>			
C	100mm Diameter timber gumpole, 2400mm long embedded in 450 x 450 x 900 mm mass concrete (15 MPa) base	No	40	
	Carried Forward			R
	Section No. 2 Bill No. 19 Fencing and hoarding Q515B			

	Brought Forward			R
	<p><u>Reinstate existing palisade panels</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/>			
A	Take out of storage existing palisade fence panels 1650mm high and re-instate in original position between brick columns (3 palisade panels)	m	13	
	<p>Carried Forward to Summary of Section No. 2</p> <p>Section No. 2 Bill No. 19 Fencing and hoarding Q515B</p>			R

Bill No	SECTION SUMMARY - SECTION 2 RENOVATIONS TO EXISTING PROTEA F	Page No	Amount
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	Carried to Final Summary		R
	Section No. 2 Q515B		

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 1</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block D: Entrance Gate House</p> <p>Block E: Exit Gate House</p> <p>Block G: SMME Packages</p> <p><u>FOUNDATIONS</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p> <p><u>EXCAVATION, FILLING, ETC</u></p> <p><u>Excavation in earth or compacted filling not exceeding 2m deep</u></p>			
A	<p>Reducing levels under buildings</p> <p style="padding-left: 20px;">D : 10 E : 10 G : -10</p>	m3	10	
B	<p>Trenches</p> <p style="padding-left: 20px;">D : 18 E : 18 G : -18</p>	m3	18	
C	<p>Column bases</p> <p style="padding-left: 20px;">D : 2 E : 2 G : -2</p>	m3	2	
	Carried Forward			R
	<p>Section No. 3 Bill No. 1 Foundations Q515B</p>			

Brought Forward				R
<u>Extra over excavations in earth for excavation in</u>				
A	Soft rock	m3	3	
	D : 3 E : 3 G : -3			
B	Hard rock	m3	2	
	D : 2 E : 2 G : -2			
<u>Extra over all excavations for carting away</u>				
C	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	23	
	D : 22 E : 23 G : -22			
<u>Risk of collapse of excavations</u>				
D	Sides of trench and hole excavations not exceeding 1,5m deep	m2	65	
	D : 65 E : 65 G : -65			
<u>Keeping excavations free of water</u>				
E	Keeping excavations free of water		Item	
<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site in layers of 150mm thick compacted to 93% Mod AASHTO density</u>				
F	Backfilling to trenches, holes, etc	m3	7	
	D : 7 E : 7 G : -7			
<u>Compaction of surfaces</u>				
G	Compaction of ground surface under surface beds etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	23	
	D : 23 E : 23 G : -23			
Carried Forward				R
Section No. 3 Bill No. 1 Foundations Q515B				

Brought Forward			R
<p><u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site in layers of 150mm thick compacted to 95% Mod AASHTO density</u></p>			
A	Under floors, steps, pavings, etc D : 3 E : 3 G : -3	m3	3
<p><u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u></p>			
B	Under solid floors D : 3 E : 3 G : -3	m3	3
<p><u>Approved G7 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 95% Mod. AASHTO density</u></p>			
C	Under solid floors D : 3 E : 3 G : -3	m3	3
<p><u>50mm Thick coarse river sand filling supplied by the contractor</u></p>			
D	Under floors etc D : 23 E : 23 G : -23	m2	23
<p><u>Soil insecticide in accordance with SANS 5859</u></p>			
E	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming (Certificate to be supplied before payment is made) D : 23 E : 23 G : -23	m2	23
<p><u>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</u></p>			
<p><u>UNREINFORCED CONCRETE</u></p>			
Carried Forward			R
<p>Section No. 3 Bill No. 1 Foundations Q515B</p>			

Brought Forward				R
<u>10MPa/19mm concrete</u>				
A	Blinding under strip footings and column bases on excavated surfaces D : 1 E : 1 G : -1	m3	1	
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm concrete</u>				
B	Strip footings D : 4 E : 4 G : -4	m3	4	
C	Column bases D : 1 E : 1 G : -1	m3	1	
D	Stub columns in foundations D : 1 E : 1 G : -1	m3	1	
<u>Rough formwork to sides</u>				
E	Stub columns in foundations D : 2 E : 2 G : -2	m2	2	
<u>REINFORCEMENT</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<u>Mild steel rod reinforcement to structural concrete work</u>				
F	8mm Diameter bars D : 0.053 E : 0.053 G : -0.050	t	0.056	
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>				
G	10mm Diameter bars D : 0.105 E : 0.105 G : -0.110	t	0.100	
H	12mm Diameter bars D : 0.158 E : 0.158 G : -0.160	t	0.156	
Carried Forward				R
Section No. 3 Bill No. 1 Foundations Q515B				

Brought Forward				R
A	16mm Diameter bars D : 0.131 E : 0.131 G : -0.130	t	0.132	
B	20mm Diameter bars D : 0.079 E : 0.079 G : -0.080	t	0.078	
<u>MASONRY</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>				
<u>Brickwork (14Mpa nominal compressive strength) in 5:1 cement mortar</u>				
C	Half brick walls D : 3 E : 3 G : -3	m2	3	
D	One brick walls D : 7 E : 7 G : -7	m2	7	
E	270mm Cavity walls formed of two half brick skins and 50mm cavity filled with 15 MPa concrete, including wire ties D : 18 E : 18 G : -18	m2	18	
<u>Brickwork reinforcement</u>				
F	75mm Wide reinforcement built in horizontally in foundations D : 459 E : 459 G : -459	m	459	
G	150mm Wide reinforcement built in horizontally in foundations D : 82 E : 82 G : -82	m	82	
<u>Joints formed of jointex</u>				
H	10mm Jointex in vertical joint built in vertically between brick walls not exceeding 300mm wide D : 8 E : 8 G : -8	m	8	
Carried Forward				R
Section No. 3 Bill No. 1 Foundations Q515B				

	Brought Forward				R
	<u>Grey polysulphide sealant, including bond breaker, primer, etc</u>				
A	10mm Wide x 10mm deep in expansion joints D : 8 E : 8 G : -8	m		8	
	<u>FACE BRICKWORK</u>				
	<u>External facings to be Corobrik Morrocan Red Travertine (FBS) pointed with tinted horizontal and vertical joints with cement mortar to match colour of face bricks and seal with ABE Durasil S sealant</u>				
B	Extra over brickwork for face brickwork, in foundations D : 11 E : 11 G : -11	m2		11	
	Carried Forward to Summary of Section No. 3				R
	Section No. 3				
	Bill No. 1				
	Foundations				
	Q515B				

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO 2</u>			
	<u>CONCRETE FORMWORK AND REINFORCEMENT</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>CONCRETE</u>			
	<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>			
	<hr/>			
	<u>REINFORCED CONCRETE</u>			
	<u>30MPa/19 mm concrete in</u>			
A	Surface beds on waterproofing D : 3 E : 3 G : -3	m3	3	
	<u>TEST BLOCKS</u>			
B	Making and testing set of three 150 x 150 x 150 mm strength test cubes D : 4 E : 4 G : -4	No	4	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surface of concrete smooth with a wood float in</u>			
C	Surface beds D : 17 E : 17 G : -17	m2	17	
	Carried Forward			R
	Section No. 3 Bill No. 2 Concrete Formwork and reinforcing Q515B			

Brought Forward								
Finishing top surfaces of concrete to an evenly brushed non-slip surface								
A	Surface beds D : 6 E : 6 G : -6	m2		6				
<u>MOVEMENT JOINTS</u>								
<u>Isolation joint formed of bitumen impregnated soft board or jointex</u>								
B	10mm Thick jointex between horizontal concrete and brick surfaces not exceeding 300 mm high or wide D : 23 E : 23 G : -23	m		23				
<u>Saw cut joints</u>								
C	6 x 40mm Saw cut joints in top of concrete surface bed D : 17 E : 17 G : -17	m		17				
<u>FORMWORK</u>								
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>								
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>								
<u>Rough formwork to sides</u>								
D	Edges, risers, ends and reveals not exceeding 300mm high D : 7 E : 7 G : -7	m		7				
<u>REINFORCEMENT</u>								
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>								
<u>Fabric reinforcement</u>								
E	Type 245 fabric reinforcement in concrete surface beds, slabs, etc. D : 23 E : 23 G : -23	m2		23				
Carried Forward to Summary of Section No. 3								
Section No. 3								
Bill No. 2								
Concrete Formwork and reinforcing								
Q515B								

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO. 3</u>			
	<u>MASONRY</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>SUPERSTRUCTURE</u>			
	<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>			
	<u>Brickwork of clay bricks in 6:1 cement mortar</u>			
A	Half brick walls D : 7 E : 7 G : -7	m2	7	
B	Half brick walls in beamfilling D : 3 E : 3 G : -3	m2	3	
C	270mm Cavity walls formed of two half brick skins and 50mm cavity including wire ties D : 40 E : 41 G : -40	m2	41	
	<u>BRICKWORK SUNDRIES</u>			
D	Splayed mortar fillet one course high in 50mm cavity of cavity wall D : 35 E : 32 G : -35	m	32	
E	Closing 50mm cavity of cavity wall vertically with brickwork half brick wide D : 17 E : 15 G : -17	m	15	
	Carried Forward			R
	Section No. 3 Bill No. 3 Masonry Q515B			

Brought Forward				R
<p><u>External facings to be Corobrik Moroccan Red Travertine (FBS) pointed with tinted horizontal and vertical joints with cement mortar to match colour of face bricks and seal with ABE Durasil S sealant</u></p>				
A	Extra over brickwork for face brickwork D : 40 E : 41 G : -40	m2	41	
B	Extra over brickwork for face brickwork in beamfilling D : 3 E : 3 G : -3	m2	3	
C	Cut brick on edge sill bedded sloping and jointed in cement mortar and pointed on top, edge and projecting soffit including cutting and fitting between reveals and splay cutting brickwork under D : 7 E : 8 G : -7	m	8	
D	Face brick on edge lintol 110mm wide on soffit , bedded and jointed in cement mortar and pointed on face and soffits as described including cutting and fitting between reveals D : 9 E : 9 G : -9	m	9	
E	Fair raking cutting D : 10 E : 10 G : -10	m	10	
<p>Carried Forward to Summary of Section No. 3</p>				R
<p>Section No. 3 Bill No. 3 Masonry Q515B</p>				

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</i>			

	<u>One layer of 375 micron black embossed polyethylene damp-proof course (SANS 952-1985 Type B)</u>			
A	In walls, window sills, etc D : 10 E : 10 G : -10	m2	10	
	<u>Primer and two coats Brixal bitumen emulsion waterproof coating</u>			
B	On cavity walls D : 40 E : 41 G : -40	m2	41	
	<u>One layer of 250 micron "Consol Plastics Gunplas Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
C	Under surface beds D : 24 E : 24 G : -24	m2	24	
	<u>JOINT SEALANTS, ETC</u>			
	Carried Forward			R
	Section No. 3 Bill No. 4 Waterproofing Q515B			

	Brought Forward				R
	<u>Grey polysulphide sealant, including bond breaker, primer, etc</u>				
A	10mm Wide x 10mm deep in expansion joints D : 21 E : 21 G : -21	m	21		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 Bill No. 4 Waterproofing Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 5</u></p> <p><u>ROOF COVERINGS, ETC</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>Guarantees</u></p> <p>The roof covering and cladding is to be carried out strictly in accordance with the manufacturer's instruction. On completion the roof covering and accessories are to be inspected by the Manufacturer who is to provide a 5 year guarantee against defective materials and faulty workmanship</p> <p>The roof is to be guaranteed weather tight for a period of 12 month period, calculated from the handed over date of the completed project</p> <p><u>PROFILED METAL SHEETING AND ACCESSORIES</u></p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 124 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/>			
	Carried Forward		R	
	<p>Section No. 3 Bill No. 5 Roof covering Q515B</p>			

**Upgrading of security infrastructure
 at Livingstone PEPH Hospital Complex
 Provisional Bills of Quantities
 SCMU3-23/24-0484-HO**

	Brought Forward				
A	75 x 50mm Rainwater downpipes, fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings D : 12 E : 12 G : -12	m	12	R	
B	Extra over for shoe D : 4 E : 4 G : -4	No	4		
Carried Forward to Summary of Section No. 3				R	
Section No. 3 Bill No. 5 Roof covering Q515B					

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 126 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>SAWN SA PINE</u></p> <p>A 38 x 114mm Wall plate m 10 D : 10 E : 10 G : -10</p> <p>B 76 x 228mm SA Pine beam (Grade 7) m 7 D : 7 E : 7 G : -7</p> <p>C 50 x 76mm Purlins m 56 D : 56 E : 56 G : -56</p> <p><u>GANGNAIL ROOF TRUSSES</u></p>			
	Carried Forward		R	
	<p>Section No. 3 Bill No. 6 Carpentry and Joinery Q515B</p>			

Brought Forward				R
<p><u>The following trusses shall be "Gangnail" or other approved engineering designed roof trusses manufactured from sawn S.A.Pine as described at average 1100mm centres to support 0.55mm thick steel roofing with 6.4mm gypsum ceilings under, including hoisting and fixing in position approximately 3m above natural ground level</u></p>				
A	Double pitched roof truss 5230mm wide with 4030mm span between plates, to 22 degree pitch with 600mm eaves overhang both ends D : 7 E : 7 G : -7	No	7	
B	Allow for bracing, cross bracing, connecting clips , fixing brackets , hurricane clips, etc., as required for fixing in position of roof trusses as described in accordance with the manufacturer's instructions		Item	
C	Allow ONLY for the complete erection of all roof trusses complete with purlins, battens, wall plates, etc including all necessary bracing, etc (measured flat over covered area) D : 37 E : 37 G : -37	m2	37	
D	Roof truss certificate from manufacturer D : 1 E : 1 G : -1	No	1	
<p><u>EAVES, VERGES, ETC</u></p> <p><u>Pressed fibre cement</u></p>				
E	10 x 225mm Fascia board bolted to timber purlins (elsewhere) fixed with stainless steel screws at maximum 1000mm centres butt jointed with and including standard fascia jointing plates at all joints D : 14 E : 14 G : -14	m	14	
F	5 x 200 x 80mm Barge board bolted to timber purlins (elsewhere) with stainless steel screws at maximum 1000mm centres and jointed with and including standard fascia jointing plates at all joints D : 12 E : 12 G : -12	m	12	
G	Extra for splay cut end D : 4 E : 4 G : -4	No	4	
Carried Forward				R
<p>Section No. 3 Bill No. 6 Carpentry and Joinery Q515B</p>				

Brought Forward							
A	Extra for apex mitre D : 4 E : 4 G : -4	No		4			
<u>DOOR FRAMES, ETC FIXED TO BRICKWORK</u>							
<u>Wrought Meranti</u>							
B	44 x 12mm Architrave D : 10 E : 10 G : -10	m		10			
C	19mm Quadrant D : 5 E : 5 G : -5	m		5			
D	140 x 32mm Rebated door frame including 94 x 12mm beading D : 10 E : 10 G : -10	m		10			
<u>DOORS, ETC</u>							
<u>FL&B Doors</u>							
E	44mm Thick Hardwood framed, ledged and braced batten door size 813 x 2032mm with and including 6mm plywood flush panel to inside D : 1 E : 1 G : -1	No		1			
F	50 x 100mm Hardwood rebated and splayed weatherboard screwed to door and bedding in thick white lead D : 1 E : 1 G : -1	m		1			
<u>SKIRTINGS</u>							
<u>Hardwood skirting</u>							
G	19 x 94mm Skirting plugged with 19mm quadrant bead D : 19 E : 19 G : -19	m		19			
<u>PURPOSE MADE CUPBOARDS AND WORK TOPS</u>							
Carried Forward							R
Section No. 3 Bill No. 6 Carpentry and Joinery Q515B							

Brought Forward									
<p><u>All exposed edges to joinery units to be finished using 2mm PVC high impact edging in colour matching board face. All doors and drawers to be finished with Raiel Fingergrip Flat handles (Code RAH841) in natural anodised aluminium finish, handle to extend full length of door /drawer top with ends deburred and neatened to a smooth finish. All hinges to be heavy duty chrome plated continuous piano hinges and all runners and sliders to be full extension ball bearing slides. All doors and drawers to be fitted with locks. All shelves to be supported on three sides. Seal between all worktops, sanitary ware, tiling and wall with SIKAFLEX FC – 11 (for sanitary ware and/or wet areas) and SIKASIL –C everywhere else.</u></p> <p><u>Floor cupboards</u></p>									
A	<p>1995 x 600 x 900mm High floor drop-in cupboard (sink measured elsewhere) on 44 x 32mm support rail including galvanised steel frame from 50 x 50 x 3mm square tubing, with countertop manufactured from 1.6mm Stainless steel plate (grade 304) bent, glued and screwed on 32mm (2 x 16mm) Bisonboard V313 all in accordance with <u>Drawing 305-026 JP-01 and JD-01Type AA</u></p> <p style="text-align: center;">D : 1 E : 0 G : 0</p>	No	1						
B	<p>2300 x 600 x 900mm High floor drop-in cupboard (sink measured elsewhere) on 44 x 32mm support rail including galvanised steel frame from 50 x 50 x 3mm square tubing, with countertop manufactured from 1.6mm Stainless steel plate (grade 304) bent, glued and screwed on 32mm (2 x 16mm) Bisonboard V313 all in accordance with <u>Drawing 305-026 JP-04 and JD01-Type AA</u></p> <p style="text-align: center;">D : 0 E : 1 G : 0</p>	No	1						
C	<p>825 x 300 x 700mm High wall cupboard from 16mm Melamine faced board with 16mm Bisonlam mid shelf with 2mm high impacting PVC edging, complete with two 16mm Bisonlam Super white cupboard doors and 16mm Melamine faced bottom shelf all in accordance with <u>Drawing 305-026-JP-01 and JD-01-Type AA</u></p> <p style="text-align: center;">D : 1 E : 1 G : -1</p>	No	1						
Carried Forward									R
<p>Section No. 3 Bill No. 6 Carpentry and Joinery Q515B</p>									

	Brought Forward				
				R	
	<u>Worktops</u>				
A	3760 x 600 x 750mm High Life Seal Formica 32mm thick worktop fixed to wall with mild steel brackets, all in accordance with <u>Drawing 305-026 JP-02 and JD-02-Type BB</u>	No	1		
	D : 1 E : 0 G : 0				
B	4500 x 600 x 750mm High Life Seal Formica 32mm thick worktop fixed to wall with mild steel brackets, all in accordance with <u>Drawing 305-026 JP-03 and JD-02-Type BB</u>	No	1		
	D : 0 E : 1 G : 0				
Carried Forward to Summary of Section No. 3					R
Section No. 3					
Bill No. 6					
Carpentry and Joinery					
Q515B					

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 129 for JBCC CPAP purposes			
	<hr/>			
	<u>INSULATION</u>			
	<u>"Sisalation FR430" heavy industrial grade aluminium foil based insulation</u>			
A	Insulation laid taut over trusses (at approximately 1000mm centres) and fixed concurrent with roof purlins including galvanised steel straining wires D : 42 E : 42 G : -42	m2	42	
	<u>150mm Thick Isover Aerolite (011 360 8200) flexible non-combustible lightweight fibre Glasswool thermal ceiling insulation (Minimum R value required 3.34m2K/W) closely fitted with ends butted firmly between tie beams and laid loose on top of branding between roof timbers. All strictly to manufacturer's specifications.</u>			
B	Ceiling insulation D : 17 E : 17 G : -17	m2	17	
	<u>NAILED UP CEILINGS</u>			
	Carried Forward			R
	Section No. 3 Bill No. 7 Ceilings, partitioning and access flooring Q515B			

Brought Forward					
<u>Sawn S A Pine</u>					
A	Brandering for ceiling formed with 38 x 38mm battens at 400mm centres in one direction, with cross brandering at intersections and ends of ceiling boards D : 17 E : 17 G : -17	m2	17		
<u>6,4mm "Rhino" gypsum plasterboard with taped joints and with the whole surface skimmed with "Rhinolite" plaster</u>					
B	Ceilings D : 17 E : 17 G : -17	m2	17		
<u>Rhino Gypsum plasterboard cornice</u>					
C	75 mm Coved cornices D : 23 E : 23 G : -23	m	23		
<u>Trap door</u>					
D	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening D : 1 E : 1 G : -1	No	1		
Carried Forward to Summary of Section No. 3					
Section No. 3 Bill No. 7 Ceilings, partitioning and access flooring Q515B					
				R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 8</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 130 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>VINYL SHEETING</u></p> <p><u>2mm Thick Polyflor Forest FX PUR Rural Deckwood 3102 fully flexible laminated vinyl floor sheeting – all installed strictly to manufacturers specifications (Polyflor 011-609 3500) – Sheet and welding rod colours to Architects approval.</u></p>			
A	<p>Vinyl floor sheets on floors</p> <p style="padding-left: 20px;">D : 17 E : 17 G : -17</p>	m2	17	
	<p><u>SEALERS</u></p> <p><u>Two coats floor dressing as recommended by the manufacturer of the floor coverings on vinyl flooring (stripping and sealing)</u></p>			
B	<p>On floors</p> <p style="padding-left: 20px;">D : 17 E : 17 G : -17</p>	m2	17	
	<p>Carried Forward to Summary of Section No. 3</p>			R
	<p>Section No. 3 Bill No. 8 Floorcovering Q515B</p>			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO 9</u>			
	<u>IRONMONGERY</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 132 for JBCC CPAP purposes			
	<hr/>			
	<u>IRONMONGERY TO DOORS</u>			
	<u>All locks to be on a master and grand master key system</u>			
	<u>The following in type 1 (Aluminium Door)</u>			
A	Alufab 2040 200mm Aluminium sinkless hinges D : 8 E : 4 G : -8	No	4	
B	Dormakaba Stainless Steel lever handle on rose with cylinder escutcheons (Code CR001 Cyl SS) D : 2.0 E : 1.0 G : -2.0	Sets	1.0	
C	Dormakaba cylinder sash lock case size 116.5H x 78D Forend dimensions 168H x 22W, backset 57mm centres 61mm (Code D036S SS) with stainless steel finish D : 2 E : 1 G : -2	No	1	
D	Dormakaba 65mm Five pin Euro-profile double cylinder key with satin nickel finish (Code DDC056501 KD 65mm) D : 2 E : 1 G : -2	No	1	
	Carried Forward			R
	Section No. 3 Bill No. 9 Ironmongery Q515B			

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Brought Forward				R
A	Barrel bolt 150 x 32mm SC on brass D : 2 E : 1 G : -2	No	1	
B	Necked bolt 150 x 32mm SC on brass D : 2 E : 1 G : -2	No	1	
C	Halcast 401SC Doorstop and holder D : 2 E : 1 G : -2	No	1	
<u>The following in type 2 (Timber Door)</u>				
D	Dormakaba 102 x 75 x 3mm two ball bearing butt hinge, stainless steel finish EN1935 Grade 13, fire rated with 120kg carrying capacity per pair (Code DBB-SS-009) D : 1.0 E : 1.0 G : -1.0	Pairs	1.0	
E	Dormakaba lever handle on rose latch (Code CR001 Latch SS) D : 1.0 E : 1.0 G : -1.0	Sets	1.0	
F	Dormakaba bathroom sash lock case size 102H x 78D Forend dimensions 155H x 22W, backset 57mm centres 57mm (Code D035S SS) with stainless steel finish D : 1 E : 1 G : -1	No	1	
G	Dormakaba Bathroom WC indicator (Red and white) and turnknob (Code DWC-005) stainless steel finish D : 1.0 E : 1.0 G : -1.0	Sets	1.0	
H	Dormakaba hat and coat hook (Code DHC-SS-030A) stainless steel D : 1 E : 1 G : -1	No	1	
<u>BATHROOM FITTINGS</u>				
I	Franke recessed type toilet roll holder (Code 359635) size 118mm diameter x 110mm manufactured from Grade 304 (18/10) stainless steel, 2mm gauge. Unit with 20mm flange and 2 x M10 treaded rods for bolting the unit through the wall D : 1 E : 1 G : -1	No	1	
Carried Forward				R
Section No. 3 Bill No. 9 Ironmongery Q515B				

Brought Forward							
R							
<u>"Hi-Tec Stainless Products"</u>							
A	32mm Diameter grade 304 stainless steel triple mounted cranked general purpose rail (Code 25), plugged and screwed to walls with stainless steel screws	No	1				
	D : 1 E : 1 G : -1						
B	32mm Diameter grade 304 stainless steel straight long leg rail 750mm long, code 9LL, plugged and screwed to walls with stainless steel screws	No	1				
	D : 1 E : 1 G : -1						
<u>LOCKERS</u>							
C	5P-slanted industrial locker size 627 x 500 x 1900mm high manufactured from 1.2 and 2mm heavy duty quality steel, epoxy coated in blue and grey texture with 4 compartments and shelf, each compartment fitted with 3 point lever lock. Locker mounted on 50mm plinth epoxy powder coated in RAL 9011 black from "Metmeister" or equally approved	No	2				
	D : 2 E : 2 G : -2						
<u>PINNING BOARDS</u>							
<u>Vitrex System 2300 (011 826 6549) or equally approved pin boards with "Flortime Premier" carpet to pinning board</u>							
D	Standard 1000mm x 1000mm pin board all installed strictly to manufacturer's specifications, plugged (Boa010)	No	1				
	D : 1 E : 1 G : -1						
<u>GUN SAFE</u>							
E	Provide the sum of R15,000.00 (Fifteen thousand rand) for gun safes			Item			15,000.00
F	Allow for profit if required			Item			
G	Allow for attendance			Item			
Carried Forward							
R							
Section No. 3 Bill No. 9 Ironmongery Q515B							

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 at Livingstone PEPH Hospital Complex
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	Brought Forward		R	
	<u>SIGNAGE</u>			
A	Provide the sum of R20,000.00 (Twenty thousand rand) for signage	Item		20,000.00
B	Allow for profit if required	Item		
C	Allow for attendance	Item		
Carried Forward to Summary of Section No. 3			R	
Section No. 3 Bill No. 9 Ironmongery Q515B				

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u>			
	<u>BILL NO 10</u>			
	<u>METALWORK</u>			
	<u>PREAMBLES</u>			
	<u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u>			
	<u>TRADE NAMES</u>			
	Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 134 for JBCC CPAP purposes</i>			
	<hr/>			
	<u>STEEL COLUMN AND FIXING DETAILS</u>			
	<u>The following in welded and bolted galvanised steel columns and connector plate</u>			
A	120 x 120 x 6mm Square hollow section column D : 0.115 E : 0.115 G : -0.115	t	0.115	
B	400 x 120 x 10mm Connector plate fully welded to steel column (elsewhere measured) and bolted to timber beam (elsewhere measured) D : 2 E : 2 G : -2	No	2	
C	M16 bolts D : 4 E : 4 G : -4	No	4	
	<u>The following in galvanised base plates</u>			
D	250 x 250 x 10mm Thick base plate D : 2 E : 2 G : -2	No	2	
	Carried Forward			R
	Section No. 3 Bill No. 10 Metalwork Q515B			

	Brought Forward				R
A	250 x 250 x 25mm Thick non-shrink grout between concrete and underside of base plate D : 2 E : 2 G : -2	No	2		
B	M16 HD Gr8.8 bolts D : 8 E : 8 G : -8	No	8		
	<u>ALUMINIUM WINDOWS, DOORS, ETC</u>				
	<i>NOTE: The following items shall be deemed to fall into Work Group No 149 for JBCC CPAP purposes</i>				
	All aluminium doors, windows, etc to comply with AAAMSA standards and specifications and to Architect's approval.				
	Prices must include for the perimeters of frames to be sealed to the structure with approved sealant.				
	<u>All glazing should be in strict accordance with the requirements for SAGGA Glass Installation</u>				
	<u>ALUMINIUM DOORS</u>				
	<u>Crealco Clip44 Stable door white powder coated complete with wool piles all-round to ensure a dust proof seal, glazed with 6.4mm clear normal strength laminated safety glass plugged to brickwork or concrete (Ironmongery measured elsewhere). All to AAAMSA Standards and Architects approval.</u>				
C	Single Door, overall size 900mm x 2100mm high. <u>(As per drawing attached to these bills of quantities Drawing 305-026 DS-001 Door Type A)</u> D : 2 E : 1 G : -2	No	1		
	<u>ALUMINIUM WINDOWS</u>				
	<u>Crealco 38 Casement complete with A075A Defender Stays 400mm and 24kg (12 year guarantee) System (All to AAAMSA Standards and Architects approval) plugged to brickwork or concrete:</u>				
	Carried Forward				R
	Section No. 3 Bill No. 10 Metalwork Q515B				

Brought Forward										
<u>White powder coated aluminium windows with 6.4mm clear double glazing safety glass for all panels. All windows with and including standard window furniture complete with screws and bolts installed strictly according to AAAMSA standards and specifications</u>										
A	Window overall size 600mm x 900mm high. (As per Drawing 305-026-WIN004-Window D attached to these bills of quantities)		No		1					
	D : 1 E : 1 G : -1									
B	Window overall size 900mm x 900mm high. (As per Drawing 305-026 -WIN001 Window A attached to these bills of quantities)		No		1					
	D : 1 E : 0 G : 0									
C	Window overall size 3220mm x 1200mm high. (As per Drawing 305-026 -WIN002 Window B attached to these bills of quantities)		No		1					
	D : 1 E : 1 G : -1									
<u>HBS 900 Series Slider system (All to AAAMSA Standards and Architects approval) plugged to brickwork or concrete:</u>										
<u>White powder coated aluminium windows with 6.4mm clear double glazing safety glass for all panels. All windows with and including standard window furniture complete with screws and bolts installed strictly according to AAAMSA standards and specifications</u>										
D	Window overall size 1100mm x 1200mm high. (As per Drawing 305-026 -WIN003 Window C attached to these bills of quantities)		No		1					
	D : 1 E : 0 G : 0									
E	Window overall size 1100mm x 1200mm high. (As per Drawing 305-026 -WIN005 Window E attached to these bills of quantities)		No		1					
	D : 1 E : 0 G : 0									
Carried Forward										
Section No. 3 Bill No. 10 Metalwork Q515B										

	Brought Forward				
A	Window overall size 1600mm x 1200mm high. <u>(As per Drawing 305-026 -WIN006 Window F attached to these bills of quantities)</u> D : 0 E : 1 G : 0	No	1	R	
B	Window overall size 1190mm x 1200mm high. <u>(As per Drawing 305-026 -WIN007 Window G attached to these bills of quantities)</u> D : 0 E : 1 G : 0	No	1		
C	Window overall size 1600mm x 900mm high. <u>(As per Drawing 305-026 -WIN008 Window H attached to these bills of quantities)</u> D : 0 E : 1 G : 0	No	1		
Carried Forward to Summary of Section No. 3				R	
Section No. 3 Bill No. 10 Metalwork Q515B					

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 11</u></p> <p><u>PLASTERING</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i></p>			
	<p><u>SCREEDS</u></p> <p><u>1:3 Cement plaster screeds on concrete</u></p>			
A	<p>30mm Thick on floors with steel trowelled finish</p> <p style="padding-left: 40px;">D : 17 E : 17 G : -17</p>	m2		17
	<p><u>SPECIALIST FLOOR COVERINGS</u></p> <p><u>Levelite F30 self-levelling compound as manufactured by iTe products, to a thickness of 4mm as part of the iTe Products screed preparation system</u></p>			
B	<p>Floors</p> <p style="padding-left: 40px;">D : 17 E : 17 G : -17</p>	m2		17
	<p><u>INTERNAL PLASTER</u></p>			
	Carried Forward			
	<p>Section No. 3 Bill No. 11 Plastering Q515B</p>		R	

Brought Forward					
<u>One coat 1:4 cement plaster to brickwork with steel trowel to receive a skim finishing plaster</u>					
A	On walls	m2	40		
	D : 41 E : 40 G : -41				
B	On narrow widths	m2	3		
	D : 3 E : 3 G : -3				
<u>2mm Thick approved skim finishing plaster</u>					
C	2mm Thick skim finishing plaster to plastered walls	m2	43		
	D : 44 E : 43 G : -44				
<u>DIVIDING STRIPS, NOSING STRIPS ETC.</u>					
<u>25mm x 3mm Brass dividing strip cast into screed (flush with floor finish)</u>					
D	On floors	m	2		
	D : 2 E : 2 G : -2				
Carried Forward to Summary of Section No. 3					
Section No. 3 Bill No. 11 Plastering Q515B					
				R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 12</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>Note:</u> It is the responsibility of the specialist tiler to study the drawings and design and to allow for the design and execution of special fixing accessories, expansion joints, etc</p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 144 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>WALL TILING</u></p> <p><u>250 x 200 x 6.5mm Thick Johnson AL4 matt white ceramic wall tiles with 2mm joints and white grout fixed to walls with approved tile adhesive to plastered walls and waterproof tile grouting to joints</u></p>			
A	<p>On walls in splashbacks</p> <p style="padding-left: 40px;">D : 3 E : 3 G : -3</p>	m2	3	
	<p>Carried Forward to Summary of Section No. 3</p>			R
	<p>Section No. 3 Bill No. 12 Tiling Q515B</p>			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 13</u></p> <p><u>INTERNAL PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 148 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>SANITARY FITTINGS</u></p> <p><u>Handwash basins</u></p> <p>A Gypsy sanitaryware vandal resistant MKII hand wash basin (Code GYP/VA.R1/02) size 440 x 310 x 380mm to be installed as per manufacturer's specifications <div style="text-align: center; margin-left: 40px;">D : 1 E : 1 G : -1</div> </p> <p><u>Washdown suites</u></p> <p>B Gypsy Sanitaryware vandal resistant WC pan (Code GYP/VA.R1/01) size 420 x 410 x 510mm installed as per manufacturer's specifications <div style="text-align: center; margin-left: 40px;">D : 1 E : 1 G : -1</div> </p>			
	Carried Forward		R	
	<p>Section No. 3 Bill No. 13 Internal Plumbing and Drainage Q515B</p>			

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at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward				R
A	Kombifix element for wall-hung WC 108cm with Sigma concealed cistern 12cm (Code 110.360.00.5) consisting of poseder coated installation frame mounting frame with four fixing brackets, concealed cistern with front actuation concealed cistern, fully insulated against condensation immediate post flush possible with factory setting, complete with water supply connection (Rp 1/2" - R1/2" compatible with MF, with integrated angle stop valve and hand wheel protection box for service opening connection set for WC, 90mm diameter connection bend made of PE-HD, 90mm diameter adapter socket made of PE-HD, 90mm diameter/110mm filling segment 2 protection plugs, 2 threaded rods M12 fastening material Art no. B H T	No	1	
	D : 1 E : 1 G : -1			
B	Screwable single button front actuation actuator plate for stop and go flush for flush actuation with Sigma concealed cisterns to be brushed stainless steel	No	1	
	D : 1 E : 1 G : -1			
<u>Stainless steel sinks, washtrough, etc.</u>				
C	Franke NVN611 single stainless steel end bowl drop on sink and drainer grade 304 (18/10) (Code: 101.0167.171 /811023) size 800 x 460mm fitted onto cupboard (elsewhere measured)	No	1	
	D : 1 E : 1 G : -1			
<u>Taps, valves, traps, etc.</u>				
D	32mm Diameter Geberit bottle trap with dip tube, for washbasin, horizontal outlet, chrome plated (Code 151.034.21.1)	No	2	
	D : 2 E : 2 G : -2			
E	Cobra metering Pillar tape (Code COB-KM2-100) in chrome finish, includes self-closing, non-hold open, flow controller with flow cycle of 1-20 seconds, 1/2" male inlet, backnut, washer and streamline outlet for flow aesthetics.	No	1	
	D : 1 E : 1 G : -1			
Carried Forward				R
Section No. 3 Bill No. 13 Internal Plumbing and Drainage Q515B				

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward					R
A	Cobra Karoo mixer (Code KO-970) single lever sink mixer with swivel outlet with 1/2" BSP female inlet including sink mixer swivel outlet and 400mm long flexible inlets	No		1	
	D : 1 E : 1 G : -1				
<u>SANITARY PLUMBING</u>					
<u>uPVC pipes</u>					
B	50mm Pipes in walls	m		10	
	D : 10 E : 10 G : -10				
C	110mm Pipes	m		3	
	D : 3 E : 3 G : -3				
D	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m		2	
	D : 2 E : 2 G : -2				
E	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m		5	
	D : 5 E : 5 G : -5				
<u>Extra over uPVC pipes for fittings</u>					
F	50mm Adaptor	No		2	
	D : 2 E : 2 G : -2				
G	50mm Bend	No		4	
	D : 4 E : 4 G : -4				
H	50mm Access Bend	No		2	
	D : 2 E : 2 G : -2				
I	50mm Junction	No		2	
	D : 2 E : 2 G : -2				
J	110mm Junction	No		2	
	D : 2 E : 2 G : -2				
K	110mm Bend	No		2	
	D : 2 E : 2 G : -2				
L	110mm Pan connector	No		1	
	D : 1 E : 1 G : -1				
Carried Forward					R
Section No. 3 Bill No. 13 Internal Plumbing and Drainage Q515B					

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward									
A	110mm Access bend D : 2 E : 2 G : -2	No	2						
B	110mm Access junction D : 1 E : 1 G : -1	No	1						
C	110mm Access reducing junction D : 2 E : 2 G : -2	No	2						
D	110mm "GI Two-way" vent valve D : 1 E : 1 G : -1	No	1						
E	Wire balloon grating in top of pipe not exceeding 100mm D : 1 E : 1 G : -1	No	1						
<u>Sundries</u>									
F	Cast iron "A.B.C" straight or bent cleaning eye, with removable cover, jointed to top of 110mm uPVC pipe and set in and including 15Mpa (20mm stone) mass concrete surround, finished smooth to exposed surfaces and rounded on salient angles D : 1 E : 1 G : -1	No	1						
G	300 x 300mm Cast iron cover and frame placed over cleaning eye with frame cast into concrete D : 1 E : 1 G : -1	No	1						
<u>TESTS, ETC.</u>									
H	Testing waste pipe system			Item					
<u>HOT AND COLD WATER SUPPLIES</u>									
<u>Class 1 copper pipes</u>									
I	15mm Pipes D : 15 E : 15 G : -15	m	15						
J	15mm Pipes chased into walls D : 6 E : 6 G : -6	m	6						
K	15mm Pipes fixed to into knock-up ceiling with M8 rubber lined hanger brackets including M8 threaded rod not exceeding 500mm long and M8 drop-in anchor D : 15 E : 15 G : -15	m	15						
Carried Forward									
Section No. 3 Bill No. 13 Internal Plumbing and Drainage Q515B									

Brought Forward						
<u>Extra over class 1 copper pipes for capillary fittings</u>						
A	15mm Fittings	No	18			
	D : 18 E : 18 G : -18					
<u>FIXED WATER STORAGE HEATERS</u>						
B	Zip Hydroboil 2.5 litre with white powder coated finish	No	1			
	D : 1 E : 1 G : -1					
<u>TESTING</u>						
C	Testing hot and cold water installation		Item			
<u>Gulleys, etc</u>						
D	110mm Diameter PVC dished gulley, complete with necessary pipe, head, trap, gulley surround etc. not exceeding 1m deep	No	1			
	D : 1 E : 1 G : -1					
<u>FIRE APPLIANCES ETC.</u>						
E	4.5Kg DCP filled fire extinguisher with wall mounting bracket fitted to 400 x 200 x 22mm Meranti back plate with smoothed and rounded edges and varnished finish	No	1			
	D : 1 E : 1 G : -1					
Carried Forward to Summary of Section No. 3						
Section No. 3 Bill No. 13 Internal Plumbing and Drainage Q515B						
						R

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 14</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>No reference to trade names shall be made in these Bills of Quantities. Any reference to trade names in the Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 150 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>PANELS, MIRRORS, ETC</u></p> <p><u>6mm Silvered float glass copper backed mirrors with bevelled edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u></p>			
A	<p>Mirror, size 600 x 400mm</p> <p style="margin-left: 40px;">D : 1 E : 1 G : -1</p>	No	1	
	<p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3 Bill No. 14 Glazing Q515B</p>		R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>BILL NO 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>PAINTWORK, ETC TO NEW WORK</u></p>			
	Carried Forward		R	
	<p>Section No. 3 Bill No. 15 Painting Q515B</p>			

Brought Forward

R

Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved

A On internal walls

m2

43

D : 44 E : 43 G : -44

Carried Forward

R

Section No. 3
Bill No. 15
Painting
Q515B

Brought Forward					R
<p><u>Ensure that surfaces are dry, sound and clean. Remove dirt and loose particles, remove any oil, grease and surface contaminants using a mutton cloth in conjunction with Plascon Mineral turps (AZH1). Fill holes, gaps and other surface defects with Polycell Polyfilla interior (101002), allow 4 hours to dry and sand smooth with 220 grit sandpaper, dust off and spotprime filled areas with plaster primer and allow 16 hours to dry. Apply one coat of Professional Gypsum and Plaster Primer (PP 700) to achieve continuous film. Allow 16 hours to dry and apply two full coats of Plascon Polvin Super Acrylic (EPL/TAP) to achieve complete obliteration, allowing 1 hour drying between coats. All strictly to manufacturer's detail specification or equal approved</u></p>					
A	On gypsum plaster ceilings	m2	17		
	D : 17 E : 17 G : -17				
B	On cornices	m	23		
	D : 23 E : 23 G : -23				
<p><u>ON FIBRE CEMENT</u></p>					
Carried Forward					R
<p>Section No. 3 Bill No. 15 Painting Q515B</p>					

Brought Forward									
<p><u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Plascon Wall and All (WAA/TWA) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u></p>									
A	On fibre cement fascia and barge boards	m2		11					
	D : 11 E : 11 G : -11								
B	On internal fibre cement window sills not exceeding 300mm wide	m		8					
	D : 8 E : 8 G : -8								
<u>ON METALWORK</u>									
Carried Forward									
<p>Section No. 3 Bill No. 15 Painting Q515B</p>									

Brought Forward											
	<u>Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Surface to be dry, sound and clean. Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Allow to react for 1 minute and rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water break-free. Prime with one coat of Plascon Plascosafe 18 primer (EMS18) to achieve continuous film and allow 8 hours to dry, apply one coat Plascon Universal Undercoat (UC1) to achieve continuous film and allow 16 hours to dry. Finish with two coats of Plascon Velvaglo Water based (VLW/TVW) to achieve complete obliteration allowing 4 hours drying time between coats.</u>										
A	Structural steel D : 4 E : 4 G : -4	m2		4							
	<u>ON WOOD</u>										
	<u>Surface to be dry, sound and clean. Moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Sand wood to a smooth finish with 150 - 220 grit paper in the direction of the grain and dust off. Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet and sand to a smooth finish and dust off. Wash knots and resinous areas with Plascon Lacquer Thinner (ILS1), apply Plascon Woodcare Knot seal (PK2) to all knots and resinous areas and allow 1 hour to dry. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours, apply one coat of Plascon Universal Undercoat (UC1) to achieve continuous film and finish with two full coats of Plascon Waterbased Velvaglo Satin (VLO) to achieve complete obliteration allowing 4 hours drying time between coats. Colour to Architects approval</u>										
B	On doors D : 4 E : 4 G : -4	m2		4							
C	On skirtings, rails, bars, etc not exceeding 300mm girth D : 44 E : 44 G : -44	m		44							
	Carried Forward										
	Section No. 3 Bill No. 15 Painting Q515B										

	Brought Forward			R
A	<p><u>Surface to be dry, sound and clean. Moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Sand wood to a smooth finish with 150 - 220 grit paper in the direction of the grain and dust off. Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet and sand to a smooth finish and dust off. Wash knots and resinous areas with Plascon Lacquer Thinner (ILS1), apply Plascon Woodcare Knot seal (PK2) to all knots and resinous areas and allow 1 hour to dry. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours, apply one coat of Plascon Universal Undercoat (UC1) to achieve continuous film and finish with two full coats of Plascon Waterbased Velvagio Satin (VLO) to achieve complet obliteration allowing 4 hours drying time between coats. Colour to Architects approval</u></p> <p>On existing exposed roof timbers at eaves D : 16 E : 16 G : -16</p>	m2	16	R
<p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3 Bill No. 15 Painting Q515B</p>				R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 3</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE AND EXIT GATE HOUSE</u></p> <p><u>EXTERNAL WORKS</u></p> <p><u>BILL NO 16</u></p> <p><u>GENERAL SITE WORKS</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>Nature of ground</u></p> <p>Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><u>DEMOLITIONS</u></p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>Removal of trees</u></p> <p>A Cutting down and removing trees exceeding 200mm and not exceeding 500mm girth, including grubbing up roots, all necessary filling in of holes, lightly compacted and roughly levelled</p> <p style="padding-left: 40px;">D : 1 E : 0 G : 0</p> <p>B Ditto, but exceeding 500mm and not exceeding 1000mm girth</p> <p style="padding-left: 40px;">D : 1 E : 1 G : -1</p>			
	Carried Forward			R
	<p>Section No. 3 Bill No. 16 External works Q515B</p>			

Brought Forward									
A	Ditto, but exceeding 1000mm and not exceeding 1500mm girth D : 1 E : 0 G : 0	No		1					
<u>SITE CLEARANCE ETC</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>									
<u>Site clearance</u>									
B	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc D : 70 E : 70 G : -70	m2		70					
C	Stripping average 200mm thick layer of top soil and stockpiling on site D : 14 E : 14 G : -14	m3		14					
<u>BULK EXCAVATION, ETC</u>									
<u>Note:</u> The costs of soil, compaction, etc. tests in accordance with SABS 1200 are to be included in the rates for the relevant works									
<u>Open face excavation in earth over sloping site</u>									
D	Open face excavation in earth on site in cutting and levelling sloping sites for platforms and roads and deposit on site D : 21 E : 21 G : -21	m3		21					
<u>Extra over bulk excavation in earth for excavation in</u>									
E	Intermediate rock D : 2 E : 0 G : 0	m3		2					
F	Hard rock D : 1 E : 0 G : 0	m3		1					
Carried Forward									R
Section No. 3 Bill No. 16 External works Q515B									

Brought Forward				R
<u>Extra over all excavations for carting away</u>				
A	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor D : 21 E : 21 G : -21	m3	21	
<u>Keeping excavations free of water</u>				
B	Keeping excavations free of all water other than subterranean water		Item	
<u>FILLING ETC.</u>				
<u>G5 earth filling obtained from the excavations and / or prescribed stock piles on site including haulage not exceeding 500m from perimeter of excavations or stock piles compacted in layers not exceeding 150mm to 90% modified AASHTO density</u>				
C	To form platforms under buildings D : 21 E : 21 G : -21	m3	21	
<u>G5 imported fill supplied by the contractor compacted to 95% Mod AASHTO density in layers not exceeding 150mm</u>				
D	Fill to form platforms for buildings, parking areas, roads, etc. D : 15 E : 0 G : 0	m3	15	
<u>APRONS AROUND GATEHOUSES</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>				
E	Reduce levels under aprons,etc. D : 6 E : 6 G : -6	m3	6	
Carried Forward				R
Section No. 3 Bill No. 16 External works Q515B				

Brought Forward									
Sundries									
A	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking)								
	D : 6 E : 6 G : -6	m3	6						
Filling									
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 95% Mod. AASHTO density</u>									
B	Under aprons								
	D : 2 E : 2 G : -2	m3	2						
<u>Compaction of surfaces</u>									
C	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density								
	D : 20 E : 20 G : -20	m2	20						
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>									
<u>Cement concrete (20Mpa) mass in</u>									
D	Aprons, in panels, etc								
	D : 2 E : 2 G : -2	m3	2						
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>									
E	Aprons, etc. to falls								
	D : 20 E : 20 G : -20	m2	20						
Carried Forward to Summary of Section No. 3									
Section No. 3 Bill No. 16 External works Q515B									

Item No		Quantity	Rate	Amount
	<p><u>SECTION 3</u></p> <p><u>EXTERNAL PLUMBING AND DRAINAGE</u></p> <p><u>BILL NO. 17</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 146 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>STORMWATER DRAINAGE</u></p> <p><u>PREAMBLES</u></p> <p>Tenderers are advised to study the "South African Bureau of Standards Standardized Specification for Civil Engineering Construction" (SABS 1200) before pricing this Bill, as these specifications shall apply to this Contract.</p> <p><i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>DEMOLITIONS</u></p>			
A	<p>Break down and remove existing storm water catchpit, size approximately 1585 x 1230 x 1500mm deep under ground level, complete with overslab, floor channels, etc. including necessary excavations, filling, compaction, roughly levelling ground surface, etc.</p> <p style="text-align: center;">D : 1 E : 0 G : 1</p>	No	2	
	Carried Forward			R
	<p>Section No. 3 Bill No. 17 External plumbing and drainage Q515B</p>			

Brought Forward							
R							
<u>EARTHWORKS</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							
<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>							
<u>Excavations in earth</u>							
A	For pipes exceeding 1m and not exceeding 2m deep	m3	156				
	D : 0 E : 156 G : 0						
<u>Extra over excavations for carting away</u>							
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	62				
	D : 0 E : 62 G : 0						
<u>BEDDING, BACKFILLING, ETC</u>							
<u>Provide bedding from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>							
C	Selected granular material	m3	31				
	D : 0 E : 31 G : 0						
<u>Fill blanket from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>							
D	Selected fill material	m3	31				
	D : 0 E : 31 G : 0						
Carried Forward							
R							
Section No. 3 Bill No. 17 External plumbing and drainage Q515B							

	Brought Forward			R
	<p><u>Provide main fill blanket from trench excavations in layers not exceeding 150mm thick, compacted to 95% MOD AASHTO density. All excavated material to be free of organic matter and to be mixed in minimum proportions of 30% dark grey intact sandy silt sand of shallower excavations and 30% light grey hard shale and clay material from deeper excavations (maximum size of rocks/stone to be 75mm) for use as backfill for pipe trenches and to be compacted to minimum 95% mod AASHTO densite</u></p>			
A	Selected fill material D : 0 E : 94 G : 0	m3	94	
	<p><u>PIPEWORK</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 146 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>Supply and lay Sans677 Class 50D interlocking joint reinforced concrete pipes (excavation, backfilling, compaction, etc. elsewhere)</u></p>			
B	450mm Diameter pipe exceeding 1m and not exceeding 2m deep D : 0 E : 60 G : 0	m	60	
	<p><u>THE FOLLOWING IN NO. 1 STORMWATER MANHOLE</u></p>			
C	Excavate in earth for and build stormwater manhole, size 1500 x 1500mm exceeding 1m deep and not exceeding 1.5m deep internally, with one brick sides, finished internally with one coat cement plaster, on 150mm thick reinforced concrete 20Mpa (20mm stone) base and reinforced with and including 20mm diameter high tensile reinforcing bars at 200mm centres in both directions, with 150mm thick precast concrete cover slab, finished smooth on all exposed surfaces, rounded on salient angles and provided with opening rebated for grating (measured elsewhere), including concrete benching, building through pipes, formwork, back filling, ramming, etc. D : 0 E : 1 G : 0	No	1	
	Carried Forward			R
	Section No. 3 Bill No. 17 External plumbing and drainage Q515B			

Brought Forward									
<u>Manhole covers, etc.</u>									
A	550mm Diameter heavy duty cover and frame SABS 558 Type 2A cast iron manhole cover and frame, with frame bedded in 3:1 cement mortar and cover sealed in tallow								
	D : 0 E : 1 G : 0	No	1						
<u>THE FOLLOWING IN NO. 2 STORMWATER CATCHPITS</u>									
B	Excavate in earth for and build stormwater double grid inlet, size 1585 x 1230mm exceeding 1m deep and not exceeding 1.5m deep internally, with one brick sides, finished internally with one coat cement plaster, on 150mm thick reinforced concrete 20Mpa (20mm stone) base and reinforced with and including 20mm diameter high tensile reinforcing bars at 200mm centres in both directions, with 150mm thick precast concrete cover slab, finished smooth on all exposed surfaces, rounded on salient angles and provided with opening rebated for grating (measured elsewhere), including concrete benching, building through pipes, formwork, back filling, ramming, etc.								
	D : 1 E : 1 G : -1	No	1						
<u>Gratings, etc.</u>									
C	625 x 510mm Double hinged cast iron grating and frame bedded in cement mortar								
	D : 2 E : 2 G : -2	No	2						
<u>Testing, etc</u>									
D	Allow for testing new stormwater drains as described								
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>								
<u>Extra over excavation for stormwater drainage for excavation</u>									
E	Intermediate rock								
	D : 0 E : 16 G : 0	m3	16						
Carried Forward									
Section No. 3 Bill No. 17 External plumbing and drainage Q515B									

	Brought Forward				R
A	Hard rock D : 0 E : 8 G : 0	m3	8		
	<u>WATER SUPPLY</u>				
	<u>EXTERNAL WATER SUPPLY</u>				
	<u>PREAMBLES</u>				
	Tenderers are advised to study the "South African Bureau of Standards Standardized Specification for Civil Engineering Construction" (SABS 1200) before pricing this Bill, as these specifications shall apply to this Contract.				
	<u>WATER SUPPLIES</u>				
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
	<u>EARTHWORKS</u>				
B	For pipes not exceeding 1m deep D : 19 E : 36 G : -19	m3	36		
	<u>Extra over excavations for carting away</u>				
C	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor D : 8 E : 14 G : -8	m3	14		
	<u>BEDDING, BACKFILLING, ETC</u>				
	<u>Provide bedding from carted on material from commercial sources including sifting and compaction to 93% MOD AASHTO density for backfilling to</u>				
D	Selected granular material D : 2 E : 4 G : -2	m3	4		
	Carried Forward				R
	Section No. 3 Bill No. 17 External plumbing and drainage Q515B				

Brought Forward							
<u>Fill blanket from carted on material from commercial sources including sifting and compaction to 93% MOD AASHTO density for backfilling to</u>							
A	Selected fill material D : 6 E : 11 G : -6	m3	11				
<u>Provide main fill blanket from trench excavations in layers not exceeding 150mm thick, compacted to 95% MOD AASHTO density. All excavated material to be free of organic matter and to be mixed in minimum proportions of 30% dark grey intact sandy silt sand of shallower excavations and 30% light grey hard shale and clay material from deeper excavations (maximum size of rocks/stone to be 75mm) for use as backfill for pipe trenches and to be compacted to minimum 95% mod AASHTO densite</u>							
B	Selected fill material D : 11 E : 22 G : -11	m3	22				
<u>WATER SUPPLIES</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 148 for JBCC CPAP purposes</i>							
C	Sterilizing all water pipes prior to installation in strict accordance to the methods and specifications in SANS10252-1			Item			
<u>HDPE pipes Class 12 for use under ground in accordance with SABS 791 with uPVC couplings (Excavation, bedding material, back filling, compaction, etc. elsewhere)</u>							
D	40mm Diameter pipe not exceeding 1m deep D : 31 E : 60 G : -31	m	60				
<u>Extra over piping for Plasson screwed type fittings</u>							
E	40mm pressure bend, 90 degrees D : 4 E : 4 G : -4	No	4				
Carried Forward							
Section No. 3 Bill No. 17 External plumbing and drainage Q515B							

**Upgrading of security infrastructure
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Brought Forward				R
A	40mm pressure bend, 45 degrees D : 2 E : 2 G : -2	No	2	
B	40mm pressure bend, 22.5 degrees D : 2 E : 2 G : -2	No	2	
C	40mm tee D : 2 E : 4 G : -2	No	4	
<u>Thrust blocks to 22.5 degrees bends</u>				
D	Size extreme 300 x 350 x 300mm high D : 2 E : 2 G : -2	No	2	
<u>Thrust blocks to 45 degrees bends</u>				
E	Size extreme 400 x 500 x 175mm high D : 2 E : 2 G : -2	No	2	
<u>Thrust blocks to 90 degrees bends</u>				
F	Size extreme 500 x 740 x 250mm high D : 4 E : 4 G : -4	No	4	
<u>Valve chambers</u>				
<u>Taps, Valves, etc.</u>				
G	80mm Flanged Class 16 gate valves "Premier Euro 16" or similar approved with hand wheel and non-rising spindle D : 0 E : 1 G : 0	No	1	
<u>Precast concrete valve chamber, 400mm internal diameter, complete including all necessary excavations, precast manholes rings, in situ concrete bottom slabs (size 1000mm diameter) laid to falls (thickness of slab 150mm) with 20mm thick concrete topping, 150mm thick medium duty precast roof slab, channels, finishes, cast iron double seal cover and frame, etc. all joints sealed with 1:3 cement sand mix caulked in ring joints</u>				
H	Valve chamber not exceeding 1m deep D : 0 E : 1 G : 0	No	1	
Carried Forward				R
Section No. 3 Bill No. 17 External plumbing and drainage Q515B				

Brought Forward							
<u>Manhole covers, etc.</u>							
A	Saint Gobain Hydrex ductile iron cover and frame size 300 x 400mm with frame bedded in 3:1 cement mortar and cover sealed in tallow and Y-shaped locking bar	No	1				
	D : 0 E : 1 G : 0						
<u>TESTING, ETC</u>							
B	Allow for testing the complete water reticulation as described		Item				
<u>SUNDRIES</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							

<u>Extra over excavation for water reticulation for excavation in</u>							
C	Intermediate rock	m3	6				
	D : 0 E : 6 G : 0						
D	Hard rock	m3	3				
	D : 0 E : 3 G : 0						
<u>SOIL DRAINAGE</u>							
<u>PREAMBLES</u>							
Tenderers are advised to study the "South African Bureau of Standards Standardized Specification for Civil Engineering Construction" (SABS 1200) before pricing this Bill, as these specifications shall apply to this Contract.							
<u>EARTHWORKS</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							

Carried Forward							R
Section No. 3 Bill No. 17 External plumbing and drainage Q515B							

Brought Forward				R
<u>Excavations in earth</u>				
A	For pipes exceeding 1m and not exceeding 2m deep D : 56 E : 106 G : -56	m3	106	
<u>Extra over excavations for carting away</u>				
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor D : 14 E : 12 G : -14	m3	12	
<u>BEDDING, BACKFILLING, ETC</u>				
<u>Provide bedding from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>				
C	Selected granular material D : 8 E : 16 G : -8	m3	16	
<u>Fill blanket from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>				
D	Selected fill material D : 6 E : 11 G : -6	m3	11	
<u>Provide main fill blanket from trench excavations in layers not exceeding 150mm thick, compacted to 95% MOD AASHTO density. All excavated material to be free of organic matter and to be mixed in minimum proportions of 30% dark grey intact sandy silt sand of shallower excavations and 30% light grey hard shale and clay material from deeper excavations (maximum size of rocks/stone to be 75mm) for use as backfill for pipe trenches and to be compacted to minimum 95% mod AASHTO densite</u>				
E	Selected fill material D : 42 E : 80 G : -42	m3	80	
Carried Forward				R
Section No. 3 Bill No. 17 External plumbing and drainage Q515B				

Brought Forward					R
<u>PIPEWORK</u>					
<i>NOTE: The following items shall be deemed to fall into Work Group No 146 for JBCC CPAP purposes</i>					

<u>uPVC pipes Heavy duty Class 34 for use under ground in accordance with SABS 791 with uPVC couplings (Excavation, bedding material, back filling, compaction, etc. elsewhere)</u>					
A	160mm Diameter pipe exceeding 1m and not exceeding 2m deep	m	70		
	D : 37 E : 70 G : -37				
<u>Extra over uPVC pipes for fittings</u>					
B	160mm Flexible joint	No	4		
	D : 4 E : 4 G : -4				
C	160mm Bend	No	4		
	D : 4 E : 4 G : -4				
D	160mm Access bend	No	2		
	D : 2 E : 2 G : -2				
E	160mm Junction	No	4		
	D : 4 E : 4 G : -4				
F	160mm Access junction	No	2		
	D : 2 E : 2 G : -2				
G	160mm Bend, 45 degrees	No	2		
	D : 2 E : 2 G : -2				
<u>Sundries</u>					
H	Cast iron "A.B.C" straight or bent cleaning eye, with removable cover, jointed to top of 160mm uPVC pipe and set in and including 15Mpa (20mm stone) mass concrete surround, finished smooth to exposed surfaces and rounded on salient angles	No	1		
	D : 1 E : 1 G : -1				
Carried Forward					R
Section No. 3					
Bill No. 17					
External plumbing and drainage					
Q515B					

Brought Forward								
A	150mm Diameter cast iron cover and frame placed over cleaning eye with frame cast into concrete D : 1 E : 1 G : -1	No						
	<u>Connect to existing sewer line</u>							
B	Search, find existing 160mm uPVC pipe, excavate in earth as necessary for and cut in existing pipe in existing manhole not exceeding 2m deep internally D : 1 E : 1 G : -1	No						
	<u>Pre-fabricated manholes</u>							
	<u>Precast concrete manholes, 1000mm internal diameter, complete including all necessary excavations, precast manholes rings, in situ concrete bottom slabs (size 1680mm diameter) laid to falls (min thickness of slab 150mm and maximum thickness 350mm) with 20mm thick concrete topping, 150mm thick medium duty precast roof slab, channels, finishes, cast iron double seal manhole cover and frame, etc. all joints sealed with 1:3 cement sand mix caulked in ring joints</u>							
C	Manhole exceeding 1m and not exceeding 2m deep D : 0 E : 1 G : 0	No						
	<u>Manhole covers, etc.</u>							
D	550mm Diameter Type 2A cast iron manhole cover and frame, with frame bedded in 3:1 cement mortar and cover sealed in tallow D : 0 E : 1 G : 0	No						
	<u>Excavations in earth</u>							
E	15MPa/19mm Mass concrete encasing around 160mm vertical or raking drain pipe to cleaning eye including all necessary formwork D : 1 E : 0 G : 0	No						
F	15MPa/19mm Mass concrete in precast I.E. marker block set flush with the ground or paving D : 1 E : 0 G : 0	No						
Carried Forward								
Section No. 3 Bill No. 17 External plumbing and drainage Q515B								
							R	

	Brought Forward			R
	<u>Testing</u>			
A	Pressure testing drainage pipe system		Item	
	<u>Extra over excavation for sewer drainage for excavation</u>			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
B	Intermediate rock	m3	16	
	D : 0 E : 16 G : 0			
C	Hard rock	m3	8	
	D : 0 E : 8 G : 0			
Carried Forward to Summary of Section No. 3				
Section No. 3				R
Bill No. 17				
External plumbing and drainage				
Q515B				

SECTION SUMMARY - SECTION 3 PE PROVINCIAL HOSPITAL ENTRANCE &

Bill No		Page No	Amount
1	Foundations	158	
2	Concrete Formwork and reinforcing	160	
3	Masonry	163	
4	Waterproofing	165	
5	Roof covering	168	
6	Carpentry and Joinery	173	
7	Ceilings, partitioning and access flooring	175	
8	Floorcovering	176	
9	Ironmongery	180	
10	Metalwork	184	
11	Plastering	186	
12	Tiling	187	
13	Internal Plumbing and Drainage	192	
14	Glazing	193	
15	Painting	199	
16	External works	203	
17	External plumbing and drainage	215	
	Carried to Final Summary		R
	Section No. 3 Q515B		

Item No		Quantity	Rate	Amount
	<p><u>SECTION 4</u></p> <p><u>PE PROVINCIAL HOSPITAL</u></p> <p><u>BILL NO. 1</u></p> <p><u>BUCKINGHAM ROAD AND ST CROIX ROAD</u></p> <p><u>MAIN FRONT PARKING AREA</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block B: PE Provincial Hospital</p> <p>Block G: SMME Packages</p> <p><u>HOARDING</u></p> <p><u>TEMPORARY MILD STEEL WELDMESH FENCE</u></p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p>			
A	<p>Allow for clearing site for the width of 2 000 mm where existing fencing runs (1000 mm on each side of fence), and where new fence are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling. Prospective bidders to familiarize themselves with the areas that do contain shrubs, etc. at the mandatory briefing meeting to ensure that the item is priced accordingly and correctly, as no further costs shall be entertained by Employer.</p> <p style="text-align: center;">B : 404 G : 0</p>	m	404	
	Carried Forward			R
	<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>			

**Upgrading of security infrastructure
 at Livingstone PEPH Hospital Complex
 Provisional Bills of Quantities
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Brought Forward										
<p>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/>										
<p><u>Timber posts</u></p>										
A	100mm Diameter timber gumpole, 2400mm long embedded in 450 x 450 x 900 mm mass concrete (15 MPa) base									
	B : 135 G : 0	No			135					
<p><u>Fencing</u></p>										
B	Security fencing 50 x 25 x 2.5 x 1800mm high diamond mesh fully galvanized weld mesh overall fixed to posts and straining eye bolts, tied with 2.5mm binding wire at 500mm centres to each strand of draw wire									
	B : 404 G : 0	m			404					
C	Shade net lining (50%) 1800mm high green netting and stitching to timber posts and including binding wire									
	B : 728 G : 0	m2			728					
<p><u>Sundries</u></p>										
D	12mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers, including hole through post									
	B : 1616 G : 0	No			1,616					
<p><u>Gates</u></p>										
E	Security fence double gate, size 6000mm wide x 1800mm high, in equal leaves each leaf formed of 50 x 2.8mm tubular frames with bracing complete with four hinges, eye bolts, bolts and barrel bolt. Frame covered with fully galvanized medium security diamond mesh, mesh size 50 x 25 x 2.5 x 1800mm high and including 500 mm long approved chain spot welded to gate and union padlock No 3122 with two 100 x 3mm galvanised corner posts with 300 x 300 x 6mm base plate cast in 450 x 450 x 900mm concrete and 50 x 3mm galvanised straining posts with 300 x 300 x 6mm base plate cast in 450 x 760 x 600mm concrete base									
	B : 1 G : 0	No			1					
Carried Forward										
<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>										R

Brought Forward										
<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes										
A	Dismantle and take off temporary security fencing after completion of construction (on instruction of the Principal Agent) 1800mm high steel fencing, shade netting and timber poles including necessary excavations, filling, compaction, roughly levelling ground surfaces, etc. and remove from site									
	B : 404 G : 0									
<u>DEMOLITIONS</u>										
<u>Demolitions</u>										
<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes										
B	Take out and remove existing security spikes approximately 300mm wide and 150mm high from tarmac road									
	B : 6 G : 0									
C	Break down and remove existing security boom and arm including any necessary excavations, filling, compaction, roughly levelling ground surface, carting away, etc including disconnecting electrical installation									
	B : 2 G : 0									
D	Break down and remove existing damaged face brick wall									
	B : 8 G : 0									
E	Take off and remove existing concrete coping from brick pier size approximately 560 x 560mm wide and store temporarily for re-use									
	B : 63 G : 0									
F	Take off and remove existing steel fencing panels from brick walls, panels approximately 5400mm wide x 350mm high									
	B : 63 G : 0									
Carried Forward										
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B										

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
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Brought Forward		R	
A	Take off and remove existing pedestrian gate size 3010 x 1000mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 1 G : 0	No	1
B	Cut 300mm wide x 150mm deep channel into existing sliding gate concrete beam, for sliding gate to operate on same level as existing entrance roads B : 8 G : 0	m	8
<u>Removal of trees</u>			
<u>Taking out and removing, grubbing up roots and filling in holes</u>			
C	Tree exceeding 200mm and not exceeding 500mm girth B : 10 G : 0	No	10
D	Tree exceeding 500mm and not exceeding 1000mm girth B : 2 G : 0	No	2
E	Tree exceeding 1000mm and not exceeding 1500mm girth B : 1 G : 0	No	1
F	Tree exceeding 1500mm and not exceeding 2000mm girth B : 1 G : 0	No	1
<u>Trimming of trees</u>			
G	Allow the Amount of R20,000.00 (Twenty thousand Rand) for the trimming of trees and tree roots	Item	20,000.00
H	Profit on above item.	Item	
I	Attendance on ditto.	Item	
Carried Forward		R	
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B			

Brought Forward										
<u>REMOVE AND RELOCATE EXISTING TIMBER BUILDING TO DIFFERENT POSITION ON SITE</u>										
A	Remove and relocate existing timber gate house building, overall size 3 x 3m wide and 3m high. Timber building to be relocated, not exceeding 500m from original position B : 1 G : 0	No	1							
B	Remove and relocate existing timber gate house building, overall size 3 x 3m wide and 3m high. Timber building to be relocated, not exceeding 1000m from original position to position identified by End User (To be handed to client at the end of the contract) B : 1 G : 0	No	1							
<u>TEMPORARY ACCESS SIGNAGE</u>										
C	Allow the Amount of R20,000.00 (Twenty thousand Rand) for the temporary access signage			Item					20,000.00	
D	Profit on above item.			Item						
E	Attendance on ditto.			Item						
<u>EXTEND EXISTING FACE BRICK COLUMNS</u>										
<u>MASONRY</u>										
<i>NOTE: The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>										
<u>Brickwork of clay bricks in 6:1 cement mortar</u>										
F	Mass brickwork in piers on top of existing brick columns B : 22 G : 0	m3	22							
G	One brick walls B : 8 G : 0	m2	8							
<u>Brick reinforcement</u>										
H	High tensile galvanised steel brick reinforcement 150mm wide well lapped at all angles and passings and built into brick walls B : 1225 G : 0	m	1,225							
Carried Forward										
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B										

Brought Forward				R
<u>FACE BRICKWORK</u>				
<u>External facings to be Corobrik Country Meadow Travertine FBS pointed with tinted horizontal and vertical joints with cement mortar to match colour of face bricks and seal with ABE Durasil S sealant</u>				
A	Extra over brickwork for face brickwork to brick columns B : 192 G : 0	m2	192	
B	Extra over brickwork for face brickwork to new low level wall B : 8 G : 0	m2	8	
C	Cut brick on edge coping bedded in cement mortar and pointed on top, edge and projecting soffit B : 11 G : 0	m	11	
<u>REINFORCED CONCRETE</u>				
<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes				

<u>20MPa/19mm concrete</u>				
D	Concrete infill in brick columns B : 6 G : 0	m3	6	
<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes				

<u>Mild steel rod reinforcement to structural concrete work</u>				
E	8mm Diameter bars B : 0.350 G : 0.000	t	0.350	
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>				
F	12mm Diameter bars B : 0.700 G : 0.000	t	0.700	
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward							
A	16mm Diameter bars B : 0.700 G : 0.000	t	0.700				R
<u>PRECAST CONCRETE</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 112 for JBCC CPAP purposes</i>							
<u>Pre-cast coping</u>							
B	Pre-cast concrete coping, size 560 x 560 x 80mm high with apex to additional height of 20mm installed on top of face brick columns bedded in cement mortar B : 14 G : 0	No	14				
C	Pre-cast concrete coping, size 790 x 790 x 80mm high with apex to additional height of 20mm installed on top of face brick columns bedded in cement mortar B : 6 G : 0	No	6				
D	Pre-cast concrete coping, size 560 x 728 x 80mm high with apex to additional height of 20mm installed on top of face brick columns bedded in cement mortar B : 4 G : 0	No	4				
E	Pre-cast concrete corner coping, each side size 650 x 550mm wide x 80mm high with apex to additional height of 20mm installed on top of face brick columns bedded in cement mortar (overall length 1300mm) B : 3 G : 0	No	3				
<u>Patching and repairing existing road</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i>							
F	Tack coat of 30% cationic stable grade emulsion (0.45L/m ²) B : 3 G : 0	m2	3				
G	Prime coat - MC-30 cut-back bitumen (Applied at a rate of 0.91L/m ²) B : 3 G : 0	m2	3				
Carried Forward							R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B							

Brought Forward							
A	30mm Premix (continuously graded with 60/70 penetration bitumen) on and including RTH 1/4 prime coat and KRS tack coat on base course (elsewhere measured) in patching B : 3 G : 0	m2	3				
<u>Precast concrete kerbs:</u>							
B	300 x 150mm High Figure 8c mountable precast concrete kerb in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 600 x 150mm thick under, and 200 x 200 x 200mm high unreinforced concrete Class B haunching behind including necessary excavation B : 16 G : 0	m	16				
<u>HIGH SECURITY FENCING</u>							
<u>PVC coated high security fencing, gates and setting out. All bolts, nuts and washers to be stainless steel grade 304 and all fixators will be of grade 304 stainless steel (ISO 9223) and PVC coated. Fence system to be maintenance free and carry a 10 year anti-corrosion guarantee. Supplier to be ISO9001 and Green Building Council</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>							
C	70 x 44mm x 2mm x 1685 mm long H-Shaped profile. Secure post to be hot dipped galvanised and coated with PVC coated Anthracite RAL7021 or Green RAL6005. Holes are pre-drilled before PVC coating. Spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). Posts to be fixed to top of face brick low level wall B : 189 G : 0	No	189				
Carried Forward							R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B							

Brought Forward

R

GATES

NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes

A Sliding pedestrian gate, size 3010mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 30 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 80 x 80 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 75mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling **all in accordance with Sliding Gate Drawing 305-026 SIT-004**

No

1

B : 1 G : 0

Carried Forward

R

Section No. 4
Bill No. 1
Buckingham road and St Croix Road entrance
Q515B

	Brought Forward				R
A	<p>Sliding gate, size 4500mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC006 (St Croix road elevation 1)</u></p> <p style="text-align: center;">B : 1 G : 0</p>	No	1		R
	Carried Forward				R
	<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>				

	Brought Forward						
A	<p>Sliding gate, size 4920mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products .Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC006 (St Croix road elevation 1)</u></p> <p style="text-align: center;">B : 1 G : 0</p>	No	1	R			
	Carried Forward			R			
	<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>						

	Brought Forward			R
A	<p>Sliding gate, size 9613mm wide x 2400mm high formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling, <u>all in accordance with Sliding Gate Drawing 305-026-ARC006 (Buckingham road elevation 2)</u></p> <p style="text-align: center;">B : 1 G : 0</p> <p><u>CONCRETE GATE BEAM</u></p> <p><i>NOTE:</i> The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>			

Brought Forward				R
<u>Excavation in earth or compacted filling not exceeding 2m deep</u>				
A	Concrete gate beam B : 7 G : 0	m3	7	
<u>Extra over all excavations for carting away</u>				
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor B : 7 G : 0	m3	7	
<u>Risk of collapse of excavations</u>				
C	Sides of trench and hole excavations not exceeding 1,5m deep B : 40 G : 0	m2	40	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				

<u>30MPa/19 mm Reinforced concrete in</u>				
D	Gate beams B : 7 G : 0	m3	7	
<u>Reinforcement</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				

<u>Mild steel rod reinforcement to structural concrete work</u>				
E	8mm Diameter bars B : 0.245 G : 0.000	t	0.245	
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>				
F	10mm Diameter bars B : 1.225 G : 0.000	t	1.225	
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward					
A	12mm Diameter bars B : 0.980 G : 0.000 <u>Steel track in concrete beam</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	t	0.980		R
B	10 x 100mm galvanised mild steel flat bar cast on edge in concrete ground beam including 10mm diameter lugs welded to flat bar at 500mm centres B : 44 G : 0 <u>BOOM GATES</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	m	44		
C	<u>Automatic Industrial Vehicle barrier With Swiftdrive</u> Automatic industrial vehicle barrier with swiftdrive as supplied by Turnstar Systems (011 786 1633). Barrier to consist of BLDC, 24V DC, 100W motor, Plaetary gearbox with 27.6 V DC, 4.5A, 120W motor power supply. Barrier to include collision detection, dual channel safety loop detector and input for any external sensor, integrates with all access control, ticketing and time & attendance systems, triggered trough a normally open dry contact and free exit loop feature built-in as standard. With push button located in security/guard house. Barrier to be manufactured from Stainless steel Grade 316. Barrier to include 3m barrier arm size 86mm x 43mm x 1.5mm thickness, power coated aluminium with red reflective tape and integrated RGB. Barrier to be bolted to 500 x 500 x 300mm deep concrete base (15Mpa), including all excavations and backfilling (Installed strictly to manufacturers specifications) B : 2 G : 0	No	2		
<u>REPLACEMENT OF EXISTING MANHOLE COVERS</u>					
Carried Forward					R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B					

Brought Forward				R
<i>NOTE: The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin: auto;"/>				
<u>Brickwork of clay bricks in 6:1 cement mortar</u>				
A	Half brick walls B : 2 G : 0	m2	2	
B	One and a half brick walls B : 2 G : 0	m2	2	
C	Ditto, but in foundations B : 2 G : 0	m2	2	
<u>Brick reinforcement</u>				
D	High tensile galvanised steel brick reinforcement 75mm wide well lapped at all angles and passings and built into brick walls B : 59 G : 0	m	59	
E	High tensile galvanised steel brick reinforcement 150mm wide well lapped at all angles and passings and built into brick walls B : 47 G : 0	m	47	
F	Ditto, but in foundations B : 47 G : 0	m	47	
<u>External facings to be Corobrik Country Meadow Travertine FBS pointed with tinted horizontal and vertical joints with cement mortar to match colour of face bricks and seal with ABE Durasil S sealant</u>				
G	Extra over brickwork for face brickwork B : 5 G : 0	m2	5	
<u>Pre-cast coping</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 112 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin: auto;"/>				
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

**Upgrading of security infrastructure
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	Brought Forward			R
A	Pre-cast saddleback concrete coping, size 790 x 380 x 70mm high with apex to additional height of 20mm on top of face brick wall bedded in cement mortar B : 5 G : 0	No	5	
	<u>Plastering</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i> <hr style="width: 20%; margin-left: 0;"/> <u>One coat 1:5 cement plaster on brickwork</u>			
B	On walls B : 2 G : 0	m2	2	
C	On narrow widths B : 2 G : 0	m2	2	
	<u>Painting</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i> <hr style="width: 20%; margin-left: 0;"/>			
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

	Brought Forward			R
A	<p><u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u></p> <p>External walls</p> <p style="padding-left: 40px;">B : 4 G : 0</p>	m2	4	
<p><u>PAVING AT PEDESTRIAN ENTRANCE (MAIN ENTRANCE)</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>Demolitions</u></p>				
B	<p>Break up and remove existing concrete paving, aprons, etc. not exceeding 120mm thick including preparation, roughly levelling ground surfaces, ramming, etc.</p> <p style="padding-left: 40px;">B : 170 G : 0</p>	m2	170	
<p>Carried Forward</p>				
<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>				R

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Brought Forward				R
A	Take down and and remove existing steel posts 2000mm high x 80mm diameter, complete with concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 2 G : 0	No	2	
<u>Removal of trees</u>				
B	Cutting down and removing trees exceeding 200mm and not exceeding 500mm girth, including grubbing up roots, all necessary filling in of holes, lightly compacted and roughly levelled B : 1 G : 0	No	1	
C	Ditto, but exceeding 500mm and not exceeding 1000mm girth B : 1 G : 0	No	1	
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
<u>Excavate in earth or compacted filling not exceeding 2m deep below natural or reduced ground level</u>				
D	Reduced levels under paving B : 51 G : 0	m3	51	
<u>Extra over all excavations for carting away</u>				
E	Extra over all excavations for carting surplus excavated material B : 51 G : 0	m3	51	
<u>Compaction of surfaces</u>				
F	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 95% modified AASHTO density B : 170 G : 0	m2	170	
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward				R
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>				
A	Subbase under concrete paving B : 51 G : 0	m3		51
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				
<u>Reinforced concrete (30Mpa/19mm) in:</u>				
B	Paving B : 26 G : 0	m3		26
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>				
C	Paving B : 170 G : 0	m2		170
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<u>General Formwork</u>				
D	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 50 G : 0	m		50
<u>Movement joints</u>				
E	8 x 40mm Saw cut joints in top of concrete paving B : 60 G : 0	m		60
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<u>Fabric reinforcement</u>				
F	Type 395 fabric reinforcement in concrete paving B : 170 G : 0	m2		170
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward									
<p>NOTE: The following items shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</p> <hr style="width: 20%; margin: 0 auto;"/> <p><u>One layer of 250 micron "Consol Plastics Gunplas Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u></p>									
A	Under paving B : 179 G : 0	m2		179					
<p>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</p> <hr style="width: 20%; margin: 0 auto;"/> <p><u>Precast concrete kerbs:</u></p>									
B	150 x 250mm Precast Barrier kerb BK2, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 400 x 60mm thick under and 125 x 150 x 150mm high unreinforced concrete Class B haunching behind, including necessary excavation B : 10 G : 0	m		10					
C	Ditto, but circular on plan not exceeding 4m radius B : 6 G : 0	m		6					
<p><u>NEW ASPHALT SURFACE AND CONCRETE WALKWAY AT EXIT GATE HOUSE</u></p> <p>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</p> <hr style="width: 20%; margin: 0 auto;"/> <p><u>Demolitions</u></p>									
D	Break up and remove existing precast concrete kerb, over all size approximately 300 x 150mm wide, including necessary excavations, filling, compaction, roughly levelling ground surface, etc. B : 58 G : 0	m		58					
Carried Forward									
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B									

Brought Forward									
								R	
		<u>Breaking up and removing</u>							
A	Break up and remove existing tarmac, not exceeding 40mm thick including preparation, roughly levelling ground surfaces, ramming, etc.		m2		270				
	B : 270 G : 0								
		<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							
		<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>							
B	Reduced levels under roads		m3		85				
	B : 85 G : 0								
		<u>Extra over bulk excavation in earth for excavation in</u>							
C	Intermediate rock		m3		8				
	B : 8 G : 0								
D	Hard rock		m3		4				
	B : 4 G : 0								
		<u>Extra over all excavations for carting away</u>							
E	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site, area as identified by Contractor approximately 500m from the excavations (Measured nett- no allowance made for bulking)		m3		85				
	B : 85 G : 0								
		<u>Keeping excavations free of water</u>							
F	Keeping excavations free of all water other than subterranean water							Item	
		<u>Compaction of surfaces</u>							
G	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density		m2		284				
	B : 284 G : 0								
		Carried Forward							
								R	
		Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B							

Brought Forward				R
<p><u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 95% Mod. AASHTO density</u></p>				
A	Subbase under roads B : 43 G : 0	m3		43
<p><u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u></p>				
B	Subbase under roads B : 43 G : 0	m3		43
<p><u>Approved weed killer (Certificate to be provided before payment)</u></p>				
C	Hyvar X or other equally approved soil herbicide at a rate of 50 gram/m ² under paving etc. B : 284 G : 0	m2		284
<p><i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i></p>				
<p><u>Asphalt</u></p>				
D	Tack coat of 30% cationic stable grade emulsion (0.45L/m ²) B : 270 G : 0	m2		270
E	Prime coat - MC-30 cut-back bitumen (Applied at a rate of 0.91L/m ²) B : 270 G : 0	m2		270
F	40mm Asphalt surfacing - 60/70 penetrating B12 road grade bitumen to be medium continuously graded and compacted to above stated thickness B : 270 G : 0	m2		270
<p><i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i></p>				
Carried Forward				R
<p>Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B</p>				

Brought Forward				R
<u>Reinforced concrete (30Mpa/19mm) in:</u>				
A	Paving B : 2 G : 0	m3	2	
B	Ramps. etc B : 1 G : 0	m3	1	
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>				
C	Paving, ramps B : 14 G : 0	m2	14	
<u>Finishing top surfaces of concrete to a ribbed finish tamped with a straight edge</u>				
D	Paving (Sloping) B : 14 G : 0	m2	14	
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>				
<u>General Formwork</u>				
E	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 14 G : 0	m	14	
F	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork B : 5 G : 0	m	5	
<u>Movement joints</u>				
G	8 x 40mm Saw cut joints in top of concrete surface bed B : 5 G : 0	m	5	
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>				
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward							
							R
<u>Fabric reinforcement</u>							
A	Type 395 fabric reinforcement in concrete surface beds, slabs, etc. B : 14 G : 0	m2	14				
<i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i>							
<u>Precast concrete kerbs:</u>							
B	150 x 250mm Precast Barrier kerb BK2, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 400 x 60mm thick under and 125 x 150 x 150mm high unreinforced concrete Class B haunching behind, including necessary excavation B : 46 G : 0	m	46				
C	Ditto, but circular on plan not exceeding 4m radius B : 12 G : 0	m	12				
D	125 x 300mm In-situ cast concrete channel cast in approximately 1000mm lengths, bedded, jointed and pointed in 1:3 cement mortar, including unreinforced concrete foundation size 450 x 75mm thick under including necessary excavation B : 46 G : 0	m	46				
E	Ditto, but circular on plan not exceeding 4m radius B : 12 G : 0	m	12				
<u>CONCRETE WALKWAY AND RAMPS AT ENTRANCE GATEHOUSE</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>							
<u>Demolitions</u>							
F	Break up and remove existing concrete paving, aprons, etc. not exceeding 120mm thick including preparation, roughly levelling ground surfaces, ramming, etc. B : 220 G : 0	m2	220				
Carried Forward							R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B							

Brought Forward				R
<p><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>Excavate in earth or compacted filling not exceeding 2m deep below natural or reduced ground level</u></p>				
A	Reduced levels under paving B : 66 G : 0	m3	66	
<p><u>Extra over all excavations for carting away</u></p>				
B	Extra over all excavations for carting surplus excavated material B : 66 G : 0	m3	66	
<p><u>Compaction of surfaces</u></p>				
C	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 95% modified AASHTO density B : 220 G : 0	m2	220	
<p><u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u></p>				
D	Subbase under concrete paving B : 66 G : 0	m3	66	
<p><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>Reinforced concrete (30Mpa/19mm) in:</u></p>				
E	Paving B : 30 G : 0	m3	30	
F	Ramps. etc B : 3 G : 0	m3	3	
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

Brought Forward							
						R	
		<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>					
A	Paving, ramps B : 220 G : 0	m2	220				
		<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>					
		<hr style="width: 20%; margin-left: 0;"/>					
		<u>General Formwork</u>					
B	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 172 G : 0	m	172				
C	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork B : 60 G : 0	m	60				
		<u>Movement joints</u>					
D	8 x 40mm Saw cut joints in top of concrete surface bed B : 48 G : 0	m	48				
		<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>					
		<hr style="width: 20%; margin-left: 0;"/>					
		<u>Fabric reinforcement</u>					
E	Type 395 fabric reinforcement in concrete surface beds, slabs, etc. B : 220 G : 0	m2	220				
		<i>NOTE: The following items shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</i>					
		<hr style="width: 20%; margin-left: 0;"/>					
		Carried Forward					
						R	
		Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B					

	Brought Forward			R
	<u>One layer of 250 micron "Consol Plastics Gunplas Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
A	Under paving, ramps B : 231 G : 0	m2	231	
	<u>NEW ASPHALT SURFACE AT ENTRANCE GATE HOUSE</u>			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
	<u>Demolitions</u>			
B	Break up and remove existing precast concrete kerb, over all size approximately 300 x 150mm wide, including necessary excavations, filling, compaction, roughly levelling ground surface, etc. B : 123 G : 0	m	123	
	<u>Breaking up and removing</u>			
C	Break up and remove existing tarmac, not exceeding 40mm thick including preparation, roughly levelling ground surfaces, ramming, etc. B : 566 G : 0	m2	566	
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>			
D	Reduced levels under roads B : 170 G : 0	m3	170	
	<u>Extra over bulk excavation in earth for excavation in</u>			
E	Intermediate rock B : 17 G : 0	m3	17	
F	Hard rock B : 8 G : 0	m3	8	
	Carried Forward			R
	Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B			

Brought Forward							
							R
<u>Extra over all excavations for carting away</u>							
A	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site, area as identified by Contractor approximately 500m from the excavations (Measured nett- no allowance made for bulking) B : 170 G : 0	m3	170				
<u>Keeping excavations free of water</u>							
B	Keeping excavations free of all water other than subterranean water				Item		
<u>Compaction of surfaces</u>							
C	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density B : 566 G : 0	m2	566				
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 95% Mod. AASHTO density</u>							
D	Subbase under roads B : 94 G : 0	m3	94				
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>							
E	Subbase under roads B : 94 G : 0	m3	94				
<i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i>							
<u>Asphalt</u>							
F	Tack coat of 30% cationic stable grade emulsion (0.45L/m ²) B : 566 G : 0	m2	566				
Carried Forward							R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B							

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at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward				R
A	Prime coat - MC-30 cut-back bitumen (Applied at a rate of 0.91L/m ²) B : 566 G : 0	m2	566	
B	40mm Asphalt surfacing - 60/70 penetrating B12 road grade bitumen to be medium continuously graded and compacted to above stated thickness B : 566 G : 0	m2	566	
<u>Precast concrete kerbs:</u>				
C	150 x 300mm High Rectangular precast concrete kerb (DRG15297) in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 350 x 150mm thick under, and 200 x 200 x 200mm high unreinforced continuous concrete Class B haunching behind including necessary excavation B : 110 G : 0	m	110	
D	Ditto, but circular on plan not exceeding 4,0m radius B : 7 G : 0	m	7	
E	Ditto, but circular on plan exceeding 4,0m radius B : 6 G : 0	m	6	
<u>STATUTORY SIGNS</u>				
<u>All road markings shall comply with the SADC road traffic sign manual and the national road traffic regulations</u>				
<u>Statutory signs, street signs, etc. supplied and erected complete, including steel posts for a mounted heights of 2,4m (Department of Transport Code shown in brackets)</u>				
F	Stop sign (R1) B : 2 G : 0	No	2	
G	No entry signs (R3) B : 2 G : 0	No	2	
H	No parking sign (R216) B : 2 G : 0	No	2	
Carried Forward				R
Section No. 4 Bill No. 1 Buckingham road and St Croix Road entrance Q515B				

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward			R
A	Buses/ taxi sign (R134) B : 2 G : 0	No	2
	<u>Prepare and paint two coats approved road marking paint:</u>		
B	Line 100mm wide B : 87 G : 0	m	87
C	Stop sign and line painted on road (GM7) B : 4 G : 0	No	4
D	100mm Wide continuous roadmarking line for parking bays B : 150 G : 0	m	150
E	Single-headed directional arrow (proceed straight only) (RM8.3) B : 5 G : 0	No	5
F	Single-headed directional arrow 400mm wide x 1400mm long B : 2 G : 0	No	2
G	Disabled persons symbol B : 4 G : 0	No	4
	<u>SIGNAGE</u>		
H	Allow the Amount of R100,000.00 (One Hundred thousand Rand) for the replacement of existing Signage	Item	100,000.00
I	Profit on above item.	Item	
J	Attendance on ditto.	Item	
	<u>LANDSCAPING</u>		
K	Allow the Amount of R35,000.00 (Thirty Five thousand Rand) for Landscaping	Item	35,000.00
L	Profit on above item.	Item	
M	Attendance on ditto.	Item	
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Bill No. 1			
Buckingham road and St Croix Road entrance			
Q515B			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 4</u></p> <p><u>PE PROVINCIAL HOSPITAL</u></p> <p><u>BILL NO. 2</u></p> <p><u>ST CROIX ROAD</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block B: PE Provincial Hospital</p> <p>Block G: SMME Packages</p> <p><u>DEMOLITIONS</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <p style="text-align: center;">_____</p> <p><u>Removal of trees</u></p> <p><u>Taking out and removing, grubbing up roots and filling in holes</u></p>			
A	<p>Tree exceeding 200mm and not exceeding 500mm girth</p> <p style="padding-left: 40px;">B : 3 G : 0</p>	No	3	
B	<p>Tree exceeding 1000mm and not exceeding 1500mm girth</p> <p style="padding-left: 40px;">B : 1 G : 0</p>	No	1	
	<p><u>Trimming of trees</u></p>			
C	<p>Allow the Amount of R20,000.00 (Twenty thousand Rand) for the trimming of trees and tree roots</p>	Item		20,000.00
	Carried Forward		R	
	<p>Section No. 4 Bill No. 2 St Croix Road Q515B</p>			

Brought Forward								
							R	
	<u>Provide bedding from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>							
A	Selected granular material B : 34 G : 0	m3	34					
	<u>Fill blanket from carted on material from commercial sources including sifting and compaction to 90% MOD AASHTO density for backfilling to</u>							
B	Selected fill material B : 34 G : 0	m3	34					
	<u>Provide main fill blanket from trench excavations in layers not exceeding 150mm thick, compacted to 95% MOD AASHTO density. All excavated material to be free of organic matter and to be mixed in minimum proportions of 30% dark grey intact sandy silt sand of shallower excavations and 30% light grey hard shale and clay material from deeper excavations (maximum size of rocks/stone to be 75mm) for use as backfill for pipe trenches and to be compacted to minimum 95% mod AASHTO densite</u>							
C	Selected fill material B : 17 G : 0	m3	17					
	<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>							
	<u>Reinforced concrete (30Mpa) in:</u>							
D	Paving B : 2 G : 0	m3	2					
	<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>							
E	Paving, ramps B : 22 G : 0	m2	22					
	Carried Forward							R
	Section No. 4 Bill No. 2 St Croix Road Q515B							

Brought Forward				R
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<hr/>				
<u>Fabric reinforcement</u>				
A	Type 395 fabric reinforcement in concrete paving B : 22 G : 0	m2	22	
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<hr/>				
<u>General Formwork</u>				
B	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 73 G : 0	m	73	
C	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork B : 2 G : 0	m	2	
<u>Movement joints</u>				
D	8 x 40mm Saw cut joints in top of concrete paving B : 2 G : 0	m	2	
<u>PIPEWORK</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 146 for JBCC CPAP purposes</i>				
<hr/>				
<u>Lay existing 50mm HDPE water pipe in trench (excavation, backfilling, compaction, etc. elsewhere)</u>				
E	Existing 50mm Diameter HDPE water pipe laid in trench not exceeding 1m deep B : 141 G : 0	m	141	
Carried Forward				R
Section No. 4 Bill No. 2 St Croix Road Q515B				

Brought Forward				R
<u>IN-SITU CONCRETE PAVING IN PATCHING ON SIDEWALKS</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				

<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>				
A	Reduced levels under pavings, etc B : 67 G : -60	m3	6	
<u>Extra over all excavations for carting away</u>				
B	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking) B : 67 G : -60	m3	6	
<u>Compaction of surfaces</u>				
C	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density B : 222 G : -200	m2	22	
<u>G5 gravel layers supplied by the contractor compacted to 98% Mod AASHTO density in layers not exceeding 150mm</u>				
D	Subbase under paving B : 67 G : -60	m3	7	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				

<u>Reinforced concrete (30Mpa) in:</u>				
E	Paving B : 33 G : -30	m3	3	
Carried Forward				R
Section No. 4 Bill No. 2 St Croix Road Q515B				

Brought Forward				R
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>				
A	Paving, ramps B : 222 G : -200	m2	22	
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<u>Fabric reinforcement</u>				
B	Type 395 fabric reinforcement in concrete paving B : 222 G : -200	m2	23	
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<u>General Formwork</u>				
C	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 278 G : -250	m	28	
D	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork B : 222 G : -200	m	22	
<u>Movement joints</u>				
E	8 x 40mm Saw cut joints in top of concrete paving B : 22 G : -20	m	2	
<u>HIGH SECURITY FENCING</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
Carried Forward				R
Section No. 4 Bill No. 2 St Croix Road Q515B				

Brought Forward

R

Extra over excavations in earth for excavation in

NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes

A	Soft rock	m3	2	
	B : 2 G : 0			
B	Intermediate rock	m3	2	
	B : 2 G : 0			
C	Hard rock	m3	2	
	B : 2 G : 0			

GATES

NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes

Carried Forward

R

Section No. 4
 Bill No. 2
 St Croix Road
Q515B

	Brought Forward			R
A	<p> Pedestrian swing gate, size 1255mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with a pair of hinges. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 30 x 4mm flat bar welded to framework and 30 x 4mm flat bar mesh clamping fixed to mesh framing flats. Horizontal and vertical wires shall have a core diameter of 3.96mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 4 bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with two 20mm diameter drop bolts and one 160mm diameter locakble sliding bolt. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC008 (Northwood Road elevation 6)</u> B : 1 G : 0 </p>	No	1	
	Carried Forward			R
	Section No. 4 Bill No. 2 St Croix Road Q515B			

	Brought Forward			R
A	<p>Sliding gate, size 4320mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate shall be fitted with a locking lug for padlock. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC008 (St Croix road elevation 3)</u></p> <p style="text-align: center;">B : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 2 St Croix Road Q515B</p>			

	Brought Forward			R
A	<p>Sliding gate, size 6680mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC008 (Northwood Road elevation 6)</u></p> <p style="text-align: center;">B : 1 G : 0</p> <p><u>CONCRETE GATE BEAM</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 2 St Croix Road Q515B</p>			

Brought Forward				R
<u>Excavation in earth or compacted filling not exceeding 2m deep</u>				
A	Concrete gate beam B : 4 G : 0	m3	4	
<u>Extra over all excavations for carting away</u>				
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor B : 4 G : 0	m3	4	
<u>Risk of collapse of excavations</u>				
C	Sides of trench and hole excavations not exceeding 1,5m deep B : 22 G : 0	m2	22	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				

<u>30MPa/19 mm Reinforced concrete in</u>				
D	Gate beams B : 4 G : 0	m3	4	
<u>Reinforcement</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				

<u>Mild steel rod reinforcement to structural concrete work</u>				
E	8mm Diameter bars B : 0.140 G : 0.000	t	0.140	
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>				
F	10mm Diameter bars B : 0.700 G : 0.000	t	0.700	
Carried Forward				R
Section No. 4 Bill No. 2 St Croix Road Q515B				

		Brought Forward		R
A	12mm Diameter bars B : 0.560 G : 0.000	t	0.560	
<u>Steel track in concrete beam</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>				
B	10 x 100mm galvanised mild steel flat bar cast on edge in concrete ground beam including 10mm diameter lugs welded to flat bar at 500mm centres B : 25 G : 0	m	25	
<u>REPAIRS TO SUBSTATION AND ADJACENT EXTERNAL WALLS</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>				
C	Hack off and remove external plaster from brick walls, and prepare to receive new plaster (measured elsewhere), including all necessary cleaning B : 20 G : 0	m2	20	
D	Remove all spalled concrete and scabble to expose sound concrete aggregate and reinforcement B : 5 G : 0	m2	5	
E	Clean exposed surfaces with compressed air to remove loose particles and dust, and apply an approved bonding slurry and corrosion protection primer (Sika Mono Top-610 or similar approved) in accordance with the manufacturer's specifications. B : 5 G : 0	m2	5	
F	Apply an approved structural repair mortar (Sika Mono Top-610 or similar approved) in accordance with the manufacturer's specifications B : 5 G : 0	m2	5	
<i>NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i>				
Carried Forward				R
Section No. 4 Bill No. 2 St Croix Road Q515B				

Brought Forward							
	<u>One coat 1:4 cement plaster in patching to brickwork with steel trowel</u>						
A	On external walls B : 25 G : 0	m2	25				R
	<i>NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>						
	<u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u>						
B	On external walls B : 104 G : 0	m2	104				
	Carried Forward						R
	Section No. 4 Bill No. 2 St Croix Road Q515B						

Brought Forward

R

Surface to be dry, sound and clean. Moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Sand wood to a smooth finish with 150 - 220 grit paper in the direction of the grain and dust off. Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet and sand to a smooth finish and dust off. Wash knots and resinous areas with Plascon Lacquer Thinner (ILS1), apply Plascon Woodcare Knot seal (PK2) to all knots and resinous areas and allow 1 hour to dry. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours, apply one coat of Plascon Universal Undercoat (UC1) to achieve continuous film and finish with two full coats of Plascon Waterbased Velvagio Satin (VLO) to achieve complete obliteration allowing 4 hours drying time between coats. Colour to Architects approval

A On doors
 B : 4 G : 0

m2

4

Carried Forward to Summary of Section No. 4

R

Section No. 4
Bill No. 2
St Croix Road
Q515B

Item No		Quantity	Rate	Amount
	<p><u>SECTION 4</u></p> <p><u>PE PROVINCIAL HOSPITAL</u></p> <p><u>BILL NO. 3</u></p> <p><u>NORTHWOOD ROAD</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block B: PE Provincial Hospital</p> <p>Block G: SMME Packages</p> <p><u>TEMPORARY MILD STEEL WELDMESH FENCE</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: 0;"/> <p><u>Timber posts</u></p>			
A	<p>100mm Diameter timber gumpole, 2400mm long embedded in 450 x 450 x 900 mm mass concrete (15 MPa) base</p> <p style="padding-left: 40px;">B : 294 G : 0</p>	No	294	
	<p><u>Fencing</u></p>			
B	<p>Security fencing 50 x 25 x 2.5 x1800mm high diamond mesh fully galvanized weld mesh overall fixed to posts and straining eye bolts, tied with 2.5mm binding wire at 500mm centres to each strand of draw wire</p> <p style="padding-left: 40px;">B : 478 G : 0</p>	m	478	
	Carried Forward			R
	<p>Section No. 4 Bill No. 3 Northwood Road Q515B</p>			

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward				R
A	Shade net lining (50%) 1800mm high green netting and stitching to timber posts and including binding wire B : 861 G : 0	m2	861	
	<u>Sundries</u>			
B	12mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers, including hole through post B : 1912 G : 0	No	1,912	
	<u>Gates</u>			
C	Security fence double gate, size 6000mm wide x 1800mm high, in equal leaves each leaf formed of 50 x 2.8mm tubular frames with bracing complete with four hinges, eye bolts, bolts and barrel bolt. Frame covered with fully galvanized medium security diamond mesh, mesh size 50 x 25 x 2.5 x 1800mm high and including 500 mm long approved chain spot welded to gate and union padlock No 3122 with two 100 x 3mm galvanised corner posts with 300 x 300 x 6mm base plate cast in 450 x 450 x 900mm concrete and 50 x 3mm galvanised straining posts with 300 x 300 x 6mm base plate cast in 450 x 760 x 600mm concrete base B : 1 G : 0	No	1	
	<u>Re-use existing temporary security fencing</u>			
	<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
D	Dismantle and take off temporary security fencing 1800mm high, shadenetting and poles after completion and store temporarily, including necessary excavations, filling, compaction, roughly levelling ground surfaces, etc. B : 478 G : 0	m	478	
	<u>DEMOLITIONS</u>			
	<u>Removal of trees</u>			
Carried Forward				R
Section No. 4 Bill No. 3 Northwood Road Q515B				

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward			R
<u>Taking out and removing, grubbing up roots and filling in holes</u>			
A	Tree exceeding 200mm and not exceeding 500mm girth B : 1 G : 0	No	1
B	Tree exceeding 500mm and not exceeding 1000mm girth B : 1 G : 0	No	1
C	Tree exceeding 1500mm and not exceeding 2000mm girth B : 1 G : 0	No	1
<u>Trimming of trees</u>			
D	Allow the Amount of R30,000.00 (Thirty thousand Rand) for the trimming of trees and tree roots		Item 30,000.00
E	Profit on above item.		Item
F	Attendance on ditto.		Item
<u>Breaking up and removing</u>			
G	Cut through concrete paving in patching on sidewalks not exceeding 120mm thick to allow area for new ground beam construction, 1700mm wide, cut existing mesh (if any) on centre, bend up and preserve and remove existing concrete paving B : 490 G : -441	m2	49
<u>Walls and wall finishes</u>			
H	Break down and remove existing concrete boundary wall, 200mm wide and 2100mm high, including 250 x 250mm wide concrete columns every 2700mm intervals, complete with concrete under ground level and concrete foundations, etc. including necessary excavations filling, compaction, roughly levelling ground surface, etc. B : 366 G : -329	m2	36
Carried Forward			R
Section No. 4 Bill No. 3 Northwood Road Q515B			

Brought Forward									
A	Break down and remove existing brick boundary wall, 220mm wide and 2200mm high, including 250 x 250mm wide brick columns every 2700mm intervals, complete with brickwork under ground level and concrete foundations, etc. including necessary excavations filling, compaction, roughly levelling ground surface, etc.								
	B : 251 G : -226	m2		25					
	<u>Metalwork</u>								
B	Break down and remove existing galvanised mesh security fence including razor wire, approximately 1200mm high, complete with all galvanised posts fixed to top of concrete wall								
	B : 288 G : 0	m		288					
C	Take off and remove existing pedestrian gate size 1500 x 2100mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc.								
	B : 2 G : 0	No		2					
D	Take off and remove existing palisade fencing sliding gate size 3000 x 2300mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc.								
	B : 1 G : 0	No		1					
<u>IN-SITU CONCRETE PAVING IN PATCHING ON SIDEWALKS</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>									
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>									
E	Reduced levels under pavings, etc								
	B : 147 G : -132	m3		15					
Carried Forward									
Section No. 4 Bill No. 3 Northwood Road Q515B									

Brought Forward									
									R
		<u>Extra over all excavations for carting away</u>							
A	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking)		m3		15				
	B : 147 G : -132								
		<u>Compaction of surfaces</u>							
B	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density		m2		49				
	B : 490 G : -441								
		<u>G5 gravel layers supplied by the contractor compacted to 98% Mod AASHTO density in layers not exceeding 150mm</u>							
C	Subbase under paving		m3		15				
	B : 147 G : -132								
		<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>							
		<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>							
		<u>Reinforced concrete (30Mpa) in:</u>							
D	Paving		m3		7				
	B : 73 G : -66								
		<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>							
E	Paving, ramps		m2		49				
	B : 490 G : -441								
		<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>							
		<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>							
		<u>Fabric reinforcement</u>							
F	Type 395 fabric reinforcement in concrete paving		m2		49				
	B : 490 G : -441								
		Carried Forward							
									R
		Section No. 4 Bill No. 3 Northwood Road Q515B							

Brought Forward							
<p><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</p> <hr style="width: 20%; margin-left: 0;"/>							
<u>General Formwork</u>							
A	Edges, risers, ends and reveals not exceeding 300mm high or wide						
	B : 576 G : -518	m		58			
B	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork						
	B : 49 G : -44	m		5			
<u>Movement joints</u>							
C	8 x 40mm Saw cut joints in top of concrete paving						
	B : 49 G : -44	m		5			
<u>EXTEND EXISTING BRICK COLUMNS AT PEDESTRIAN GATES</u>							
<p><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</p> <hr style="width: 20%; margin-left: 0;"/>							
<u>MASONRY</u>							
<u>Brickwork of clay bricks in 6:1 cement mortar</u>							
D	Mass brickwork in piers on top of existing brick columns						
	B : 1 G : 0	m3		1			
<u>Brick reinforcement</u>							
E	High tensile galvanised steel brick reinforcement 150mm wide well lapped at all angles and passings and built into brick walls						
	B : 12 G : 0	m		12			
Carried Forward							R
<p>Section No. 4 Bill No. 3 Northwood Road Q515B</p>							

Brought Forward			R
<u>REINFORCED CONCRETE</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin: auto;"/>			
<u>20MPa/19mm concrete</u>			
A	Concrete infill in brick columns B : 1 G : 0	m3	1
<u>REINFORCEMENT</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin: auto;"/>			
<u>Mild steel rod reinforcement to structural concrete work</u>			
B	8mm Diameter bars B : 0.035 G : 0.000	t	0.035
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>			
C	12mm Diameter bars B : 0.175 G : 0.000	t	0.175
D	16mm Diameter bars B : 0.140 G : 0.000	t	0.140
<u>EXTERNAL PLASTER</u>			
<i><u>NOTE:</u> The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin: auto;"/>			
<u>One coat 1:4 cement plaster to brickwork with steel trowel to receive a skim finishing plaster</u>			
E	On external walls B : 3 G : 0	m2	3
F	On narrow widths B : 1 G : 0	m2	1
Carried Forward			R
Section No. 4 Bill No. 3 Northwood Road Q515B			

Brought Forward

R

PAINTWORK

***NOTE:** The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes*

Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved

A On external walls m2 4
B : 4 G : 0

HIGH SECURITY FENCING

***NOTE:** The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes*

Carried Forward

R

Section No. 4
Bill No. 3
Northwood Road
Q515B

	Brought Forward						
A	Allow for clearing site for the width of 2 000 mm where existing fencing runs (1000 mm on each side of fence), and where new fence are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling. Prospective bidders to familiarize themselves with the areas that do contain shrubs, etc. at the mandatory briefing meeting to ensure that the item is priced accordingly and correctly, as no further costs shall be entertained by Employer. B : 288 G : 0 <u>PVC coated high security fencing, gates and setting out. All bolts, nuts and washers to be stainless steel grade 304 and all fixators will be of grade 304 stainless steel (ISO 9223) and PVC coated. Fence system to be maintenance free and carry a 10 year anti-corrosion guarantee. Supplier to be ISO9001 and Green Building Council</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	m	288			R	
B	70 x 44mm x 2mm x 3000mm long H-Shaped profile. Secure post to be hot dipped galvanised and coated with PVC coated Anthracite RAL7021 or Green RAL6005. Holes are pre-drilled before PVC coating. Spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). Posts embedded in 600 x 400 x 400 mm mass concrete (15 MPa) base including excavations and backfilling B : 98 G : -88	No	10				
	Carried Forward					R	
	Section No. 4 Bill No. 3 Northwood Road Q515B						

Brought Forward			R	
A	High security mesh panels size 3050 x 2400mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels with bends. Core wire (3mm diameter) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (Min. 275g/m2) coating consisting of 95% Zinc and 5% Aluminium. Panel shall receive additional PVC Coating (3.4mm thick) Anthracite RAL 7021 or Green RAL 6005, including 60mm high x 2.5mm x 3046mm saw tooth top rail with additional PVC coating. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel. B : 96 G : -86	No	10	
B	Ditto, but panel size 1500 x 2400mm high B : 3 G : -2	No	1	
C	Ditto, but panel size 2500 x 2400mm high B : 3 G : -2	No	1	
D	Ditto, but panel size 1300 x 2100mm high (lower height to accommodate planter) B : 2 G : -1	No	1	
<u>Mass concrete footing for fence</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
E	Excavations not exceeding 2m deep for ground beam B : 25 G : -23	m3	3	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				
F	Mass concrete (15Mpa) for concrete ground beam B : 25 G : -23	m3	3	
<u>Rough formwork to sides</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
Carried Forward			R	
Section No. 4 Bill No. 3 Northwood Road Q515B				

**Upgrading of security infrastructure
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Provisional Bills of Quantities
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	Brought Forward				R
A	Ground beams B : 202 G : -182	m2	20		
	<u>Extra over excavations in earth for excavation in</u>				
	<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes				
B	Soft rock B : 4 G : 0	m3	4		
C	Intermediate rock B : 4 G : 0	m3	4		
D	Hard rock B : 2 G : 0	m3	2		
	<u>GATES</u>				
	<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes				
	Carried Forward				R
	Section No. 4 Bill No. 3 Northwood Road Q515B				

	Brought Forward			R
A	<p> Pedestrian swing gate, size 1255mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with a pair of hinges. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 30 x 4mm flat bar welded to framework and 30 x 4mm flat bar mesh clamping fixed to mesh framing flats. Horizontal and vertical wires shall have a core diameter of 3.96mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 4 bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with two 20mm diameter drop bolts and one 160mm diameter locakble sliding bolt. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC008 (Northwood Road elevation 8)</u> B : 2 G : 0 </p>	No	2	
	<p>Carried Forward to Summary of Section No. 4</p> <p> Section No. 4 Bill No. 3 Northwood Road Q515B </p>			R

Item No		Quantity	Rate	Amount
	<p><u>SECTION 4</u></p> <p><u>PE PROVINCIAL HOSPITAL</u></p> <p><u>BILL NO. 4</u></p> <p><u>EASTBOURNE ROAD AND SECTION OF NORTHWOOD ROAD</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block B: PE Provincial Hospital</p> <p>Block G: SMME Packages</p> <p><u>TEMPORARY MILD STEEL WELDMESH FENCE (PREVIOUS HOARDING WILL BE RE-USED)</u></p> <p><u>Re-use existing temporary security fencing</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p>			
A	<p>Take out of storage and re-install temporary security fencing, poles and shadenetting, 1800mm high including necessary excavations, filling, compaction, roughly levelling ground surfaces, etc.</p> <p style="padding-left: 40px;">B : 435 G : 0</p>	m	435	
B	<p>Dismantle and take off temporary security fencing after completion of construction including necessary excavations, filling, compaction, roughly levelling ground surfaces, etc.</p> <p style="padding-left: 40px;">B : 435 G : 0</p>	m	435	
	Carried Forward			R
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>			

**Upgrading of security infrastructure
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Brought Forward			R
<u>DEMOLITIONS</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin-left: 0;"/>			
<u>Trimming of trees</u>			
A	Allow the Amount of R20,000.00 (Twenty thousand Rand) for the trimming of trees and shrubs	Item	20,000.00
B	Profit on above item.	Item	
C	Attendance on ditto.	Item	
<u>Breaking up and removing</u>			
D	Cut through concrete paving on sidewalks in patching not exceeding 120mm thick to allow area for new ground beam construction, 1700mm wide, cut existing mesh (if any) on centre, bend up and preserve and remove existing concrete paving	m2	43
	B : 423 G : -381		
<u>Walls and wall finishes</u>			
E	Break down and remove existing brick column size 750 x 750 x 2100mm high above ground level, complete with brickwork under ground level and mass concrete strip foundation, including necessary excavations, filling, compaction, roughly levelling ground surface, etc.	No	1
	B : 1 G : 0		
F	Break down and remove existing concrete boundary wall, 200mm wide and 1700mm high, including 200 x 200mm concrete columns every 3m, complete with concrete foundations, etc. including necessary excavations filling, compaction, roughly levelling ground surface, etc.	m2	389
	B : 389 G : 0		
Carried Forward			R
Section No. 4			
Bill No. 4			
Eastbourne road and section of Northwood Road			
Q515B			

	Brought Forward				R
A	Break down and remove existing brick boundary wall, 220mm wide and 2532mm high, including 250 x 250mm wide brick columns every 2700mm intervals, complete with brickwork under ground level and concrete foundations, etc. including necessary excavations filling, compaction, roughly levelling ground surface, etc. B : 162 G : 0	m2	162		
	<u>Metalwork</u>				
B	Break down and remove existing palisade fence, approximately 386mm high, complete with all galvanised posts fixed to top of existing concrete/brick wall B : 249 G : 0	m	249		
C	Take off and remove existing pedestrian gate size 1280 x 2200mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 1 G : 0	No	1		
D	Take off and remove existing pedestrian gate size 4000 x 2100mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 3 G : 0	No	3		
E	Take off and remove existing sliding gate size 4573 x 2100mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 2 G : 0	No	2		
F	Take off and remove existing sliding gate size 4919 x 2000mm high complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. B : 1 G : 0	No	1		
	<u>IN-SITU CONCRETE PAVING IN PATCHING ON SIDEWALKS</u>				
	<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				

	Carried Forward				R
	Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward				R
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>				
A	Reduced levels under pavings, etc B : 138 G : -124	m3	14	
<u>Extra over all excavations for carting away</u>				
B	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking) B : 138 G : -124	m3	14	
<u>Compaction of surfaces</u>				
C	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density B : 459 G : -413	m2	46	
<u>G5 gravel layers supplied by the contractor compacted to 97% Mod AASHTO density in layers not exceeding 150mm</u>				
D	Subbase under paving B : 138 G : -124	m3	14	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				
<u>Reinforced concrete (30Mpa) in:</u>				
E	Paving B : 69 G : -62	m3	7	
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>				
F	Paving, ramps B : 459 G : -413	m2	46	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward				R
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<hr/>				
<u>Fabric reinforcement</u>				
A	Type 395 fabric reinforcement in concrete paving B : 459 G : -413	m2	46	
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<hr/>				
<u>General Formwork</u>				
B	Edges, risers, ends and reveals not exceeding 300mm high or wide B : 498 G : -448	m	50	
C	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork B : 46 G : -41	m	5	
<u>Movement joints</u>				
D	8 x 40mm Saw cut joints in top of concrete paving B : 46 G : -41	m	5	
<u>EMBANKMENTS AND FILLING</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
<hr/>				
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>				
E	To form embankments and platforms for walkway B : 39 G : 0	m3	39	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward							
<u>CONCRETE RETAINING WALLS</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>							
<u>Excavation in earth or compacted filling not exceeding 2m deep</u>							
A	Trenches B : 78 G : -70	m3	8				
<u>Back excavation of vertical sides of excavation in earth, for working space, including backfilling compacted to 93% Mod AASHTO density</u>							
B	Exceeding 1,5m and not exceeding 2,5m deep approximately 0,5m away from existing face including backfilling and compaction to 93% mod AASHTO density B : 150 G : -135	m2	15				
<u>Extra over excavations in earth for excavation in</u>							
C	Intermediate rock B : 8 G : -7	m3	1				
D	Hard rock B : 4 G : -3	m3	1				
<u>Extra over all excavations for carting away</u>							
E	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor B : 34 G : -31	m3	3				
<u>Risk of collapse of excavations</u>							
F	Sides of trench and hole excavations not exceeding 1,5m deep B : 156 G : -140	m2	16				
<u>Keeping excavations free of water</u>							
G	Keeping excavations free of water other than subterranean water		Item				
Carried Forward							
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B							

Brought Forward				R
<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site in layers of 150mm thick compacted to 93% Mod AASHTO density</u>				
A	Backfilling to trenches, holes, etc B : 44 G : -40	m3	5	
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>				
B	Backfilling behind retaining walls B : 27 G : -24	m3	3	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin: auto;"/>				
<u>15MPa/19mm Unreinforced concrete</u>				
C	Blinding under retaining wall footings on excavated surfaces B : 4 G : -3	m3	1	
<u>30 MPa/19 mm Reinforced concrete in</u>				
D	Retaining wall footings B : 23 G : -21	m3	3	
E	Retaining walls B : 28 G : -25	m3	3	
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin: auto;"/>				
<u>Mild steel reinforcement</u>				
F	8 mm Diameter bars B : 0.61 G : -0.55	t	0.06	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward				R
<u>High tensile steel rod reinforcement to structural concrete work</u>				
A	10mm Diameter bars B : 1.22 G : -1.10	t	0.13	
B	12mm Diameter bars B : 1.53 G : -1.38	t	0.15	
C	16mm Diameter bars B : 2.75 G : -2.48	t	0.28	
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin-left: 0;"/>				
<u>Rough formwork to sides</u>				
D	Retaining walls B : 216 G : -194	m2	22	
<i>NOTE: The following items shall be deemed to fall into Work Group No 146 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin-left: 0;"/>				
<u>Subsoil drain</u>				
E	Subsoil drain formed with 110mm diameter perforated geopipe fixed to wall with Hilti nails including wrapping in Kaymat U14 geotextile material, and encased with 300 x 300mm 19mm nominal size crushed stone B : 60 G : -54	m	6	
<u>Weepholes pipes cast in concrete walls</u>				
F	50mm Diameter PVC pipe in lengths not exceeding 250mm long in concrete wall for weepholes B : 60 G : -54	No	6	
<i>NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i>				
<hr style="width: 20%; margin-left: 0;"/>				
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward				R
<u>One coat 1:5 cement plaster on brickwork</u>				
A	External concrete retaining walls B : 78 G : -70	m2	8	
B	In narrow widths B : 15 G : -14	m2	2	
<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>				
<u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u>				
C	External concrete retaining walls B : 93 G : -84	m2	9	
<u>HIGH SECURITY FENCING</u>				
<u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

	Brought Forward					
A	<p>Allow for clearing site for the width of 2 000 mm where existing fencing runs (1000 mm on each side of fence), and where new fence are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling. Prospective bidders to familiarize themselves with the areas that do contain shrubs, etc. at the mandatory briefing meeting to ensure that the item is priced accordingly and correctly, as no further costs shall be entertained by Employer.</p> <p style="text-align: center;">B : 249 G : 0</p> <p><u>PVC coated high security fencing, gates and setting out. All bolts, nuts and washers to be stainless steel grade 304 and all fixators will be of grade 304 stainless steel (ISO 9223) and PVC coated. Fence system to be maintenance free and carry a 10 year anti-corrosion guarantee. Supplier to be ISO9001 and Green Building Council</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p>	m	249		R	
B	<p>70 x 44mm x 2mm x 3000mm long H-Shaped profile. Secure post to be hot dipped galvanised and coated with PVC coated Anthracite RAL7021 or Green RAL6005. Holes are pre-drilled before PVC coating. Spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). Posts embedded in 600 x 400 x 400 mm mass concrete (15 MPa) base including excavations and backfilling</p> <p style="text-align: center;">B : 64 G : -58</p>	No	6			
	Carried Forward				R	
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>					

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SCMU3-23/24-0484-HO**

Brought Forward		R
A	<p>High security mesh panels size 3050 x 2400mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels with bends. Core wire (3mm diameter) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (Min. 275g/m²) coating consisting of 95% Zinc and 5% Aluminium. Panel shall receive additional PVC Coating (3.4mm thick) Anthracite RAL 7021 or Green RAL 6005, including 60mm high x 2.5mm x 3046mm saw tooth top rail with additional PVC coating. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel.</p> <p style="text-align: center;">B : 63 G : -57</p>	No 6
B	<p>Ditto, but panel size 1500 x 2400mm high</p> <p style="text-align: center;">B : 2 G : -1</p>	No 1
C	<p>Ditto, but panel size 2500 x 2400mm high</p> <p style="text-align: center;">B : 2 G : -1</p>	No 1
D	<p>70 x 44mm x 2mm x 1300mm long H-Shaped profile. Secure post to be hot dipped galvanised and coated with PVC coated Anthracite RAL7021 or Green RAL6005. Holes are pre-drilled before PVC coating. Spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). <u>Posts fixed to top of concrete retaining wall</u></p> <p style="text-align: center;">B : 20 G : -18</p>	No 2
Carried Forward		R
<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>		

Brought Forward				R
A	High security mesh panels size 3050 x 1300mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels with bends. Core wire (3mm diameter) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (Min. 275g/m ²) coating consisting of 95% Zinc and 5% Aluminium. Panel shall receive additional PVC Coating (3.4mm thick) Anthracite RAL 7021 or Green RAL 6005, including 60mm high x 2.5mm x 3046mm saw tooth top rail with additional PVC coating. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel. B : 19 G : -18 Mass concrete footing for fence <i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>	No	1	
B	Excavations not exceeding 2m deep for ground beam B : 17 G : -15 <i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>	m3	2	
C	Mass concrete (15Mpa) for concrete ground beam B : 17 G : -15 <i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>	m3	2	
D	Rough formwork to sides Ground beams B : 136 G : -122 Extra over excavations in earth for excavation in <i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>	m2	13	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

**Upgrading of security infrastructure
 at Livingstone PEPH Hospital Complex
 Provisional Bills of Quantities
 SCMU3-23/24-0484-HO**

		Brought Forward		
A	Soft rock B : 4 G : 0	m3	4	R
B	Intermediate rock B : 4 G : 0	m3	4	
C	Hard rock B : 2 G : 0	m3	2	

GATES

***NOTE:** The following items shall be deemed to fall into
 Work Group No 136 for JBCC CPAP purposes*

Carried Forward

Section No. 4
 Bill No. 4
 Eastbourne road and section of Northwood Road
Q515B

R

	Brought Forward			R
A	<p>Sliding gate, size 4000mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026 ARC007 (Northwood Road elevation 4)</u></p> <p style="text-align: center;">B : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>			

	Brought Forward			R
A	<p>Sliding gate, size 4500mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. The gate shall be fitted with a locking lug for padlock. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with a locking device. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC007 (Northwood Road elevation 7)</u></p> <p style="text-align: center;">B : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>			

	Brought Forward			R
A	<p>Sliding gate, size 4920mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate shall be fitted with a locking lug for padlock. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 305-026-ARC007 (Eastbourne Road elevation 3)</u></p> <p style="text-align: center;">B : 1 G : 0</p> <p><u>CONCRETE GATE BEAM</u></p> <p><i>NOTE:</i> <i>The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p>	No	1	
	Carried Forward			R
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>			

Brought Forward			R
<u>Excavation in earth or compacted filling not exceeding 2m deep</u>			
A	Concrete gate beam B : 2 G : 0	m3	2
<u>Extra over all excavations for carting away</u>			
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor B : 2 G : 0	m3	2
<u>Risk of collapse of excavations</u>			
C	Sides of trench and hole excavations not exceeding 1,5m deep B : 9 G : 0	m2	9
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>			

<u>30MPa/19 mm Reinforced concrete in</u>			
D	Gate beams B : 2 G : 0	m3	2
<u>Reinforcement</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>			

<u>Mild steel rod reinforcement to structural concrete work</u>			
E	8mm Diameter bars B : 0.070 G : 0.000	t	0.070
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>			
F	10mm Diameter bars B : 0.350 G : 0.000	t	0.350
Carried Forward			R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B			

Brought Forward							
A	12mm Diameter bars B : 0.280 G : 0.000 <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	t	0.280				
<hr/>							
<u>Steel track in concrete beam</u>							
B	10 x 100mm galvanised mild steel flat bar cast on edge in concrete ground beam including 10mm diameter lugs welded to flat bar at 500mm centres B : 27 G : 0	m	27				
<u>EXTEND EXISTING BRICK COLUMNS AT PEDESTRIAN GATES</u>							
<u>MASONRY</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>							
<hr/>							
<u>Brickwork of clay bricks in 6:1 cement mortar</u>							
C	Mass brickwork in piers on top of existing brick columns B : 1 G : 0	m3	1				
<u>Brick reinforcement</u>							
D	High tensile galvanised steel brick reinforcement 150mm wide well lapped at all angles and passings and built into brick walls B : 21 G : 0	m	21				
<u>REINFORCED CONCRETE</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>							
<hr/>							
<u>20MPa/19mm concrete</u>							
E	Concrete infill in brick columns B : 1 G : 0	m3	1				
Carried Forward							R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B							

Brought Forward

NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes

Mild steel rod reinforcement to structural concrete work

A	8mm Diameter bars	t	0.035
	B : 0.035 G : 0.000		

High tensile steel rod reinforcement to structural concrete work in foundations

B	12mm Diameter bars	t	0.175
	B : 0.175 G : 0.000		

C	16mm Diameter bars	t	0.140
	B : 0.140 G : 0.000		

EXTERNAL PLASTER

NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes

One coat 1:4 cement plaster to brickwork with steel trowel to receive a skim finishing plaster

D	On external walls	m2	1
	B : 1 G : 0		

E	On narrow widths	m2	1
	B : 1 G : 0		

PAINTWORK

NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes

Carried Forward

Section No. 4
Bill No. 4
Eastbourne road and section of Northwood Road
Q515B

R

R

	Brought Forward			R
A	<p><u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u></p> <p>On external walls m2</p> <p style="padding-left: 40px;">B : 2 G : 0</p> <p style="text-align: right;">2</p>			
	<p><u>REPAIRS TO EXTERNAL BOUNDARY BRICK WALLS AND COLUMNS</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/> <p><u>Demolitions</u></p>			
B	<p>Hack off and remove external plaster in patching from brick walls, concrete columns and beams and prepare to receive new plaster (measured elsewhere), including all necessary cleaning m2</p> <p style="padding-left: 40px;">B : 34 G : 0</p> <p style="text-align: right;">34</p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 142 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin: 10px auto;"/>			
	<p>Carried Forward</p>			R
	<p>Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B</p>			

Brought Forward							
	One coat 1:4 cement plaster in patching to brickwork with steel trowel						
A	On external walls	m2	34				R
	B : 34 G : 0						
	<i>NOTE: The following items shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>						
	<p><u>Ensure that surfaces are dry, sound and clean. Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR1) using high pressure water jet or scrubbing with brush or broom. Allow to dry completely. Remove fungi and algae by scrubbing with a solution of household bleach (3.5% sodium hypochlorite) 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry. Fill cracks and other surface defects with the appropriate Polycell filler. Moisture content to not exceed 8% on B2 scale. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional superior low sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats. All strictly to manufacturer's detail specification or equal approved</u></p>						
B	On external walls	m2	60				
	B : 60 G : 0						
	<u>NEW ASPHALT ROAD AT NORTHWOOD ROAD AND EASTBOURNE ROAD ENTRANCE</u>						
	<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>						
	Carried Forward						
	Section No. 4						
	Bill No. 4						
	Eastbourne road and section of Northwood Road						
	Q515B						
							R

**Upgrading of security infrastructure
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Brought Forward				R
<u>Demolitions</u>				
A	Break up and remove existing precast concrete kerb, over all size approximately 300 x 150mm wide, including necessary excavations, filling, compaction, roughly levelling ground surface, etc.	m	97	
	B : 97 G : 0			
<u>Removal of trees</u>				
B	Cutting down and removing trees exceeding 200mm and not exceeding 500mm girth, including grubbing up roots, all necessary filling in of holes, lightly compacted and roughly levelled	No	1	
	B : 1 G : 0			
C	Ditto, but exceeding 500mm and not exceeding 1000mm girth	No	1	
	B : 1 G : 0			
<u>Breaking up and removing</u>				
D	Break up and remove existing concrete paving, aprons, etc. not exceeding 120mm thick including preparation, roughly levelling ground surfaces, ramming, etc.	m2	373	
	B : 373 G : 0			
E	Break up and remove existing tarmac, not exceeding 40mm thick including preparation, roughly levelling ground surfaces, ramming, etc.	m2	20	
	B : 20 G : 0			
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>				
F	Reduced levels under roads	m3	112	
	B : 112 G : 0			
<u>Extra over bulk excavation in earth for excavation in</u>				
G	Intermediate rock	m3	3	
	B : 3 G : 0			
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
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Brought Forward				R
A	Hard rock B : 1 G : 0	m3	1	
<u>Extra over all excavations for carting away</u>				
B	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site, area as identified by Contractor approximately 500m from the excavations (Measured nett- no allowance made for bulking) B : 112 G : 0	m3	112	
<u>Keeping excavations free of water</u>				
C	Keeping excavations free of all water other than subterranean water		Item	
<u>Compaction of surfaces</u>				
D	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density B : 373 G : 0	m2	373	
<u>Approved G5 filling supplied and carted on by the Contractor, compacted in layers not exceeding 150mm to 98% Mod. AASHTO density</u>				
E	Subbase under roads B : 112 G : 0	m3	112	
<u>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</u>				
<hr style="width: 20%; margin: auto;"/>				
<u>Asphalt</u>				
F	Tack coat of 30% cationic stable grade emulsion (0.45L/m ²) B : 373 G : 0	m2	373	
G	Prime coat - MC-30 cut-back bitumen (Applied at a rate of 0.91L/m ²) B : 373 G : 0	m2	373	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Brought Forward				R
A	40mm Asphalt surfacing - 60/70 penetrating B12 road grade bitumen to be medium continuously graded and compacted to above stated thickness B : 373 G : 0 <i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i> <u>Approved weed killer (Certificate to be provided before payment)</u>	m2	373	
B	Hyvar X or other equally approved soil herbicide at a rate of 50 gram/m2 under paving etc. B : 373 G : 0 <i>NOTE: The following items shall be deemed to fall into Work Group No 154 for JBCC CPAP purposes</i> <u>Precast concrete kerbs:</u>	m2	373	
C	150 x 250mm Precast Barrier kerb BK2, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 400 x 60mm thick under and 125 x 150 x 150mm high unreinforced concrete Class B haunching behind, including necessary excavation B : 74 G : 0	m	74	
D	Ditto, but circular on plan not exceeding 4m radius B : 23 G : 0 <u>STATUTORY SIGNS</u> <u>All road markings shall comply with the SADC road traffic sign manual and the national road traffic regulations</u> <u>Statutory signs, street signs, etc. supplied and erected complete, including steel posts for a mounted heights of 2,4m (Department of Transport Code shown in brackets)</u>	m	23	
E	Stop sign (R1) B : 1 G : 0	No	1	
Carried Forward				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

**Upgrading of security infrastructure
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		Brought Forward		R
A	No entry signs (R3) B : 1 G : 0	No	1	
B	No parking sign (R216) B : 1 G : 0	No	1	
C	Buses/ taxi sign (R134) B : 1 G : 0	No	1	
<u>Prepare and paint two coats approved road marking paint:</u>				
D	Line 100mm wide B : 25 G : 0	m	25	
E	Stop sign and line painted on road (GM7) B : 1 G : 0	No	1	
Carried Forward to Summary of Section No. 4				R
Section No. 4 Bill No. 4 Eastbourne road and section of Northwood Road Q515B				

Bill No	SECTION SUMMARY - SECTION 4 FENCING AT PE PROVINCIAL HOSPITAL	Page No	Amount
1	Buckingham road and St Croix Road entrance	250	
2	St Croix Road	267	
3	Northwood Road	279	
4	Eastbourne road and section of Northwood Road	304	
	Carried to Final Summary		R
	Section No. 4 Q515B		

Item No		Quantity	Rate	Amount
	<p><u>SECTION 5</u></p> <p><u>BILL NO. 1</u></p> <p><u>FENCING TO LIVINGSTONE HOSPITAL</u></p> <p><u>PREAMBLES</u></p> <p><u>Preambles for Trades as defined in Pricing Instructions (Item 7)</u></p> <p><u>TRADE NAMES</u></p> <p>Any reference to trade names in the Bills of Quantities or Architect's specification or drawings shall deem to mean "or similar and approved"</p> <p>This section consists of the following buildings:</p> <p>Block C: Livingstone Hospital</p> <p>Block G: SMME Packages</p> <p><u>FENCING AT LIVINGSTONE HOSPITAL TO BE REPLACED IN SECTIONS AS PER SEQUENCE PROPOSED BY PRINCIPAL AGENT IN SEQUENCE OF WORKS.</u></p> <p><u>FENCING TO BE ERECTED BEHIND EXISTING FENCING AND CONTRACTOR TO ALLOW FOR SECURITY FOR DURATION OF PROJECT IN AFFECTED AREAS</u></p> <p><u>HOARDING</u></p> <p><u>TEMPORARY MILD STEEL WELDMESH FENCE</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/>			
	Carried Forward		R	
	<p>Section No. 5 Bill No. 1 Fencing Q515B</p>			

**Upgrading of security infrastructure
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		Brought Forward			R
A	<p>Allow for clearing site for the width of 2 000 mm where existing fencing runs (1000 mm on each side of fence), and where new fence are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling. Prospective bidders to familiarize themselves with the areas that do contain shrubs, etc. at the mandatory briefing meeting to ensure that the item is priced accordingly and correctly, as no further costs shall be entertained by Employer.</p> <p align="center">C : 318 G : 0</p> <p><u>NOTE:</u> <i>The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p> <p><u>Timber posts</u></p>		m	318	
B	<p>100mm Diameter timber gumpole, 2400mm long embedded in 450 x 450 x 900 mm mass concrete (15 MPa) base</p> <p align="center">C : 106 G : 0</p> <p><u>Fencing</u></p>		No	106	
C	<p>Security fencing 50 x 25 x 2.5 x 1800mm high diamond mesh fully galvanized weld mesh overall fixed to posts and straining eye bolts, tied with 2.5mm binding wire at 500mm centres to each strand of draw wire</p> <p align="center">C : 318 G : 0</p>		m	318	
D	<p>Shade net lining (50%) 1800mm high green netting and stitching to timber posts and including binding wire</p> <p align="center">C : 572 G : 0</p> <p><u>Sundries</u></p>		m2	572	
E	<p>12mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers, including hole through post</p> <p align="center">C : 1272 G : 0</p>		No	1,272	
F	<p>Contractor to maintain hoarding until completion</p>			Item	
		Carried Forward			R
<p>Section No. 5 Bill No. 1 Fencing Q515B</p>					

Brought Forward				R
<u>Gates</u>				
A	Security fence double gate, size 6000mm wide x 1800mm high, in equal leaves each leaf formed of 50 x 2.8mm tubular frames with bracing complete with four hinges, eye bolts, bolts and barrel bolt. Frame covered with fully galvanized medium security diamond mesh, mesh size 50 x 25 x 2.5 x 1800mm high and including 500 mm long approved chain spot welded to gate and union padlock No 3122 with two 100 x 3mm galvanised corner posts with 300 x 300 x 6mm base plate cast in 450 x 450 x 900mm concrete and 50 x 3mm galvanised straining posts with 300 x 300 x 6mm base plate cast in 450 x 760 x 600mm concrete base C : 1 G : 0	No	1	
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>				
B	Dismantle and take off temporary security fencing after completion (on instruction of the Principal Agent) 1800mm high steel fencing, shade netting and timber poles including necessary excavations, filling, compaction, roughly levelling ground surfaces, etc. and remove from site C : 318 G : 0	m	318	
<u>NEW TIMBER BUILDING (GUARD HUT)</u>				
C	Timber Guard House size 1800 x 1800mm wide and 3500mm high) (To be handed to client at the end of the contract) C : 1 G : 0	No	1	
D	Remove and relocate existing timber gate house building, overall size 1.8 x 1.8m wide and 3.5m high. Timber building to be relocated, not exceeding 500m from original position C : 6 G : 0	No	6	
<u>REPAIRS AND RE-INSTATEMENT OF EXISTING HIGH SECURITY FENCE</u>				
Carried Forward				R
Section No. 5 Bill No. 1 Fencing Q515B				

Brought Forward		R
Demolitions		
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>		
A	Take down, dismantle and store temporarily for re-use, existing PVC coated high security fencing consisting of 70 x 44mm x 1.6mm x 3000mm long H-shaped profile secure posts, high security mesh panels, each size 3050 x 2400mm high and complete with all gates, including break down and remove concrete footings, including necessary excavations, filling, compaction, roughly levelling, etc. C : 174 G : 0	m 174
B	Take off and store temporarily existing sliding gate size 6000 x 2400mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 2 G : 0	No 2
C	Cut through concrete paving in patching on pavement not exceeding 120mm thick to allow area for new ground beam construction, 400mm wide, cut existing mesh (if any) on centre, bend up and preserve and remove existing concrete paving C : 46 G : 0	m2 46
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>		
Clear site		
D	Allow for clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling C : 152 G : 0	m 152
Carried Forward		R
Section No. 5 Bill No. 1 Fencing Q515B		

Brought Forward				R
<p><u>Reinstate existing PVC coated high security fencing, and setting out. All bolts, nuts and washers to be stainless steel grade 304 and all fixators will be of grade 304 stainless steel (ISO 9223) and PVC coated.</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p>				
A	<p>Take out of storage existing posts and reinstate size 70 x 44mm x 2mm x 3000mm long H-Shaped profile. Use new Flatmax spider fixators to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing new security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). Posts embedded in 600 x 400 x 400 mm mass concrete (15 MPa) base including excavations and backfilling</p> <p style="text-align: center;">C : 57 G : 0</p>	No	57	
B	<p>Take out of storage existing security fence panels and reinstate size 3050 x 2400mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels including shark tooth (elsewhere measured) with bends and install to existing posts (elsewhere measure). All bolts and washers required shall be new and of grade 304 stainless steel.</p> <p style="text-align: center;">C : 49 G : 0</p>	No	49	
C	<p>Ditto but for Panel size 1000 x 2400mm high (non-standard size).</p> <p style="text-align: center;">C : 4 G : 0</p>	No	4	
D	<p>Ditto but for Panel size 2000 x 2400mm high (non-standard size).</p> <p style="text-align: center;">C : 4 G : 0</p>	No	4	
Carried Forward				R
<p>Section No. 5 Bill No. 1 Fencing Q515B</p>				

Brought Forward									
A	Install new 100mm high x 2.5mm x 3046mm saw tooth top rail to existing mesh panel. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel. C : 49 G : 0								
		No		49					
B	Ditto but for Panel size 1000 x 2400mm high (non-standard size). C : 4 G : 0								
		No		4					
C	Ditto but for Panel size 2000 x 2400mm high (non-standard size). C : 4 G : 0								
		No		4					
<u>Mass concrete footing for fence</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>									
D	Excavations not exceeding 2m deep for underdig C : 13 G : 0								
		m3		13					
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>									
E	Mass concrete (15Mpa) for concrete underdig beam C : 13 G : 0								
		m3		13					
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>									
<u>Rough formwork to sides</u>									
F	Ground beams C : 106 G : 0								
		m2		106					
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>									
Carried Forward									
Section No. 5 Bill No. 1 Fencing Q515B									
					R				

Brought Forward									
<u>Extra over excavations in earth for excavation in</u>									
A	Soft rock	m3							
	C : 2 G : 0				2				
B	Intermediate rock	m3				2			
	C : 2 G : 0								
C	Hard rock	m3				1			
	C : 1 G : 0								
<u>Gates</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>									
D	Take out of storage and reinstate existing gate size 6000 x 2400mm high	No				1			
	C : 1 G : 0								
<u>IN-SITU CONCRETE PAVING IN PATCHING ON SIDEWALKS</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>									
<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level</u>									
E	Reduced levels under pavings, etc	m3				22			
	C : 22 G : 0								
<u>Extra over all excavations for carting away</u>									
F	Extra over all excavations for carting surplus excavated material and spreading, levelling and lightly compacting on site where directed average 500m from the excavations (Measured nett- no allowance made for bulking)	m3				22			
	C : 22 G : 0								
Carried Forward									R
Section No. 5 Bill No. 1 Fencing Q515B									

Brought Forward									
									R
<u>Compaction of surfaces</u>									
A	Scarify earth surface to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density C : 75 G : 0	m2		75					
<u>G5 gravel layers supplied by the contractor compacted to 97% Mod AASHTO density in layers not exceeding 150mm</u>									
B	Subbase under paving C : 22 G : 0	m3		22					
<u>Mass concrete (25Mpa) in:</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>									
C	Paving C : 11 G : 0	m3		11					
<u>Finishing top surfaces of concrete to an evenly brushed non-slip surface</u>									
D	Paving, ramps C : 75 G : 0	m2		75					
<u>General Formwork</u>									
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>									
E	Edges, risers, ends and reveals not exceeding 300mm high or wide C : 476 G : 0	m		476					
F	10mm Sajex or other approved cane fibre filler board in expansion joint between edge of concrete paving and walls in narrow widths not exceeding 150mm wide including tacking to face of wall and polysulphide sealant between concrete and brickwork C : 24 G : 0	m		24					
Carried Forward									R
Section No. 5 Bill No. 1 Fencing Q515B									

Brought Forward				R
<u>Movement joints</u>				
A	8 x 40mm Saw cut joints in top of concrete paving C : 24 G : 0	m	24	
<u>REPAIRS TO EXISTING FACE BRICK BOUNDARY WALL AND COLUMNS</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>				
B	Break down and remove existing damaged face brick wall C : 10 G : 0	m2	10	
<u>Brickwork of clay bricks in 6:1 cement mortar</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 116 for JBCC CPAP purposes</i>				
C	One brick walls C : 10 G : 0	m2	10	
<u>Brick reinforcement</u>				
D	High tensile galvanised steel brick reinforcement 150mm wide well lapped at all angles and passings and built into brick walls C : 118 G : 0	m	118	
<u>Beachsand Travertine FBS external face bricks to match existing in stretcher bond with well raked and smoothed square joints (85mm gauge)</u>				
E	Extra over brickwork for face brickwork to brick columns C : 4 G : 0	m2	4	
F	Extra over brickwork for face brickwork to new low level wall C : 6 G : 0	m2	6	
G	Cut brick on edge coping bedded in cement mortar and pointed on top, edge and projecting soffit C : 10 G : 0	m	10	
Carried Forward				R
Section No. 5 Bill No. 1 Fencing Q515B				

Brought Forward							
R							
<u>Sealing of existing boundary wall</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</i>							
A	Rake out and remove all existing polysuphide joint sealant, joint size 10 x 10mm to ensure joints surfaces are clean, dry, dust and frost free						
	C : 380 G : 0	m	380				
B	Install 10mm diameter backing cord into the existing joint			m	380		
	C : 380 G : 0						
C	Ensure surfaces are clean, dry, sound and grease-free, apply SikaPrimer -3N onto the surface all in accordance with manufacturer's specifications			m	380		
	C : 380 G : 0						
D	Ensure surfaces are clean, dry and free from loose, weak or foreign substances such as oil, grease, loose particles, laitance, curing compounds, vegetation and algae growth. Apply Sikaflex-11FC multipurpose elastic adhesive and joint sealant all in accordance with manufacturer's specifications			m	380		
	C : 380 G : 0						
<u>REPLACEMENT OF EXISTING STEEL AND CONCRETE PALISADE FENCING</u>							
<u>Demolitions</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>							
E	Break up and remove existing precast concrete kerb, over all size approximately 300 x 150mm wide, including necessary excavations, filling, compaction, roughly levelling ground surface, etc.						
	C : 15 G : 0	m	15				
Carried Forward							
R							
Section No. 5 Bill No. 1 Fencing Q515B							

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward		R
A	Take down, dismantle, store temporarily and hand back to End User for re-use, existing PVC coated high security fencing consisting of 70 x 44mm x 1.6mm x 3000mm long H-shaped profile secure posts, high security mesh panels, each size 3050 x 2400mm high and complete with all gates, including break down and remove concrete footings, including necessary excavations, filling, compaction, roughly levelling, etc. C : 22 G : 0	22
B	Break down and remove existing steel palisade fence, approximately 1800mm high, complete with all posts, double gate, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 89 G : 0	89
C	Break down and remove existing steel palisade fence, approximately 1900mm high, complete with all posts, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 30 G : 0	30
D	Break down and remove existing steel palisade fence, approximately 2100mm high, complete with all posts, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 278 G : 0	278
E	Break down and remove existing steel palisade fence, approximately 2300mm high, complete with all posts, double gate, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 85 G : 0	85
F	Break down and remove existing concrete palisade fence including razor wire, approximately 2300mm high, complete with all posts, double gate, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 359 G : 0	359
Carried Forward		R
Section No. 5 Bill No. 1 Fencing Q515B		

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward		R
A	Break down and remove existing concrete palisade fence including razor wire, approximately 2400mm high, complete with all posts, double gate, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 60 G : 0	60
B	Break down and remove existing security fence, approximately 2100mm high, complete with all timber posts, double gate, single gate, droppers, concrete footings, concrete underdig, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 104 G : 0	104
C	Take off and remove existing gate size 900 x 1800mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 1 G : 0	1
D	Take off and remove existing gate size 1100 x 2100mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 1 G : 0	1
E	Take off and remove existing double swing gate size 4700 x 2400mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 1 G : 0	1
F	Take off and remove existing double swing gate size 5827 x 2100mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 1 G : 0	1
G	Take off and remove existing sliding gate size 8200 x 2100mm complete with all steel posts, concrete footings, etc. including necessary excavations, filling, compaction, roughly levelling, etc. C : 1 G : 0	1
Carried Forward		R
Section No. 5 Bill No. 1 Fencing Q515B		

**Upgrading of security infrastructure
 at Livingstone PEPH Hospital Complex
 Provisional Bills of Quantities
 SCMU3-23/24-0484-HO**

Brought Forward			R
<u>Removal of trees</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>			
<u>Taking out and removing, grubbing up roots and filling in holes</u>			
A	Tree exceeding 200mm and not exceeding 500mm girth C : 17 G : 0	No	17
B	Tree exceeding 500mm and not exceeding 1000mm girth C : 1 G : 0	No	1
C	Tree exceeding 1000mm and not exceeding 1500mm girth C : 1 G : 0	No	1
D	Tree exceeding 1500mm and not exceeding 2000mm girth C : 1 G : 0	No	1
<u>Trimming of trees</u>			
E	Allow the Amount of R60,000.00 (Sixty thousand Rand) for the trimming of trees, dense shrubs, bush and tree roots	Item	60,000.00
F	Profit on above item.	Item	
G	Attendance on ditto.	Item	
<u>NEW HIGH SECURITY FENCING TO REPLACE EXISTING STEEL AND CONCRETE PALISADE FENCING</u>			
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
<hr style="width: 20%; margin-left: auto; margin-right: auto;"/>			
Carried Forward			R
Section No. 5 Bill No. 1 Fencing Q515B			

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward					R
A	Allow for clearing site for the width of 2 000 mm where existing fencing runs (1000 mm on each side of fence), and where new fence are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling. Prospective bidders to familiarize themselves with the areas that do contain shrubs, etc. at the mandatory briefing meeting to ensure that the item is priced accordingly and correctly, as no further costs shall be entertained by Employer. C : 926 G : 0	m	926		
B	Ditto, but extra over for clearing very dense shrubs C : 425 G : 0	m	425		
<p><u>PVC coated high security fencing, gates and setting out. All bolts, nuts and washers to be stainless steel grade 304 and all fixators will be of grade 304 stainless steel (ISO 9223) and PVC coated. Fence system to be maintenance free and carry a 10 year anti-corrosion guarantee. Supplier to be ISO9001 and Green Building Council</u></p> <p><i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i></p>					
C	70 x 44mm x 2mm x 3000mm long H-Shaped profile. Secure post to be hot dipped galvanised and coated with PVC coated Anthracite RAL7021 or Green RAL6005. Holes are pre-drilled before PVC coating. Spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post and secured using tamper-proof shear-off nuts (no self-drilling screws). The system must be a bolted system utilizing security nuts, bolts and washers. All bolts, nuts and washers required will be of grade 304 stainless steel. Fixators required will be of grade 304 stainless steel (ISO9223). Posts embedded in 600 x 400 x 400 mm mass concrete (15 MPa) base including excavations and backfilling C : 347 G : -260	No	87		
Carried Forward					R
Section No. 5 Bill No. 1 Fencing Q515B					

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
Provisional Bills of Quantities
SCMU3-23/24-0484-HO**

Brought Forward				R
A	High security mesh panels size 3050 x 2400mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels with bends. Core wire (3mm diameter) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (Min. 275g/m ²) coating consisting of 95% Zinc and 5% Aluminium. Panel shall receive additional PVC Coating (3.4mm thick) Anthracite RAL 7021 or Green RAL 6005, including 60mm high x 2.5mm x 3046mm saw tooth top rail with additional PVC coating. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel. C : 301 G : -225	No	76	
B	Ditto but for Panel size 1000 x 2400mm high (non-standard size). C : 4 G : -3	No	1	
C	Ditto but for Panel size 2000 x 2400mm high (non-standard size). C : 6 G : -4	No	2	
D	High security mesh panels size 3050 x 2100mm high with aperture size (centers) of 76mm x 12mm rigid mesh panels with bends. Core wire (3mm diameter) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (Min. 275g/m ²) coating consisting of 95% Zinc and 5% Aluminium. Panel shall receive additional PVC Coating (3.4mm thick) Anthracite RAL 7021 or Green RAL 6005, including 60mm high x 2.5mm x 3046mm saw tooth top rail with additional PVC coating. The top rail saw tooth shall be pre-drilled to fix top section of the panel with M8 x 30mm cup square bolts. All bolts and washers required shall be of grade 304 stainless steel. C : 33 G : -25	No	8	
E	Ditto but for Panel size 1000 x 2100mm high (non-standard size). C : 2 G : -1	No	1	
F	Ditto but for Panel size 2000 x 2100mm high (non-standard size). C : 2 G : -1	No	1	
Carried Forward				R
Section No. 5 Bill No. 1 Fencing Q515B				

Brought Forward				R
<u>Mass concrete footing for fence</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
A	Excavations not exceeding 2m deep for underdig C : 81 G : 0	m3	81	
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>				
B	Mass concrete (15Mpa) for concrete underdig beam C : 81 G : 0	m3	81	
<u>Rough formwork to sides</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 111 for JBCC CPAP purposes</i>				
C	Ground beams C : 648 G : 0	m2	648	
<u>Extra over excavations in earth for excavation in</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>				
D	Soft rock C : 8 G : 0	m3	8	
E	Intermediate rock C : 8 G : 0	m3	8	
F	Hard rock C : 4 G : 0	m3	4	
<u>Repairs to gate track</u>				
<i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>				
Carried Forward				R
Section No. 5 Bill No. 1 Fencing Q515B				

Brought Forward							
A	80 x 6mm Galvanised mild steel flat bar with a 8mm diameter solid galvanised mild steel rod continuous welded onto the top of the centre of the track and then weld to be cold galvanised C : 6 G : 0						
		m	6				
B	65 x 8mm Rawl bolts into existing concrete ground beam C : 8 G : 0						
		No	8				
<u>Precast concrete kerbs:</u>							
C	150 x 250mm Precast Barrier kerb BK2, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced concrete foundation size 400 x 60mm thick under and 125 x 150 x 150mm high unreinforced concrete Class B haunching behind, including necessary excavation C : 15 G : 0						
		m	15				
<u>GATES</u>							
<u>NOTE:</u> The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes							

Carried Forward							
Section No. 5 Bill No. 1 Fencing Q515B							R

	Brought Forward			R
A	<p> Pedestrian swing gate, size 1170mm wide x 2400mm high, formed of SHS 75 x 75 x 5mm gate frame with a pair of hinges. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 30 x 4mm flat bar welded to framework and 30 x 4mm flat bar mesh clamping fixed to mesh framing flats. Horizontal and vertical wires shall have a core diameter of 3.96mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 4 bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with two 20mm diameter drop bolts and one 160mm diameter locakble sliding bolt. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Pedestrian Gate Drawing 314-013-003 (Livingstone Hospital Gate 3)</u> </p> <p style="text-align: center;">C : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p> Section No. 5 Bill No. 1 Fencing Q515B </p>			

	Brought Forward			R
A	<p> Pedestrian swing gate, size 1500mm wide x 2100mm high, formed of SHS 75 x 75 x 5mm gate frame with a pair of hinges. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 30 x 4mm flat bar welded to framework and 30 x 4mm flat bar mesh clamping fixed to mesh framing flats. Horizontal and vertical wires shall have a core diameter of 3.96mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 4 bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with two 20mm diameter drop bolts and one 160mm diameter locakble sliding bolt. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Pedestrian Gate Drawing 314-013-003 (Livingstone Hospital Gate 1)</u> </p> <p style="text-align: center;">C : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p> Section No. 5 Bill No. 1 Fencing Q515B </p>			

	Brought Forward			R
A	<p>Double swing gate, size 4700mm wide x 2400mm high, formed of SHS 60 x 80 x 5mm gate frame with two pairs of Securifor gate hinges. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm2. Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Horizontal and vertical wires shall have a core diameter of 3.96mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 50 x 5 bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate to be fitted with two 20mm diameter drop bolts and one barrel bolt lockable drop bolt. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling all in accordance with <u>Double Swing Gate Drawing 314-013-003 (Livingstone Hospital Gate 2)</u></p> <p style="text-align: center;">C : 1 G : 0</p>	No	1	
	Carried Forward			R
	<p>Section No. 5 Bill No. 1 Fencing Q515B</p>			

	Brought Forward			R
A	<p>Sliding gate, size 6780mm wide x 2100mm high, formed of SHS 75 x 75 x 5mm gate frame with RHS 150 x 100 x 3mm gate bottom carrier beam. Gate panels to be mesh panels fabricated from high tensile steel with a weld strength of 60% and an tensile strength of 500N/mm². Mesh framing to consist of 50 x 5mm flat bar welded to framework and 50 x 5mm flat bar mesh clamping fixed to mesh framing flats. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate shall be fitted with a locking lug for padlock. Horizontal and vertical wires shall have a core diameter of 3.00mm with a tolerance of 0.07mm. Apertures shall be 76.2mm wide x 12.7mm high c/c of wires. Panels are laterally strengthened by incorporation of 43mm deep V-profiled horizontal and stiffener bends. Mesh panels are manufactured with Zincalu wire (Galfan). Mesh shall be clamp fixed to gate frame using flat 30 x 5mm bolted to mounting flat with M8 cup square bolts, shear-off nuts and flat washers. Fixing screws and fasteners shall be Grade 304 stainless steel. Mesh panels shall have a Zincalu finish and posts, structure, clamp plates and mesh framing shall be HD Galvanised. All to have additional PVC coating to a minimum thickness of 200um (micron) in accordance with EN10245-2 steel wire and wire products. Install two 150mm diameter bottom rollers housed into gate carrier beam. The gate system shall be provided with two gate portals made from 100 x 100 x 3mm RHS welded construction, consisting of one guide/support portal at the travelling end of the gate and one latching portal at the docking end of the gate. Each gate portal shall be equipped with a pair of 60mm diameter nylon guide rollers. Finish colour to be RAL 6005 Green or RAL 7021 Anthracite. Gate portals shall be embedded in 900 x 400 x 750 mm mass concrete (25 MPa) base including excavations and backfilling <u>all in accordance with Sliding Gate Drawing 314-013-003 (Livingstone Hospital Gate 1)</u></p> <p style="text-align: center;">C : 1 G : 0</p> <p><u>CONCRETE GATE BEAM</u></p> <p><i>NOTE:</i> The following items shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</p>	No	1	
	Carried Forward			R
	<p>Section No. 5 Bill No. 1 Fencing Q515B</p>			

Brought Forward							
R							
<u>Excavation in earth or compacted filling not exceeding 2m deep</u>							
A	Concrete gate beam C : 3 G : 0	m3		3			
<u>Extra over all excavations for carting away</u>							
B	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor C : 3 G : 0	m3		3			
<u>Risk of collapse of excavations</u>							
C	Sides of trench and hole excavations not exceeding 1,5m deep C : 8 G : 0	m2		8			
<i>NOTE: The following items shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>							

<u>30MPa/19 mm Reinforced concrete in</u>							
D	Gate beams C : 3 G : 0	m3		3			
<u>Reinforcement</u>							
<i>NOTE: The following items shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</i>							

<u>Mild steel rod reinforcement to structural concrete work</u>							
E	8mm Diameter bars C : 0.105 G : 0.000	t		0.105			
<u>High tensile steel rod reinforcement to structural concrete work in foundations</u>							
F	10mm Diameter bars C : 0.525 G : 0.000	t		0.525			
Carried Forward							R
Section No. 5 Bill No. 1 Fencing Q515B							

Brought Forward					
A	12mm Diameter bars C : 0.420 G : 0.000 <u>Steel track in concrete beam</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	t	0.420		R
B	10 x 100mm galvanised mild steel flat bar cast on edge in concrete ground beam including 10mm diameter lugs welded to flat bar at 500mm centres C : 18 G : 0 <u>REPLACEMENT OF EXISTING BOOM GATES</u> <i>NOTE: The following items shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>	m	18		
C	Take down, dismantle and remove existing boom housing approximately 1.2m high from existing concrete base C : 4 G : 0 <i>NOTE: The following items shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>	No	4		
Carried Forward					R
Section No. 5 Bill No. 1 Fencing Q515B					

Brought Forward

R

Automatic Industrial Vehicle barrier boom gates

A Automatic industrial vehicle barrier with swiftdrive as supplied by Turnstar Systems (011 786 1633). Barrier to consist of BLDC, 24V DC, 100W motor, Planetary gearbox with 27.6 V DC, 4.5A, 120W motor power supply. Barrier to include collision detection, dual channel safety loop detector and input for any external sensor, integrates with all access control, ticketing and time & attendance systems, triggered through a normally open dry contact and free exit loop feature built-in as standard. With push button located in security/guard house. Barrier to include 4m barrier arm size 86mm x 43mm x 1.5mm thickness, power coated aluminium with red reflective tape and integrated RGB. Barrier to be bolted to existing concrete base (Installed strictly to manufacturers specifications)

No

1

C : 1 G : 0

B Automatic industrial vehicle barrier with swiftdrive as supplied by Turnstar Systems (011 786 1633). Barrier to consist of BLDC, 24V DC, 100W motor, Planetary gearbox with 27.6 V DC, 4.5A, 120W motor power supply. Barrier to include collision detection, dual channel safety loop detector and input for any external sensor, integrates with all access control, ticketing and time & attendance systems, triggered through a normally open dry contact and free exit loop feature built-in as standard. With push button located in security/guard house. Barrier to include 5m barrier arm size 86mm x 43mm x 1.5mm thickness, power coated aluminium with red reflective tape and integrated RGB. Barrier to be bolted to existing concrete base (Installed strictly to manufacturers specifications)

No

1

C : 1 G : 0

Carried Forward

R

Section No. 5
 Bill No. 1
 Fencing
Q515B

**Upgrading of security infrastructure
at Livingstone PEPH Hospital Complex
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	Brought Forward		R	
A	Automatic industrial vehicle barrier with swiftdrive as supplied by Turnstar Systems (011 786 1633). Barrier to consist of BLDC, 24V DC, 100W motor, Planetary gearbox with 27.6 V DC, 4.5A, 120W motor power supply. Barrier to include collision detection, dual channel safety loop detector and input for any external sensor, integrates with all access control, ticketing and time & attendance systems, triggered through a normally open dry contact and free exit loop feature built-in as standard. With push button located in security/guard house. Barrier to include 6m barrier arm size 86mm x 43mm x 1.5mm thickness, power coated aluminium with red reflective tape and integrated RGB. Barrier to be bolted to existing concrete base (Installed strictly to manufacturers specifications)	No	2	
	C : 2 G : 0			
	<u>SIGNAGE</u>			
B	Allow the Amount of R50,000.00 (Fifty thousand Rand) for the replacement of existing Signage		Item	50,000.00
C	Profit on above item.		Item	
D	Attendance on ditto.		Item	
Carried to Final Summary			R	
Section No. 5				
Bill No. 1				
Fencing				
Q515B				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 6</u></p> <p><u>PROVISIONAL SUMS</u></p> <p><u>BILL NO 1</u></p> <p><u>The following provisional sums are for work to be executed by the specialist firms which will be regarded as direct domestic sub-contractors to the contractor. The contractor will call for quotations from firms approved by Representative/Agent in accordance with the conditions of contract and in conjunction with the Representative /Agent (at least three responsive quotations are required)</u></p> <p>The Contractor may allow under the "profit" item for any profit he considers necessary. If the Contractor allows an amount for profit, this amount will be adjusted in direct proportion to the final value of the specialist work</p> <p>Each provisional sum in this bill is followed by an item under which the Contractor may allow for attendance on the the specific sub- contractor</p> <p>The amounts of the items for "Attendance" are to allow for giving every facility to attending upon and making good in all trades after the Specialists have completed their work, for providing the use of all water, electricity, storage space for materials, etc. the use of general amenities, i.e. latrines, etc., for the specialists and their workmen. For maintaining conduits, sleeve pipes, etc. in position during the building operations and providing the use of all ordinary scaffolding and plant. The Contractor is to leave erected scaffolding in position for the period required for work by the sub-contractors under this contract</p> <p>-----</p> <p><u>SOCIO-DELIVERABLES</u></p>			
	Carried Forward		R	
	<p>Section No. 6 Bill No. 1 Provisional Sums Q515B</p>			

**Upgrading of security infrastructure
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	Brought Forward		R
<u>C.L.O. (L4)</u>			
A	Allow the Amount of R320,000.00 (Three Hundred and Twenty Thousand Rand) for monthly payment of R8,000.00 (Gross salary) of the Community Liaison Officers (CLO) (3 sites)	Item	320,000.00
B	Profit on above item.	Item	
C	Attendance on ditto.	Item	
D	All associated other costs, including tools of the trade, consumables, safety equipment, etc	Item	
<u>CANDIDATE PROFESSIONALS</u>			
<u>Provide structured workplace learning for built environment profession candidates towards professional registration by a statutory council</u>			
E	Allow the Amount of R300,000.00 (Three Hundred Thousand Rand) for monthly payment of one (1) Candidate Professionals/Graduates stipend cost of R15,000 per month for the duration of the contract	Item	300,000.00
F	Profit on above item.	Item	
G	Attendance on ditto.	Item	
H	All associated other costs, including tools of the trade, safety equipment, etc.	Item	
<u>STUDENTS</u>			
<u>Provide structured workplace learning for built environment profession students</u>			
I	Allow the Amount of R440,000.00 (Four Hundred and Fourty Thousand Rand) for monthly payment of two (2) students within the built environment stipend cost of R11,000 each per month for the duration of the contract	Item	440,000.00
J	Profit on above item.	Item	
Carried Forward			R
Section No. 6 Bill No. 1 Provisional Sums Q515B			

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	Brought Forward				R
A	Attendance on ditto.	Item			
B	All associated other costs, including tools of the trade, safety equipment, etc.	Item			
	Carried Forward to Summary of Section No. 6				R
	Section No. 6				
	Bill No. 1				
	Provisional Sums				
	Q515B				

**Upgrading of security infrastructure
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Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>SOCIO ECONOMIC DEVELOPMENT AND TRANSFORMATION</u>			
	<u>BILL NO 2</u>			
	<u>TRAINING</u>			
	The following provisional sums cover the direct cost for all EPWP requirements			
	The Contractor shall allow any required profit and attendance on below items in Section 1 Preliminaries and General as he deems necessary			
	No Preliminary and General cost adjustment will be entertained for variances in provisional sums, as allowed below			
	<u>LOCAL LABOUR INTENSIVE TRAINING</u>			
A	Allow the Amount of R350,000.00 (Three Hundred and Fifty Thousand Rand) for formal training, administration, transport and accommodation of Local Labourers	Item		350,000.00
	<u>DPWI/ECDOH INTERNSHIP PROGRAMME STUDENTS</u>			
B	Allow the Amount of R300,000.00 (Three Hundred Thousand Rand) for DPWI/ECDOH internship programme students	Item		300,000.00
	<u>PSC</u>			
C	Allow the Amount of R80,000.00 (Eighty Thousand Rand) for monthly payment of the PSC Community members (4 members @ R500/month gross salary on each of the 3 sites)	Item		80,000.00
	Carried Forward to Summary of Section No. 6			R
	Section No. 6			
	Bill No. 2			
	Socio Economic Development and Transformation			
	Q515B			

SECTION SUMMARY - SECTION 6 PROVISIONAL SUMS

Bill No		Page No	Amount
1	Provisional Sums	333	
2	Socio Economic Development and Transformation	334	
Carried to Final Summary			R
Section No. 6 Q515B			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO 1</u></p> <p><u>SMME DIRECT DOMESTIC SUB-CONTRACTORS</u></p> <p>The following provisional sums cover the complete supply and installation of material and equipment by firms of SMME contractors to be direct domestic sub-contractors and are NETT, that is the sum does not include for builders discount</p> <p>The Contractor may allow under the "profit" item for any profit he considers necessary. If the Contractor allows an amount for profit, this amount will be adjusted in direct proportion to the final value of the SMME work</p> <p><u>Attendance on Domestic Sub-contractors</u></p> <p>Each provisional sum in this bill is followed by an item under which the Contractor may allow for attendance on the specific SMME sub-contractor</p> <p>The amounts of the items for "Attendance" are to allow for giving every facility to attending upon and making good in all trades after the SMME sub-contractors have completed their work, for providing the use of all water, electricity, storage space for materials, etc. the use of general amenities, i.e. latrines, etc., for the SMME sub-contractors and their workmen. For maintaining conduits, sleeve pipes, etc. in position during the building operations and providing the use of all ordinary scaffolding and plant. The Contractor is to leave erected scaffolding in position for the period required for work by the domestic sub-contractors under this contract</p> <p>-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p>			
	Carried Forward		R	
	<p>Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>The following provisional sums are for work to be executed by the Small, Medium and Micro Enterprises, which will be regarded as direct domestic sub-contractors to the contractor. The contractor must call for quotations from firms approved by the Client in accordance with the conditions of contract and in conjunction with the Management Team for consideration.</u></p> <p><u>Tenderers are advised that it is a condition of the tender that where SMME's cannot be found, can not proceed or fail to complete the work, the Main Contractor will complete the work at his own tendered rates as per Section 2, 3, 4 and 5.</u></p> <p><u>Tenderers to take note that a portion of the building works, excluding specialist work, are to be contracted to SMME's. Provisional Sums are provided for this purpose and bids will be called for after award for these packages on a domestic sub-contractor basis. The Tenderer is to price all associated administrative, supervision, mentoring costs, profit and attendance in the relevant sections of the Preliminaries as no claims for additional costs will be entertained.</u></p> <p><u>The portion is made up of all building works excluding the following:</u> <u>Preliminaries and General</u> <u>Provisional Sums</u> <u>Electrical Specialist Works</u> <u>Mechanical Specialist Works</u> <u>Escalation and</u> <u>Contingencies</u> <u>These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders calculated in terms of the prescribed contractual directives</u></p>	R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B</p>	R	

<p>Brought Forward</p> <p><u>SMME DIRECT DOMESTIC SUB-CONTRACTS</u></p> <p>The following provisional sums cover the complete supply and installation of material and equipment by firms of SMME contractors to be direct domestic sub-contractors and are NETT, that is the sum does not include for builders discount. The contractor must call for quotations from firms approved by the Employer in accordance with the conditions of contract and in conjunction with the Management Team for consideration. <u>(at least three responsive quotations are required)</u></p> <p>The Contractor may allow under the "profit" item for any profit he considers necessary. If the Contractor allows an amount for profit, this amount will be adjusted in direct proportion to the final value of the SMME work</p> <p><u>Attendance on Domestic Sub-contractors</u></p> <p>Each provisional sum in this bill is followed by an item under which the Contractor may allow for attendance on the specific SMME sub-contractor</p> <p>The amounts of the items for "Attendance" are to allow for giving every facility to attending upon and making good in all trades after the SMME sub-contractors have completed their work, for providing the use of all water, electricity, storage space for materials, etc. the use of general amenities, i.e. latrines, etc., for the SMME sub-contractors and their workmen. For maintaining conduits, sleeve pipes, etc. in position during the building operations and providing the use of all ordinary scaffolding and plant. The Contractor is to leave erected scaffolding in position for the period required for work by the domestic sub-contractors under this contract</p> <p>-----</p>		<p>R</p>	
<p>Carried Forward</p> <p>Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B</p>		<p>R</p>	

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			R
	Brought Forward		
	<u>SMME FOREMAN / MENTOR</u>		
A	Provide the sum of R500,000.00 (Five Hundred Thousand Rand) nett for the employment, on a full time basis for the duration of the contract, a dedicated Foreman to assist SMME sub-contractors with quality control, etc. Foreman and duration on site to be approved by Employer prior to appointment (R25,000.00 per month gross salary)	Item	500,000.00
B	Allow for profit if required	Item	
C	Allow for attendance	Item	
D	Provide the sum of R500,000.00 (Five Hundred Thousand Rand) nett for the employment, on a full time basis for the duration of the contract, a SMME Mentor (R25,000.00 per month gross salary)	Item	500,000.00
E	Allow for profit if required	Item	
F	Allow for attendance	Item	
	<u>SMME PROVISIONAL SUMS</u>		
	<u>The following provisional sums are for work to be executed by the Small, Medium and Micro Enterprises, which will be regarded as direct domestic sub-contractors to the contractor. The contractor must call for quotations from firms approved by the Employer in accordance with the conditions of contract and in conjunction with the Management Team for consideration.</u>		
	Notes: It is required that the contractor shall adhere to the requirements of employment and management of SMME Subcontractors		
	Tenderers are advised that it is a condition of the tender that where SMME's cannot be found, can not proceed or fail to complete the work, the Main Contractor will complete the work at his own tendered rates as per Bills of Quantities		
	Carried Forward		
	Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B		R

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	Brought Forward		R
<u>TRAINING OF SMME CONTRACTORS</u>			
A	Provide the sum of R300,000.00 (Three Hundred Thousand Rand) nett for the provision of accredited specific training to Domestic SMME Subcontractors to be used at the discretion of the Employer, or to be deducted in whole or in part if not required	Item	300,000.00
B	Allow for profit if required	Item	
C	Allow for attendance	Item	
<u>PPE FOR SMME DOMESTIC SUBCONTRACTOR LABOURERS</u>			
D	Provide the sum of R350,000.00 (Three Hundred and Fifty Thousand Rand) nett for purchasing and providing PPE Kits for all SMME domestic subcontractor labourers' (The Main Contractor shall provide detailed lists with names including ID numbers, verified by SMME Mentor)	Item	350,000.00
E	Allow for profit if required	Item	
F	Allow for attendance	Item	
<u>SMME CONTRACTS - DOMESTIC SUBCONTRACT PACKAGES</u>			
<p>SMME Domestic sub-contract packages to be implemented are below. The Bills of Quantities for the packages shall be provided to the successful bidder (Contractor) to obtain prices from SMME sub Contractors. The Employer to approve list of subcontractors and preferred sub-contractors prior to appointment of such SMME Domestic Sub-contractors</p> <p>All envisaged costs related to SMME packages to the Contractor shall be priced under Preliminaries, Item A/35</p>			
Carried Forward			R
Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B			

Brought Forward		R
<p>Alternative SMME packages proposed by Contractor could be considered by the Employer. Work packages below could be divided into further smaller packages by the Employer, should it be required. No additional costs in this regard shall be entertained</p> <p><u>SMME CONTRACTS - DOMESTIC SUBCONTRACT</u></p> <p><u>PE PROVINCIAL HOSPITAL - ENTRANCE GATE HOUSE</u></p>		
A	Provide the sum of R765,000.00 (Seven Hundred and Sixty Five Thousand Rand) nett for construction of Entrance Gatehouse at PE Provincial Hospital to be done by a SMME subcontractor	765,000.00
B	Allow for profit if required	Item
C	Allow for attendance	Item
<p><u>PE PROVINCIAL HOSPITAL - REMOVE EXISTING AND CONSTRUCTION OF NEW CONCRETE PAVING IN PATCHING ON SIDEWALKS AT ST CROIX ROAD AND CONCRETE UNDERDIG FOR FENCING</u></p>		
D	Provide the sum of R475,000.00 (Four Hundred and Seventy Five Thousand Rand) nett for removal of existing and new concrete paving on sidewalks in patching at St Croix Road and concrete underdig for new fencing to be done by a SMME subcontractor	475,000.00
E	Allow for profit if required	Item
F	Allow for attendance	Item
Carried Forward		R
<p>Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B</p>		

	Brought Forward		R
	<p><u>PE PROVINCIAL HOSPITAL - DEMOLITION AND REMOVAL OF EXISTING CONCRETE AND BRICK WALLS INCLUDING FOUNDATIONS AT ST CROIX ROAD</u></p>		
A	Provide the sum of R155,000.00 (One Hundred and Fifty Five Thousand Rand) nett for Demolition of existing concrete and brick walls including foundations at St Croix road, by a SMME subcontractor	Item	155,000.00
B	Allow for profit if required	Item	
C	Allow for attendance	Item	
	<p><u>PE PROVINCIAL HOSPITAL - DEMOLITION AND REMOVAL OF EXISTING CONCRETE AND BRICK WALLS INCLUDING FOUNDATIONS AT NORTHWOOD ROAD</u></p>		
D	Provide the sum of R260,000.00 (Two Hundred and Sixty Thousand Rand) nett for Demolition of existing concrete and brick walls including foundations at Northwood Road, by a SMME subcontractor	Item	260,000.00
E	Allow for profit if required	Item	
F	Allow for attendance	Item	
	<p><u>PE PROVINCIAL HOSPITAL - REMOVE EXISTING AND CONSTRUCTION OF NEW CONCRETE PAVING IN PATCHING ON SIDEWALKS AT NORTHWOOD ROAD AND CONCRETE UNDERDIG FOR FENCING</u></p>		
G	Provide the sum of R970,000.00 (Nine Hundred and Seventy Thousand Rand) nett for removal of existing and new concrete paving on sidewalks in patching at St Croix Road and concrete underdig for fencing to be done by a SMME subcontractor	Item	970,000.00
H	Allow for profit if required	Item	
I	Allow for attendance	Item	
	Carried Forward		R
	Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B		

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	Brought Forward		R	
	<u>PE PROVINCIAL HOSPITAL - REMOVE EXISTING AND CONSTRUCTION OF NEW CONCRETE PAVING IN PATCHING ON SIDEWALKS AT EASTBOURNE ROAD AND CONCRETE UNDERDIG FOR FENCING</u>			
A	Provide the sum of R865,000.00 (Eight Hundred and Sixty Five Thousand Rand) nett for removal of existing and new concrete paving on sidewalks in patching at Eastbourne Road and concrete underdig for fencing to be done by a SMME subcontractor	Item	865,000.00	
B	Allow for profit if required	Item		
C	Allow for attendance	Item		
	<u>PE PROVINCIAL HOSPITAL - CONSTRUCTION OF CONCRETE RETAINING WALL INCLUDING FOUNDATIONS AT EASTBOURNE ROAD</u>			
D	Provide the sum of R650,000.00 (Six Hundred and Fifty Thousand Rand) nett for construction of new concrete retaining walls and foundations at Eastbourne Road, by a SMME subcontractor	Item	650,000.00	
E	Allow for profit if required	Item		
F	Allow for attendance	Item		
	<u>PE PROVINCIAL HOSPITAL - HIGH SECURITY FENCING ST CROIX ROAD</u>			
G	Provide the sum of R420,000.00 (Four Hundred and Twenty Thousand Rand) nett for construction of new high security fence at St Croix Road, by a SMME subcontractor	Item	420,000.00	
H	Allow for profit if required	Item		
I	Allow for attendance	Item		
	Carried Forward		R	
	Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B			

Brought Forward		R
<u>PE PROVINCIAL HOSPITAL - HIGH SECURITY FENCING AT NORTHWOOD ROAD</u>		
A	Provide the sum of R835,000.00 (Eight Hundred and Thirty Five Thousand Rand) nett for construction of new high security fencing at Northwood Road by a SMME subcontractor	Item 835,000.00
B	Allow for profit if required	Item
C	Allow for attendance	Item
<u>PE PROVINCIAL HOSPITAL - HIGH SECURITY FENCING AT EASTBOURNE ROAD</u>		
D	Provide the sum of R685,000.00 (Six Hundred and Eighty Five Thousand Rand) nett for construction of new high security fence at Eastbourne Road, by a SMME subcontractor	Item 685,000.00
E	Allow for profit if required	Item
F	Allow for attendance	Item
<u>LIVINGSTONE HOSPITAL - HIGH SECURITY FENCING</u>		
G	Provide the sum of R2,300,000.00 (Two Million and Three Hundred Thousand Rand) nett for construction of new high security fence at Livingstone Hospital, by a SMME subcontractor (75% of new high security fence)	Item 2,300,000.00
H	Allow for profit if required	Item
I	Allow for attendance	Item
Carried to Final Summary		R
Section No. 7 Bill No. 1 SMME Sub-Contractors Q515B		

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Section No	<u>FINAL SUMMARY</u>	Page No	Amount
1	SECTION 1 PRELIMINARIES AND GENERAL	41	
2	SECTION 2 RENOVATIONS TO EXISTING PROTEA FLATS	152	
3	SECTION 3 PE PROVINCIAL HOSPITAL ENTRANCE & EXIT GATEHOUSES	216	
4	SECTION 4 FENCING AT PE PROVINCIAL HOSPITAL	305	
5	SECTION 5 FENCING AT LIVINGSTONE HOSPITAL	330	
6	SECTION 6 PROVISIONAL SUMS	335	
7	SECTION 7 SMME DOMESTIC SUB-CONTRACTS	344	
	SUB TOTAL		R
	SECTION 8 ELECTRICAL INSTALLATION (GUARDBOUSES 1 & 2)	Item	
	SECTION 9 ELECTRICAL INSTALLATION (PROTEA FLATS)	Item	
	SECTION 10 HVAC INSTALLATION (PROTEA FLATS)	Item	
	SECTION 11 ICT INSTALLATION (PROTEA FLATS)	Item	
	SUB TOTAL		R
	<u>ALLOWANCE FOR CONTINGENCIES</u>		
	Allow the Amount of R3,000,000.00 (Three Million Rand) for Contingencies to be used at the discretion of the Employer, or to be deducted in whole or in part if not required	Item	3,000,000.00
	Carried Forward		R
	Q515B		

Section No		Page No		Amount
	<u>FINAL SUMMARY</u>			
	Brought Forward		R	
	<u>ALLOWANCE FOR ESCALATION</u>			
	Allow the Amount of R2,500,000-00 (Two Million and Five Hundred Thousand Rand) for Escalation to be adjusted accordingly to contract conditions	Item		2,500,000.00
	SUB TOTAL (EXCLUDING VAT @ 15%)		R	
	VAT @ 15%		R	
	TOTAL CARRIED TO FORM OF OFFER AND ACCEPTANCE (INCLUDING VAT @ 15%)		R	
	Carried to Form of Offer and Acceptance		R	
	Q515B			

SECTION 8

ELECTRICAL BILLS OF QUANTITIES FOR GUARDHOUSES 1 & 2 AT PE PROVINCIAL HOSPITAL

Vol. 1.1 Part 1

PROJECT TITLE:	LIVINGSTONE AND PEPH COMPLEX: LIVINGSTONE HOSPITAL – NEW ENTRANCE AND EXIT GUARDHOUSES - ELECTRICAL INSTALLATIONS
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BILLS OF QUANTITIES - NOTES TO TENDERERS

- 1 All queries will only be answered in writing by the Engineer responsible for the project.
- 2 The Bills of Quantities form part of and must be read in conjunction with the specification which contains the full description of the work to be done and material and equipment to be used. Unless otherwise described in the Bills of Quantities, reference should be made to the specification for the full meaning of description of work to be done and materials and equipment to be used in this service. Tenderers are requested to check the formulas in the Bills of Quantities and are responsible for the accuracy of their formulas/calculations.
- 3 The total tender price in the tender form shall constitute the contract price of the successful Tenderer. Tenderers are advised to check their item extensions and total additions, as no claim for arithmetical errors will be considered.
- 4 No alterations, erasure or addition is to be made in the text of the Schedule of Prices. Should any alteration, erasure or addition be made it will not be recognised but the original wording of the Schedule of Prices will be adhered to.
- 5 The Priced Bills of Quantities of the successful Tenderer will be checked and the Employer reserves the right to call for adjustments to any individual price and to rectify any discrepancy whilst the total tender price, as submitted, remains unaltered.
- 6 The responsibility for accuracy of the quantities written into the schedules remains with the person who prepared the schedules. The Tenderer shall be relieved of responsibility of measuring quantities at the tender stage, and the tender sum submitted shall be in respect of the quantities set out in the schedules although he will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the schedules and shall include in the item prices for such small installation materials as are required for the complete installation in accordance with the specification. Conductor prices shall include for wastage and sagging.
- 7 All conductors have been measured exclusive of sagging and wastage. The Contractors prices must therefore include for sagging as well as wastage.
- 8 All prices entered in these Bills of Quantities shall include for supply [unless otherwise stated], installation, testing, commissioning, guarantee with free maintenance during the Guarantee period and profit but excluding VAT.
- 9 The successful Tenderer and the Employer or his Agent may agree that the total of any bill or bills, including any variations by way of additions thereto or deductions therefrom, represents a fair accurate quantification of the items set out in the bills and the parties may agree to final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.
- 10 The quantities in these Bills of Quantities are not to be used for ordering materials.
- 11 The description of each item shall, unless other-wise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, all installation materials and sundries, cutting and waste, sagging, patterns, models and templates, plant, temporary works, return of packing, establishment charges, profit and all other obligations arising out of the conditions of contract.
- 12 All measurements are net and Tenderers must allow for wastage in the item rate submitted.

- 13 All provisional sums shall be expended as directed by the Employer and any balance remaining shall be deducted from the amount of the contract sum.

All items described as "Provisional" shall be measured as executed and paid for according to prices in the Bills of Quantities and any unexpended amounts shall be deducted from the amount of the contract sum. No work for which "Provisional" items are provided shall be commenced without written instructions from the Employer.

- 14 It is a requirement of the contract that the work shall be carried out in the manner that is most economical on materials. Unless otherwise indicated by the Employer, the Electrical Contractor is required to use the shortest practical route for all conductors subject to the restrictions of the specification and good electrical practice.

- 15 The terms in the Bills of Quantities are based on standard Eskom/Telkom assemblies. The Tenderer shall take careful notice to the make-up of these assemblies with regard to the inclusion/exclusion of excavation, poles, stays, earthing and other items.

- 16 The prices shall be fixed and not subject to adjustment for inflation for the period between contract and programmed completion as set out in the contract.

Tenderers are to specifically note that the Bills of Quantities must be priced as per the quantities provided. Any change in the descriptions and/or additional information must be made in an alternative offer.

No quantities in the original Bills of Quantities or description of equipment offered are to be changed and must remain as is.

Note:

It will be expected of the successful tenderer to submit a full re-measured Bills of Quantities within twenty-one [21] days after acceptance of the tender price.

Vol. 1.1 Part 1

PROJECT TITLE:	LIVINGSTONE AND PEPH COMPLEX: LIVINGSTONE HOSPITAL – NEW ENTRANCE AND EXIT GUARDHOUSES - ELECTRICAL INSTALLATIONS
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SCHEDULE OF MATERIAL OFFERED

Bidders are required to enter, at the time of bidding, in this material offered, sufficient details to enable the equipment concerned to be identified without ambiguity.

It is not sufficient for a tender to state “as specified” in the schedules.

FAILURE TO COMPLETE THESE SCHEDULES (IF APPLICABLE) MAY RENDER A BID INVALID.

ITEM	EQUIPMENT	MAKE	MANUFACTURE

NAME OF TENDER :

NAME OF COMPANY :

SIGNATURE OF TENDERER :

SECTION 8

LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDBOUSES 1 AND 2

ELECTRICAL INSTALLATIONS

BILL NO. 1 : PROVISIONAL AND SUPERVISION AMOUNTS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
	A Preliminary and General item is provided to cover the Contractor's charges for compliance with the Conditions of Contract and this Specification, including the provision, maintenance and removal of his site establishment, etc.				
1.10	FIXED CHARGES				
1.1.1	Site Establishment	Sum	1		
1.1.2	Removal of Site Establishment	Sum	1		
1.1.3	Provision of Electricity and Water	Sum	1		
1.1.4	Provision of Toilet Facilities	Sum	1		
1.1.5	<u>Other Fixed-charge Obligations</u>	Sum	1		
	(Please Specify)	Sum	1		
	. . . . .	Sum	1		
1.20	CONTRACTUAL REQUIREMENTS				
1.2.1	Provision of Sureties	Sum	1		
1.2.2	Insurances	Sum	1		
1.2.3	Third Party Insurance	Sum	1		
1.2.4	Guarantee of the Works	Sum	1		
1.2.5	Provide Test Results	Sum	1		
1.2.6	Provision of Record Drawings	Sum	1		
1.2.7	All OHS&A Requirements including safety equipment and clothing	Sum	1		
1.2.8	All HIV / AIDS Specification Requirements	Sum	1		
1.2.9	<u>Other Value Related Obligations</u>	Sum	1		
	(Please Specify)	Sum	1		
	. . . . .	Sum	1		
1.30	TIME-RELATED ITEMS		1		
1.3.1	Contractual Requirements	Sum	1		
1.3.2	Operation and Maintenance of Site Establishment	Sum	1		
1.3.3	Supervision for the Duration of Contract	Sum	1		
1.3.4	<u>Other Time-Related Obligations</u>	Sum	1		
	(Please Specify)	Sum	1		
	. . . . .	Sum	1		
TOTAL SCHEDULE NO. 1 TO PRICE SUMMARY					

SECTION 8

LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDHOUSES 1 AND 2

BILL NO. 2 : DISTRIBUTION BOARDS (DB)

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
2.1	Service Distribution board Supply and Install new DB into existing chased in DB tray to specifications and drawings				
2.1.1	Guard House 1: SDB-GH1 Supply	each	1		
	Install	each	1		
2.1.2	Guard House 2: SDB-GH2 Supply	each	1		
	Install	each	1		
2.2	New switchgear in existing Distribution Boards Supply and Install 20A Single pole circuit breaker including terminating breaker in the existing DB and labelling. The circuit breaker to match the existing circuit breakers				
	Supply	each	2		
	Install	each	2		
TOTAL SCHEDULE NO. 2 TO PRICE SUMMARY					

SECTION 8**LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDBOUSES 1 AND 2****BILL NO. 3 : GENERAL LIGHTING**

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
3.1	<u>Luminaires</u> Luminaires mounted on concrete or suspended ceilings, or on brickwork including lamps and fixing material.				
3.1.1	Type-A (50W LED Channel Luminaire) Supply	each	4		
	Install	each	4		
3.1.2	Type-N (20W LED Bulk Head - Wall Mounted) Supply	each	3		
	Install	each	3		
3.1.3	Repairs to existing Post Top Light Fittings with a 6m mounting hight steel pole.	each	10		
3.2	<u>Photo-cell</u>				
3.2.1	5 Amp photo-cell. Supply	each	2		
	Install	each	2		
3.3	<u>Conduit</u> Galvanised conduit fixed on steel trusses including cutting, bending, reaming, setting, joining, draw boxes and fixing material (average).				
3.3.1	20mm Supply	m	300		
	Install	m	300		
3.4	<u>Conduit Boxes</u> Round galvanised box for 20mm conduit, back or side entry for 1, 2, 3 or 4-way fixed on trusses including couplings bushes cover plates and fixing materials (average rate)				
3.4.1	20mm Galvanised round box Supply	each	14		
	Install	each	14		
3.4.2	Galvanised boxes with 20mm knockouts as specified chased into brickwork.				
3.4.3	100mm x 50mm x 50mm Supply	each	4		
	Install	each	4		
3.4.4	100mm x 100mm x 50mm Supply	each	6		
	Install	each	6		
3.5	<u>Conductors</u> <u>600/1000 grade PVC insulated single core copper</u> <u>conductors drawn into conduit</u>				
3.5.1	1,5mm ² red/black Supply	m	400		
	Install	m	400		
3.5.2	2,5mm ² yellow & green Supply	m	200		
	Install	m	200		
3.6	<u>Light Switches</u> 16 Amp rocker type light switch with coverplate installed into a flush box measured elsewhere.				
3.6.1	Single lever, one way Supply	each	2		
	Install	each	2		
3.6.2	Double lever, one way Supply	each	2		
	Install	each	2		
TOTAL SCHEDULE NO. 3 TO PRICE SUMMARY					

SECTION 8**LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDHOUSES 1 AND 2****BILL NO. 4: GENERAL POWER**

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
4.1	<u>Socket Outlets</u>				
4.1.1	16 Amp 3 pin switched socket outlets with cover plates Standard: installed into existing flush wall Box (single). Colour: White	each	6		
	Supply				
	Install	each	6		
4.2	<u>Conduit</u>				
	Galvanised conduit fixed on steel trusses including cutting, bending, reaming, setting, joining, draw boxes and fixing material (average).				
4.2.1	20mm				
	Supply	m	160		
	Install	m	160		
4.4	<u>Conductors</u>				
	<u>600/1000 grade PVC insulated single core copper conductors drawn into conduit</u>				
4.4.1	2,5mm ² red/black				
	Supply	m	330		
	Install	m	330		
4.4.2	2,5mm ² yellow & green				
	Supply	m	165		
	Install	m	165		
TOTAL SCHEDULE NO. 4 TO PRICE SUMMARY					

BILL NO. 5 : CABLING AND CABLE SLEEVES

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
5.1	<u>LV Cabling</u>				
5.1.1	Multicore PVC/SWAPVC cable with stranded copper conductors to SANS 1507-3 drawn into cable sleeves, installed on cable trays/ladders or laid in open trenches and ducts. All cables to be complete with ECC for earthing				
5.1.1.1	6mm ² 2 Core				
	Supply	m	120		
	Install	m	120		
	Terminations	No.	4		
5.2	<u>Trenching</u>				
	Excavation 450mm deep x 400mm wide including backfilling and compaction.				
5.2.1	In Earth	m ³	26		
5.2.2	In concrete/tar/paving including reinstatement to original finishing	m ³	8		
5.2.3	Selected fines bedding 150mm under cable and 150mm on top of cable(when required by soil conditions)	m ³	6		
5.3	<u>Cable Sleeves</u>				
5.3.1	Supply and install 50mm PVC sleeve (one for mains cable and one as a spare)	m	200		
5.4	<u>Galvanised Draw-wires</u>				
5.4.1	Supply and install draw wire in spare sleeves and conduits	m	260		
TOTAL SCHEDULE NO. 5 TO PRICE SUMMARY					

SECTION 8

LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDHOUSES 1 AND 2

BILL NO. 6 : SUNDRY ITEMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
6.1	Housekeeping, sundry items, consumable stocks such as circuit beads engraving, labels etc.	Sum	1		
6.2	Testing of complete installation in terms of the regulations	Sum	1		
6.3	Provide Certificate of Compliance for all buildings	Sum	1		
TOTAL SCHEDULE NO. 6 TO PRICE SUMMARY					

SECTION 8

LIVINGSTONE AND PEPH COMPLEX: PE PROVINCIAL HOSPITAL - GUARDBOUSES 1 AND 2

ELECTRICAL INSTALLATION

SUMMARY OF MAIN BILL

DESCRIPTION	TENDER
BILL NO. 1 : PROVISIONAL AND SUPERVISION AMOUNTS	
BILL NO. 2 : DISTRIBUTION BOARDS (DB)	
BILL NO. 3 : GENERAL LIGHTING	
BILL NO. 4: GENERAL POWER	
BILL NO. 5 : CABLING AND CABLE SLEEVES	
BILL NO. 6 : SUNDRY ITEMS	
SUBTOTAL EXCLUDING VAT @ 15%	
MAIN CONTRACTOR'S PROFIT AND ATTENDANCE	
TOTAL (EXCLUDING VAT) CARRIED OVER TO SECTION 8 ON FINAL SUMMARY PAGE BOQ 345	

SECTION 9

ELECTRICAL BILLS OF QUANTITIES FOR PROTEA FLATS

Vol. 1.1 Part 1

PROJECT TITLE:	ALTERATIONS AND ADDITIONS AT PROTEA FLATS: NEW GSA OFFICES - ELECTRICAL INSTALLATIONS
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FAILURE TO COMPLETE THESE SCHEDULES (IF APPLICABLE) MAY RENDER A BID INVALID.

ITEM	EQUIPMENT	MAKE	MANUFACTURE

NAME OF TENDER :

NAME OF COMPANY :

SIGNATURE OF TENDERER :

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 1 : PROVISIONAL AND SUPERVISION AMOUNTS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
	A Preliminary and General item is provided to cover the Contractor's charges for compliance with the Conditions of Contract and this Specification, including the provision, maintenance and removal of his site establishment, etc.				
1.10	FIXED CHARGES				
1.1.1	Site Establishment	Sum	1		
1.1.2	Removal of Site Establishment	Sum	1		
1.1.3	Provision of Electricity and Water	Sum	1		
1.1.4	Provision of Toilet Facilities	Sum	1		
1.1.5	<u>Other Fixed-charge Obligations</u>	Sum	1		
	(Please Specify).	Sum	1		
	. . . . .	Sum	1		
1.20	CONTRACTUAL REQUIREMENTS				
1.2.1	Provision of Sureties	Sum	1		
1.2.2	Insurances	Sum	1		
1.2.3	Third Party Insurance	Sum	1		
1.2.4	Guarantee of the Works	Sum	1		
1.2.5	Provide Test Results	Sum	1		
1.2.6	Provision of Record Drawings	Sum	1		
1.2.7	All OHSA Requirements including safety equipment and clothing	Sum	1		
1.2.8	All HIV / AIDS Specification Requirements	Sum	1		
1.2.9	<u>Other Value Related Obligations</u>	Sum	1		
	(Please Specify).	Sum	1		
	. . . . .	Sum	1		
1.30	TIME-RELATED ITEMS		1		
1.3.1	Contractual Requirements	Sum	1		
1.3.2	Operation and Maintenance of Site Establishment	Sum	1		
1.3.3	Supervision for the Duration of Contract	Sum	1		
1.3.4	<u>Other Time-Related Obligations</u>	Sum	1		
	(Please Specify).	Sum	1		
	. . . . .	Sum	1		
TOTAL SCHEDULE NO. 1 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 2 : DISTRIBUTION BOARDS (DB)

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
2.1	Distribution board Supply and Install new DB to specifications and drawings				
2.1.1	MDB Supply Install	each each	1 1		
2.1.2	Existing DB				
2.1.2.1	Replace existing circuit breaker with new 300A 3pole Circuit Breaker Curve 2 in the existing DB including labling Supply Install	each each	1 1		
2.1.2.2	Remove and dispose existing Distribution Board including feeder cables and conductors	each	1		
TOTAL SCHEDULE NO. 2 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES
BILL NO. 3 : GENERAL LIGHTING

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
3.1	Remove and dispose existing Luminaires				
	Remove and dispose existing lights including; conductors, conduits, etc				
3.1.1	Concrete/Wall/Ceiling mounted bulkhead	each	10		
3.1.2	Open channel fluorescent luminaires	each	15		
3.1.3	Surface mounted open channel fluorescent luminaire with reflector or diffuser	each	80		
3.2	Luminaires				
	Luminaires mounted on concrete or suspended ceilings, or on brickwork including lamps and fixing material.				
3.2.1	Type-A (40W LED Channel Luminaire)				
	Supply	each	2		
	Install	each	2		
3.2.2	Type-JSS (600 x 600mm LED luminaire with surface bracket)				
	Supply	each	74		
	Install	each	74		
3.2.3	Type-N (20W LED Bulk Head - Wall Mounted)				
	Supply	each	10		
	Install	each	10		
3.2.4	Type-EX (1W LED Maintained Emergency Exit Sign)				
	Supply	each	1		
	Install	each	1		
3.3	Occupancy Sensors				
	Ceiling mounted occupancy sensors with accessories for a complete installation				
3.3.1	Motion Detector (Passive Infra Red)				
	Supply	each	10		
	Install	each	10		
3.4	Photo-cell				
3.4.1	5 Amp photo-cell.				
	Supply	each	2		
	Install	each	2		
3.5	Conduit				
	Galvanised conduit fixed on steel trusses including cutting, bending, reaming, setting, joining, draw boxes and fixing material (average).				
3.5.1	20mm				
	Supply	m	2,500		
	Install	m	2,500		
3.6	Conduit Boxes				
	Round galvanised box for 20mm conduit, back or side entry for 1, 2, 3 or 4-way fixed on trusses including couplings bushes cover plates and fixing materials (average rate)				
3.6.1	20mm Galvanised round box				
	Supply	each	100		
	Install	each	100		
3.6.2	Galvanised boxes with 20mm knockouts as specified chased into brickwork.				
3.6.3	100mm x 50mm x 50mm				
	Supply	each	35		
	Install	each	35		
3.6.4	100mm x 100mm x 50mm				
	Supply	each	6		
	Install	each	6		
TOTAL SCHEDULE NO. 3 TO NEXT PAGE					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES
BILL NO. 3 : GENERAL LIGHTING

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
TOTAL FROM PREVIOUS PAGE					
3.7	<u>Conductors</u> <u>600/1000 grade PVC insulated single core copper</u> <u>conductors drawn into conduit</u>				
3.7.1	1,5mm ² red/black Supply Install	m m	5,500 5,500		
3.7.2	2,5mm ² yellow & green Supply Install	m m	2,750 2,750		
3.8	<u>Light Switches</u> 16 Amp rocker type light switch with coverplate installed into a flush box measured elsewhere.				
3.8.1	Single lever, one way Supply Install	each each	12 12		
3.8.2	Double lever, one way Supply Install	each each	2 2		
TOTAL SCHEDULE NO. 3 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 4: GENERAL POWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
4.1	Remove and dispose existing Socket Outlets and Isolators Remove and dispose existing light-switches, socket outlets and isolators including conductors, conduits, etc				
4.1.1	Isolator	each	10		
4.1.2	Switch	each	10		
4.1.3	Socket Outlet	each	20		
4.2	Socket Outlets				
4.2.1	16 Amp 3 pin switched socket outlets with cover plates Standard: installed into existing flush wall Box (single). Colour: White				
	Supply	each	30		
	Install	each	30		
4.2.1	16 Amp 3 pin Dedicated switched socket outlets with cover plates Standard: installed into surface-mounted Box (single). Colour: Red				
	Supply	each	6		
	Install	each	6		
4.2.4	16 Amp 3 pin standard switched socket outlets with cover plates and craddles installed in power skirting . Colour: White				
	Supply	each	16		
	Install	each	16		
4.2.5	16 Amp 3 pin dedicated switched socket outlets with cover plates and craddles installed in a power skirting . Colour: RED				
	Supply	each	16		
	Install	each	16		
4.2.6	16 Amp 3 pin Euro switched socket outlets with cover plates and craddles installed in a power skirting . Colour: White				
	Supply	each	16		
	Install	each	16		
4.2.7	Purpose made floor flush mounted cluster box with 1 x 16 Amp 3 pin normal switched, 2 x dedicated switched, 1 x euro, 2 x data				
	Supply	each	2		
	Install	each	2		
4.2.8	5 amp unswitched Socket outlet for lights in the ceiling void				
	Supply	each	110		
	Install	each	110		
4.3	Conduit Galvanised conduit fixed on steel trusses including cutting, bending, reaming, setting, joining, draw boxes and fixing material (average).				
4.3.1	20mm				
	Supply	m	2,000		
	Install	m	2,000		
4.3	Data and Network				
4.4.1	Data and PC network outlets mounted in power skirting complete with cover plate and craddles				
	Supply	each	32		
	Install	each	32		
4.5	ISOLATORS FOR HVAC AND VENTILATION Supply and install complete including all surface boxes, isolators and associated equipment.				
4.5.1	20 Amp indoor flush wall mounted double isolator.	Nº	2		
4.5.2	20 Amp outdoor flush wall mounted double isolator.	Nº	9		
4.5.3	20 Amp three phase outdoor surface mount isolator for AC Condenser.	Nº	1		
TOTAL SCHEDULE NO. 4 TO NEXT PAGE					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES
BILL NO. 4: GENERAL POWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
TOTAL FROM PREVIOUS PAGE					
4.6	<u>Conductors</u> <u>600/1000 grade PVC insulated single core copper</u> <u>conductors drawn into conduit</u>				
4.6.1	2,5mm ² red/black Supply Install	m m	4,200 4,200		
4.6.2	2,5mm ² yellow & green Supply Install	m m	2,100 2,100		
4.6.3	2,5mm ² surffix cable Supply Install	m m	30 30		
4.6.4	4mm ² surffix cable Supply Install	m m	120 120		
TOTAL SCHEDULE NO. 4 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 5 : CABLING AND CABLE SLEEVES

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
5.1	LV Cabling				
5.1.1	Multicore PVC SWAPVC cable with stranded copper conductors to SANS 1507-3 drawn into cable sleeves, installed on cable trays/ladders or laid in open trenches and ducts. All cables to be complete with ECC for earthing				
5.1.1.1	120mm ² 4 Core Supply Install Terminations	m m No.	120 120 2		
TOTAL SCHEDULE NO. 5 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 6 : POWER RETICULATION EQUIPMENT

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
6.1	Wiring Duct				
6.1.1	P9000 galvanised wiring duct including covers, hangers and splices.				
	Supply	m	30		
	Install	m	30		
6.1.2	External elbow				
	Supply	each	1		
	Install	each	1		
6.1.3	Tee radiused				
	Supply	each	1		
	Install	each	1		
6.1.4	Distribution Outlet				
	Supply	each	1		
	Install	each	1		
6.1.5	Endcap				
	Supply	each	2		
	Install	each	2		
6.2	Cable Tray				
	300mm wide wiremesh Galvanised Cable tray installed on side mounted angle Brackets.(Medium Duty Cable Tray)				
6.2.1	Cable Tray				
	Supply	m	30		
	Install	m	30		
6.2.2	Bend				
	Supply	m	2		
	Install	m	2		
6.2.3	Tee radiused				
	Supply	each	2		
	Install	each	2		
6.3	POWER SKIRTING				
6.3.1	Fixed on walls or worktops 2-Compartment aluminium powerskirting , complete with covers				
	Supply	m	80		
	Install	m	80		
6.3.2	Endcap				
	Supply	each	30		
	Install	each	30		
6.3.3	Power Skirting Risers matching above power skirting with 3 compartments				
	Supply	each	6		
	Install	each	6		
TOTAL SCHEDULE NO. 6 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

BILL NO. 7 : SUNDRY ITEMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
7.1	Housekeeping, sundry items, consumable stocks such as circuit beads engraving, labels etc.	Sum	1		
7.2	Testing of complete installation in terms of the regulations	Sum	1		
7.3	Provide Certificate of Compliance for all buildings	Sum	1		
TOTAL SCHEDULE NO. 7 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS AT PROTEA FLATS - NEW GSA OFFICES

ELECTRICAL INSTALLATION

SUMMARY OF MAIN BILL

DESCRIPTION	TENDER
BILL NO. 1 : PROVISIONAL AND SUPERVISION AMOUNTS	
BILL NO. 2 : DISTRIBUTION BOARDS (DB)	
BILL NO. 3 : GENERAL LIGHTING	
BILL NO. 4: GENERAL POWER	
BILL NO. 5 : CABLING AND CABLE SLEEVES	
BILL NO. 6 : POWER RETICULATION EQUIPMENT	
BILL NO. 7 : SUNDRY ITEMS	
SUBTOTAL EXCLUDING VAT @ 15%	
MAIN CONTRACTOR'S PROFIT AND ATTENDANCE	
TOTAL (EXCLUDING VAT) CARRIED OVER TO SECTION 9 ON FINAL SUMMARY ON PAGE BOQ 345	

SECTION 10

HVAC BILLS OF QUANTITIES PROTEA FLATS

SITE 12
VOLUME 2.2 PART 5: HVAC - SCHEDULE OF MATERIALS OFFERED

The Tenderer must complete the following schedules and submit them with the priced Bill of Quantities.

The schedules will be scrutinised by the Engineer and should any material offered not comply with the requirements contained in the specification, the Contractor will be required to supply material in accordance with the contract at no additional cost.

NB : Only one manufacturer's name to be inserted for each item.

Item	Material	Make or trade name	Country of Origin
1.	Weather Louvers		
2.	Motorised Dampers		
3.	Axial Air Fans		
4.	Silent Type Air Fans		
5.	Sound Attenuators		
6.	Swirl Diffusers		
7.	Ceiling Disc Diffusers		
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

NOTE : Tenderers are to note that under no circumstances may materials be installed other than offered in the above materials schedule, which has been approved and accepted by the Contractor.

Should the successful tenderer wish to supply materials other than those originally offered, prior written approval must be obtained from the Contractor before any orders are placed.

SECTION 10

PROTEA FLATS

HEATING VENTILATION AND AIR CONDITIONING INSTALLATION

PROVISIONAL SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
	<u>Bill No. 1 : Preliminary and General</u>					
1.1	Compliance with General Conditions of Contract : Insurances, Sureties, etc as outlined in the Principal Contractor's Preliminaries.					
	Fixed	Item	1			
	Value Related	Item	1			
	Time Related	Item	1			
1.2	Establish on Site and provision of buildings and storage facilities including de-establishment of site, cleaning and tidying up after completion of contract					
	Fixed	Item	1			
	Value Related	Item	1			
	Time Related	Item	1			
1.3	Tools and equipment, Communication, transport.					
	Fixed	Item	1			
	Value Related	Item	1			
	Time Related	Item	1			
1.4	Contract Management, Company overheads and supervision of the Works including attendance of site meetings (2 per month)					
	Fixed	Item	1			
	Value Related	Item	1			
	Time Related	Item	1			
1.5	Provision of all drawings and manuals as specified including As-Installed drawings	Item	1			
Total Carried forward to Next Page						

SECTION 10

PROTEA FLATS

HEATING VENTILATION AND AIR CONDITIONING INSTALLATION

PROVISIONAL SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
Total Carried forward From Previous Page						
1.6	Liaison with Local Supply Authority, compliance with OSH Act, Local By-laws and any other statutory regulations	Item	1			
1.7	Any additional item not specifically mentioned or included in the Bills of Quantities which the Tenderer may wish to detail. (Specify)	Item	1			
1.8	Additional testing and balancing at discription of the mechanical engineer.	Item	1			
Total Carried forward to Summary Page						
						-

SECTION 10

PROTEA FLATS

HEATING VENTILATION AND AIR CONDITIONING INSTALLATION

PROVISIONAL SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
2.0	<u>Bill No. 2 : Air Conditioning Equipment</u>					
	<u>Inverter Split Units</u> Supply and Install:					
2.1	AC 1 - Inverter mid wall split unit, 2,8 kW cooling / heating output, single phase.	No.	3			
2.2	AC 2 - Inverter mid wall split unit, 3,5 kW cooling / heating output, single phase.	No.	3			
2.3	AC 3 - Inverter ceiling cassette split unit, 5,6 kW cooling / heating output, single phase.	No.	2			
2.4	AC 4 - Inverter ceiling cassette split unit, 9 kW cooling / heating output, single phase.	No.	1			
	<u>Corrosion Treatment</u>					
2.5	Chemical oxidization treatment to 2,8 kW unit condenser coils, panels & circuit boards.	No.	3			
2.6	Chemical oxidization treatment to 3,5 kW unit condenser coils, panels & circuit boards.	No.	3			
2.7	Chemical oxidization treatment to 5,6 kW unit condenser coils, panels & circuit boards.	No.	2			
2.8	Chemical oxidization treatment to 9 kW unit condenser coils, panels & circuit boards.	No.	1			
	<u>Refrigerant Piping</u> Supply, install, test, commission and provide 12 month guarantee for send and return refrigerant piping for the entire installation, including thermafex insulation, hangers, brackets and etc.					
2.9	6.4 mm	m	101			
2.10	9.5 mm	m	64			
2.11	12,7 mm	m	46			
2.12	15.9 mm	m	15			
2.13	R410A extra refrigerant charge	kg	Sum			
	<u>Electrical</u>					
2.14	Connection of AC unit to external isolator provided by others	No.	9			
	<u>Condensate Pump</u>					
2.15	Corner, in trunking type, condensate pump.	No	6			
Total Carried forward to Next Page						

SECTION 10

PROTEA FLATS

HEATING VENTILATION AND AIR CONDITIONING INSTALLATION

PROVISIONAL SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
Total Carried forward From Previous Page						
	<u>Condensate Piping</u>					
2.16	6 mm diameter clear plastic condensate drain pipe.	m	6			
2.17	20 mm diameter PVC condensate drain pipe, incl. all unions, elbows, hangers and brackets.	m	50			
2.18	40 mm diameter PVC condensate drain pipe, incl. all unions, elbows, hangers and brackets.	m	50			
	<u>Trunking</u>					
2.19	Cab-strut white PVC trunking incl. covers, elbow, bends and etc or similar approved.	m	5			
	<u>Wire Basket</u>					
2.20	Wire basket 150 mm wide x 1 mm thick light duty hot dipped galvanised cable tray, wire mesh, c/w hanger channel, elbows, bends, and etc or similar approved.	m	50			
	<u>Infra Red Remotes</u>					
2.21	Supply, Install, test, commission and provide 12 month guarantee for remote control, in positions shown.	No	1			
	<u>Coring Through Brickwork</u>					
2.22	Core through 220 mm brick work, 100 mm diam core.	No	9			
	<u>12 Month Service Plan</u>					
2.23	Supply 12 month service plan, for each unit, consisting of 3 quarterly minor services, and 1 final major service at 12 months from Practical Completion	No	9			
	<u>Training of Staff</u>					
2.24	Training of staff on operation of units; ; location of equipment and basic day to day maintenance.	No	3			
Total Carried forward to Summary Page						

SECTION 10

PROTEA FLATS

HEATING VENTILATION AND AIR CONDITIONING INSTALLATION

PROVISIONAL SCHEDULE OF QUANTITIES

BILL NO.	DESCRIPTION	AMOUNT
1	Bill No. 1 : Preliminary and General	
2	Bill No. 2 : Air Conditioning Equipment	
SUBTOTAL EXCLUDING VAT @ 15%		
MAIN CONTRACTOR'S PROFIT AND ATTENDANCE		
TOTAL (EXCLUDING VAT) CARRIED OVER TO SECTION 10 ON FINAL SUMMARY OF PAGE BOQ 345		

SECTION 11

ICT AND ACCESS CONTROL BILLS OF QUANTITIES FOR PROTEA FLATS

Vol. 1.1 Part 2

BILLS OF QUANTITIES - NOTES TO TENDERERS

PROJECT TITLE:	ALTERATIONS AND ADDITIONS AT PROTEA FLATS: NEW GSA OFFICES - ICT AND ACCESS CONTROL INSTALLATIONS
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- 1 All queries will only be answered in writing by the Engineer responsible for the project.
- 2 The Bills of Quantities form part of and must be read in conjunction with the specification which contains the full description of the work to be done and material and equipment to be used. Unless otherwise described in the Bills of Quantities, reference should be made to the specification for the full meaning of description of work to be done and materials and equipment to be used in this service. Tenderers are requested to check the formulas in the Bills of Quantities and are responsible for the accuracy of their formulas/calculations.
- 3 The total tender price in the tender form shall constitute the contract price of the successful Tenderer. Tenderers are advised to check their item extensions and total additions, as no claim for arithmetical errors will be considered.
- 4 No alterations, erasure or addition is to be made in the text of the Schedule of Prices. Should any alteration, erasure or addition be made it will not be recognised but the original wording of the Schedule of Prices will be adhered to.
- 5 The Priced Bills of Quantities of the successful Tenderer will be checked and the Employer reserves the right to call for adjustments to any individual price and to rectify any discrepancy whilst the total tender price, as submitted, remains unaltered.
- 6 The responsibility for accuracy of the quantities written into the schedules remains with the person who prepared the schedules. The Tenderer shall be relieved of responsibility of measuring quantities at the tender stage, and the tender sum submitted shall be in respect of the quantities set out in the schedules although he will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the schedules and shall include in the item prices for such small installation materials as are required for the complete installation in accordance with the specification. Conductor prices shall include for wastage and sagging.
- 7 All conductors have been measured exclusive of sagging and wastage. The Contractors prices must therefore include for sagging as well as wastage.
- 8 All prices entered in these Bills of Quantities shall include for supply [unless otherwise stated], installation, testing, commissioning, guarantee with free maintenance during the Guarantee period and profit but excluding VAT.
- 9 The successful Tenderer and the Employer or his Agent may agree that the total of any bill or bills, including any variations by way of additions thereto or deductions therefrom, represents a fair accurate quantification of the items set out in the bills and the parties may agree to final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.
- 10 The quantities in these Bills of Quantities are not to be used for ordering materials.

- 11 The description of each item shall, unless other-wise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, all installation materials and sundries, cutting and waste, sagging, patterns, models and templates, plant, temporary works, return of packing, establishment charges, profit and all other obligations arising out of the conditions of contract.
- 12 All measurements are net and Tenderers must allow for wastage in the item rate submitted.
- 13 All provisional sums shall be expended as directed by the Employer and any balance remaining shall be deducted from the amount of the contract sum.
- All items described as "Provisional" shall be measured as executed and paid for according to prices in the Bills of Quantities and any unexpended amounts shall be deducted from the amount of the contract sum. No work for which "Provisional" items are provided shall be commenced without written instructions from the Employer.
- 14 It is a requirement of the contract that the work shall be carried out in the manner that is most economical on materials. Unless otherwise indicated by the Employer, the Electrical Contractor is required to use the shortest practical route for all conductors subject to the restrictions of the specification and good electrical practice.
- 15 The terms in the Bills of Quantities are based on standard Eskom/Telkom assemblies. The Tenderer shall take careful notice to the make-up of these assemblies with regard to the inclusion/exclusion of excavation, poles, stays, earthing and other items.
- 16 The prices shall be fixed and not subject to adjustment for inflation for the period between contract and programmed completion as set out in the contract.

Tenderers are to specifically note that the Bills of Quantities must be priced as per the quantities provided. Any change in the descriptions and/or additional information must be made in an alternative offer.

No quantities in the original Bills of Quantities or description of equipment offered are to be changed and must remain as is.

Note:

It will be expected of the successful tenderer to submit a full re-measured Bills of Quantities within twenty-one [21] days after acceptance of the tender price.

Vol. 1.1 Part 2
SCHEDULE OF MATERIAL OFFERED

PROJECT TITLE:	ALTERATIONS AND ADDITIONS AT PROTEA FLATS: NEW GSA OFFICES - ICT AND ACCESS CONTROL INSTALLATIONS
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Bidders are required to enter, at the time of bidding, in this material offered, sufficient details to enable the equipment concerned to be identified without ambiguity.

It is not sufficient for a tender to state "as specified" in the schedules.

FAILURE TO COMPLETE THESE SCHEDULES (IF APPLICABLE) MAY RENDER A BID INVALID.

ITEM	EQUIPMENT	MAKE	MANUFACTURE

NAME OF TENDER :

NAME OF COMPANY :

SIGNATURE OF TENDERER :

ALTERATIONS AND ADDITIONS TO PROTEA FLATS

ICT AND ACCESS CONTROL INSTALLATIONS

BILL NO. 1 : PROVISIONAL AND SUPERVISION AMOUNTS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
	A Preliminary and General item is provided to cover the Contractor's charges for compliance with the Conditions of Contract and this Specification, including the provision, maintenance and removal of his site establishment, etc.				
1.10	FIXED CHARGES				
1.1.1	Site Establishment	Sum	1.00		
1.1.2	Removal of Site Establishment	Sum	1.00		
1.1.3	Provision of Electricity and Water	Sum	1.00		
1.1.4	Provision of Toilet Facilities	Sum	1.00		
1.1.5	Other Fixed-charge Obligations	Sum	1.00		
	(Please Specify).	Sum	1.00		
	. . . . .	Sum	1.00		
1.20	CONTRACTUAL REQUIREMENTS				
1.2.1	Provision of Sureties	Sum	1.00		
1.2.2	Insurances	Sum	1.00		
1.2.3	Third Party Insurance	Sum	1.00		
1.2.4	Guarantee of the Works	Sum	1.00		
1.2.5	Provide Test Results	Sum	1.00		
1.2.6	All OHS&A Requirements including safety equipment and clothing	Sum	1.00		
1.2.7	All HIV / AIDS Specification Requirements	Sum	1.00		
1.2.8	Other Value Related Obligations	Sum	1.00		
	(Please Specify).	Sum	1.00		
	. . . . .	Sum	1.00		
1.30	TIME-RELATED ITEMS		1.00		
1.3.1	Contractual Requirements	Sum	1.00		
1.3.2	Operation and Maintenance of Site Establishment	Sum	1.00		
1.3.3	Supervision for the Duration of Contract	Sum	1.00		
1.3.4	Other Time-Related Obligations	Sum	1.00		
	(Please Specify).	Sum	1.00		
	. . . . .	Sum	1.00		
TOTAL SCHEDULE NO. 1 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS TO PROTEA FLATS
ICT AND ACCESS CONTROL INSTALLATIONS

BILL NO. 2: ICT (DATA AND TEL WIRING) INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
2.1	NETWORK SWITCHES				
2.1.1	Supply and install 24 port network switch	no	2		
2.1.2	Supply and install wall mounted cabinet suitable for above network switch with glass door	no	1		
2.2	TELEPHONE BOARD				
	The supply and installation of flush board with soft wood backing architrave and hinged door				
2.2.1	Supply and install 300 x 300 x 100 board	No.	1		
2.3	HORIZONTAL CABLING				
2.3.1	The supply and installation of horizontal unscreened CAT6 UTP cable as per specification.	m	600.00		
2.3.2	The supply and installation of horizontal unscreened CAT6a UTP cable as per specification	m	300.00		
2.3.3	The supply and installation of Telephone cabling similar to existing price to include terminating cable onto RJ11 in power skirting	m	600.00		
2.3.4	Termination of horizontal cabling onto patch panels in patch rooms. The labour to terminate the cabling onto the horizontal patch panel shall be allowed for under this heading	no	20		
2.3.5	The supply and installation in the floors/ceiling of unshielded RJ45 data connectors in powerskirting/unistrut/void duct as per the specification, complete with shutters and adequate space for cable numbering. This item relates only to the RJ 45 connectors and the housings. CAT6 UTP	no	20		
2.3.6	Data termination plate sized for the mounting of the data outlet housing on the void duct in the floor/ceiling [recessed type]. The data termination plate shall have 3 x punch-outs 250mm x 127mm mounted on P9000 - to be verified prior to installation.	no	5		
2.3.7	Data cover plate for a 4x4 box with data cut-out similar or equal to Legrand Arteor with RJ45	no	5		
2.5	LABELLING				
2.5.1	The supply and installation of heat shrink type labels at either end of the data cable as specified.	no	100.00		
2.7	TESTING				
2.7.1	Testing and commissioning of the entire Installation	Sum	1.00		
2.8	ON SITE SUPPORT				
	It is expected of the vendor to provide support for the pre and post contract works for assisting the tenant whilst moving into the building.				
2.8.1	Team hours required for the on-site support. The hourly rate will be for a team comprising a team leader and one assistant				
	Team leader	Hrs	48.00		
	Assistant	Hrs	48.00		
TOTAL SCHEDULE NO. 2 TO PRICE SUMMARY					

BILL NO. 3: ACCESS CONTROL AND INTERCOM INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
3.1	ACCESS CONTROL				
3.1.1	Physical Access Controllers with intergrated PSU and battery backup	No	1		
3.1.2	Access Reader Biometric + Card (Indoor) similar to Morphoaccess Sigma with unlock tokens	No	1		
3.1.3	CAT 6 cable	m	60		
3.1.4	Mylar cable [4 pair]	m	60		
3.1.5	Breakglass units with alarm bell	No	1		
3.1.6	Door Contacts	No	2		
3.1.7	Touch free door release (stainless steel)	No	1		
3.1.8	Electro-Magnetic Lock suitable for double door openings	No	2		
3.2	INTERCOM				
	Supply, Install, test and commission a complete intercom system including all necessary accessories and cabling at positions shown on the drawings				
3.2.1	1 button wall mounted Audio Only handset complete with mounting accessories	No	1		
3.2.2	1-button intercom front panel made of natural anodized satin finish aluminum. With polycarbonate bracket, it features pictograms to indicate the status of the system and 1 button with name tag size 66 x 15 mm. To pair up with an intercom module. Impact resistance rating IK07.	No	1		
3.2.3	Cabling to link handset to front panel including electro-magnetic door lock	m	30		
3.2.4	Testing and commissioning of installation	Sum	1		
TOTAL SCHEDULE NO. 3 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS TO PROTEA FLATS

BILL NO. 4 : SUNDRY ITEMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TENDER AMOUNT
4.1	Housekeeping, sundry items, consumable stocks such as engraving, labels etc.	Sum	1		
4.2	Testing of complete installation in terms of the regulations	Sum	1		
4.3	Operating and Maintenance manuals (hard copies and CD)	Sets	3		
4.4	Training of staff in the complete functioning of the System,	Item	1		
TOTAL SCHEDULE NO. 4 TO PRICE SUMMARY					

ALTERATIONS AND ADDITIONS TO PROTEA FLATS

ICT AND ACCESS CONTROL INSTALLATIONS

PRICE SUMMARY PAGE

BILL NO.	DESCRIPTION	AMOUNT
1	PRELIMINARY & GENERAL	
2	ICT	
3	Access Control	
4	Sundry Items	
SUBTOTAL EXCLUDING VAT @ 15%		
MAIN CONTRACTOR'S PROFIT AND ATTENDANCE		
TOTAL (EXCLUDING VAT) CARRIED OVER TO SECTION 11 ON FINAL SUMMARY ON PAGE BOQ 345		

5.PART C3 - SCOPE OF WORKS

C3.1 SCOPE OF WORKS

DESCRIPTION OF THE WORKS:

The project shall be executed in 3 different sections:

Section 1 - Livingstone Hospital

The fencing and related works at Livingstone Hospital. (Maximum duration 1 - 6 Calendar Months)

The contractor shall programme and determine the duration of work at Livingstone Hospital. (Maximum 6 months)

Section 2 – PE Provincial Hospital (May only proceed after Practical completion of Section 1)

Fencing, 2 x Guard houses, paving, asphalt & related works at Provincial Hospital (Calendar Months 7 - 20 or earlier on completion of Section 1)

Section 3 – Protea Flats

The work at Protea flats can commence immediately and run concurrently during the entire 20 calendar month contract period while work is being done at Livingstone Hospital (Section 1) and PE Provincial Hospital (Section 2).

The new steel fire escape (10 stories high) shall be completed prior to commencing with any other work at the Protea Flats. (Maximum duration of 4 calendar months)

LIVINGSTONE HOSPITAL

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Replace in place existing 1.8m high galvanised palisade fence and gate, with 2.4m high new Rigid Mesh Security Mesh Fencing, including making good to concrete pavement where old fence removed. (85m) – Serviceroad entrance and oncology building
- Addition of anti-climb spikes and concrete underdig to existing High Security Fencing along Lindsay Road. (161m) – existing fence to be removed and re-installed once concrete under dig installed
- Removal of existing old fence and timber poles inside the existing fence line at the Laundry Building (104m)
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 419m and removal of existing concrete palisade fence
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 283m and removal of existing galvanised palisade fence
- Deconstruction of existing high security fence of 22m inside the existing concrete fence and hand over to the Hospital.
- Removal of existing 77m of existing palisade fence.

- Minor repairs to Entrance Sliding Gate track to be undertaken as soon as possible in the programme.
- Replacement of vehicle access booms (4 No.)
- Replace existing 2.1m high galvanised palisade fence and gate between the Nurses Home and exiting Gatehouse with 2.4m high new Rigid Mesh Security Mesh Fencing (86m) and vehicle gate, including making good to concrete pavement where old fence removed and minor road kerbing modifications to accommodate sliding gate.

PROTEA FLATS

The Scope of Work for the component of the project to be undertaken at Protea Flats comprises of three major aspects to be addressed for the 10-storey building:

1. Replacement of the existing steel fire escape stairs (10 storeys) (To be completed within first 4 calendar months from commencement)
3. Repairs to the external envelope of the building, including the roof, internal and external facades.
3. Alterations and full redecoration of the top floor “penthouse” to be suitable for offices

Health & Safety Specification

Prospective bidders to study the Health & Safety specification in detail, to ensure that requirements as below are fully priced.

- Hoarding to be installed. (Measured in main BOQ)
- Access scaffolding for all work to be priced in the Health and Safety Bills of Quantities
- Temporary access staircase (No.1) to be installed to serve Temporary Fire Escape ONLY until completion of new fire escape staircase (bidder to price for this at item A on page BOQ32 of Preliminaries and General)
- Temporary access staircase (No.2) to be installed for required duration of work at Protea Flats – Contractor’s only access to building (bidder to price for this at Item B on page BOQ32 of Preliminaries and General)

Detailed description of Scope:

The fire escape replacement:

- Complete dismantling of existing steel staircase (10 floors)
- Redecoration of the “stair well” area
- Complete new construction of galvanised steel fire escape stair, handrail, and screen.
- Paint to all galvanised steel.

The roof repair work (10th floor) involves the following aspects:

- Repairs and replacement of the existing torch on water proofing over the main building roof area and removal of redundant infrastructure and equipment.
- Repair to damaged expansion joints
- Redecoration and minor repair of handrailing around perimeter of roof

Repair work to internal circulation areas of the building (Ground Floor – 10th storey):

- Minor repairs to areas where there is damp damage.
- Repairs to structural cracking.
- Redecoration of the upper floor corridor.

- Alteration of lift lobby divisions on each floor to create fire compartmentation, including new drywall construction, and fire door installations.
- Replacement of external fire escape doors leading to fire escape staircase.

Repair work to external facades (Ground Floor to 10th Floor)

- Spalling repairs on external beams to engineers' specification (160m² in various area).
- Plumbing repairs to vertical stacks
- External Painting of building envelope (10 Floors).
- Paintwork, and repairs to cracking in face brick sections of façade.
- Replacement of broken / cracked glazing (approximately 28m²)
- Replacement of broken / missing aluminium window opening sections (9 windows)

The alterations to the penthouse area involve the following aspects.

- Full redecoration of all internal aspects
- Demolitions of existing walls to alter layout of internal space.
- Alterations to plumbing to redirect fixture drain and supply points.
- Erection of multiple aluminium and glass shopfronts internally
- Full replacement of external "stoep" shopfront with high spec solar glazing
- Minor 'wet works' (plastering new openings)
- Full removal of existing carpet floor finish and replacement with vinyl sheeting.
- Full replacement of all ceilings
- Construction of new bulkheads
- Painting to internal walls
- Replacement of all sanitaryware
- Joinery installation
- Electrical- and Mechanical (HVAC) and ICT & Access Control Installations

Replacement of large sections of existing timber boarded roof structure (Penthouse area)

- New section to be concrete roof (over water tanks) to engineers' specification.
- Replacement of damaged / rotten portions of existing roof structure over penthouse.
- New torch on waterproofing on boarding over entire penthouse area.
- Replacement of tiled stoep finish including cleaning and relining of rainwater channels
- Removal of 1200 litre asbestos water tank 1400mm diameter and new 1500 litre low profile JoJo storage tank
- Remedial work to internal walls of lift motor room

External works

- Tarmac areas - Pothole repairs and remedial work to internal roads
- Replacement of existing carport

Specialist installations (Domestic sub-contracts):

Electrical installation

The Electrical installations shall entail but not limited to following:

- Installation of new Distribution Board;
- Installation of new LED lights throughout the buildings;
- Installation of socket outlets wall mounted;
- Installation of DB switchgear in the existing buildings
- Installations of mains cables from existing DB to new DB planned for feeding the building.
- Removal and disposal of existing electrical installations.
- Earthing, testing and commissioning of the entire installation including issuing of

- Certificate of Compliance
- Installation of conduits, conduit boxes and wireways for other services viz; Fire Detection, HVAC and Access Control

HVAC installation

Installation of Air Conditioning equipment:

The work to be carried out and commissioned by a SAQCC gas approved installer:

- Inverter split air conditioning units,
- Testing and Commissioning,
- Manuals, Drawings, OEM Literature

ICT and Access Control installation

ICT Installation:

- Installation of data switch with suitable wall mount data cabinet
- Installation of data and network cabling including terminating to points
- Supply and issuing of Operations and Maintenance manuals for the installation
- Provision of as-built drawings
- Configuration of installation working with client's IT personnel

Access Control Installation:

- Installation of door magnet on access-controlled door
- Installation of biometric/card readers and "Touch Free" release button
- Emergency break-glass door unit with alarm
- Interfacing of the installation with fire detection
- Supply and issuing of Operations and Maintenance manuals for the installation
- Provision of as-built drawings
- Training of DOH staff on how to operate and maintain the equipment
- Intercom system complete with push-button on the main door, handset in the security room and its associated cabling

PE PROVINCIAL HOSPITAL

The scope of work for the replacement of boundary walls with new fencing and construction of 2 new guardhouses at PE Provincial Hospital is detailed below in "working areas" (not sequencing of work) and are as follows:

Buckingham Road (East and West from pedestrian Entrance (Approx 404m):

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Existing concrete column copings to be removed and set aside for reuse (63 No.)
- Existing brick columns to be extended and existing concrete coping refitted (63 No)
- Existing galvanised railing to be removed and replaced with new high security mesh fencing infill panels to be installed between extended brick columns (63 No.)
- Damaged section(s) of boundary wall to be rebuilt (8m²)
- Installation of new gate and fencing to Pedestrian Entrance
- Make good to concrete kerbs and stormwater cover / inlet.
- Install new high security mesh fencing and gate (55m)

- Lay new concrete pavement to the south of new fence and gate line and replace damaged concrete pavement up to road (390m²)
- Construction of first new Guardhouse
- Relocation of existing stormwater inlet into stormwater system (60m of 450mm diameter concrete pipe)
- New concrete kerbing and pavements around new guardhouse
- Repairs to damaged pavement and concrete kerbs along exit road
- Creation of temporary exit into St Croix Road with temporary signage
- Closure of existing exit road and road repairs (tarmac) including removal of old boom gates and sundry items and installation of new boom gates (270m²)
- Construction of second new Guardhouse
- Temporary closure of south entrance lane and provision of temporary signage for north entrance road
- New concrete kerbing and pavements, and planter beds around new Guardhouse
- Road repairs to entrance road (566m²)
- New signage wall
- Commissioning of new south entrance road
- Minor repairs and repainting of walls between old Casualty and existing substation (20m²)

Replacement of existing concrete Boundary Wall in St Croix Street

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Excavations and backfilling to relay existing borehole water supply pipe (141m)
- Demolition of existing concrete wall and removal of gates (140m)
- Installation of new high security mesh fencing and gates in sections with concrete under dig. (140m)
- Repairs / replacement of damaged external concrete pavement (222m²)
- Repairs and repainting of electrical substation (86m²)

Replacement of existing Boundary Wall in Northwood Road

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Demolition of existing brick /concrete wall and removal of gates (288m).
- Installation of new high security mesh fencing and gates in sections with concrete under dig (288m)
- Repairs / replacement of damaged external concrete pavement (490m²)

Replacement of existing Boundary Wall around Sandford CHC (Northwood Road and Eastbourne Road)

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs .
- Demolition of existing brick wall and removal of gates (249m)
- Installation of new high security mesh fencing and gates in sections with concrete under dig (249m)
- Construction of concrete retaining wall along Eastbourne Road (60m)
- Repairs / replacement of damaged external concrete pavement (459m²)

Specialist installation (Domestic sub-contract):

Electrical Installation to gatehouses:

- Installation of new Distribution Boards (DB).
- Installation of new LED lights throughout the buildings;
- Installation of socket outlets wall mounted;
- Installation of DB switchgear in the existing buildings adjacent to guardhouses to be constructed.
- Installations of mains cables from existing DBs for Normal power supply to new guardhouse feeding these buildings.
- Earthing, testing and commissioning of the entire installation including issuing of Certificate of Compliance for each DB.
- Installation of conduits with draw-wires for the boom gates (boom gates to be supplied by others)
- Repairs and maintenance to existing area-lighting (post tops)

HEALTH AND SAFETY

- Site camp development, demarcation, and hoarding installation
- Traffic management, Temporary road signage and flag persons
- Implement demarcation and hoarding of construction areas
- Installation of required risk based and legislated signage
- Implementing good hygiene to prevent biological agents' exposure
- Control access to construction areas
- Identification of known and unknown services
- Safe demolition
- Safe dismantle of steel staircase structure
- Implement safe scaffolding erecting on site
- Safe working from heights, inclusive of ladders, scaffolding and
- Safe operating of mobile elevated work platforms
- Reduction of noise, dust and vibration exposures
- Safe removal of asbestos project
- Control and regular removal of waste generated from construction works
- Safe handling of chemicals
- Management of fire risks on site
- Safe stacking and storage of articles and equipment
- Creating safe and clear walk and pathways
- Safe handling, use and storage of works equipment
- Safe handling, use and installation of electrical and mechanical works
- Safe lifting and rigging of articles
- Use of lock out and tag of systems
- Issue, handle and correct use of PPE

SEQUENCE OF WORKS:

OVERALL SEQUENCE OF PROJECT:

The sequencing of works must be read in conjunction with Scope of works and OHS project specifications, including baseline risk assessment, as no further claims in this regard shall be entertained.

The project shall be executed in 3 different sections:

Section 1 - Livingstone Hospital

The fencing and related works at Livingstone Hospital. (Maximum duration 1-6 Calendar Months)

The contractor shall programme and determine the duration of work at Livingstone Hospital. (Maximum 6 months)

Section 2 – PE Provincial Hospital (May only proceed after Practical completion of Section 1)

Fencing, 2 x Guard houses & related works at Provincial Hospital (Calendar Months 7-20 or earlier on completion of Section 1)

Section 3 – Protea Flats

The work at Protea flats can commence immediately and run concurrently during the entire 20-calendar month contract period while work is being done at Livingstone Hospital (Section 1) and PE Provincial Hospital (Section 2).

The new steel fire escape (10 stories high) shall be completed prior to commencing with any other work at the Protea Flats. (Maximum duration of 4 calendar months)

LIVINGSTONE HOSPITAL - SEQUENCE OF WORKS:

The Sequence of works as prescribed has been agreed with the Employer and user department and works shall be executed in the order below:

Refer to drawings 314-013-S001 to 314-013-S005.

The sequence of work for the replacement of fencing at Livingstone Hospital is as follows:

- Contractor is recommended to work in an anti-clockwise direction from the gates at the Service Entrance of Lindsay Road
- Work is to proceed in sections of new fencing construction and subsequent removal of the old fence(s) and making good to grounds that does not compromise the security of the property
- Note that in places existing vegetation will need to be cut back to provide clearance for the new fencing
- Replace in place existing 1.8m high galvanised palisade fence and gate between the corner of the existing Oncology Building and galvanised mild steel fence and sliding gate with 2.4m high new Rigid Mesh Security Mesh Fencing, including making good to concrete pavement where old fence removed.
- Replace in place existing 1.8m high galvanised palisade fence and gate between the corner of the galvanised mild steel fence and brick wall to the gates at the service road entrance and to the corner of the Lindsay Road access where the existing High Security Fencing starts, with 2.4m high new Rigid Mesh Security Mesh Fencing, including making good to concrete pavement where old fence removed.

- Addition of anti-climb spikes and concrete underdig to existing High Security Fencing along Lindsay Road.
- Removal of existing old fence inside the existing fence line at the Laundry Building.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 58,660m and removal of existing concrete fence along the north boundary in the proximity of the Boiler House.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 63,305m and removal of existing galvanised palisade fence along the north boundary in the proximity of the Boiler House.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 82,835m and removal of existing concrete fence along the north boundary in the proximity of the CUB Building.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 28,380m and removal of existing galvanised palisade fence along the north boundary in the proximity of the Water Tank.
- Deconstruction of existing high security fence of 22,075m inside the existing concrete fence and hand over to the Hospital.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 32,690m and 31,085m and 57,620m and removal of existing concrete fence along the north boundary towards the Papenkuils River.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 95,870m and removal of existing concrete fence along the west boundary adjacent to the Papenkuils River.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 13,755m and removal of existing galvanised palisade fence and gates along the west boundary adjacent to the Papenkuils River.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 158,895m and removal of existing galvanised palisade fence along the west boundary adjacent to the Papenkuils River.
- Removal of existing 77,000m of existing fence.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 8,145m and removal of existing galvanised palisade fence along the south boundary.
- Installation of 2.4m high new Rigid Mesh Security Mesh Fencing for 59,635m and removal of existing concrete fence along the south boundary along rocky outcrop above parking area.
- Minor repairs to Entrance Sliding Gate track to be undertaken as soon as possible in the programme.
- Replacement of access booms to be undertaken as soon as possible in the programme.
- Replace in place existing 2.1m high galvanised palisade fence and gate between the Nurses Home and exiting Gatehouse with 2.4m high new Rigid Mesh Security Mesh
- Fencing and vehicle gate, including making good to concrete pavement where old fence removed and minor road kerbing modifications to accommodate sliding gate.

PE PROVINCIAL HOSPITAL - SEQUENCE OF WORKS

The Sequence of works as prescribed has been agreed with the Employer and user department and works shall be executed in the order below:

Refer to drawings 305-026/SIT-007 and 305-026/SIT-008

The sequence of work for the replacement of boundary walls and construction of new Guardhouses at PE Provincial Hospital is as follows:

Repairs and extension of existing piers to brick / galvanised mild steel boundary wall along Buckingham Road - Section to the east of the existing pedestrian entrance to proceed first

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Existing concrete column copings to be removed and set aside for reuse
- Existing brick columns to be extended and existing concrete coping refitted
- Existing galvanised mild steel railing to be removed
- New high security mesh fencing infill panels to be installed between extended brick columns
- Installation of new gate and fencing to Pedestrian Entrance
- Make good to concrete kerbs and stormwater cover / inlet
- Install new high security mesh fencing and gate
- Lay new concrete pavement to the south of new fence and gate line and replace damaged concrete pavement up to road

Repairs and extension of existing piers to brick / galvanised mild steel boundary wall along Buckingham Road - Section to the west of the existing pedestrian entrance to proceed

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Existing concrete column copings to be removed and set aside for reuse
- Existing brick columns to be extended and existing concrete coping refitted
- Existing galvanised mild steel railing to be removed
- New high security mesh fencing infill panels to be installed between extended brick columns
- Damaged section(s) of boundary wall to be rebuilt
- Construction of new Exit Guardhouse to run concurrently with boundary fence work
- Construction of New Exit Guardhouse
- Includes relocation of existing stormwater inlet into stormwater system
- New concrete kerbing and pavements around new Guardhouse
- Repairs to damaged pavement and concrete kerbs along exit road
- Creation of temporary exit into St Croix Road with temporary signage
- Closure of existing exit road and road repairs including removal of old boom gates and sundry items and installation of new boom gates

Following commissioning of the new Exit Guardhouse construction of new Entrance Guardhouse to commence:

- Temporary closure of south entrance lane and provision of temporary signage for north entrance road
- Construction of New Entrance Guardhouse
- New concrete kerbing and pavements, and planter beds around new Guardhouse
- Road repairs to entrance road
- Commissioning of new south entrance road
- Road repairs to North Entrance Road
- Repairs and repainting of indicated walls between old Casualty and existing substation

Replacement of existing Boundary Wall: Phase 1 – St Croix Street

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Trenching and burying of existing borehole water supply pipe
- Demolition of existing concrete wall and removal of gates
- Installation of new high Security mesh fencing and gates in sections with underdig
- Repairs / replacement of damaged external pavement

- Repairs and repainting of electrical substation

Replacement of existing Boundary Wall: Phase 2 – Northwood Road

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Demolition of existing brick wall and removal of gates
- Installation of new high Security mesh fencing and gates in sections with underdig
- Repairs / replacement of damaged external pavement

Replacement of existing Boundary Wall : Phase 3 – around Sandford CHC

- Clearing site for the width of 2 000 mm where fencing runs are to be erected including removing trees and shrubs
- Demolition of existing brick wall and removal of gates
- Installation of new high Security mesh fencing and gates in sections with underdig
- Retaining wall along Eastbourne Road
- Repairs / replacement of damaged external pavement

PROTEA FLATS - SEQUENCE OF WORKS

The proposed sequence of work is as follows:

Replacement of Steel Fire escape (Staircase)

- Dismantling and removal of existing steel staircase
- Steel fire escape to be replaced within first 4 months of commencement date
- Redecoration and remedial work to well where staircase was located
- Installation of new steel staircase

NO OTHER WORK MAY PROCEED AT PROTEA FLATS UNTIL THE STEEL FIRE ESCAPE STAIRCASE HAVE BEEN REPLACED AND COMMISSIONED

Roof Repairs:

This comprises of both the main building concrete roof as well as the penthouse boarded roof.

- The main roof requires relatively minor patching and repairs to the top membrane, while the penthouse roof requires some structural repairs and replacement in addition to the top membrane coating.
- Replacement of fascias and bargeboards to penthouse roof
- Repairs and redecoration of roof handrail

External Repairs :

- It is recommended that work begins on the western side of the building, and works sequentially eastward, ending on the side where the penthouse is located.
- Internal Repairs (Note can only commence on completion of roof repairs) :
- This comprises of the internal cracking, damaged plaster work and fire compartmentation of the lift lobbies in the main building.
- Internal structural repairs to top floor corridor
- Replacement of Fire Escape Doors
- Alterations and renovations to the on the redecoration of the penthouse including replacing of glazing for use as the as the new GSA offices

SMME social deliverables:

Tenderers to take note that a portion of the building works (approximately 30%), excluding specialist work, are to be contracted to SMME's. Provisional Sums are provided for this purpose and bids will be called for after award for these packages on a domestic sub-contractor basis.

The Tenderer is to price all associated administrative, supervision, mentoring costs, profit and attendance in the relevant sections of the Preliminaries, as no claims for additional costs will be entertained.

These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders calculated in terms of the prescribed contractual directives.

The SMME Packages involves the following works:

PEPH - Construction of entrance gatehouse

PEPH - Removal of existing and new concrete paving in patching on sidewalks at St Croix Road including concrete underdig for new fencing

PEPH – Demolition and removal of existing concrete and brick walls including foundations at St Croix Road

PEPH – Demolition and removal of existing concrete and brick walls including foundations at Northwood Road

PEPH - Removal of existing and new concrete paving in patching on sidewalks at Northwood Road including concrete underdig for new fencing

PEPH - Removal of existing and new concrete paving in patching on sidewalks at Eastbourne Road including concrete underdig for new fencing

PEPH – Construction of concrete retaining wall including foundations at Eastbourne Road

PEPH – High security fencing at St Croix Road

PEPH – High security fencing at Northwood Road

PEPH – High security fencing at Eastbourne Road

Livingstone Hospital – High security fencing (Approx. 75% of total fencing)

C3.2 RESTRICTIONS AND CONSTRAINTS

- The completion of the project is urgent and work shall be executed during normal working hours i.e. 7h00 till 17h00 weekdays only. Work required to be executed outside of these hours must be arranged with the Facilities Manager and the Chief Executive of the hospital, in advance.
- Noise must be kept to a minimum and within acceptable levels at all times.
- All shut-offs and tie/cut-ins to existing services must be arranged in advance with the Facilities Manager and a methodology with appropriate mitigation of risks must be prepared by the contractor and submitted to the relevant Professional discipline in advance, for approval.
- Dust emanating from the work site must be controlled at all times.

C3.3 OPERATIONAL PROTOCOLS

- Security is a priority, and the site shall be kept safe at all times.

- The approved Health and Safety plan shall be adhered to at all times
- All staff members of the contractor shall wear PPE at all times
- All staff members of the contractor shall be specifically identifiable at all times and to this end shall wear a predetermined coloured overall to be able to enter and work on the site.
- Regular meetings, the frequency of which is to be determined, shall be held with the management of the hospital to always ensure a cohesive spirit of co-operation
- The successful contractor must take into account that other contractors may be busy with construction in close proximity to the works and allowance must be made in the contractor's submission to accommodate these parties.

C3.4 ACCESS AND SITE ESTABLISHMENT

- Prospective bidders are to fully familiarize themselves with the site and access to the site and restricted area for site establishment. Allowance for temporary construction access etc. shall be deemed to be included in contractor's price/bid. Prospective bidders are to familiarize themselves with the site as no additional costs shall be entertained.
- No Contractor's representatives or worker's are allowed to sleep at establishment area or with in hospital complex.
- The Contractors are required to price for establishment and de-establishment in the Preliminaries section of the Bills of Quantities.

C3.5 ACCEPTANCE OF TENDERS

- The Employer is not bound to accept the lowest, or any tender, or any portion of any tender

C3.6 MINIMUM WAGE

- The Contractor shall adhere to "The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)", and yearly pronounced increases for duration of contract.

C3.7 TEMPORARY WORKS

- All temporary work to comply with the Construction Health and safety Act (Act 85 of 1993) and its regulations.

C3.8 EMPLOYER'S DESIGN

N/A

C3.9 DESIGN BRIEF

N/A

C3.10 DRAWINGS

LIST OF DRAWINGS FOR WHICH REFERENCES ARE MADE IN THE BILLS OF QUANTITIES:

PROTEA FLATS:

JOINERY FITTINGS:

305-019-JDT-001
305-019-JDT-002 & 002A
305-019-JDT-003 & 003A
305-019-JDT-004
305-019-JDT-005,005A & 005B
305-019-JDT-006
305-019-JDT-007

IRONMONGERY SCHEDULE

305-019-DORMA 001 IRONMONGERY SCHEDULE

STEEL FIRE ESCAPE,:

J117-S10 Protea Flats Fire Escape Steel Staircase
305-019-DET-002 Fire escape

BALUSTRADES AND HANDRAILS

305-019-DET-002 Fire escape balustrades and screen

TIMBER SLATTED DUCT DOORS

305-019-DOR-002 TYPE DT05

ALUMINIUM WINDOWS, DOORS AND SHOPFRONTS:

305-019 -WT01-WIN001
305-019-DOR-002 TYPE S01
305-019-DOR-001 TYPE DT02
305-019-DOR-001 TYPE DT03
305-019-SHF-001 TYPE SF01,02 & 03
305-019-SHF001 TYPE SF04
305-019-SHF-E01 TYPE SFE01 & 02
305-019-SHF-E02 TYPE SFE03
305-019-SHF-E03 TYPE SFE07
305-019-SHF-E02 TYPE SFE 04,05 & 06

PE PROVINCIAL HOSPITAL GATE HOUSES:

JOINERY FITTINGS:

DRAWING 305-026 JP-01 AND JD01-TYPE AA
DRAWING 305-026 JP-02 AND JD-02-TYPE BB
DRAWING 305-026 JP-03 AND JD-02-TYPE BB
DRAWING 305-026 JP-04 AND JD-01 TYPE AA

ALUMINIUM DOORS AND WINDOWS:

DRAWING 305-026-DS-001 DOOR TYPE A
DRAWING 305-026-WIN001-WINDOW A
DRAWING 305-026-WIN002-WINDOW B
DRAWING 305-026-WIN003-WINDOW C

DRAWING 305-026-WIN004-WINDOW D
DRAWING 305-026-WIN005-WINDOW E
DRAWING 305-026-WIN006-WINDOW F
DRAWING 305-026-WIN007-WINDOW G
DRAWING 305-026-WIN008-WINDOW H

PE PROVINCIAL HOSPITAL FENCING:

GATES:

DRAWING 305-026 SIT004
DRAWING 305-026-ARC006 (ELEVATION 1 GATE B)
DRAWING 305-026-ARC006 (ELEVATION 1 GATE A)
DRAWING 305-026-ARC006 (ELEVATION 2 GATE C)
DRAWING 305-026-ARC008 (ELEVATION 6 GATE B)
DRAWING 305-026-ARC008 (ELEVATION 3 GATE A)
DRAWING 305-026-ARC008 (ELEVATION 6 GATE B)
DRAWING 305-026-ARC008 (ELEVATION 6 GATE C)
DRAWING 305-026-ARC007 (ELEVATION 4 NORTHWOOD)
DRAWING 305-026-ARC007 (ELEVATION 7 NORTHWOOD)
DRAWING 305-026-ARC007 (ELEVATION 3 EASTBOURNE ROAD)
DRAWING 305-026-SIT-007 (HOARDING DRAWING)
DRAWING 305-026-SIT-008 (CONTRACTORS YARD)

LIVINGSTONE HOSPITAL FENCING:

GATES:

DRAWING 314-013-003 LIVINGSTONE HOSPITAL GATE 1
DRAWING 314-013-003 LIVINGSTONE HOSPITAL GATE 2
DRAWING 314-013-003 LIVINGSTONE HOSPITAL GATE 3
DRAWING 314-013-S005 LIVINGSTONE HOSPITAL CONTRACTOR'S YARD

LIST OF DRAWINGS – ALL DRAWINGS ANNEXED :
PROTEA FLATS:

DRAWING REGISTER						
PE Provincial Hospital: New GSA Offices: Protea Flats						

b4 ref: 305-019

PE Provincial Hospital : Casualty renovations						
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DRAWING NO.	CURRENT REVISION	DRAWING NAME:	SCALE	SIZE	STATUS
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Schedule Documents						
305-019	FIN-001	3	Finishes Schedule	-	A4	For Tender
305-019	SAN-001	2	Sanware Schedule	-	A4	For Tender
305-019	PLA-001	-	Plascon Paint Specification - Internal	-	A4	For Tender
305-019	PLA-002	1	Plascon Paint Specification - External	-	A4	For Tender
305-019	IRN-001	3	Ironmongery Specification	-	A4	For Tender
305-019	DORMA-001	1	Dormakaba ironmongery Specification	-	A4	For Tender
305-019	SIKA-001	-	SIKA Specification for waterproofing	-	A4	For Tender
305-019	ALU-001	1	Aluminium Specification	-	A4	For Tender

Site Drawings						
305-019	SIT-001	4	Site Plan	-	A4	For Tender

Construction Drawings						
305-019	ARC-001	2	Existing Layout	1:100	A3	For Tender
305-019	ARC-002	3	Demolition Layout	1:50	A1	For Tender
305-019	ARC-003	2	Dimension Plan	1:50	A1	For Tender
305-019	ARC-004	2	Key Plan	1:50	A1	For Tender
305-019	ARC-005	2	Floor Finishes Plan	1:50	A1	For Tender
305-019	ARC-006	4	Ceiling Layout	1:50	A1	For Tender
305-019	ARC-007	3	Emergency Signage Layout	1:50	A1	For Tender
305-019	ARC-008	3	Existing Roof Layout	1:50	A1	For Tender
305-019	ARC-008a	1	Existing Roof Truss Layout	1:50	A1	For Tender
305-019	ARC-009	2	Drainage Layout	1:50	A1	For Tender
305-019	ARC-010	2	Water Reticulation Layout	1:50	A1	For Tender
305-019	ARC-011	3	Overall Building Roof Layout	1:100	A1	For Tender

Elevations Drawings						
305-019	ELE-001	1	Existing Elevations - Marked Up	As Indicated	A1	For Tender
305-019	ELE-002	1	Existing Elevations - Marked Up	As Indicated	A1	For Tender

Details Drawings						
305-019	DET-001	4	Internal Crack Repairs	As Indicated	A1	For Tender
305-019	DET-002	2	Fire Escape Stair Balustrade & Screen Details	As Indicated	A1	For Tender

Joinery Details Drawings						
305-019	JDT-101	3	Joinery Unit JDT101	1:25	A3	For Tender
305-019	JDT-102	3	Joinery Unit JDT102	1:25	A3	For Tender
305-019	JDT-102a	3	Joinery Unit JDT 102 - Elevation & Sections	As Indicated	A3	For Tender
305-019	JDT-103	3	Joinery Unit JDT103	1:25	A3	For Tender
305-019	JDT-103a	3	Joinery Unit JDT103 - Sections	1:10	A3	For Tender
305-019	JDT-104	3	Joinery Unit JDT104	1:25	A3	For Tender
305-019	JDT-105	3	Joinery Unit JDT105	1:25	A3	For Tender
305-019	JDT-105a	3	Joinery Unit JDT105 - Sections	1:10	A3	For Tender
305-019	JDT-105b	3	Joinery Unit JDT105 - Elevations	1:20	A3	For Tender
305-019	JDT-106	3	Joinery Unit JDT106	As Indicated	A3	For Tender
305-019	JDT-107	3	Joinery Unit JDT107	As Indicated	A3	For Tender
Shopfront Details Drawings						
305-019	SHF-001	3	Shopfront Schedule SF01, SF 02, SF03	1:25	A3	For Tender
305-019	SHF-002	3	Shopfront Schedule SF04	1:25	A3	For Tender
305-019	SHF-003	3	Shopfront Schedule SFE01, SFE02	1:25	A3	For Tender
305-019	SHF-004	3	Shopfront Schedule SFE03, SFE04, SFE05, SFE06	1:25	A3	For Tender
305-019	SHF-005	3	Shopfront Schedule SFE07	1:25	A3	For Tender
Window Schedule Drawings						
305-019	WIN-001	3	Window Type WT01			For Tender
Door Schedule Drawings						
305-019	DOR-001	4	Door Type DT01, DT02, DT03, DT04	1:20	A3	For Tender
305-019	DOR-002	2	Door Type DT05, S01	As Indicated	A3	For Tender
305-019	DOR-FD01	2	Fire Escape Door	As Indicated	A3	For Tender
305-019	DOR-FD02	4	Lift Lobby Fire Door	As Indicated	A3	For Tender
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305-019	RDS-106	1	Room Data Sheet - Room 106 - Bathroom	As Indicated	A3	For Tender

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PE PROVINCIAL HOSPITAL:

<u>DRAWING NUMBER</u>	<u>DRAWING NAME</u>	<u>REVISION</u>
305-026-WIN-001	PEPH Window Type A	Rev 1
305-026-WIN-002	PEPH Window Type B	Rev 1
305-026-WIN-003	PEPH Window Type C	Rev 1
305-026-WIN-004	PEPH Window Type D	Rev 1
305-026-WIN-005	PEPH Window Type E	Rev 1
305-026-WIN-006	PEPH Window Type F	Rev 1
305-026-WIN-007	PEPH Window Type G	Rev 1
305-026-WIN-008	PEPH Window Type H	Rev 1
305-026-ARC-001	PEPH Entrance Guardhouse	Rev 1

305-026-ARC-002	PEPH Entrance Guardhouse Plan	Rev 2
305-026-ARC-003	PEPH Exit Guardhouse	Rev 1
305-026-ARC-004	PEPH Exit Guardhouse Plan	Rev 2
305-026-ARC-005	PEPH Pedestrian Entrance	Rev 1
305-026-ARC-006	PEPH New Gate Elevations A	Rev 1
305-026-ARC-007	PEPH New Gate Elevations B	Rev 1
305-026-ARC-008	PEPH New Gate Elevations C	Rev 1
305-026-ARC-009	PEPH Entrance Signage Wall	Rev 1
305-026-DS-001	PEPH Door Type A	Rev 1
305-026-DS-002	PEPH Door Type B	Rev 1
305-026-JD-001	PEPH Joinery Type A-A	Rev 1
305-026-JD-002	PEPH Joinery Type B-B	Rev 1
305-026-JP-01	PEPH Joinery Plan 01	Rev 1
305-026-JP-02	PEPH Joinery Plan 02	Rev 1
305-026-JP-03	PEPH Joinery Plan 03	Rev 1
305-026-JP-04	PEPH Joinery Plan 04	Rev 1
305-026-SIT-001	PEPH Overall Site Plan Layout	Rev 1
305-026-SIT-002	PEPH New Boundary Fence	Rev 1
305-026-SIT-003	PEPH New Boundary Fence	Rev 1
305-026-SIT-004	PEPH New Boundary Fence	Rev 1
305-026-SIT-005	PEPH New Boundary Fence	Rev 1
305-026-SIT-006	PEPH New Boundary Fence	Rev 1
305-026-SIT-007	PEPH New Boundary Fence	Rev 1
305-026-SIT-008	PEPH Contractors yard	

LIVINGSTONE HOSPITAL:

<u>DRAWING NUMBER</u>	<u>DRAWING NAME</u>	<u>REVISION</u>
314-013-S001	Existing fence layout	Rev 2
314-013-S002	New fencing layout	Rev 3
314-013-003	New gates layout	Rev 1
314-013-S004	New fencing and New hoarding plan	Rev 2
314-013-S005	New fencing and new hoarding plan	Rev 1

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5.1. C3.11 OHS SPECIFICATION

Construction Health and Safety Specification for the Upgrading of Security Infrastructure at Livingstone PEPH Complex

8 November 2023

DOCUMENT INFORMATION SHEET

Title of Report : *Construction Health and Safety Specification for the
Upgrading of security infrastructure at Livingstone
PEPH Hospital Complex*

Type of Report : *Specification for H&S*

Prepared for : *Tender Documents/Bidders*

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Definitions

For the purpose of this Construction Health and Safety Specification, all definitions in the Occupational Health and Safety Act & Regulations, the abbreviations and the definitions given hereunder shall apply; where definitions may overlap, the most onerous requirement shall apply:

1. **“Agent”** refers to Xaks Consulting (Pty) Ltd professional registered Pr. CHSA's.
2. **“Client”** refers to Eastern Cape Department of Health (ECDOH).
3. **“Principal Agent”** refers to Consulting Engineers contractual appointed on the project.
4. **“CHSS”** refers to this document, the Construction Health & Safety Specification
5. **“COIDA”** means Compensation for Occupational Injuries and Diseases Act 130 of 1993.
6. **“Construction site”** means the premises and grounds where construction work is being performed.
7. **Principal Contractor’** means an employer appointed by the client to perform construction works.
8. **“CR”** refers to the Construction Regulations, 2014
9. **“DSTI”** refers to a documented daily safe task instruction compiled and issued by a contractor and trained to all relevant employees
10. **“H&S”** refers to Health and Safety
11. **“Hot Work”** means any work where there is a fire or explosion risk, including but not limited to all welding, plasma cutting, grinding, work with flammable or explosive substances and work with chemicals.
12. **Hazardous Weather”** means wind speeds greater than 40km/h, or electric storms, or rainfall in excess of 40mm/h.
13. **“Medical certificate of fitness”** means a valid medical certificate of fitness issued by an occupational medicine practitioner; such medical testing shall be relevant to the risks of the construction work on the construction site. and shall conform to the Occupational Health and Safety Act and Regulations and to the requirements in this H&S specification.
14. **“Method statement”** refers to a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in the risk assessment.
15. **“OHSA”** refers to the Occupational Health & Safety Act of 1993
16. **“Regulations”** refers to the Regulations issued under the Occupational Health & Safety Act.

17. **“S”** refers to a Section in the Occupational Health & Safety Act of 1993.
18. **“SACPCMP”** means the South African Council for the Project and Construction Management Professions.
19. **“Hoarding”** a temporary wooden, metal sheets or wire mesh to be used to separate the construction work from all the operational activities at the facility.

1. Introduction to this Construction H&S Specification

1. This Construction Health & Safety Specification is published in terms of the Occupational Health & Safety Act of 1993 (OHS Act), Construction Regulations 2014, Regulation 5(1)(b).
2. The CHSS does not replace the Construction Regulations, 2014, but is a supplementary specification as required in terms of the Regulations. The Principal Contractor is, at all times required to and will remain responsible to fully address all requirements and standards of the Occupational Health and Safety Act, Regulations and the Construction Regulations. Inclusive of the Health and Safety Plan and the implementation thereof.
3. ECDOH is the client implementing the construction project.
ECDOH requires all stakeholders to share its commitment in ensuring that the highest standards of health and safety prevail.
The Agent shall submit the project OHS monitoring reports to the Principal Agent on a monthly basis.
4. The client has appointed an Agent who will (inter alia) be responsible for the approval of all Principal Contractors' H&S Plans, for the auditing and monitoring of the Principal Contractors' implementation thereof, and for maintaining the document control associated with the CHSS.

2. Limitation of liability

1. The client or its Agent shall not be responsible for any acts or omissions of any Contractor which may directly or indirectly result from the application of the CHSS.
2. All contractors must ensure that articles, work, equipment, machinery, plant and work practices are, always, compliant to the legal requirements as these apply.
3. The client or its Agent shall limit its responsibility to the application of the Construction Regulations' Client Requirements only.
4. The client cannot be held responsible for any acts or omission of any contractor and no advice, approval of any document required by the CHSS or the Agent, such as hazard identification and risk assessment action plan or any other form of communication from the client or the Agent shall be construed as an acceptance by the client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Further, there is no acceptance of liability by the client or the Agent which may result from the Principal Contractor failing to comply with the CHSS.
5. The Principal Contractor shall enter into a Mandatory Agreement with the client, as defined in Section 37(2) of the Occupational Health and Safety Act.
6. The Principal Contractor shall ensure that each contractor appointed by the Principal Contractor and each and sub-contractor appointed by a contractor also

enter into a Mandatory Agreement with the Principal Contractor and have a valid approved H&S plan on site, as defined in Section 37(2) of the Occupational Health and Safety Act. These agreements shall be included in the Principal Contractor's H&S file on site and be valid for the duration of the contractor's work on the construction site.

3. Purpose of the Construction H&S Specification

1. The purpose of the CHSS is for the specification to be used as the standard on which Principal Contractors' H&S Planning and safe work execution must be based.
2. This CHSS will be applicable to all construction work and shall be implemented for the complete project until project close out. This specification is applicable to all three sites and must be implemented as such from the start to the works completion of the project.
3. This CHSS defines the client's standard by which all occupational health and safety risks shall be controlled at the construction site.
4. All employers working on the construction sites shall conform to the standard in the CHSS. All the duties of a Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors.

4. Implementation of the Construction H&S Specification

1. This CHSS forms an integral part of the Contract, and Principal Contractors are required to make it an integral part of their contracts with subcontractors and suppliers.
2. The Principal Contractor shall ensure that the H&S plan contains sufficient evidence of:
 - a. Adequate provision for the cost of health and safety measures.
 - b. The principal contractor's access to and intention to appoint persons with the necessary competencies to carry out the construction work safely.
 - c. The principal contractor's access to the necessary resources to carry out the construction work safely and without risk to the health of the workers.
3. The Principal Contractors shall allow in their cost provision for complying with the requirements of this CHSS; resources for the following H&S controls shall be a minimum but not limited to the following:

5. Scope

1. The project has three site locations where construction works will be performed.
 - A) Livingstone Hospital
 - B) PE Provincial Hospital
 - C) Doctors accommodation - Protea Flats

The scope of works are as follows for the three site locations:

A) Livingstone Hospital

The Scope of Work for the component of the project to be undertaken at Livingstone Hospital includes:

- Repairs to the steel track guide for one existing main entrance gate
- Trimming of vegetation to create clearance for new high security fencing
- Replacement of existing 1.8m high galvanised palisade fence and gate with 2.4m high new Rigid Mesh Security Mesh Fencing.
- Addition of anti-climb spikes and concrete under dig to existing High Security Fencing.
- Removal of existing concrete post and wire fencing.
- Removal of existing concrete post and concrete panel fencing.
- Removal of existing high security mesh fencing and hand over to facility.
- Removal of existing palisade fencing and gates.
- Making good to concrete pavements where old fencing removed.
- Replacement of vehicle access booms.

B) PE Provincial Hospital

The Scope of Work for the component of the project to be undertaken at PE Provincial Hospital includes:

- Erection of temporary signage and hoarding for phased implementation
- Construction of two new Guardhouses including:
 - Foundations
 - Masonary Work
 - Steel Posts
 - Concrete Slabs
 - Ceilings
 - Roofs with timber trusses
 - Rainwater goods
 - Installation of doors and ironmongery
 - Installation of Windows
 - Installation of sanitaryware with water and drainage reticulation
 - Installation of Joinery
 - Installation of Electrical, Electronic and Mechanical Systems
 - Signage
- Removal of old / existing vehicle control mechanism
- Installation of new vehicle control booms
- New sewer, water and electrical reticulation to new Gatehouses and Vehicle Control Booms
- Repairs and alterations to existing road including kerbs
- Trimming of existing vegetation to provide clearance to new fencing
- Repairs to existing brick boundary wall and addition of new High Security Fencing including:
 - Removal of existing gms railing
 - Extension of existing brick piers with reused and/or new concrete copings
 - Addition of High Security Mesh Fencing infill panels
 - Repairs to damaged brick boundary wall
 - Section to the east of the existing pedestrian entrance to proceed first
- Installation of new gate and fencing to Pedestrian Entrance including:
 - Make good to concrete kerbs and stormwater cover / inlet
 - Installation of new high security mesh fencing and gate

- Repairs and / or replacement of damaged concrete kerbs and stormwater inlet(s)
- New concrete pavement
- Trenching and burying of existing borehole water supply pipe
- Demolition of existing brick and/or concrete boundary wall in sections
- Installation of new high Security mesh fencing and gates in sections with underdig
- Repairs / replacement of damaged external pavement
- Repairs and repainting of electrical substation and adjacent wall

C) Staff accommodation: Protea Flats

The proposed sequence of work is as follows:

- 1) Roof Repairs:
 - This comprises of both the main building concrete roof as well as the penthouse boarded roof.
 - The main roof requires relatively minor patching and repairs to the top membrane, while the penthouse roof requires some structural repairs and replacement in addition to the top membrane coating. Refer to structural engineers drawing and report for extent of penthouse roof repairs.
 - Replacement of fascias and bargeboards to penthouse roof
 - Repairs and redecoration of roof handrail
 - 2) Replacement of Steel Staircase (Must be complete within 4 months from contract commencement date, before any other work can commence at Protea flats)
 - Dismantling and removal of existing steel staircase
 - Redecoration and remedial work to well where staircase was located
 - Installation of new steel staircase
 - 3) External Repairs:
 - It is recommended that work begins on the western side of the building, and works sequentially eastward, ending on the side where the penthouse is located.
 - 4) Internal Repairs (Note can only commence on completion of roof repairs):
 - This comprises of the internal cracking, damaged plaster work and fire compartmentation of the lift lobbies in the main building.
 - Internal structural repairs to top floor corridor
 - Replacement of Fire Escape Doors.
 - Alterations and renovations to the on the redecoration of the penthouse including replacing of glazing for use as the as the new GSA offices.
2. The principal contractor should be mindful that the project consists of three sites as stipulated above under the scope of works. The principal contractor would be required to work at two site locations at the same time and therefore the resource allocation is extremely important. The principal contractor will have to appoint one construction manager and one safety officer that will manage both sites being constructed at a time, however the provision should be made to ensure each site under the contract has the following resources on site: Construction Supervisors, H&S representatives, First aiders, Fire Fighters.
 3. The principal contractor can have one construction manager and one safety officer that will manage both sites implemented at a time.

4. This CHSS covers the client's requirements for addressing, mitigating and controlling Occupational Health and Safety related risks, problems, incidents and injuries during the construction work.
5. The scope addresses legal compliance, hazard identification and risk assessment, and the promotion of a health and safety culture amongst those working on the project.
6. The CHSS contains clauses that are generally applicable to construction and imposes controls associated with activities that impact on human health and safety.
7. The Principal Contractor is required to comply with the provisions of the OHS Act, all applicable Regulations and this CHSS.
8. The client Agent will monitor the Principal Contractor's compliance with the requirements of the OHS Act and the approved H&S Plan.

6. Compensation for Occupational Injuries and Diseases Act

1. The Principal Contractor, each contractor and each sub-contractor shall submit proof of Good Standing with the COIDA Commissioner, or a Mutual Association licensed in terms of Section 30 of COIDA, prior to starting any work on the site.
2. A copy of the Letter of Good Standing with the COIDA Commissioner must be included in the OHS file of each contractor working on the site and must remain updated for the duration of the construction work. Letter of good standing should be updated as and when required.
3. Contractors whose Letter of Good Standing expires will not be permitted to continue work. Proof of payment and acknowledgement from the COIDA Commissioner must be provided before approval to commence with work may be granted by the Agent.

7. Application for Work Permit

1. It is envisaged that a Construction Work Permit will be required for the project based on the duration of the works. Therefore, the Principal Contractor should be required to submit the required information as listed in this section. The Principal Contractor shall assist the Agent in compiling the evidence required by the Department of Labour for the issuing of a Construction Work Permit.
2. The Principal contractor shall ensure that the correct H&S information is presented for approval and includes:
 - a) Appointment letter, Contract and CR 5(1)(k)
 - b) Signed mandatory agreement in terms of Section 37(2)
 - c) Signed Acknowledgement of specification and baseline risk assessment
 - d) Evidence that the Principal Contractor made adequate provision for the cost of H&S measures.
 - e) Evidence that the Principal Contractor has the necessary competencies and resources to carry out the construction work safely by providing Site Organogram - align appointments with CR 2014 and relevant regulations
 - f) A copy of the letter of appointment for Section 16.2 with competency proof.

- g) A copy of the Letter of appointment of the Construction Manager CR 8(1), Safety Officer CR8(5) and Construction Supervisor CR8(7) + proof of the qualification certificates must be certified, certified identify document, and registration, where applicable
- h) Proof of the registration of the Principal Contractor's safety officer with the SACPCMP must be submitted as well.
- i) Valid letter of good standing with the COIDA.
- j) H&S Policy
- k) Project Specific H&S Plan.
- l) Project emergency management plan
- m) Project baseline risk assessment
- n) Demolition risk assessment & method statement

3. The Agent shall inform the Designers of the required information's that will form part of the applicable for a construction work permit.
4. The Principal Contractor shall display the work permit number at the main site entrance of the Protea Flat site. The permit number must be noticeable in big numbers to the satisfactory of the Department of Labour.
5. The construction works can only commence once the construction work permit is issued by the Department of labour.
6. The conditions of the construction work permit must be compiled to for the duration of the project.
7. The legal appointments in terms of the application to the Department of Labour is crucial and must be adhered too for the duration of the project, any changes to such appointments must be formally communicated to the Agent and the Client for approval.
8. A list of additional information from the Agent will be issued when the need arises and when applying for the construction works permit.

8. Construction Manager and Construction Supervisor

1. The principal contractor shall appoint a full-time competent person as the construction manager with the duty of managing all the construction work on all three sites.
2. The construction manager must be exclusively dedicated to this project overseeing and managing the works on all three site that part of this contract.
3. Proof of competency of the construction manager shall be incorporated in the H&S file; the client or its Agent shall only allow work to commence if the designated construction manager has sufficient evidence of H&S competence and, as a minimum this shall include:
 - a. Proof of professional training
 - b. Proof of experience in the construction scope of work relevant to this project nature
 - c. Proof of experience in general H&S management for work as defined in the scope
4. The principal contractor shall appoint two competent construction supervisors/foreman for the project. Considering the works will be performed on two site locations at a time, a separate competent construction supervisor should be appointed on each site.

5. The construction supervisors should be available on full time capacity on the site that they appointed to.
6. All legal appointments for the principal contractor such as Construction Manager, Construction Supervisors, H&S Officer, First Aiders, Fire Fighters, H&S representatives should stipulate to project and site location name on each appointment letter.
7. The construction manager and the supervisors shall be assisted by the appointed safety officer and, where such an arrangement is planned, the H&S plan of the Principal Contractor shall clearly define the respective duties of the construction manager, construction supervisor and the safety officer.
8. The construction manager and supervisors shall be appointed in writing and each of the tasks below shall be included in the signed letter of appointment.
9. The construction manager and supervisors shall ensure that the H&S plan is implemented from the commencement of for the duration of the construction work.
10. The construction manager shall ensure that the H&S plan is reviewed and updated as work progresses.
11. The construction manager shall provide contractors and sub-contractors with this CHSS.
12. The construction manager with support of the safety officer shall only approve a H&S plan of a contractor and a sub-contractor if there is sufficient evidence that the contractor:
 - a. Has made sufficient provision for health and safety measures during the construction process.
 - b. Has the necessary competencies to perform the construction work safely; and
 - c. Has made the necessary resources available to perform the construction work safely.
13. The construction manager shall ensure that all contractors appointed by the Principal Contractor have an approved H&S plan, prior to appointing the contractor and prior to allowing the contractor to start working on site.
14. The construction manager shall ensure that contractors have evidence of both registration and good standing in terms of COIDA and shall not permit any contractor to start work or to continue with work on site unless a valid Certificate of Good Standing is on site.

9. Construction Safety Officer

1. The Principal Contractor shall appoint a full-time competent Construction Safety Officer for the project overseeing all three sites.
2. The Construction Safety Officer shall be full time between the three sites with particular attention given on high risk works.
3. The Principal Contractor shall define the duties of the appointed safety officer in the H&S plan. This should include how often the safety officer will be on site other site being constructed.
4. The safety officer shall be registered and be in good standing with the South African Council for the Projects and Construction Management Professions (SACPCMP).

5. The Principal Contractor should ensure in addition to the above, the safety officer should have a minimum of five years' experience within the built environment as a safety officer.
6. Proof of competence and registration of the appointed construction safety officer must be included in the H&S Plan.
7. The Principal Contractor together with the appointed sub-contractors must conduct an assessment to determine appointment of their safety officers, this assessment should consider the scope and size of the sub-contractors works, applicable risk control measure to be implemented and conclude the necessity to appoint full or part time registered safety officer to site. This assessment and conclusion must be communicated to the Agent before the sub-contractor commence on site.
8. The safety officer shall ensure that a list of all the contractors on the site is kept in the H&S file. The list must refer also to the work performed by the contractors, the date of the approved H&S plan, the expiry date of the COIDA Letter of Good Standing, and if compliance monitoring is conducted.
9. Daily inspection must be conducted by the principal contractor safety officer and formal communication via email or inspection report must be issued on a weekly basis to the site management .
10. The safety officer should ensure a monthly report be compiled on a template provided by the client. Refer to Annexure A.

10. First Aid Management

1. The Principal Contractor shall ensure that adequately trained first aiders are on all the site when construction works is performed on the sites. This is applying even if less than 10 employees are on site.
2. The Principal Contractor, any contractor or sub-contractor shall ensure that it appoints a trained First Aider on site regardless of number of labours on site.
3. First aiders shall be identified and shall have immediate access to a comprehensively stocked first aid box. Considering the project consist of three sites, all sites should have their own first aid boxes on site.
4. Such first aid box shall be stocked to include all first aid equipment as per the minimum requirements listed under General Safety Regulation 3, and any additional items identified in the risk assessment.
5. Where shift work is performed, each shift shall comply with the above first aid requirements.

11. Health and Safety Representatives

1. The principal contractor should ensure that competent health and safety representatives are appointed for all the site where construction works are performed. Each health and safety representative should be assigned to a site and conduct the daily duties on site.
2. Health and Safety representatives should be trained, and training certificates should be included in the H&S files.
3. The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in the OHSA.
4. The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on site.

5 The H&S presentative shall always be on site and report to the Health and Safety Officer and Construction Manager.

12. Project General Risks Management

1.1. Health Risks and Medical Surveillance

- 1.1.1. The appropriate SDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works. Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.
- 1.1.2. Workers will be exposed to noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the works.
- 1.1.3. Medical surveillance will commence at pre-employment.
 - 1.1.3.1. All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.
 - 1.1.3.2. Annual medical surveillance is required (unless identified as being required more frequently), as well as an exit medical.
 - 1.1.3.3. Arrangements for keeping medical records for the required time are to be noted.
 - 1.1.3.4. It is preferable that the PC has a medical surveillance plan.
 - 1.1.3.5. Full medical records are not to be placed in the H&S file.
 - 1.1.3.6. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed.
- 1.1.4. Given the potential health risks the following aspects are to be included in each medical surveillance intervention:
 - 1.1.4.1. Full medical, surgical and occupational history;
 - 1.1.4.2. Full physical examination of all systems; and
 - 1.1.4.3. Referral if required for the management of identified health issues that may affect the worker.
- 1.1.5. Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:
 - 1.1.5.1. Audiometry (hearing tests); and
 - 1.1.5.2. Any other tests identified as relevant from chemical or specifically identified risks of exposure
- 1.1.6. Failure to do so will be considered a serious offence.

1.2. General Environmental Conditions

- 1.2.1. Compliance with the Environmental Regulations (as amended), among others is required.
- 1.2.2. Environmental monitoring of ventilation, lighting and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment.
- 1.2.3. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.
- 1.2.4. Any spillages of substances which could be toxic to persons must be dealt with adequately. The Contractor must include his spillage removal system in the OHS Plan.

1.3. Noise Risks

- 1.3.1. All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations.
- 1.3.2. Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense.
 - 1.3.2.1. Failure to do so within a reasonable time will result in such plant being removed from site.
- 1.3.3. Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing.
 - 1.3.3.1. Temporary labour working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB.
 - 1.3.3.2. Audiometry records are to be available in the H&S file.
- 1.3.4. Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 db.
 - 1.3.4.1. Failure to do so will be considered a serious offence.

General Risk Condition

- 1) Working at heights on top of ten storey high building.
- 2) Working from scaffolding
- 3) Falling items
- 4) Limited access to roof structure
- 5) Exposure to pigeon droppings and dead pigeons
- 6) Restricted workspace on the roof
- 7) Exposure to public with fencing demolition and installation
- 8) Traffic risk exposures
- 9) Mobile plant operations
- 10) Falling material and equipment

13. Principal Contractor's Health & Safety Plan

1. The Principal Contractor shall submit a documented and project specific health and safety plan and H&S file for this construction project for approval from the Agent. This H&S plan should be specific by specifying the three projects and the scope of work for each site.
2. This H&S plan & file must be presented to and approved by the agent prior to the site being handed over to the Principal Contractor and prior to the Principal Contractor being allowed on site. No work may start- by any Principal or other Contractor unless the relevant health and safety plan is approved, and the construction works permit is obtained.
3. The plan should cover the requirements identified in Annexure B.
4. Besides the legal requirements, the site-specific health and safety plan shall include:
 - a. A cover page indicating:
 - i. The contract references.
 - ii. The name and address of the Contractor

- iii. The name of the designated person in terms of section 16(2) representing the contractor
- b. Index for the H&S plan
- c. A detailed site-specific overview of the scope of works for the project; this overview must include all work controlled by the Principal Contractor, whether directly or through the services of a contractors or sub-contractors.
- d. An overview of the PPE to be used and the management of such PPE on site.
- e. A list of the inspection registers which will be kept on site.
- f. The site-specific health and safety induction document used to ensure that all employees and all visitors on site are conversant with the risks on site and the content of the health and safety plan and what role they are expected to play in ensuring health and safety on the construction site.

14. Hazard Identification and Risk Assessment

- 1. The Principal Contractor shall appoint competent person(s) to perform a site-specific baseline- and, thereafter, ongoing issue-based hazard identification and risk assessments. There may be more than one risk assessor appointed if this is required.
- 2. The competent risk assessor(s) shall form part of the construction team working on the construction site.
- 3. The risk assessment must be based on the scope of work, the site-specific materials required, and the site-specific machinery, equipment and structures applied during the construction. The contractor should ensure the risks associated with working at an operational hospital is adequately accounted for and included in the risk assessment.
- 4. The baseline assessment shall be included in the H&S file.
- 5. Additional risk assessments shall be conducted when:
 - a. A new machine is introduced onto site
 - b. A system for work is changed or operations altered
 - c. After an accident or near miss has occurred
 - d. New knowledge comes to light and information is received which may influence the level of risk to employees on site.
- 6. All risk assessments shall be conducted in terms of an acceptable and documented methodology, prior to commencement of work and in accordance with the provisions of the CR.
 - a. The risk assessment shall take into consideration the hierarchy of controls:
 - i. Possible eliminations of risk
 - ii. The planned engineering controls mitigating the risk
 - iii. The planned administrative controls, including
 - a) Competency and responsibility appointments
 - b) Method statements and/or safe work instructions, training and competency

- c) Occupational hygiene measurements
 - d) Workplace organisation, including demarcation, signage, colour coding, routing, housekeeping, storage, stacking, access
 - e) Emergency controls
 - f) Medical fitness testing, medical surveillance and job placement requirements v. PPE
7. The principal contractor shall include a method for risk review ensuring that all risks on site are adequately managed on site.
8. All risk assessments must document all H&S controls.

14. Health & Safety File

1. The Principal Contractor shall ensure documented evidence in a form of H&S files be available on all sites where construction works are performed. The H&S files shall implement and maintained on site and the files should be relevant to the scope being performed on site.
2. The H&S file shall be presented together with the H&S plan for approval prior to work starting.
3. H&S File shall be kept on the construction site and available for inspection by the client Agent or the Department of Labour's Inspectors.
4. The content of the H&S file shall follow a specific order as per Annexure C of this document. All two sites should have a valid health and safety file on site with relevant inspection registers and inductions.
5. The H&S File becomes the property of the client after completion of the project. The principal contractor is also required to scan the file in an electronic format and hand over the electronic format.

15. Health and Safety Committee

1. Health and Safety Committee
 - a. The Principal Contractor shall ensure that the H&S committee meets on a monthly basis.
 - b. The Principal Contractor's management and each contractor shall be represented at the H&S committee meeting; contractors with more than 20 employees shall have an H&S representative at each committee meeting and each contractor shall have a management member attending each H&S committee meeting.
2. Record of the Health and Safety Committee shall be communicated to site management with actions assigned to the concerns highlighted in the committee meeting.
3. Site management must form part of the committee meeting and the client and/or agent may be invited to the meeting once in three months.

4. Meetings should be kept to a minimum and be held outside to maintain social distancing.

16. Close-Out and Consolidated H&S file

1. The Principal Contractor shall compile a consolidated H&S file and hand this to the Agent at the end of the project handover this shall be applicable to all contractors and sub-contractors as well.
2. The Principal Contractor shall therefore submit a consolidated close out file inclusive of all contractor information.
3. The consolidated H&S file shall be in hard copy and in CD format.
4. The consolidated file shall include:
 - a. All legal appointment and 37.2 Agreement from the Client to the Principal Contractor
 - b. A copy of the approved H&S plan of the principal contractor
 - c. The H&S file of the Principal Contractor, which, amongst the other, shall have include:
 - i. Project H&S plan Approvals Record
 - ii. Project H&S management plans, H&S plan, Fall Protection, Emergency plan, Traffic management
 - iii. Project Baseline Risk Assessments
 - iv. Designer inspections/assessments and confirmation of conformance
 - v. Incidents registers & IOD investigation record
 - vi. COIDA Claim incidents and supporting medical treatment record
 - vii. Monthly H&S audit reports from the Agent and the enjoining corrective action reports
 - viii. Endorsed minutes of H&S Committee meetings
 - d. A reference record of all drawings, designs and materials used
 - e. A reference record of H&S statutory certificates required by the owner; this reference record shall indicate the designated person at the principal contractor, who is responsible for the document and the client-designate to whom the document has been handed. Reference records applicable to this project may include:
 - i. Electrical certificate of compliance
 - ii. Pressure equipment certificates, including those for fire extinguishers
 - iii. Ventilation extraction certificates
 - f. The comprehensive list of all the contractors on site accountable to the principal contractor.
 - g. An index of all inspections and reference to the inspection registers for the site
 - h. A list of all responsible persons appointed in statutory positions for the duration of the project
 - i. A list of all occupational injuries and diseases including the name of the injured, the reference number of the Annexure I document and the reference number of the COIDA notification of the injury (if any)

- j. All documents relating to any reportable injury or disease during the construction work, as defined in Section 24 and 25, of the Occupational Health and Safety Act,
- k. Handover of the consolidated H&S file must be done within two weeks of all personnel having been demobilized (i.e., when nil man-hours are recorded).

15. Induction and H&S awareness

1. Each employee working on site must be inducted in health and safety. The induction should take into consideration the work environment at the various sites. Employees should stay away from areas where construction works is not performed.
2. The Principal Contractor shall develop project-specific induction training programme in health and safety for the site, to ensure that all employees on site are conversant with:
 - a. The introduction of the project
 - b. The risks of the construction project
 - c. The responsible persons in key positions such as construction manager, safety officer, first aiders, fire fighter etc
 - d. The role of employees in ensuring health and safety on the construction site
 - e. The emergency arrangements
 - f. The general health and safety rules applicable to the site.
3. The Principal Contractor shall ensure that all employees have gone through the induction training before commencing duties on site. Inductions should be conducted on all three sites and record of the induction should be included in the H&S file for that particular site of the project.
4. The method of ensuring that all employees are inducted will be documented in the H&S Plan and the Principal Contractor is advised that a generic induction will not be accepted.
5. When working on the site, each employee of any contractor and sub-contractor accessing the site, including management, shall complete the principal contractors' induction; the principal contractor shall ensure that none of his or his contractors' employees accesses the site unless having been inducted by the principal contractor.
6. Each visitor to the site shall be inducted in the risks and risk controls which the visitor may be exposed to. This includes, the client representatives, consultants and any other stakeholders whom enters site.

16. Health and Safety Training

1. Competency of employees and ongoing training in H&S matters shall be documented by including a training & competency matrix.
2. The Principal Contractor shall ensure that specific pre-task health and safety instructions are given to all employees.
3. The methods for ensuring that training in safe work instructions and that pre-task instructions occur shall be described in the H&S Plan.

17. Inspection, Monitoring and Reporting

- 1 The Principal Contractor shall carry out regular safety planned task observations on high-risk activities and planned H&S inspections on the site and shall take steps to rectify any unsafe acts or condition.
- 2 The appointed Construction Manager and the Safety Officer shall perform regular inspections and document these in the H&S File.
3. The relevant inspection templates and the frequency of inspections shall be included in the H&S file. Each inspections should make specific reference to the site.
4. The H&S Plan shall contain a list of all the inspection registers which shall be kept on site and templates of such must be available in the H&S file:
 - a. The templates must correlate with the machinery and equipment listed on site;
 - b. The inspector responsible for the inspection and maintenance of the register must be appointed in writing. Proof of training and competency in the performance of the inspections must be documented.

18. Incidents, Accidents, Near Misses and Emergencies

1. All near misses, incidents and accidents must be recorded, investigated and managed in accordance with the statutory provisions.
2. Each H&S incident, near miss and accident must be recorded in a register kept in the H&S file; a template of the register shall be included in the H&S file.
3. Every accident shall be reported to the Agent as soon as the principal contractor site management becomes aware of it.
 - a. Such reporting must occur via direct contact (person-to-person or via telephone) and via e mail.
 - b. Incident Investigation process must be followed by competent role players and a preliminary investigation report must be submitted to the Agent and Owner within 24 hours for review and comment.
 - c. Final investigation must be finalized by the Principal Contractor and submitted to the Agent within 7 working days, unless requested otherwise.
4. The principal contractor is required to immediately visit the accident scene to verify the conditions, the safety officer and incident investigator must ensure relevant evidence such as witness statements, photos of the equipment in use and the specific area is taken.
5. A record of all incident investigations shall be kept in the health and safety file and all records shall be made available to the client without exception; this includes records relating to Section 24 of the OHSA.
6. Where a fatality or permanent disabling injury or any incident referred to in Section 24 occurs on the construction site, the Principal Contractor must ensure that the provincial director is provided with a report contemplated in section 24 of the Act, in accordance with regulations 8 and 9 of the General Administrative Regulations, 2013, and that the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site as far as is reasonably practicable.

7. The Principal Contractor shall ensure that contractors and sub-contractors apply the same measure and shall require that this process is documented in this contractor's H&S plan.
8. The contractor shall document detailed emergency and accident arrangements on site and outline these, in detail, in the H&S file. These arrangements shall be specific for the site H&S risks and shall make specific provisions for:
 - a. A specified ambulance services.
 - b. A registered medical practitioner or registered hospital service which can deal with the identified emergencies (in terms of facility, equipment and competence of emergency personnel)
 - c. A method to ensure that the appropriate COIDA documents are available on site, so that prompt medical aid, as defined in the COIDA, may be available to any injured employee.
9. The emergency arrangements shall be displayed on site and shall include:
 - a. A comprehensive emergency and evacuation plan
 - b. An emergency flow chart
 - c. An updated list of emergency telephone numbers

19. Audits and inspections

1. The Agent shall conduct regular health & safety inspections and audits to ensure legal compliance and compliance with the Principal Contractors' H&S Plan.
2. Records of findings and audits shall be kept in the Principal Contractor's H&S File together with a record of any non-conformance report, investigation and corrective & preventative action.
3. The Principal Contractor shall document corrective action planning and forward this to the Client Agent within 72 hours of receiving a finding.
4. The Agent shall stop all or any work which does not conform to the H&S Plan whilst the inspection is conducted.
5. The Principal Contractor shall conduct and document monthly health & safety audits of all contractors and sub-contractors to ensure compliance with the OHSA, its Regulations and the Principal Contractors' H&S Plan and of this contractor's H&S plan.
6. Records of Principal Contractor audits of all contractors and sub-contractors on site shall be kept in the Principal Contractor's H&S File together with a record of any non-conformance report, investigation and corrective & preventative action by sub-contractors and shall be made available to the Agent during monthly H&S audits.

20. Hot Work, Fire Risks, Fire Extinguishers and Fire Fighting Equipment

1. No open uncontrolled fires are allowed on site.
2. No smoking is allowed on site, except in designated smoke areas, identified by the Principal Contractor. The H&S Plan shall include the Principal Contractors' arrangements for managing smoking on site.
3. All flammable products must be stored in an adequate storage facility; this process shall be documented in the H&S Plan.

4. The Principal Contractor shall provide suitable fire extinguishers, which shall be serviced regularly, in accordance with the manufacturer's recommendations.
5. Safety signage shall be prominently displayed in all areas where fire extinguishers are located. The Principal Contractor shall arrange for the training of the relevant personnel, in the use of fire extinguishers.
6. The fire extinguisher inspection register and the letter of appointment of the competent inspector shall be included in the H&S Plan.
7. No hot work is permitted on site or in the builders' yard unless appropriate screens, fire prevention, fire extinguishing and a documented safe work permit system are all in place.
8. The principal contractor shall include a hot work method statement in the H&S plan for approval. Each person perform hot work shall be trained in the use of a fire extinguisher and this training shall be documented in the H&S file.

21. Live Energy Work and Electrical Reticulations and Machinery

1. The Principal Contractor shall appoint a competent electrician who shall ensure zero potential of all electrical reticulations worked on and who shall ensure that dedicated power sources are safely installed for the use during the construction. A registered competent Electrician shall also be responsible to ensure safe and compliant electrical installations in the newly built sections.
2. The Principal Contractor shall appoint a competent person to identify and inspect all exposed underground cables, overhead cables or any other electrical installations to ensure that these are not a hazard to any person.
3. The competent person shall certify and inspect all temporary electrical installations and machinery; the frequency shall be determined in the H&S plan.
4. The letters of appointment, proof of competency and registers applicable to these inspections shall be included in the H&S file.
5. All electrical cables shall be assumed "alive" and, where applicable, the Principal Contractor shall take adequate steps to ensure that all persons are prevented from accessing any electrical installations.
6. All existing electrical services must always be assumed live.
7. No live energy work shall be performed. Contractors will ensure that all energy is brought to zero potential, that residual energy is purged, that energy sources are switched off and locked out by all employees working in the danger zone and are tagged, prior to any work being performed on the energy source or reticulation. The contractor shall include a zero Potential, Lock Out and Tag Out method statement and safe work instruction(s) in the H&S file.
8. No electrical machinery shall be allowed to have any joined leads.
9. The principal Contractor shall ensure that all electrical testing equipment to be used on site has a valid calibration and that the calibration sticker is affixed to the equipment, clearly indicating the calibration date and the next due date.
10. Any unsafe condition shall be reported immediately to the client and the Principal Contractor shall take immediate steps to prevent employees or members of the public from gaining access to the dangerous installation and the area surrounding it.

11. The Principal Contractor shall appoint a competent person to inspect all portable electrical tools, including leads. The letter of appointment and template of this inspection register shall be included in the H&S file.
12. The Principal Contractor shall include a method statement for the safe use of portable electrical tools, including the management of the hazards of extension leads.
13. Where temporary installations are installed a COC for these installations shall be included in the H&S file.
14. Where applicable, the contractor shall include any 'electrical dangerous work procedure' in the H&S file.

22. Personal Protective Equipment and Clothing

1. The Principal Contractor shall ensure that every employee is issued with, and wears SABS-approved PPE, consisting of all PPE identified in the risk assessment.
2. All the contractors' employees shall wear full length overalls.
3. All employees performing construction work shall wear steel-capped safety boots and a hard hat.
4. Hard hats with chinstraps to be used by all employees working at Protea Flats. Any visitor, professional or client should wear hardhat with adequate chinstrap.
5. Employees working in the vicinity of mobile plant or construction vehicles shall wear a reflective vest; reflective stripes on overall do not meet the required visibility and shall not suffice.
6. The use of respiratory protective equipment shall be defined in the site risk assessment and validated at the hand of hygiene measurements of airborne pollutants for the specific risk.
7. The H&S Plan shall outline the PPE to be used and the management of such PPE on site, including the issuing of PPE, overnight storage, and all disposal of PPE.
8. Failure to use protective equipment as per the site risk assessment shall require disciplinary intervention and this process shall be documented in the site induction.
9. Disposal of PPE must conform to the Environmental legislation.

23. Occupational Health and Safety Signage

1. The Principal Contractor shall erect and maintain quality safety signage. This signage should include information signs, warning signs, mandatory signs and emergency signs.
2. Signage should be position at all entry and exit points leading to and from the construction works activities. Signage should be displayed where hoarding is erected to inform members of the public using the hospital facilities of the construction works in progress and no unauthorized entry into the construction areas.
3. The signage shall include, but is not limited to:
 - a. The construction work in progress
 - b. Access restrictions/ No unauthorised entry
 - c. A sign indicating that all visitors must report to the site office and must be accompanied by the principal contractor when accessing the site
 - d. First aid location
 - e. Fire extinguisher location
 - f. The name and telephone number of the responsible person(s)

- g. Emergency telephone number(s)
- h. Mandatory PPE to be worn at the site
 - i. Where falling objects may occur, relevant barricading and warning signs must be erected.
 - j. Excavations, heights structures, temporary structures and all risk areas must be indicated in the H&S plan.

24. Contractors and Sub-contractors

1. Contractors and sub-contractors must be given a copy of this H&S Specification and any additional specification issued by the client and shall comply with these specifications integrally. All employers working on this site shall conform to the standard in the CHSS. All the duties of a Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors.
2. The Principal Contractor shall ensure that all contractors and sub-contractors under his control, plan the construction work adequately, approved by the Principal Contractor; and the H&S plan and H&S file shall be in accordance with Annexures A and B respectively prescribed in this document.
3. Whenever a contractor or sub-contractor's H&S plan is approved, the Principal Contractor shall communicate with the Agent for acknowledgement of the approval done by the Principal Contractor.
4. Principal Contractors shall ensure that all contractors and sub-contractors comply with their H&S Plans, based on all applicable H&S Specifications, the requirements of the OHSA and all other relevant legislation.
5. The Principal Contractor shall ensure that the comprehensive and updated list of all the contractors and subcontractors on site includes:
 - a. A reference to the agreements between the parties, including all contractors' Section 37(2) agreements with the Principal Contractor.
 - b. The type of work being done.
 - c. The date of the approval of the H&S plan.
 - d. The date of expiry of the COIDA certificate of good standing.
 - e. The date of the last monthly audit.
6. All sub-contractors are required to comply with the requirement of the Covid19 response requirements.

25. Fall Protection and Fall Risk Work

1. The Principal Contractor shall submit the name and the curriculum vitae of the competent person who has been appointed to prepare the fall protection plan together with the signed letter of appointment, in the H&S file.
2. The fall protection plan shall comply with the requirements of the OHSA and the planning shall be commensurate with the fall risk work.
3. The fall protection plan shall include all fall risk work which is planned to be performed by contractors or subcontractors.
4. The Principal Contractor and any contractor shall ensure that:
 - a. All fall risk work is planned and forms part of the safe task instructions; note that

- i. Work from a ladder or work where ladders are used as access tool are potential exposures of employee to falling either from, off or into and such work is considered 'heights work'.
 - ii. There is no minimum of maximum height defining fall risk.
 - iii. Fall risk work done on an ad hoc basis or which forms part of abnormal or emergency processes shall be risk assessed and employees shall be instructed in the safe work process prior to work commencing.
 - b. Only trained and competent persons with a valid medical certificate of fitness are permitted to perform fall risk work.
 - c. All medical certificates of fitness for fall risk work are issued by a registered occupational medical practitioner and are included in the H&S file.
 - d. No person must be allowed to work under an area where there is a risk of falling tools or materials.
 - e. As far as reasonably possible all openings through which persons can fall are closed off with material which can support the weight of a person; such material shall be permanently fixed over the opening.
 - f. All decks, shafts or other areas where persons can fall off shall always have adequate edge protection which will of adequate strength in order to prevent a person from falling off the edge. Regular inspection must be conducted on all temporary edge protection that serves to prevent employees from falling.
5. A copy of the fall protection plan, the signed appointment letter and proof of competency must be included in the H&S file and the methodology must be defined in the H&S plan.
6. Where the use of any harnesses is indicated in the fall protection plan, the H&S Plan shall contain the following:
 - a. The need for the use of fall prevention- or fall arrest harnesses.
 - b. The safe application, attachment and maintenance processes for harnesses.
 - c. The type of harness and the type of hook to be used.
 - d. The specific attachment points applicable to the fall risk work; any safety attachment shall be risk assessed by a competent person appointed in writing who shall also inspect and finally approve the attachment.
 - e. The method of storing the harnesses when not in use.
 - f. The method and register for the safety inspection of harnesses.
 - g. A fall recovery method statement.
7. Where a fall-risk is identified in work requiring access to temporary works, high walls, decks or roofs construction, a lifeline will be available and always used; the lifeline will be designed and erected by a competent person appointed in writing; a lifeline inspection method and record will be included in the H&S Plan; adequate provisions for fall recovery must be documented.
8. Where work is performed where there is a fall-through risk, the safe drop zone shall be determined and must be adequately managed to prevent injuries.

9. All construction works on the Protea Flats roof should be pro-actively planned and safely managed on site. A detailed fall protection plan should be developed that include specifically include the construction work at the Protea Flat.
The principal contractor should consider the following factors:
 - Access and egress points to the ten-storey high facility.
 - Physical conditions on top of the roof. Several pipes, cables and satellite are fitted on the roof.
 - Although edge protection is fitted to most parts of the roof, certain section has no edge protection/guard rails and the condition of the existing are to be carefully assessed and inspected before use.
 - No works at height should be performed in Hazardous Weather conditions. An anemometer should be available on site and measures should be conducted daily and recorded on a register. The principal contractor shall be responsible for ensuring works at height must be performed safely and the weather conditions should be considered daily while executing the work.
10. The principal contractor will have to implement measure that will prevent anything from falling while working on the roof. No small parts, material and equipment should fall down and potentially placing employees or residents are risk of being struck by falling parts. Toe boards to be considered to prevent accident kicking of material and equipment. Safe clearance distance should be created at ground level.
11. The principal contractor should make provision for suitable fall prevention and fall arrest measures to be implemented on site.
12. In the event of an incident the principal contractor should have an emergency rescue plan in place that forms part of the fall protection plan.

26. Ladders

1. Ladders shall be compliant to the statutory requirements.
2. Ladders shall only be used for the purpose for which they are designed.
3. Ladders shall be inspected regularly, and the record of the inspection shall be kept in the H&S file.
4. A-frame ladders shall have a patent spreader bar system.
5. Ladders shall extend at least 900 mm above any level or opening accessed with the ladder.
6. No vertical ladders shall be accessed by any person unless firmly attached at the bottom and top or held in place by a fixed installation or a buddy system is used.

27. Demolition Work

1. The demolition work during the construction must be addressed through a specific issue-based risk assessment and method statement by a competent person appointed in writing.
2. The method statement must include the engineering survey, where applicable, and shall be approved in writing by the construction manager.
3. The H&S plan must document the name, signed letter of appointment, competency and the curriculum vitae of the competent person(s) appointed to supervise all demolition work.
4. Safe work instructions for employees performing demolition works must be documented in writing.

5. The principal contractor should assess the risk of asbestos material before demolition works are undertaken, should the contractor be uncertain of whether specific material is asbestos, the principal contractor should inform the Principal Agent immediately.
6. The risk of the demolition structure collapsing in an uncontrolled manner must be managed, all demolition works must be directed away from the temporary operational decanted areas.
7. The principal contractor should submit the demolition work risk assessment and method statement with the H&S file approval.

28. Temporary Work

1. Temporary works designer
 - a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works designer in the H&S file.
 - b. The temporary works designer shall be competent to design, inspect and approve the erected temporary works on site before use.
 - c. The principal contractor, the construction manager and the temporary works designer shall ensure that:
 - i. The temporary works drawing, or any other relevant document includes construction sequences and methods statements.
 - ii. The temporary works designer has been issued with the latest revision of any relevant structural design drawing.
 - iii. The temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site.
 - iv. The temporary works drawings are approved by the temporary works designer before the erection of any temporary works.
 - v. The temporary works design and drawing are used solely for its intended purpose.
2. Temporary works supervisor
 - a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works supervisor in the H&S file.
 - b. The temporary works supervisor shall supervise all temporary works operations and shall ensure that all equipment used in temporary works structure are carefully examined and checked for suitability before being used.
3. The Principal Contractor shall define risk controls in the H&S plan which ensure:
 - a. That a team of competent persons adequately erect, support brace and maintain all temporary works structures; the H&S plan shall contain the evidence that all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely.
 - b. That all temporary works structures can support all anticipated vertical and lateral loads that may be applied to them and that no loads are imposed onto the structure that the structure is not designed to

withstand; this includes the requirement that the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.

- c. That all temporary works structures are done with close reference to the structural design drawings.
- d. That, where any uncertainty exists, the services of a structural designer are available, and that consultation and advice is acquired prior to risk work performed.
- e. That all erected temporary works structures are inspected and approved by the temporary works designer before use.
- f. That all temporary works structures are inspected by the temporary works supervisor immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least daily until the temporary works structure has been removed; the inspector must be appointed in writing and proof of competency must be included in the H&S plan.

The register documenting the results of the inspection must be placed in the H&S file.

- g. That no person casts concrete or place a load on a temporary work structure until authorization in writing has been given by the designer.
- h. That after casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load and is not removed until authorization in writing has been given by the temporary works supervisor.
- i. That any non-conformity identified during work with temporary works structures is prevented and corrected.
- j. That all access to temporary work structure is solely by means of secured ladders or staircases for all work to be carried out above the foundation bearing level and fall prevention structures must be erected preventing persons from falling off the temporary work structure during erection & dismantling, during the casting of concrete, during inspections and during any work performed on top of the structure after casting.

29. Excavation

- 1. The letters of appointment and proof of competency of the competent excavation supervisors and inspectors shall be placed in the H&S file.
- 2. A template of the inspection registers must be placed in the start-up H&S file.
- 3. The principal contractor shall take cognisance of the geotechnical study pertaining to the conditions of the construction site and must plan all excavation work in accordance with the recommendations of the professional engineer.
- 4. The principal contractor must ensure that every excavation, including all bracing and shoring, is inspected daily.

5. All excavations must be left open for the minimum of time required and those that are left open on the site must be protected by a barrier or a fence of at least one metre in height. The protective barrier or fence must adequately prevent persons from falling into the excavation and barrier taping is not sufficient for this purpose.
6. Excavation shoring and bracing, if required, shall be designed by a designer appointed in writing, who shall inspect and approve the installed shoring and bracing.
7. Where persons work, inspect or test excavations, warning signs must be in place next to an excavation.
8. The risk controls for ensuring excavation safety, including working inside and around excavations must be documented in the H&S plan.
9. The soil condition and the recommendations in the Geotechnical Investigation conducted on the construction footprint must be adhered too by the principal contractor, the report is available and should be requested by the Principal Agent.

30. Scaffolding

1. Scaffolding works has been identified as a high-risk task during the construction at the Protea Flats site. The principal contractor should appoint a specialist scaffolding sub-contractor if they are not competent in that field of work for the planning, erection, inspection, maintenance and dismantling of access scaffolding required on site.
2. All scaffolding works should be pro-actively planned and managed by the principal contractor, the specialist scaffolding sub-contractor should provide all the required competency and H&S file for approval by the principal contractor.
3. Access to the roof is a concern with the building being ten storeys high and, on the roof, restricted workspace should be carefully considered and planned for as well.
4. The principal contractor should provide two access scaffold staircases, one staircase will be for the contractor use and the other is provision for when the existing steel emergency escape staircase is dismantled and removed during construction. Safe emergency escape routes should at all-time be provided to the residence of Protea Flats. All temporary scaffold access should be safe and in accordance with SANS 10085.
5. The principal contractor should also ensure safe secure scaffolding is provided for the external works.
6. The Principal Contractor shall submit the appointment letter and proof of competency of the competent persons appointed as:
 - Scaffold erectors
 - Competent person to inspect, maintain, move or dismantle scaffolds, Inspectors.
 - Competent person to supervise all scaffolding operations. Supervisor
7. Scaffold erectors and inspectors must be formally trained and certified competent; such training must conform to the requirements of SANS 10085-1.
8. Scaffolds must be clearly tagged with safe access signage; scaffolds must be inspected daily prior to use and weekly by the scaffold inspector. All scaffolds on site must be individually identified and display a safe/not safe sign.

9. Inspections by the scaffold inspector must be documented on the scaffold tag and in a register; a template of the tag and of the register shall be included in the H&S file.
10. All scaffolds must be accessed with a ladder only. Ladders must be inside the scaffolds and hatches must close ladder-openings in decks.
11. All scaffold decks must be fully covered and barricaded to prevent persons working there from falling off.
12. Scaffold erectors must always attach a fall prevention harness; the double lanyards must be fitted with scaffold hooks only.
13. The H&S Plan shall include the safe work instruction applicable to all employees working on scaffolds and the method of ensuring competency.
14. Standard scaffolding designs approved by a competent designer of the Principal Contractor may be included in the H&S file and all such scaffolds on site must conform to this standard.

31. Public Health & Safety

1. The site shall always be secured to prevent the unauthorized access of persons to construction risk areas and processes.
2. Consideration the hospital is currently operational, specific hoarding requirements must be implemented thus separating the construction and operational areas of the hospital.
3. The hoarding should not only protect the public from the dangers of the construction works within the site but should also act as a barrier to prevent trespassing.
4. The hoarding should have at least two entry points thus taking into consideration emergency scenarios on site.
5. All the sides exposed to the public hospital users should be free of all hazards such as exposed nails, sharp edges or any unsafe conditions.
6. All members entering site must indicate in what capacity they are visiting site and the visitors register must be completed and signed.
7. The access point must be designed and constructed to allow for temporary parking, entry of construction vehicles, entry of personnel transport vehicles and entry of individual workers and other persons.
8. The Principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards likely to arise from on-site activities and the precautions to be observed to avoid or minimise those risks.
9. Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

32. Night and Week-End Work

1. No night- or week-end work shall be performed unless authorised by the Principal Agent.
2. Where week-end work is planned, the principal contractor shall ensure that its construction supervisor and the safety officer is on site; this applies even if only contractors or sub-contractors are working on the site.

3. Where week-end work is planned, each contractor or sub-contractor shall ensure that its construction supervisor is on site; this applies even if the principal contractors' manager or supervisor is on the site.

33. Facilities for Employees

1. The Principal Contractor shall provide employees facilities as required in the applicable Regulations. These shall include the following:
 - a. The provision of facilities for safekeeping
 - b. The provision of an eating area
 - c. The provision and maintenance of sufficient toilets on site.
 - d. Drinking Water
2. Contractor's toilets must be:
 - a. Fixed to avoid becoming wind-blown
 - b. Sign-written: 'Male' and 'Female' use
 - c. Sanitised daily; an inspection and sanitising record must be kept in the H&S file
 - d. Inspected daily and, where bucket collections are in place, emptied at least twice a week and one of these occasions must be on Fridays.
 - e. Arrangement in terms of toilet facilities can be made with the hospital and documented in the H&S plan.

34. Cranes and lifting operations

The following shall apply to any crane used on site, including truck mounted cranes on delivery vehicles:

1. Each crane shall have (in the cab or operating area), the following legal documents on site always:
 - a. The latest and up-to-date load certificate of the crane.
 - b. A record of the 6-monthly inspection of the crane by a registered inspector.
 - c. The crane operator(s) current crane license.
 - d. The crane operator(s) medical certificate of fitness, issued by an occupational medical practitioner.
 - e. The inspection registers or certification of 3-monthly inspection of all lifting equipment used with the crane.
2. The H&S Plan shall include the method statement for safe use of the crane, including the method of communication, the protection of fall zones and the method of determining whether the weather permits safe crane work.
3. Any fixed crane's load test certificates shall be included in the H&S file.
4. All lifting equipment and gear used on site shall be identified, SWL-indicated and listed in a register contained in the H&S file.
5. A template inspection register of the lifting gear shall be included in the H&S file.

6. Where material hoists are used on site, the principal contractor shall ensure compliance with Construction Regulation 19 and that competent persons are appointed in writing to ensure:
 - a. The correct design and engineering controls are applied on site.
 - b. The material hoist is correctly erected and commissioned and this is inspected and signed off on the applicable register by a competent person appointed in writing.
 - c. The material hoist is inspected and maintained by a competent person appointed in writing.
 - d. The material hoist's operation is documented in a safe work instruction and all users are trained and certified competent in its use.
 - e. The material hoist is inspected daily prior to use by a competent inspector.
7. Where man-lift equipment is used, the principal contractor shall ensure compliance with Driven Machinery Regulation 18 and that competent persons are appointed in writing to ensure:
 - a. That all scissor lifts, cherry pickers, forklift with man-cages or any other lifting machine used to lift personnel are used only by a trained and competent operator in possession of a competency certificate issued by and accredited provider who holds a valid accreditation issued by an authorised body, in terms of the SAQA Act, and who is approved by the Chief Inspector, in terms the Driven Machinery Regulation 18.
 - b. That all lifting machines are load tested and inspected as required in Driven Machinery Regulation DMR 18 and that the records thereof are either with the machine or in the principal contractor's H&S file.
8. The principal contractor shall ensure that deliveries using cranes comply with the above requirements and that all legal documents are kept in the cab of the delivery truck whilst on the Client's site.
9. Complexed lifting or heavy lifts may require a documented lifting plan.

35. Material Hoist

1. The principal contractor should ensure all legal requirements of the material hoist be adhered to and implemented.
2. The tower of the material hoist must be erected on a firm foundation and secured to the structure or braced by steel wire guy ropes and extends to a distance above the highest landing as required in the Construction Regulations of 2014.
3. The platform of the material hoist should be safe and designed in a manner that is safely contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist.
4. All material hoist designs, installation, operation and maintenance should be in accordance of the requirement stipulated in the Construction Regulations of 2014.

36. Storage and use of flammable liquids

1. No flammable substance must be stored on site unless these are stored in a flammable store; no other materials shall be stored in the flammable store or cabinet.

2. Where required, the H&S Plan shall include a method statement detailing the safe use, storage, decanting and spill controls for all flammable liquids used or stored on site.

36. Hazardous- Chemical Substances

1. With respect to hazardous chemical substances used, the contractor shall ensure that:
 - a. All MSDS are included in the H&S file.
 - b. A HCS risk assessment is included in the H&S plan.
 - c. The safe use, storage, emergency procedures and safe disposal of hazardous substances are addressed in a method statement/s, included in the H&S file.
 - d. Proof of competency and signed letters of appointment of the person responsible for chemical handling, is included in the H&S file.

37. Explosive Fastening Device

1. The Principal Contractor shall submit proof of competency and the appointment letter of the person in charge of explosive actuating fastening devices and of the person in charge of the issuing and collection of cartridges and nails. This shall be placed in the H&S file.
2. The H&S Plan shall include the method statement for the safe use of explosive actuating fastening devices, including the type of PPE, barricading and warning notice which the contractor intends to use and the method of accounting for cartridges and nails.
3. The H&S file shall include proof of training and competency of all operators using explosive actuating fastening devices.
4. A template inspection register of explosive actuating fastening device shall be included in the H&S file.
5. A template record for the issuing and collection of cartridges and nails shall be included in the H&S file.
6. For the purposes of acquisition/storage/transport of the Cartridges, the Principal Contractor is required to hold a permit in terms of the Explosives Act; this Permit for the transportation of Blank Cartridges used in Powder-Actuated Tools shall be placed in the H&S plan.

38. Housekeeping, Stacking, Storage and Clearance Zones

1. The Principal Contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site.
2. The H&S plan should include the method and frequency of housekeeping on site.
3. A H&S plan should outline how the principal contractor intent to take building rubble safely down from the Protea Flat roof during the construction at the facility.
4. Safe clearance zones should be established and managed at ground level.

5. All deliveries of building materials shall be controlled by the appointed person and no haphazard storage shall occur; amongst other, specific storage plans shall be in place for:
 - The safe storage of bulk imported materials and containers and the management of this area.
 - The safe storage of bricks, blocks and kerbs; no pallets shall be stacked on top of each other.
 - The safe placement of reinforcing steel and roofing- ceiling- and cladding materials
 - The safe placement of scaffolding and temporary work materials as an example.

39. Waste

1. The Principal Contractor shall appoint the construction manager as the person responsible for site-wide control & removal of scrap, waste and debris.
2. No hazardous waste, combustible materials and containers shall accumulate on the construction site.
3. The Principal Contractor shall document a waste management method statement in the H&S Plan. Waste management must comply with the Environmental legislation.
4. All building rubble that requires removal from elevated positions or from the Protea Flats roof shall be conducted in a safe control manner, by either means of material hoist or safely erected rubble chutes that is both designed and safe installed to the required standard.
5. All waste skips removed from site must be recorded and a proof of final deposit at a registered waste site (waste disposal certificate) must be on record in the H&S file.
6. Waste bins for domestic waste must:
 - a. Be placed at all eating areas.
 - b. Have a lid,
 - c. Be emptied daily.
7. All biological requirement PPE and equipment used should be classified as hazardous waste.

40. Occupational Health

1. The H&S Plan shall include:
 - a. The occupational hygiene surveys which are planned as a result of the baseline risk assessment if required.
 - b. All medical certificates of fitness for all employees working on the site.
 - c. All pre-placement medical surveillance records of employees who are or are required to be under medical surveillance; this record may be the latest periodical medical examination report.
2. Medical certificates of fitness issued by a registered occupational medicine practitioner are deemed valid.

3. The Principal Contractor and every contractor shall ensure that a Person-Job Specification is issued for each job title deployed on the construction site. A template, attached as Annexure C, may be used. The standard for fitness testing is determined by the risk exposure defined in the Person-Job specification. The principal contractor is to ensure correct completion of the Person-Job specification.
4. The principal contractor should consider the ergonomic factors when planning their works activities.

41. Access, traffic management and camp site

1. All employees working at the construction sites shall access the site in a vehicle which have seats firmly secured and adequate for the number of employees to be carried; this means that strictly no personnel may be transported in the load body of an LDV or a truck and that all construction personnel must be brought to site in a bus, taxi or inside the cab of a vehicle.
2. No employee shall be transported together with goods or tools.
3. The Principal Contractor shall ensure that all employees and visitors are aware and comply with the site's safe speed restriction, defined by the principal contractor at the hand of the risk assessment.
4. All activities planned to occur in the campsite shall be risk assessed and planned; this includes risk controls for the parking of staff- and visitor's vehicles, parking of mobile plant and machinery, dedicated storage areas, planned and compliant stacking practices, traffic controls, including the safe separation of pedestrian (employee) transport from risk areas.
5. The principal contractor should provide a site establishment method statement that includes a the site layout sketch identifying the site camp entry and exit points, hoarding layouts, access stair case for contractors, temporary emergency access staircase, toilet facilities, storage facility and parking area. The principal contractor should ensure authorized laydown areas be used for material storage on site. Such laydown areas should not obstruct the operational activities of the various hospitals or that of Protea flats.

42. Biological Risks

2. The principal contractor should ensure the Biological Risks requirements as specified by the Government legal requirements are implemented on site. These Biological Risks requirements should form part of the principal contractors H&S plan.
3. The principal contractor has a duty to protect and should promote the safety and health of all employees. The principal contractor should have a system in place that identify hazards and develop a risk assessment with regards to the safety and health of workers arising from biological hazards.
4. Exposure to biological hazards can occur in any work activity involving contact with humans or human related products, animals or animal products waste, plants and food.
5. Working in healthcare and with communities have the following possible hazards and risks to consider:
 - a. Viral and bacterial infections, including but not limited to HIV, Hepatitis or Tuberculosis.
 - b. Diseases and accidents caused by contact with health care equipment.
 - c. Direct contact with contaminated surfaces or persons.

- d. Airborne transmissions of viral bacteria and fungal pathogens.

43.Environmental

1. The principal contractor should ensure all environmental hazards and risks are identified, managed and controlled on site.
2. The site camp method statement should be developed where the principal contractor, A Method Statement detailing the location, layout and method of establishment of the construction camp (including all buildings, offices, lay down yards, fuel storage areas.
3. No accommodation for any staff is permitted on the site.
4. No chemical substances should be disposed into the hospital drainage system.
5. Daily housekeeping to be implemented.
6. The principal contractor should ensure all contractor employees stay within the areas where construction works are performed.
7. Drip trays to be available for all mobile plant when stationary.

44.Asbestos Works

1. The Principal Contractor shall provide and maintain as far as reasonably practical a working environment that is safe and without risk to the health of employees.
2. The removal of asbestos containing material shall be done in compliance with the Asbestos Abatement Regulations 2020.
3. Asbestos related works should be performed by an approved and registered asbestos contractor for type 2 and 3 classifications of asbestos works.
4. The Principal Contractor should ensure an Asbestos Management plan and risk assessment is developed for the project that must be approved before asbestos removal works start on site.
5. In the event where type 2 and 3 classification of asbestos works is performed the appointment of an Approved Inspection Authority (AIA) is required.
6. A notification of asbestos works must be concluded in the form of Annexure 2, and acknowledgement receipt provided by the local Authorities for asbestos related works.
7. The Principal Contractor is required to ensure compliance and implementation of the Asbestos works on site.
8. The Principal Contractor should ensure employees are trained and medically fit and competent to work with Asbestos. All works to be performed in accordance with the approved asbestos plan.

ANNEXURE A

CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH		
	(detail each area of work)		
2	NUMBER OF WORKERS (permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		
10	GENERAL		

Health and Safety Officer: _____ **Signature:** _____

Date: _____

Construction Manager: _____ **Signature:** _____

Date: _____

ANNEXURE B

CONTENTS AND NUMBERING SYSTEM FOR THE H&S PLAN

1. Index of the H&S Plan
2. Project scope of works
3. Scope & activities, machinery, plant, equipment, hazardous articles and selected contractors to be used and hazardous materials and articles used in the project
4. Health and Safety Resources and Budget
5. Construction manager: duty, responsibility, authority
6. Construction supervisor, duty, responsibility, authority
6. Safety officer: duty, responsibility, authority, document control, communication
7. Principal Contractor management processes for decanting.
8. Management of the issue-based risk-, risk review- and risk monitoring
9. H&S Induction, training and H&S competency management
10. General record keeping management
11. Contractor and Sub-contractor management
12. Site communication management
13. Fall protection plan and method statements for heights work
14. First aid, accident & incident and emergency management
15. Fire prevention and equipment management
16. Safety signage management
17. Access & on-site traffic and public H&S management
18. Excavation management
19. Temporary work management
20. Scaffolding management
21. Demolition management
22. Electrical management
23. Delivery, offloading, stacking, storage and housekeeping management
24. Hazardous chemical substances management
25. Construction plant and machinery management
26. Lifting Operations and Management
27. Concrete works and batching
28. Explosive actuating devices
29. Occupational hygiene, occupational health and fitness for work management
30. Employee facilities management
31. PPE management
32. Safety Inspections and Inspection Register management
33. Internal Audit management
34. Dust control management
35. Waste management
36. Radiation control
37. Biological Hazards

ANNEXURE C
CONTENTS AND NUMBERING SYSTEM FOR THE H&S FILE

1. Index of the H&S File
2. Project information and project role players, client, agent, principal contractor
3. Principal Contractor Appointment Letter
4. 37.2 Agreement between Principal Contractor and the Client
5. Construction Work Permit
6. H&S Approvals
7. H&S Plan
8. Induction Training Program & Records
9. Baseline risk assessments
10. Issue Based Risk Assessments, Registers and DSTI records
11. Emergency Preparedness Plan
12. Demolition risk assessment & Method Statement
13. Fall Protection Plan
14. Traffic management plan
15. Waste management plan
16. Start-up and Updated Organisational charting
17. Project and OHS organogram
18. Signed letters of the appointed competent persons and evidence of competency
19. Medical Certificates of fitness
20. Training and Competency Matrix and Training records
21. H&S Induction records for employees
22. Visitor Induction Records
23. Monthly project HSE statistics
24. Incident Register & Investigation reports & COIDA Accident
25. H&S Inspection & Maintenance Registers and records
26. PPE Issue Register and records
27. Internal Audits
28. Letters of approval of contractors and sub-contractors H&S Plans
29. Letters appointment of contractors and sub-contractors from the Principal Contractor
30. Signed Section 37(2) agreements with sub-contractor.
31. Principal contractor's contractor- and sub-contractor audits
32. Audits by Client Agent
33. Corrective / Preventive Action plans for client audits
34. Occupational hygiene records and references
35. COIDA Letter of Good Standing Principal Contractor
36. Updated Notification and proof of delivery (if applicable)
37. Material Safety Data Sheets
38. Record of Department of Labour visits
39. Biological Hazards

Annexure D

Person job specification

The job specification must be completed and accompanied with the medical examination.

Job Designation												
Brief Job Description												
A: Physical Requirements				Y	N	B: Work Conditions				Y	N	
Climbing	Stairs	Catwalks	Ladders			Outside work for complete shift						
Patrolling or walking all shift						Noise > 84 dB(A) for > 4 hours/day						
Working in awkward position						Trip, slip fall hazards						
Standing	Lifting	Bending				Hand Arm Vibration						
Binocular visual acuity min 6/9						Whole Body Vibration						
Depth perception						Fall risk						
Monocular visual acuity min 6/9						Paints, solvents, oils						
Normal visual field						Crystalline silica dust						
Normal hearing ability						Dust > 2.5mg/m ³ for > 4 hours/day						
Moderate physically heavy work						Operating amongst Moving machinery						
Heavy duty work						Operating Moving machinery						
Repetitive arm/hand movement						Crane –Man Lift operator						
Night Shift						Driver						
						Construction Plant Operator						
Other risks or physical demands												
C: PPE			Y	N				Y	N			
Hard hat					Disposable mask					Fall harness		
Hearing protection					Full cartridge mask					Eye protection		
Safety shoe/boot/gumboot					Heavy duty or chemical gloves					Face shield		
* Any other Comments												

Annexure D

**Acknowledgement of the H&S Specification by Principal Contractor
Construction Health & Safety Specification Issued in terms of the Occupational Health and
Safety Act, 1993 Construction Regulations, 2014**

I _____ representing Principal Contractor
have satisfied myself with the content of this Construction Occupational Health and Safety
Specification and shall ensure that the Principal Contractor, all Contractors and sub-Contractors and
all employees on site comply with it.

Signature of Principal Contractor

Date

Signature of Agent

Date

This document must be signed and returned to the Pr. Construction Health and Safety Agent.

5.2. C3.12 BASELINE RISK ASSESSMENT

Baseline Risk Assessment for the Upgrading of security infrastructure at Livingstone PEPH Hospital Complex

This project entails working at three different locations being Livingstone Hospital (Fencing Works), PE Provincial Hospital (Entry and Exit Guard Houses in front of the facility and Fences) and Protea Flats.
The risk profile is identifying the key areas of risk exposure that the client is highlighting to be considered by the respective contractors as part of the construction project: Public safety risks, Lack of sufficient resource allocation, Safe traveling and traffic management, Access control to construction site, Known and unknown services exposure,
Risk Assessment Conducted by XAKS Consulting **Date: 05 November 2023**



low	med	high
1	4	12
2	6	18
3	8	27

Risk Rating multiplier: Low = 1; Medium =

Note, this HIRA is a guide only and does not cover all risks. It must be read in conjunction with the Site Specific OHS Specification in the Contract document. The Contractor must supply a full risk assessment for all activities on site					Baseline risk				Residual risk						
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability	
SITE ESTABLISHMENT															
CR 24	Access and transport on and to site	Unsafe transportation of construction material and employees	Motor vehicle accident and fatalities	Vehicles and drivers to be licenced and road worthy. Strict adherence to road speeds to be implemented. Material and employees to be separately transported. Materials to be neatly stacked	3	3	3	27	Vehicles and drivers to be licenced and road worthy. Strict adherence to road speeds to be implemented. Material and employees to be separately transported.	3	2	2	12	Contractor. Construction Manager. CHSO	
	Site camp erection & dismantling	Rigging – off loading- placement of containers and machinery Exposure to snakes in greenfield area	Falling objects - Sliding objects Cuts and lacerations – crush injuries Snake bites	Machines to have valid inspection and load tests, Chains, slings, wire ropes to have valid inspections and load tests, Competant riggers to be appointed, PPE to be worn, Areas where rigging activities are taking place must be made clear before the commencement of works.	3	3	3	27	Compliance to lifting and lowering legal requirements.	3	1	1	3	Contractor. Construction Manager. CHSO	
	Unidentified Existing Services	Electrical	Contact with electrical cable overhead	Contact with electrical cable overhead	Erect warning signs, Conduct training on electrical hazards	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	2	2	12	Contractor, Construction Manager, CHSO
			Contact with underground cable	Contact with underground cable	Conduct survey prior to works to determine where underground services are located	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	2	2	12	
			Use of equipment under HV cable	Use of equipment under HV cable	No work to be conducted with HV cable without permission and compliance with ESKOM requirements, Erect warning signs, Conduct training on electrical hazards	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	2	2	12	
Water	Water	Underground pipe being damaged	Underground pipe being damaged	Conduct survey prior to works to determine where underground services are located, Emergency response procedure to be developed for the damaging of services	2	2	2	8	Ensure staff are Experienced and competent to conduct Inspections.	2	2	1	4	Contractor. Construction Manager. CHSO	

		Gas installation	No Adequate ventilation, Gas cylinders incorrectly stored, Gas leaks.	Ensure staff are competent and experienced to conduct Inspections, Ensure training is conducted for use of equipment, Ensure gas cylinders are adequately stored, Make sure pipes, storage areas and vehicles carrying gas are suitably marked and signed, Ensure there is adequate ventilation.	2	3	2	12	Method statement to be conducted on gas installation, SWP to be conducted on gas installation.	1	1	1	1	Contractor, Construction Manager, CHSO
	Storage of Materials	Storage of Construction Materials	Injury / Property damage / Theft / Security Issues	Demarcated areas to be allocated to the contractor. Materials to be stored in demarcated areas. Security to be placed on site Site camp gates to remain locked to restrict access to site.	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	1	1	3	Contractor, Construction Manager, CHSO
REF where appropriate	Operation/Process or Condition.	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
ENVIRONMENTAL														
Environmental and facilities regs	Weather	Working in wet condition, Working extreme hot conditions, Working in windy conditions. Weather is a factor to be considered when working at height of 10 storey building.	Site conditions should be safe	Work stoppage in wet rainy conditons. Contractor to consider water breaks and Wind meter to be available and measured daily ontop of the Protea Flat roof.	3	3	2	18	Use of weather stations to monitor temperature, Work to be assessed should discomfort and effective control measures should be implemented. Adequate water intake.	2	3	2	12	Contractor, Construction Manager, CHSO
	Inadequate employees' facilities and poor site hygiene	Insufficient toilets, no sheltered eating areas and storage areas, lack of cleaning.	Hygiene risk, Infections, irritative, diseases	Adequate facilities such as toilets, eating areas and storage areas to be provided that adheres to Legal requirements. Housekeeping to be adequately maintained in toilets, eating areas and storage areas	3	3	2	18	Legal requirements to be adhered to. Risk assessment Training and awareness Risk based legislative requirements to be implemented. Required PPE and proper hygiene must be practiced by all entering the construction area.	2	3	2	12	Contractor, Construction Manager, CHSO

	Office facilities	Working in cramped unventilated or poor lighting conditions. Poor Hygiene	Health issues	Office set-up to allow for safe access and movement Adequate lighting to be installed in offices. Offices to be well ventilated, Houskeeping to be maintained in office facilities	2	2	2	8	Ensure office cleaning and sanitizing done regularly	2	1	1	2	Contractor, Construction Manager, CHSO
	General Waste Management	Use of temporary/chemical toilets	Health Issues	Assign one chemical toilet per 15 worker's (male and female separated) Chemical toilets must be emptied at least once a week	2	2	3	12	No Formaldehyde in chemicals. Serviced and cleaned at least once weekly by competent service providers.	1	2	1	2	Contractor, Construction Manager, CHSO
		Waste disposal	Health and Environmental issues	All waste must be properly disposed at certified waste landfill sites.	2	2	3	12	No burning of cement bags or other refuse on site. Site to be kept tidy. Removal of all waste at regular intervals by competent service providers.	2	1	1	2	Contractor, Construction Manager, CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
WORKING AT HEIGHTS														
CR 10	Working at Heights	Scaffolding not properly erected	Scaffold collapse Falling objects Fall from heights	Only competent persons should develop designs of scaffolding, Only competent persons should erect scaffolding. Fall protection Plan by registered fall planner Drop/clearance zone to be developed around scaffolding works. Use of toe boards, proper decking, catch nets	3	3	3	27	Method statements to be done according to the Design drawings that includes load bearing which is approved by competent person	3	2	2	12	Contractor, Scaffold Erector, Scaffold inspector
		Scaffold works	Scaffold collapse Falling objects Fall from heights	Only competent persons should develop designs of scaffolding, Only competent persons should erect scaffolding. Fall protection Plan by registered fall planner Drop/clearance zone to be developed around scaffolding works. Use of toe boards, proper decking, catch nets	3	3	3	27	Method statements to be done according to the Design drawings that includes load bearing which is approved by competent person	3	2	2	12	Contractor, Scaffold Erector, Scaffold inspector
		Use of ladders	Falling objects Fall from heights	Fall prevention plan to be developed, Ladders conform to General Safety regulation 13a	2	3	3	18	Inspection checklists to be conducted for ladders, Asset numbers to be allocated per ladder. Method statement to be developed for ladder work	2	2	2	8	Contractor, Scaffold Erector, Scaffold inspector



		Dangerous work and Unsafe tasks	Work with and amongst construction machinery Working inside excavations, Height works: ladder, scaffold, structural steel structures and roofs. Access to heights Work on structural steel erection Work in wind risk, equipment installation	Fall protection Plan by registered fall planner, Inspections to be conducted before the commencement of any works	2	3	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Scaffold Erector, Scaffold inspector
		Edge works	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights. No fall prevention	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Safe access routes to be implemented for the public, Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage, Fall prevention plan to be developed and implemented.	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Plant manager. CHSO
		Façade Repair	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights.	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Safe access routes to be implemented for the public, Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Plant manager. CHSO
		Roof and ceiling work	Ergonomic hazards Fall risks, falling objects risks Work from installed structures Work from temporary structures Working on slippery/wet surfaces Trip and fall from existing cables and materials on the roof	Method statement for roof replacement and cleaning of the roof to be conducted Equipment to be inspected before use. Training and awareness to be conducted. Work areas to be assessed before the commencement of any activities	3	3	3	27	Fall protection Plan by registered fall planner, Inspections to be conducted before the commencement of any works	3	2	2	12	Contractor, Plant manager. CHSO

Environmental and facilities regs	Weather	Working in wet/slippery conditions, extreme hot conditions, High Wind speeds	Slips and falls, Possible hypo- or hyper-thermia. low efficiency of workers.	Work stoppage in rain or following rain that would affect the works. Cold weather protective clothing may become necessary. Hot weather may require work stoppage. Adequate supply of drinking water.	3	3	2	18	Use of weather stations to monitor temperature, All height works to stop when wind speeds are above 40km/h, Limited work to commence if winds speeds are above 20km/h . Adequate water intake. Sheltered areas for rest and eating.	2	3	2	12	Contractor, Construction Manager, CHSO
PUBLIC SAFETY														
	Public Safety	Public interaction working at operational hospital, Resident interaction working at Protea Flats	Obstruction from construction material, lack of signage and hoarding,	Laydown areas for materials to be determined and pre-approved, Signage and hoarding to be fitted and displayed.	3	3	3	27	Safe access routes to be implemented for the public/residents, Hoarding to be installed to separate public from construction activities. Safe allocation for residents/staff vehicles to park.	1	3	3	9	Contractor
		Working a heights / Edge work	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No safe access provided for the public, No hoarding installed and objects falling from heights.	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Hoarding to be installed to separate public from construction activities.	3	2	3	18	Safe access routes to be implemented for the public, Safe allocation for residents/staff vehicles to park.	2	2	2	8	Contractor, Plant manager. CHSO
LOCK OUT SYSTEMS														
	Lock Out Systems	Perform lockout/tagout	Performing Unauthorized lockout/tagout procedure / Unauthorized personal conducting lockout/tagout	Only competent and authorised employees are to perform this task, Lockout/tagout to only be conducted when authorized.	2	1	3	6	SWP to be developed, communicated and implemented on site. All relevant PPE to be worn. Demarcate working area. Plant item to cool down completely before use	1	1	2	2	Contractor, Construction Manager, CHSO, Electrical Supervisor
		Remove lockout/tagout	Performing Unauthorized lockout/tagout procedure / Unauthorized personal conducting lockout/tagout	Only competent and authorised employees are to perform this task, Lockout/tagout to only be conducted when authorized.	2	1	3	6	SWP to be developed, communicated and implemented on site. Lockout/tagout to only be conducted when authorized. All relevant PPE to be worn. Demarcate working area. Plant item to cool down completely before use	1	1	2	2	Contractor, Construction Manager, CHSO, Electrical Supervisor

REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability	
EXPOSURE TO DUST, NOISE, VIBRATION															
	Exposure to Dust	If severe lack of clear vision; Breathing problems. When activities are in process that create dust such as excavating, cement work etc.	Loss of Lung Function	Dust prevention, Relevant PPE to be worn	2	3	3	18	Specification to include dust palliative requirements.	2	2	2	8	Contractor, Plant manager. CHSO	
		Exposure to dust	Interruption to existing hospital and residents activitiesn	Dust prevention plan/procedure should be developed, Dust suppression should be implemented	2	2	2	8	Extra special care and planning and communication between the contractor and hospital staff where working in close vicinity to ICU and operating theatres.	3	2	2	12	Contractor, Plant manager. CHSO	
NIHL 10	Exposure to Noise	Over 85 Db for long period:When activities are in process that create noise from: Plant, machinery and other electrical equipment and tools	Hearing Loss	Noise zones to be established, relevant sigage to be displayed	All	2	3	3	18	Specification to require establishment of noise zones. Communication with existing facilities to ensure minimum noise during office hours.NIHL regulations to be followed at all times	2	2	2	8	Contractor,Plant manager. CHSO
		Exposure to noise	Interruption to existing hospital and residents activitiesn	Control should be taken to ensure that exposure to Hospital, Residents and Genral public is minimized. Ensure that Planning and communication between the contractor and hospital staff and residents. A solid hoarding structure to be above implemented.	2	2	2	8	Specification to require establishment of noise zones. Communication with existing facilities to ensure minimum noise during office hours. NIHL regulations to be followed at all times	2	2	2	8	Contractor,Plant manager. CHSO	
	Exposure to Vibration	Mobile plant operations, using vibrating electrical or mechanical equipment	Whole body Vibration back and muscular strain	SWP to be developed, communicated and implemented for use of mobile plant, vibrating electrical and mechanical equipment. Job rotation to be implemented	3	2	2	12	Training and awareness to be conducted. Correct PPE to be worn Checklist to be conducted for all equipment	2	1	1	2	Contractor,Plant manager. CHSO	

7 ELECTRICAL TOOLS														
	Use of small electrical tools	Contact with electricity	Electric shock	Tools to be inspection prior to use, Ensure all connections secure, Cables to be inspected to ensure no breaks in cable. Ensure correct routing of cables on site	3	2	2	12	Certificate of Compliance for electrical supply	3	2	1	6	Contractor, Construction Manager, CHSO, Electrical Supervisor
8 ACCESS														
	Public access and safety	Persons in dangerous areas. Personnel gaining access to construction area. The public gaining access to the construction site	Injury to person's/employees/personnel	Strict access control to be implemented. Trained security staff on duty. Induction for all visitors. Hoarding to be installed around works, 24 hour security to be implemented, All mandatory and risk based signage to be displayed i.e construction work in progress, workmen overhead.	3	2	2	12	Separate general public from construction site. Extra care to be taken to ensure the public and personnel do not gain access to the construction activities.	3	1	1	3	Contractor, Construction Manager, CHSO
	Temporary Access	Public and resident interaction with construction activities	Injuries to person, property damage.	Temporary access for the contractor to be established and temporary access for residents to be established these access points are to be seperated, All relevant Signage for temporary acces must be clearly displayed, Residents must be informed of temporary access points.	3	2	2	12	All risk based and warning signage to be displayed, Delineators and flagman to be placed as guidance for vehicles.	2	1	1	3	Contractor, Construction Manager, CHSO, Security
	Access control	Personnel, Public and employees may gain access to site	Fall into excavation, injury from plant, tools or at workplace/ construction activities.	Access control to be in place, hoardings erected to separate site from public. Extra hoarding to be in place to ensure the public and personnel are kept out of the construction site.	3	2	2	12	Strict access control, gates locked or manned at all times. Trained security staff on duty. Induction for all visitors. Extra hoarding as well as 24 hour security	3	1	1	3	Contractor, Construction Manager, CHSO, Security
	Use of Entry and Exit points	Access/ Inadequate Access/ Single lane Entry and Exit point	Injury to person's / employees /personnel/ consultants/patients, Road accident, Insufficient traffic flow	Separate general public from early works / construction site. Extra care to be taken to ensure the public and personnel do not gain access to the construction activities as well as early works. Trained flagman to be stationed at strategic points and all mandatory signage and road signage to be displayed.	3	1	3	9	Strict access control, gates locked or manned at all times. Trained security staff on duty. Induction for all visitors. Extra hoarding as well as 24 hour security	2	1	1	2	Contractor, Construction Manager, CHSO, Security

REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
CONCRETE WORK														
CR 20	Outsourced supply	Delivery by truck	Person struck by truck	Emergency response plan to be developed, Competant persons to supervise the activity, Truck drivers to have Reverse warning Driver training	3	2	2	12	Training and awarness to be conducted for workers	3	1	2	6	Contractor. Batch plant and Concrete Supervisor, CHSO
			Person struck by concrete poured into shuttering	Ensure the Area is cleared of all persons besides essential workers, Competant persons to supervise the activity, Area to be cordoned off	2	2	2	8	Training and awarness to be conducted for workers	2	1	2	4	
	Hand mixing	Use of small tools	Contact with cement	PPE to be worn, Care in opening cement bags	2	2	2	8	Training and awarness to be conducted for workers	2	1	2	4	Contractor. Batch plant and Concrete Supervisor, CHSO
			Inhale cement dust	Dusk maks to be worn, Care in opening cement bags	2	2	2	8	Training and awarness to be conducted for workers	2	1	2	4	
			Ergonomic risks	Rotate work	2	3	3	18	Training and awarness to be conducted for workers	2	3	1	6	
CR20	Use of concrete vibrator	Injury to persons	Noise, vibration, contact with vibrating head, contact with wet concrete	Only competant persons to operate machine, Operator training, PPE to be issued and worn, Job rotation to be implemented	2	2	3	12	Use of equipment must be in good condition Training and awarness to be conducted for workers	2	2	1	4	Contractor. Concrete Supervisor, CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability

10 BRICK WORK															
		Delivery by truck	Struck by truck	Injury to persons	Emergency response plan to be developed, Competant persons to supervise the activity, Truck drivers to have Reverse warning Driver training	3	3	3	27	Only competant drivers to operate truck, Driver to have valid licence, Inspections to be conducted on trucks	3	2	2	12	Contractor, Building Supervisor, CHSO
		Moving bricks	Use of wheel barrow	Injury to person's ergonomic risks	Workers to be trained. Job rotation	2	2	3	12	Inspections to be conducted. Equipment used must be in good condition	2	2	1	4	Contractor, Building Supervisor, CHSO
			Use of Brick lift	Injury to persons	Load test to be conducted on brick lift, Only competent persons to operate brick lift, Training of workers in use of equipment	3	2	2	12	Inspections to be conducted. Equipment used must be in good condition	3	2	1	6	Contractor, Building Supervisor, CHSO
		Use of support work	Collapse of support work	Injury to persons	Support work to be conducted by a competent person, Support work to be designed by a competent person, Method statements to be conducted for support work. Loads to be calculated by competent person,	3	2	2	12	Inspections to be conducted. Equipment used must be in good condition.	3	2	1	6	Contractor, Building Supervisor, CHSO
		Use of access scaffolding and Ladders	Working with ladders and low scaffolds	Falls, slips	Fall protection plan to be developed. Ladders to GSR13A to be adhered to Workers to be trained on GSR13A and Access scaffolding	3	2	2	12	Competent person to supervise activities, Equipment use must be in good condition	3	1	2	6	Contractor, Building Supervisor,, Scaffolding Inspector CHSO
11 PAINTING															
	GSR 13A	Painting	Working with ladders and low scaffolds	Falls, slips	Fall protection plan to be developed Contractor to adhere to Ladders GSR13A Workers to be trained on GSR13A	3	2	2	12	Training, proper supervision. Ladder inspection	3	1	2	6	Contractor, Construction Manager, Ladder Inspector, CHSO
			Ingestion of Paint	Gastric irritation, nausea	Emergency response plan to be developed SDS to be readily available in the H&S File	2	2	2	8	Tool box talks, Supervision over activities	1	2	2	4	Contractor, Painting Supervisor, CHSO
			Cleaning Brushes	Use of thinners, benzene, possible carcinogens; highly flammable	SDS to be readily available in the H&S File PPE to be worn Dissolve paint with soapy water Keep away from open flames	2	2	2	8	Tool box talks, Supervision over activities	1	2	2	4	Contractor, Painting Supervisor, CHSO

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12 ELECTRICAL INSTALLATION														
EIR	Electrical Contractor	Unregistered, incompetent contractor	Poor work, cost overruns, no municipal connection	Ensure appointment of registered, competent contractor/competant person	3	2	3	18	Project specific H&S Specification and HIRA in tender Document	1	2	3	6	Contractor, Construction Manager, CHSO, Electrical Supervisor
		Electricity Control	Work in the dark, Slip and Fall due to poor lighting.	Adequete lighting to be placed in work areas where excisiting lighting is insufficient.	2	3	3	18	Temporary lighting must be utilized when applicable	1	2	3	6	Contractor, Construction Manager, CHSO, Electrical Supervisor
13 CARPENTRY														
	Carpentry	Use of Tile Cutter and grinder	Injury to persons / ergonomic risk	Awareness Training to be conducted with workers, rotation to be implemented, training workers on the use of equipment	2	2	2	8	Ensure Correct PPE, toolbox talks proper supervision	2	1	2	4	Contractor / Supervisor / CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability

14 HAZARDOUS CHEMICALS														
HCS Regulations	Use/supply of hazardous Chemicals	Improper use/storage of hazardous Chemicals	Fire, explosion poisoning of persons	HCS Controller to be appointed, Supply appropriate materials safety data information, SWP on use of HCS to be developed and communicated with workers	3	2	3	18	Component person appointed for stracking and storage. Proper stacking and storage. Provision of fire extinguishers. Emergency plan to be developed.	3	1	2	6	Contractor, Construction Manager, CHSO HCS supervisor, SMME Contractor(if employed)
	Plastering	Cement Mortar	Physical Contact with cement	PPE to be issued and worn SDS to be readily available in the H&S File Training to be provided for workers on use of cement mortar	3	3	2	18	Dust control, PPE (eye and respiratory) Use of distributor when stabilizing road. Rotation of workers	2	3	1	6	
	Tiling	Tile grouts and Adhesives	Contact with materials	PPE to be issued and worn SDS to be readily available in the H&S File Training to be provided for workers on use of grouts and Adhesives.	2	2	2	8	Proper PPE. Worker training	2	1	2	4	
	Carpentry	Wood glue & Varnish	Health Risk to Workers	Ensure that there is adequate ventilation PPE to be issued and worn SDS to be readily available in the H&S File	2	2	2	8	Training to be provided for workers.	2	1	2	4	
15 ERGONOMICS														
	Whole Body and hand vibration	Mobile plant operations, using vibrating electrical or mechanical equipment	Whole body Vibration back and muscular strain	All equipment to be pre inspected before use, checklist to be kept on file. Job rotation of workers. Training and awareness to be conducted on use of equipment. Correct PPE to be worn	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls	3	2	2	12	Contractor, Construction Manager, CHSO
	Manual lifting and repeated movement	Ergonomic stress	Back and other muscular injury or disease	Training and awarness talks to be conducted on manual lifting and repeated movement Job rotation of workers	2	2	2	8	Risk assessment to be conducted Supervision of works Engineering controls	2	1	2	4	
	Manual work	Use of hands – strain on muscles and back	Lacerations, crush injury, back injury, muscle injury	Training and awarness talks to be conducted on manual work Job rotation of workers	2	2	2	8	Risk assessment to be conducted Supervision of works Engineering controls	2	1	2	4	
	Plastering, Tiling, Carpentry	Ergonomic risks	Working in confined areas, bending,	Training and awarness talks to be conducted on Plastering, Tiling, Carpentry Job rotation of workers	2	2	2	8	Proper supervision, competent trained workers	2	1	2	4	

0 EXCAVATIONS														
CR13	Excavations	Plant & Manual	Injury or death to employees, Public and personnel. Damage to the existing fauna and flora. Excavation collapse	Excavations must be adequately barricaded. Shoring must be installed as required. Signage to be clearly displayed at excavations Mobile plant utilized must be in good condition. Competant Excavation supervisor must be appointed in writing.	3	2	3	18	Supervision of excavations to be implemented on site. Toolbox talks to workers on excavation safety to be conducted	3	2	2	12	Contractor, Construction Manager, CHSO, Excavation Supervisor
17 TEMPORARY WORKS														
	Temporary works	Falling off Collapse Unsafe temporary works	Serious injuries- multiple persons- fatal	Competant person must be appointed for the design of temporary works. Only Competent workers should erect/install temporary works Fall prevention plan must be developed Temporary works to be inspected and approved before commencement of works	3	2	3	18	Legislative requirements for temporary works to be implemented. Safety harnesses must be worn. Training and awareness to be conducted All relevant Signage to be clearly displayed	3	2	2	12	Contractor, Construction Manager, CHSO, Excavation Supervisor
18 LIFTING EQUIPMENT														
CR22	Lifting Equipment	Uneven ground, loose soft soil, overhead power lines or other obstructions	Machine could tilt or become bogged down and causing a dangerous situation, resulting in injury/property damage/Death Overhead powerlines could be hit and broken	Correct inspection and evaluation of the working area. Ensure working area is clean and that the machine will be stable Mobile plant used must be in good condition Competent workers/flagman to be placed to give operators hand signals and directions	3	3	3	27	Correct inspection and evaluation of the working area Ensure working area is clean and that the machine will be stable.	3	2	2	12	Contractor, Construction Manager, CHSO, Lifting Operator, Lifting Inspector
		Checking out the machine to ensure that all is in good working order	Controls not functioning correctly, oil leaks. Machine failure causing damage and injury to employees	Ensure only competent persons operate machines. Ensure pre-start up inspections are conducted on machines All operators & employees to be inducted.	3	2	3	18	Daily checklists and Tool Box Talks must be done	3	2	2	12	
		Correct positioning of equipment ensuring it is level before carrying out the lift	Machine could tip over in one particular direction. Property/equipment damage/employee injury	Ensure only competent persons operate machines. Ensure pre-start up inspections are conducted on machines and that all safety mechanisms are in working condition. Ensure that the machine is correctly positioned and will not be over extended in any particular direction of operation. Barricade the area to prevent unauthorized entry.	3	2	3	18	Ensure competent operators to position machine correctly to ensure maximum usage are any one lift, Method statements to be developed, Risk Assessments to be conducted, Safe Work Procedures and Tool Box Talks to be conducted	3	2	2	12	

			Use of transport platforms and material hoists	Safe load limit not adhered too, Lifting machine not inspected before use, Chains, slings, wire ropes and hooks not tested and inspected, Works conducted beneath loads, No clearance zones implemented while lifting.	Ensure all lifting equipment is load tested and inspected by a competent person, ensuring all Chains, slings, wire ropes and hooks are load tested and inspected by a competent person, Ensure clearance zones are implemented when lifting material.	3	3	3	27	Ensure only competent operators conduct lifting operations / Ensure pre start up checklists are conducted on machinery, parts and area before lifting operations / Ensure the area is clear of people and loose lying materials/ Method statements/ Risk Assessments/Safe Work Procedures Tool Box Talks	2	2	2	12	
19	TRAFFIC ACCOMMODATION														
		Traffic Accommodation	Traffic accommodation will be required throughout the project.	Collision between plant or transport. Collision between private and/or contractor vehicles. Worker struck by vehicle. Incompetent Flag persons appointed	Traffic management plan to be developed, Appointment of Traffic Safety officer, Demarcation to ensure public walkways, public roads, lane closures are identified, Stop/go closures to be adequately set up, All risk based, warning, road traffic and mandatory signage must be clearly displayed at every section of works for increased visibility, Competent Flagman to be appointed and placed on site in strategic positions Spotter/banksman to be appointed	3	3	3	27	Method statements and risk assessments to be conducted for traffic accommodation. Penalties to be issued for non-compliances. Flag persons to have bright visible flags. Night time closures to be properly lit.	2	3	3	18	Contractor, Construction Manager, CHSO / TSO
20	BARRICADING / HOARDING														
		Barricading / Hoarding	Barricading / Demarcating Hoarding	Inadequate Barricading / Demarcating Hoarding . Interaction with existing hospital activities / Interaction with residents activities / personal and general public /	Ensure that Barricading / Demarcating Hoarding is correctly installed and maintained, Ensure that Barricading / Demarcating Hoarding in regularly inspected, Ensure that Barricading / Demarcating Hoarding is installed around all construction activities that effect hospital activities, staff, patients, residents and the general public. Control should be taken to ensure that construction activities is at all times being separated from day to day hospital activities, staff, patients, residents, general public as well as hospital storage facilities to minimize exposure.	3	3	3	27	Extra special care and planning and communication between the contractor and hospital/Protea flats. A solid hoarding structure to be above ceiling height to be considered. The contractor is to ensure to price correctly for barricading and hoarding to ensure sufficient barricading around each construction area.	3	2	2	12	Contractor, Construction Manager, CHSO



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21	WASTE MANAGEMENT													
	Removal of Waste	Waste Management	Daily waste from contractor cross contaminated with hospital waste/Protea flats waste. Waste incorrectly disposed	Contractor is to ensure that they have separate controlled waste areas to ensure no cross contamination with the existing hospital/Protea flats waste management systems. Ensure that waste is disposed of at an approved landfill site.	1	2	1	2	Waste manifestos is to kept in the H&S File	1	1	1	1	Contractor, Construction Manager, CHSO
22	SECURITY													
	Site Security	Security	Theft	Contractors and professionals doing construction activities should have own security on site. Contractors to ensure that materials and items of value are stored correctly as this can cause a security risk for the existing hospital and Protea flats.	1	1	2	2	Contractor to have separate controlled waste areas to ensure no cross contamination with the existing hospital waste management systems	1	1	1	1	Contractor, Construction Manager, CHSO
23	DEMOLISHING													
CR14	Demolishing	Breakdown of structures	Removal of existing staircase of Protea flats, Removal of existing emergency fire escape, Removal and break of brick wall, steel panel wall and concrete wall from top to bottom. Removal of concrete fence, palisade fence, chainlink and wire fence .Injury to all body parts can occur, Property damage can occur, Close proximity to public roads	Ensure to break structure from top to bottom. Regular inspection and evaluation of the working area prior to work Areas where demolition work is conducted must be cordoned off, with all mandatory and warning signage visibly displayed.	3	3	3	27	Employees to be trained and regular tool box talks to be conducted.	3	2	2	12	Contractor, Construction Manager, CHSO, Demolition Supervisor
		Removal of staircase at Protea flats	Staircase collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Work area to be cordoned off, Drop/Clearance zones to be established, all mandatory and warning signage to be displayed.	3	3	3	27	Method statement to be developed for the removal of staircase. SWP to be developed for the removal of staircase.	2	2	3	12	
		Dust	Inhaling of dust causing sinus	Dust suppression to be implemented on site. Correct PPE to be issue and worn eg Dust Masks. Communication with the hospital/residents of Protea flats prior to the commencement of works.	3	2	3	18	Daily checklists and Tool Box Talks to be conducted. All employees to be inducted	3	2	2	12	
		Working Area	Loose bricks laying around, Workers can fall over bricks - Injuries to all body part can occur	Ensure Housekeeping controller is appointed Ensure proper housekeeping is maintained at all times. Ensure work areas to be kept clear of loose materials	3	2	3	18	Ensure competent operators to operate machines, Method statements, Risk Assessments, Safe Work Procedures and Tool Box Talks to be conducted	3	2	2	12	

24 MOBILE PLANT OPERATIONS														
CR23	Pre -Start Up	No daily checklist done, Malfunctioning of plant, Incompetent operator	Work stoppage / Property damage	A start up/daily checklist must be done daily before work is to start, Plant to be serviced and repaired by a competent service provider/person, Only competent and appointed operators are allowed to inspect/operate plant, to insure inspections are done correctly and defaults are identified Supervisor must supervise the operator and ensure that controls are being followed	3	2	1	6	Mobile plant used must be in good condition	2	1	1	2	Contractor, Construction Manager, CHSO, Construction supervisor.
	Use of mobile plant	Driving into other plant / Driving into employee/s / Incompetent operator / Driving into excavation / Damage to engine, pipes and parts / Using Mobile plant that not in operating condition operating	Fatalities / Injuries / Property damage	Operator to remain within the speed limit. A spotter/ banks man must be present to assist, to prevent the accidental bumping of employees, plant, members of the public and property. Only competent and appointed operators will be allowed to operate plant. All mandatory and warning signage must be clearly displayed. A start up/daily checklist must be done daily before work is to start, Plant to be serviced and repaired by a competent service provider/person and mobile plant used on site must be in good condition.	3	1	3	9	Only competent and appointed operators are allowed to inspect/operate plant, to insure inspections are done correctly and defaults are identified Supervisor must supervise the operator and ensure that controls are being followed	2	1	2	4	Contractor, Construction Manager, CHSO, Construction supervisor.
25 WATERPROOFING														
	Installation of waterproofing	Chemical exposure, Fire, Fumes.	Inhalation of fumes, Burns, Explosion.	Only competent workers to conduct waterproofing works, SDS for chemicals to be readily available on site. Method statement to be conducted for waterproofing work, Develop emergency response procedures. PPE to be issued and worn	3	1	2	6	Risk assesment to be conducted Suepervision of activity Equipment must be in good condition Pre inspection of equipment before use	2	1	1	2	Contractor, Construction Manager, CHSO, Construction supervisor.
26 DANGEROUS WORKS														

26 DANGEROUS WORKS															
		Installation of staircase on high rise building	Staircase collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Residents of Protea flats to be informed prior to the commencement of works, Work area to be cordoned off, Drop/Clearance zones to be established, All risk based, mandatory and warning signage to be displayed.	3	3	3	27	Emergency response procedure to be develop. Method statement to be developed for the removal of staircase. SWP to be developed for the removal of staircase.	2	2	3	12	Contractor, Construction Manager, CHSO, Construction supervisor.
		Removal, Installation and repair of hand rails on the roof	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights. No fall prevention	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Safe access routes to be implemented for the public, Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage	3	2	3	18	Emergency response procedure to be develop. Method statement to be developed for the removal, installation and repair. SWP to be developed for the removal of staircase.	2	2	2	8	Contractor, Plant manager. CHSO
		Access panel leading to lift lobby at Protea flats to be repaired	Existing cables, sattelites, antenna, wire fence and materials in the area, Falling objects, fall from heights, No fall prevention, Lack of signage displayed,	Fatalities / Injuries / Property damage / Trip and fall	Method statement to be developed for repair of access panel Area to be inspected for trip and fall hazards prior to the commencement of works, Fall prevention plan to be developed, Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, All mandatory signage and warning signage must be displayed	2	3	3	27	SWP to be developed for the repair of the access panel. Emergency response procedure to be develop.	1	2	3	6	Contractor, Construction Manager, CHSO, Construction supervisor.



		Installation of Emergency Fire route and Temporary Emergency Fire route	Emergency fire route collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Method statement to be developed for installation of emergency fire route. Work area to be cordoned off, Drop/Clearance zones to be established, all risk based signage to be displayed, Residents of Protea flats to be informed prior to the commencement of works.	3	3	3	27	SWP to be developed for the installation of the emergency fire route. Emergency response procedure to be develop.	2	2	2	8	Contractor, Construction Manager, CHSO, Construction supervisor.
		Hydroblasting	High pressure water, chemical exposure, Moving machine parts,	Injuries / Property damage	Only competent workers to conduct hydroblasting works. Pre inspection to be conducted on equipment, Equipment used must be in good condition, SDS to be readily available Correct PPE to be issued and worn	3	3	3	27	Method statement to be developed for the removal of hydroblasting. SWP to be developed for the removal of hydroblasting.	2	2	2	8	Contractor, Construction Manager, CHSO, Construction supervisor.
27	FENCING														
		Installation of concrete fence, palisade fence, chainlink and wire fence	Pedestrian movement, Excavations, Underground services, Lifting heavy material.	Injury, Property damage can occur	Establish what services are in the area. All work area must be barricaded with mandatory signs and warning signs displayed, SWP to be developed and communicated for lifting of heavy material, Excavation supervisor to be appointed and conduct inspection on excavations	3	3	3	27	Regular inspection and evaluation of the working area prior to work. Employees to be trained and regular tool box talks to be conducted.	3	2	2	12	Contractor, Construction Manager, CHSO, Construction supervisor.
28	ASBESTOS														
		Removal of asbestos	Exposure to asbestos, air pollution	asbestosis, mesothelioma and lung cancer	All Asbestos work must be done in compliance with Asbestos Abatement Contractor of 2020. All workers handling asbestos must wear a respirator with a high efficiency particulate air filter, all worker must wear disposable coveralls and gloves, Use a pump sprayer at all times to keep asbestos material wet, asbestos waste must be disposed in clearly labeled bags at a approved landfill site	3	3	3	27	Method statement must be developed for asbestos work. SWP must be developed for asbestos work. Workers must be trained with supervision over activities. Areas where work commences must be adequately ventilated.	2	2	3	12	Contractor, Construction Manager, CHSO, Construction supervisor.

29		BIOLOGICAL RISK													
	HBA Regulations		Epidemic, Pandemic Control and Exposure to Pigeon faeces and dead pigeons	Contact with bodily fluids / airbourne/bloodborn pathogens/ infectious diseases as well as needlestick injuries and allergens resulting in allergic reaction / illness / Contact with pigeon faeces, droppings and dead pigeons	Control should be taken to ensure that construction activities is at all times being seperated from day to day activities / staff / patients / general public. All workers entering the construction site must undergo training on the identification and handling of biological hazards prior to commencing work. Up to date immunizations to protect workers from preventable infections,Vaccinations may be required to ensure infection control for workers. Correct PPE is to be worn at all times, New PPE to be issued regularly and PPE to be disposed of as hazardous waste.Only competant persons should dispose of dead pigeons, Ensure that there is no direct contact with pigeon droppings.	3	2	3	18	Workers trained on dangers of Hazardous Biological Agents, Experienced supervision to oversee works. Method statements, Risk Assessments and Safe work procedures to be developed and communicated to workers on site. Relevent signage to be in place at all times.	3	1	2	6	Contractor, Construction Manager, CHSO,Hospital Infection Control.



RISK ASSESSMENT MATRIX EXPLANATION

Risk rating multiplier	Low =1	Medium =2	High=3
Likely consequences of an accident/incident (what are the potential results)	Minor damage to equipment / first aid treatment /	Possible fractures / lost time injury /compensation payout / equipment in need of repair	Serious Injury /occupational disease / fatality, multiple fatalities / loss of equipment
Frequency of Exposure (how often does it happen)	Limited activity, maybe once or twice on a project (e.g. exposure of services)	Occurs fairly often on a project	Occurs on a daily basis, or continually
Probability of harm (likelihood of something going wrong)	Low, due to limited activity, limited people exposed	Moderate risk, happens within the industry, many exposed	Occurs often within industry, many exposed

low	med	high
1	4	12
2	6	18
3	8	27

The purpose of the Design HIRA is to assess risk relative to the existing design requirements and standards, and attempt to understand the typical behaviours and practices of the Contractor or team doing the work. One should consider the standards used and refer to them, use drawings, read the design reports and have seen the site. The Agent needs to know and be able to assess the total circumstances that the project is going to operate in. The Agent also needs to understand the environment, relative to H&S and also the people, presence of the public, any particular issues that are known or could be problematic during the project. The Agent should consider the remoteness, the challenges of local labour, and specific requirements of the Client such as use of local labour. Knowledge of products specified, use of SDSs or MSDSs to be included, as well as statistical knowledge of incidents, diseases and fatality rates for similar types of work.

Risk rating and risk category
1
2
3

4
6
8

12
18
27

5.3. PART C4 SITE INFORMATION

C4.1 SITE INFORMATION

Bid Description:	Upgrading of security infrastructure at Livingstone PEPH Hospital Complex (Gqeberha, Nelson Mandela Bay Health District)
Project Number:	SCMU3-23/24-0484-HO

GENERAL

Prospective bidders to familiarize themselves with the locality, access, any other “restrictions” (Refer to Scope of Works C3)

The PE Provincial Hospital is located at 6 Buckingham Road, Gqeberha and falls under the Nelson Mandela Bay Municipality, in the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape, South Africa - Hospital coordinates (**33°57’30”S, 25°35’57”E**).

The Livingstone Hospital is located at the corner of Stanford Road and Lindsay Road, Lindsay Road, Gqeberha and falls under the Nelson Mandela Bay Municipality, in the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape, South Africa - Hospital coordinates (**33°55’31”S, 25°34’11”E**).

The Protea Flats is located at 52 Cape Road, Gqeberha and falls under the Nelson Mandela Bay Municipality, in the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape, South Africa

Adverse weather conditions

The contract duration includes a monthly allowance of 3 working days for adverse weather conditions [23.1.1] during which rainfall exceeds 10mm per day or excessive wind. These days shall be reflected on the critical path of the construction programme. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the date for practical completion will not be adjusted. Where the actual delays incurred for adverse weather conditions exceed the programmed delays and such delays have impacted on the critical path of the construction programme, the date for practical completion will be adjusted should the requirements of Clause 23.0 be satisfied

GEOTECHNICAL INVESTIGATION REPORT

N/A

**5.4 DRAWINGS TO WHICH
REFERENCE IS MADE IN BILLS
OF QUANTITIES**

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

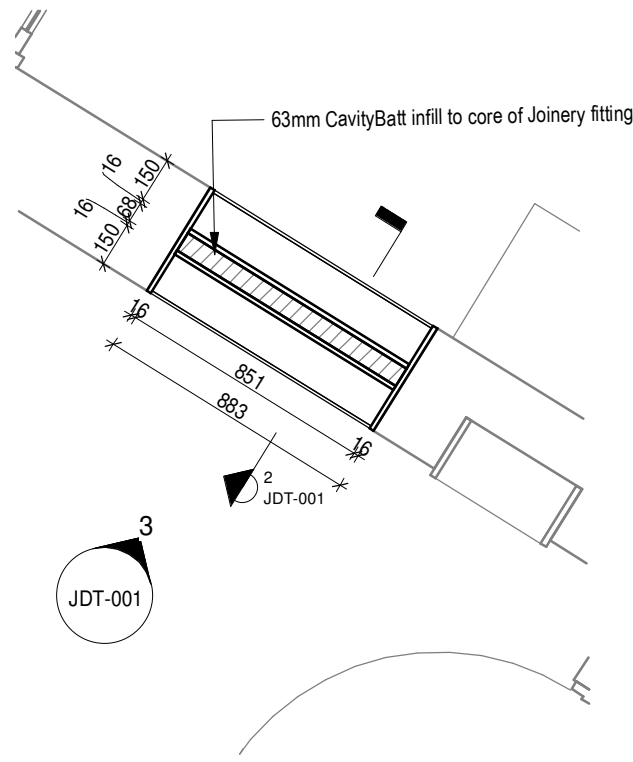
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

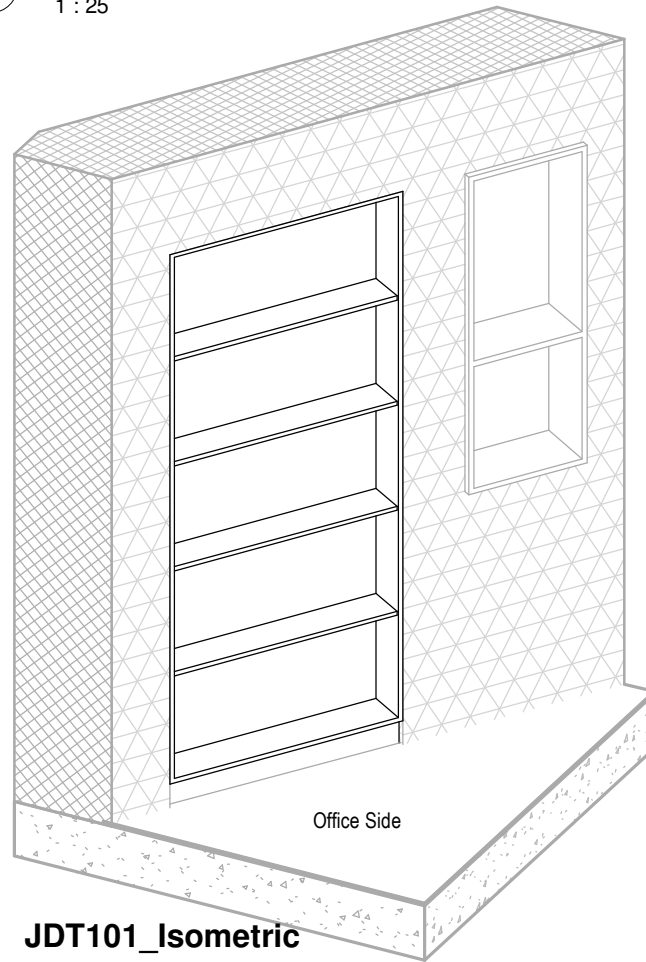
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

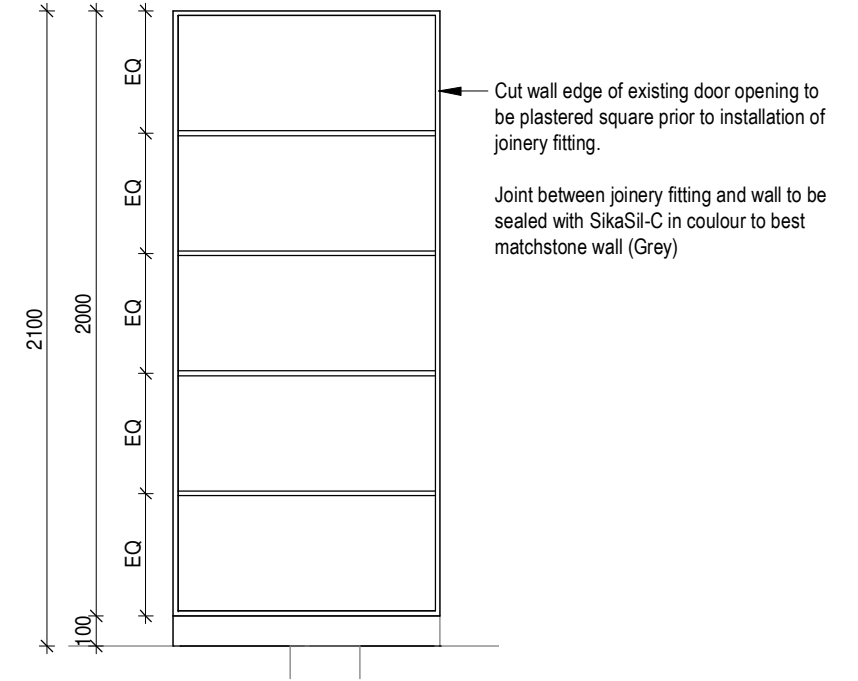
> All measurements to be confirmed on site prior to manufacture.



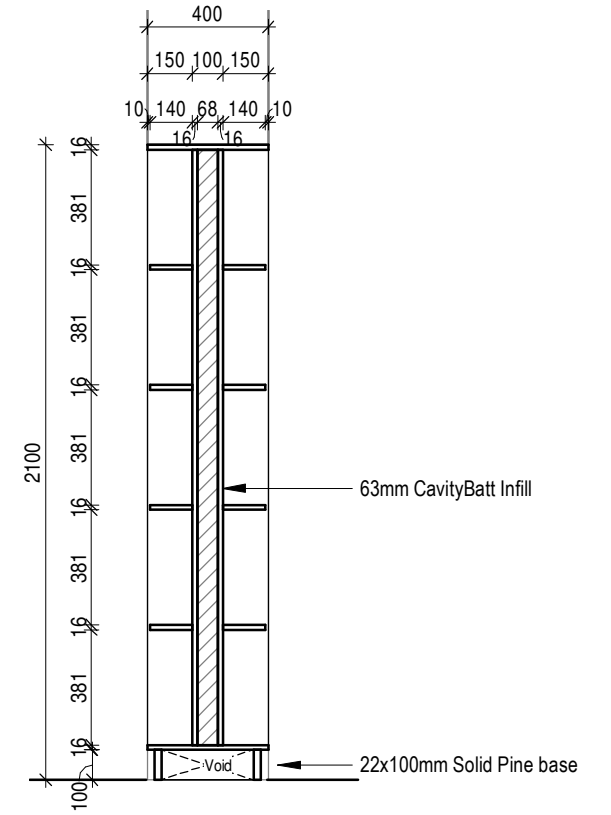
1 JDT 101_Plan
1 : 25



4 JDT101_Isometric



3 JDT101_Elevation
1 : 25



2 JDT101_Section
1 : 25

No.	Description	Date
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2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

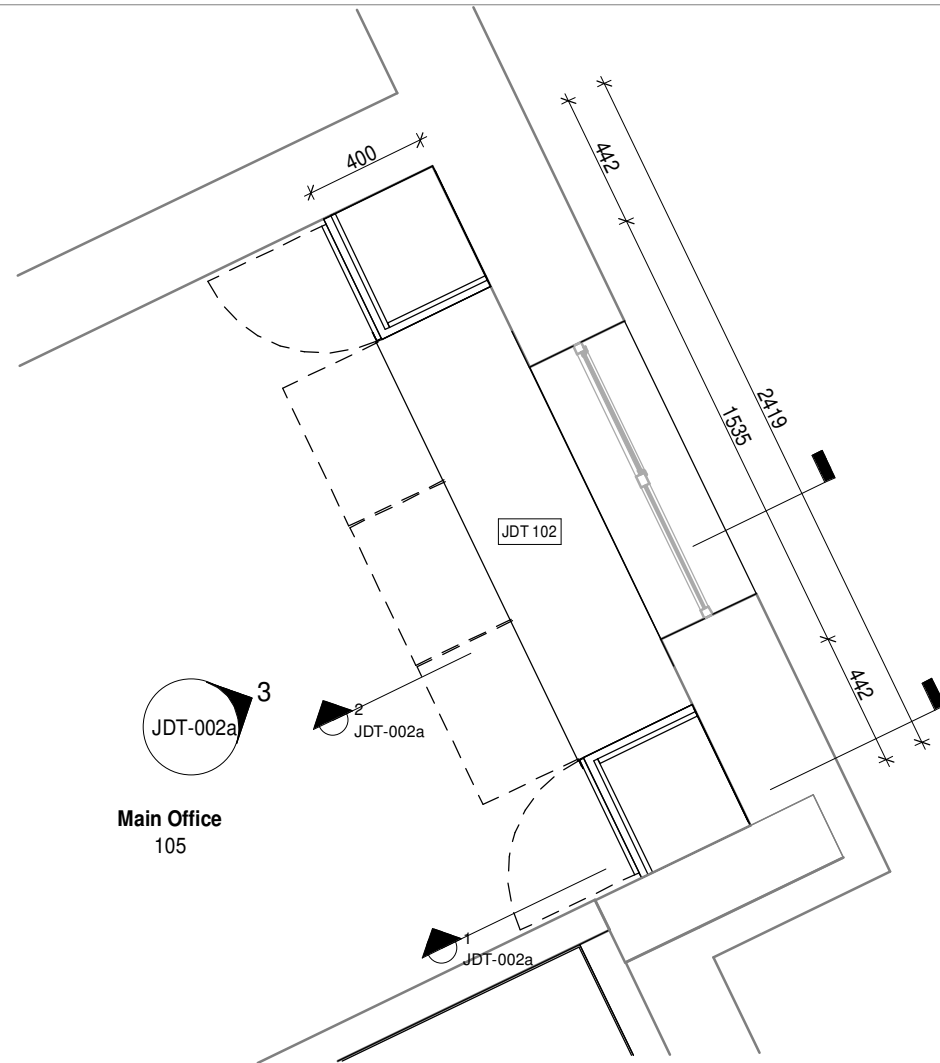
PROJECT:	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	Author
Designer:	Designer
Professional Architect:	Approver
Checked by:	Checker

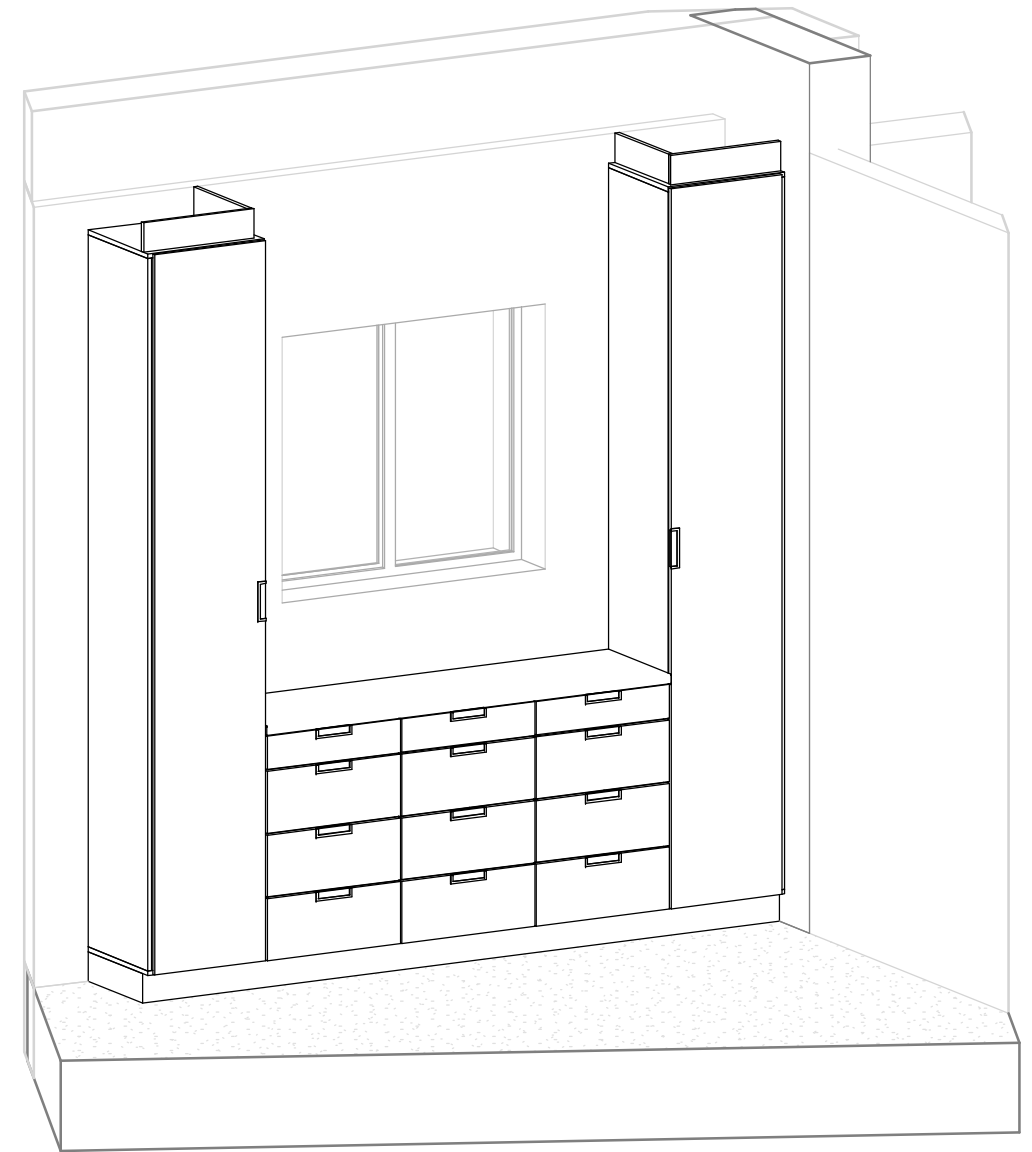
TITLE:	Joinery Unit JDT101
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-001
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

- > All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.
- > All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.
- > Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.
- > All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)
+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.
- > All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.
- > All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.
- > Backing board to units with open sheving to be 16mm melamine faced board to match shelving colour.
- > Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.
- > Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.
- > Handle specification:
Raiel Milano Grip Handle in Matt Chrome
- > All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.
- > Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing
- > All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)
- > All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.
- > Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.
- > **All measurements to be confirmed on site prior to manufacture.**



2 **JDT 102_Plan**
1 : 25



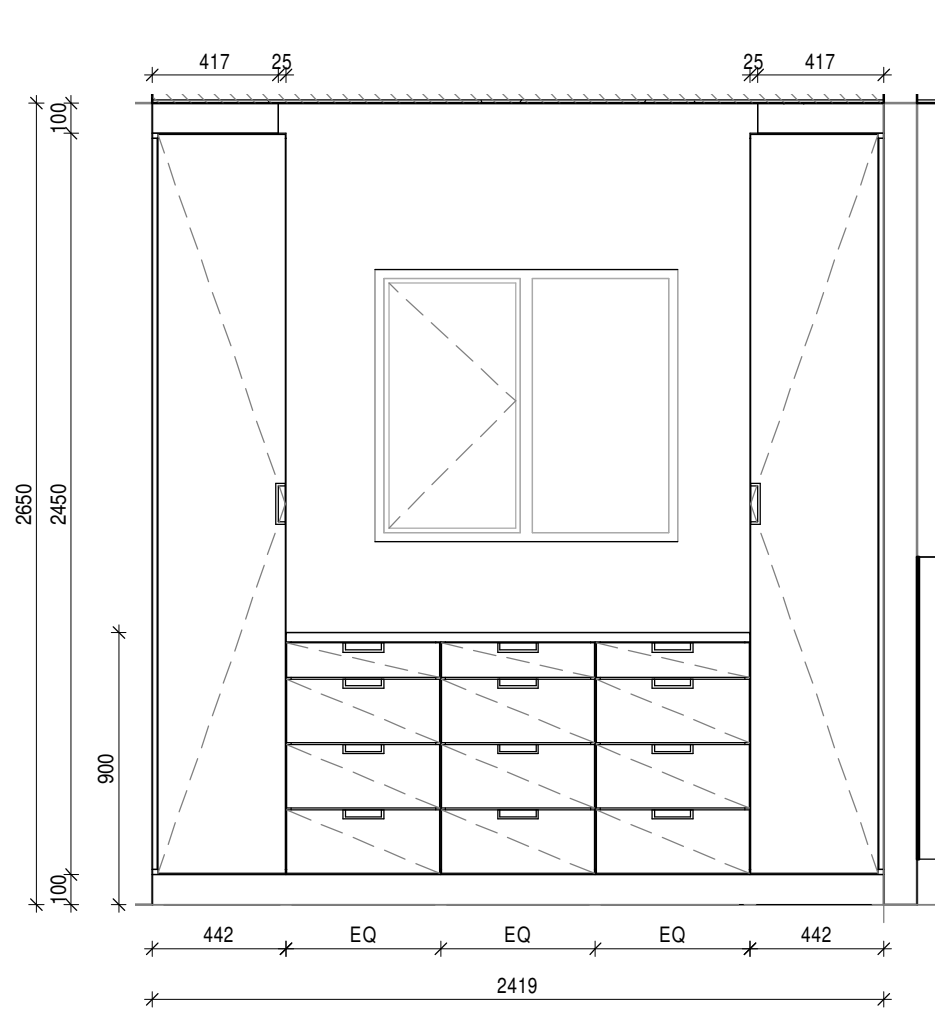
1 **JDT102_Isometric**

No.	Description	Date
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2	Update for Pricing	201112023
3	Issued for Tender	27112023
REVISIONS		

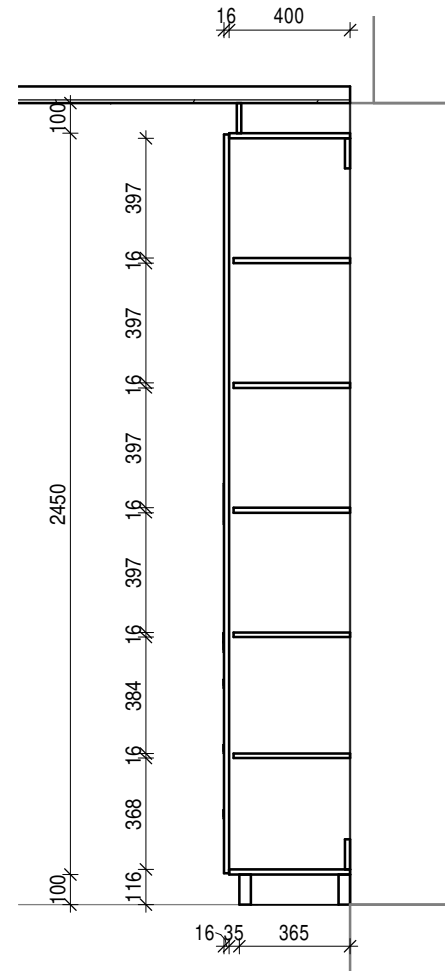
PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

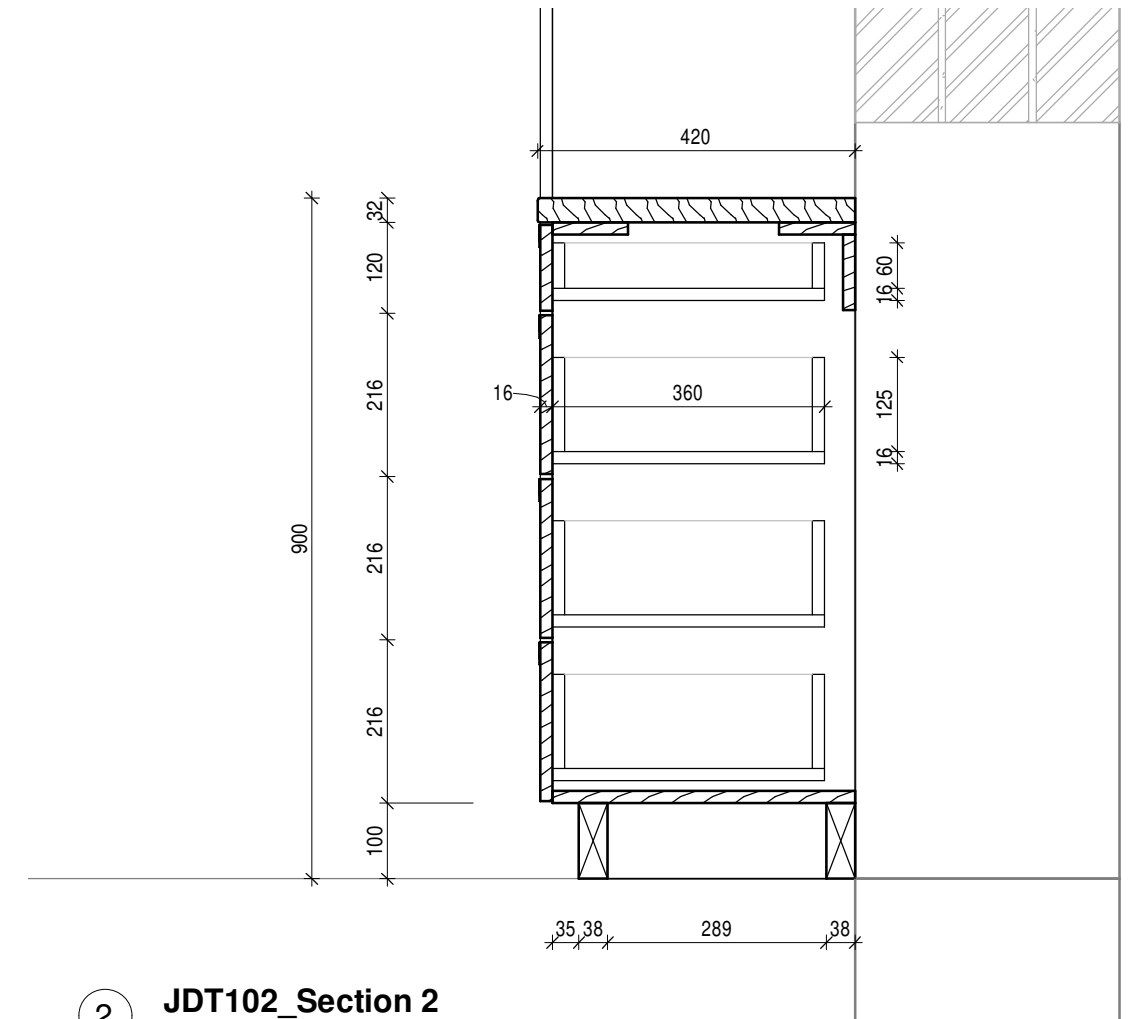
TITLE:	Joinery Unit JDT102	
B4 Project Ref No.:	Architect DWG No.:	
305-019	JDT-002	
FOR TENDER ONLY		REV 3



3 JDT102_Elevation
1 : 25



1 JDT102_Section 1
1 : 25



2 JDT102_Section 2
1 : 10

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit JDT 102 - Elevation & Sections
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-002a
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

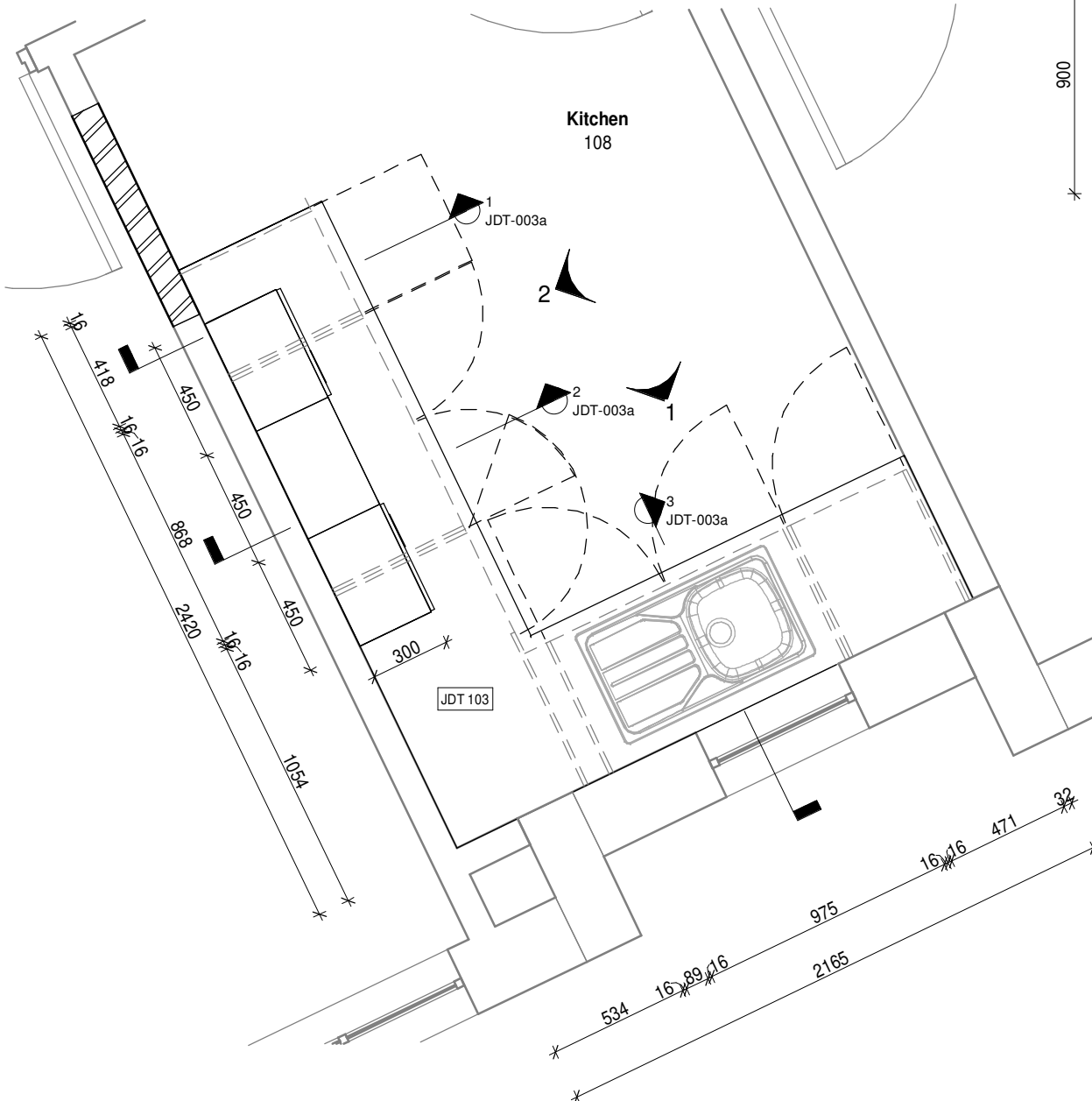
> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

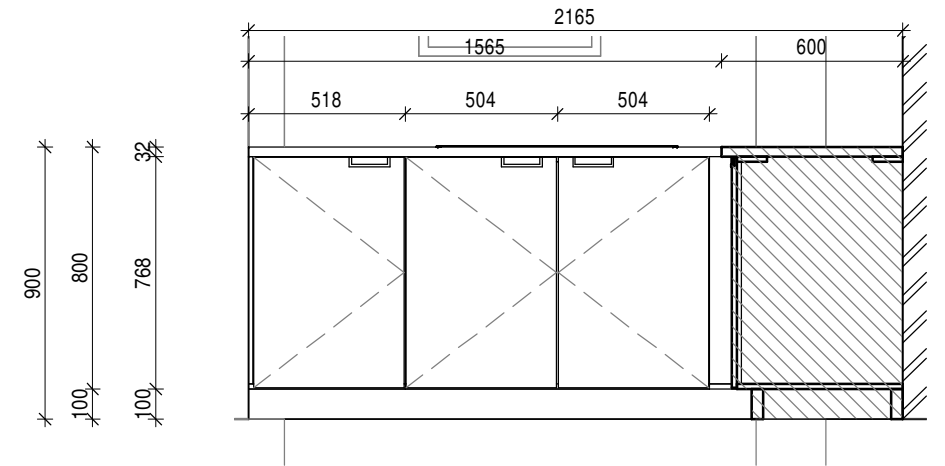
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

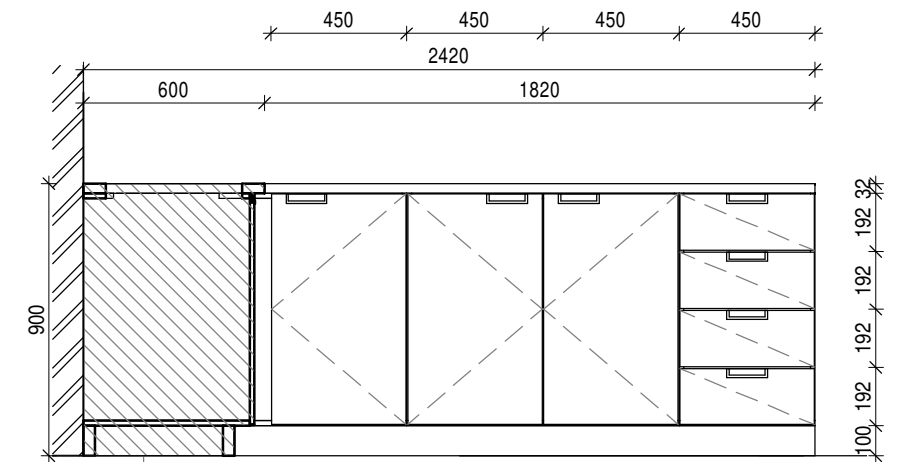
> All measurements to be confirmed on site prior to manufacture.



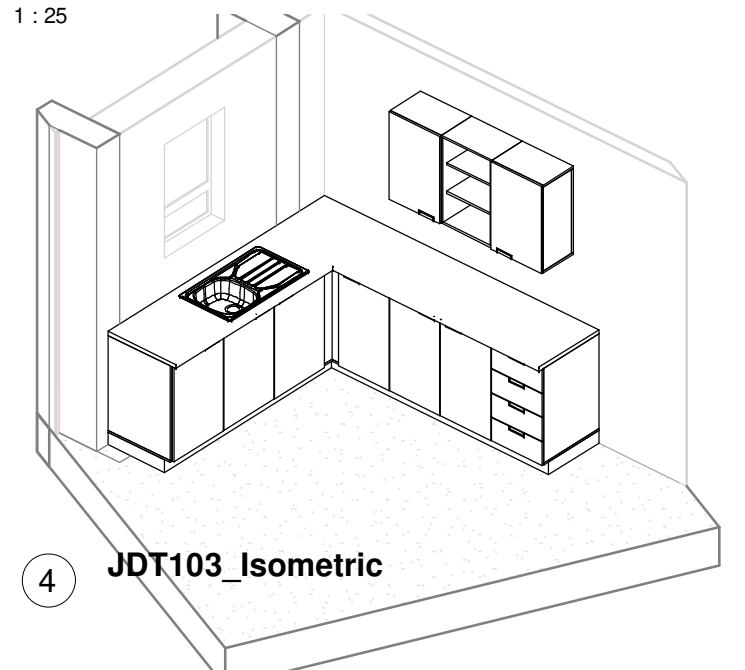
3 **JDT 103_Plan**
1 : 25



1 **JDT103_Elevation 1**
1 : 25



2 **JDT103_Elevation 2**
1 : 25



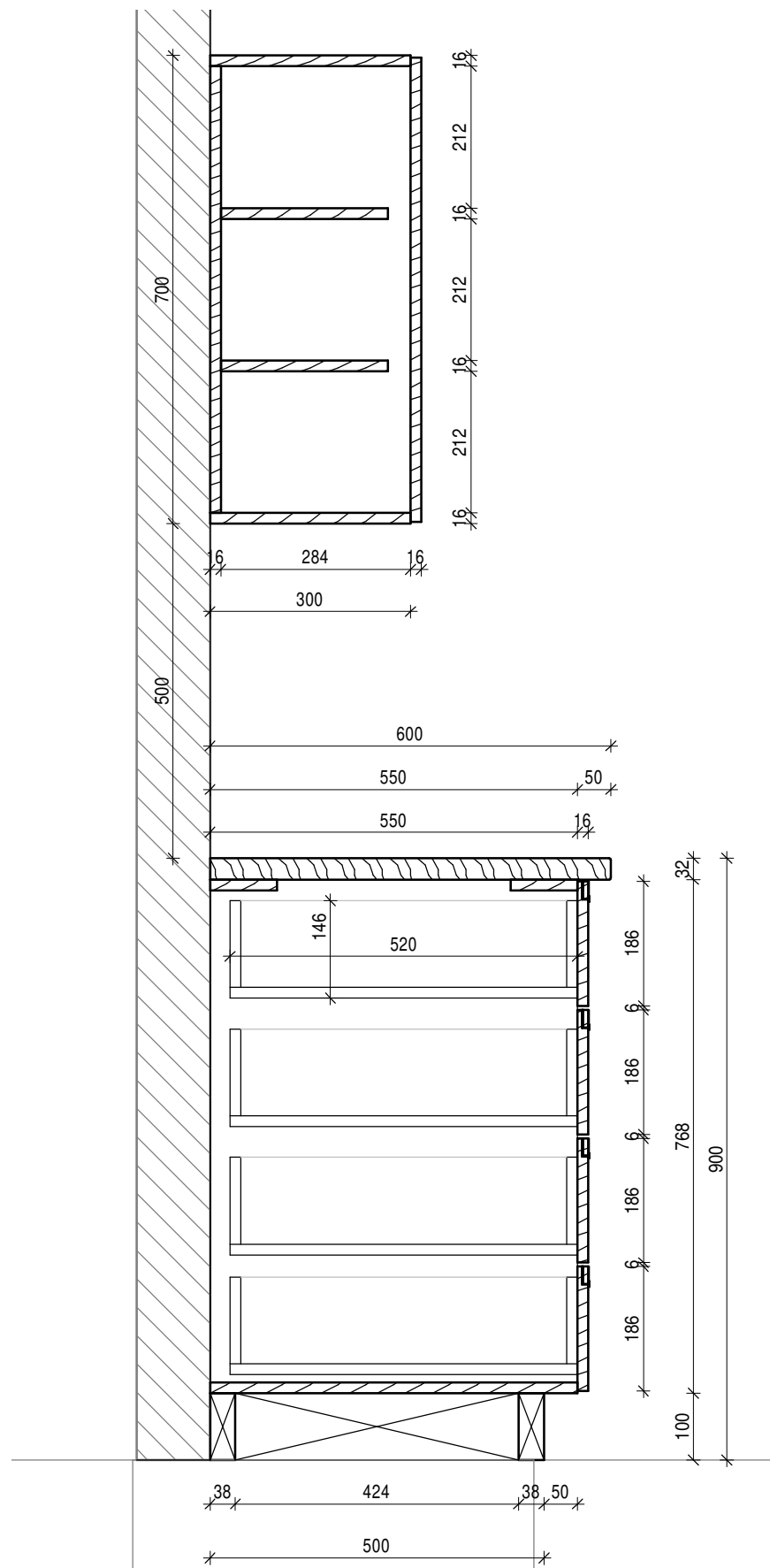
4 **JDT103_Isometric**

No.	Description	Date
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2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023

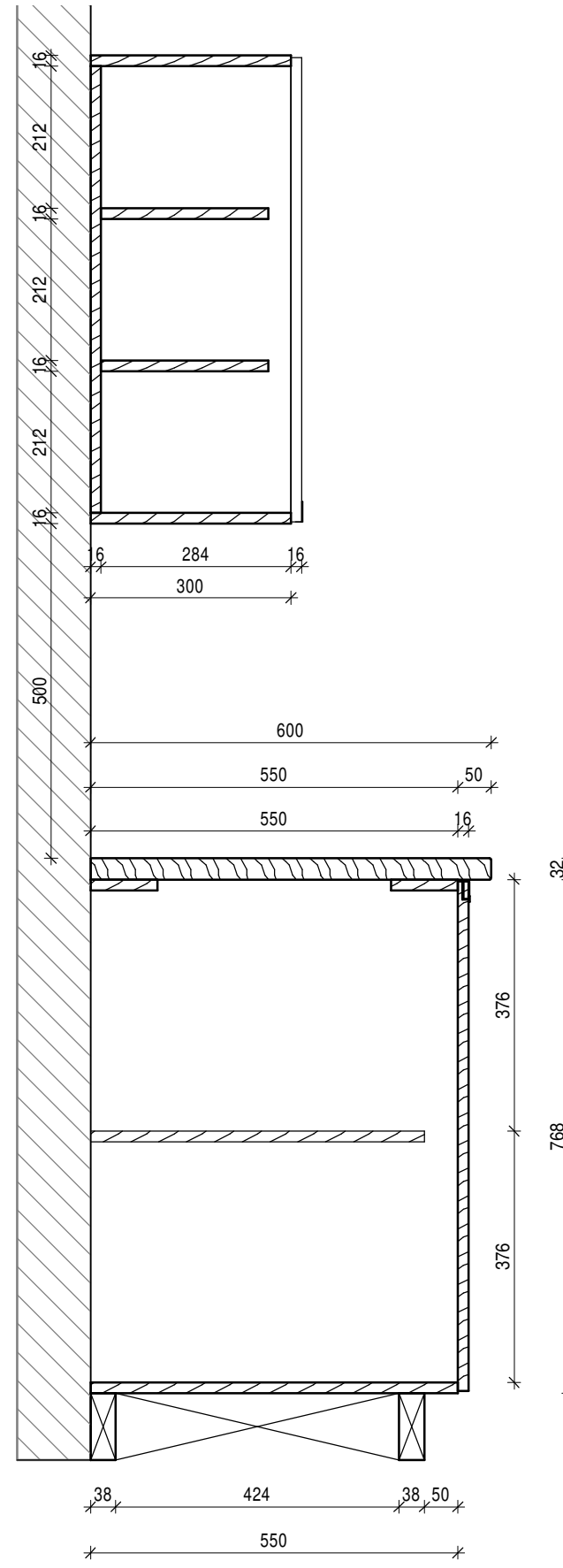
PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

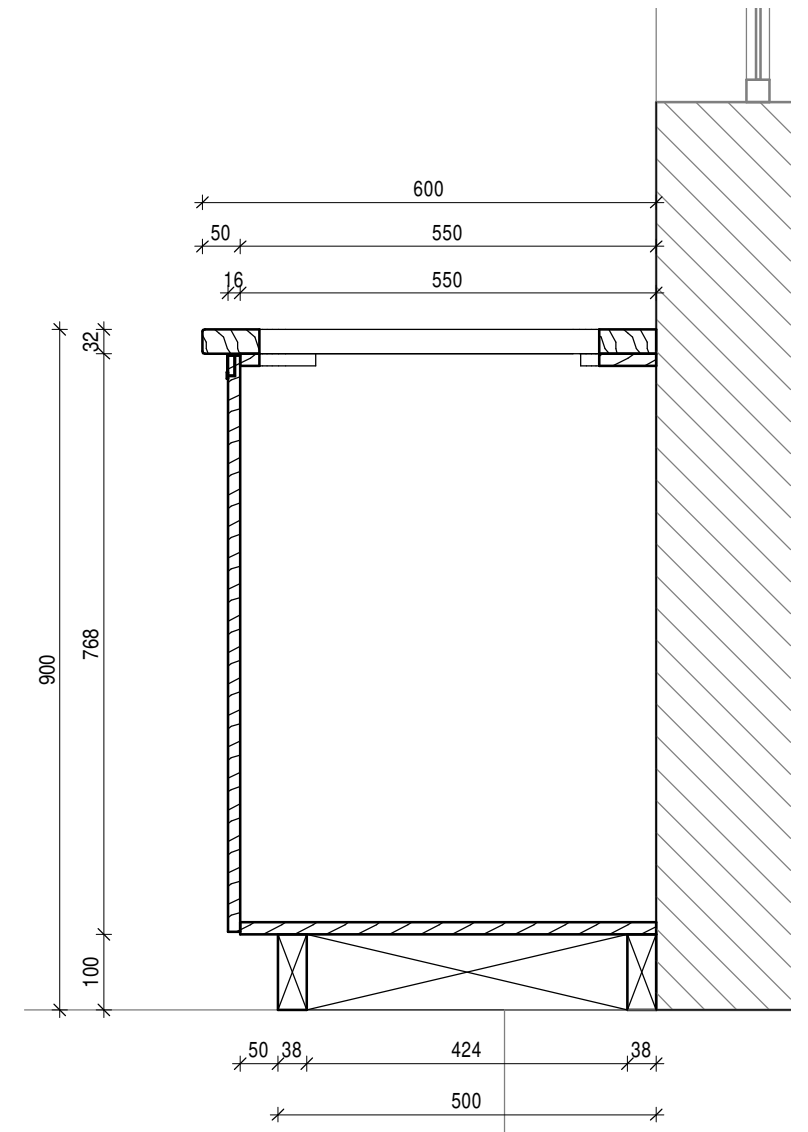
TITLE:	Joinery Unit JDT103
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-003
FOR TENDER ONLY	
REV	3



1 JDT103_Section 1
1 : 10



2 JDT103_Section 2
1 : 10



3 JDT103_Section 3
1 : 10

No.	Description	Date
1	Issued for pricing	2011/2023
2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 10
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit JDT103 - Sections
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-003a
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

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> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.

+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

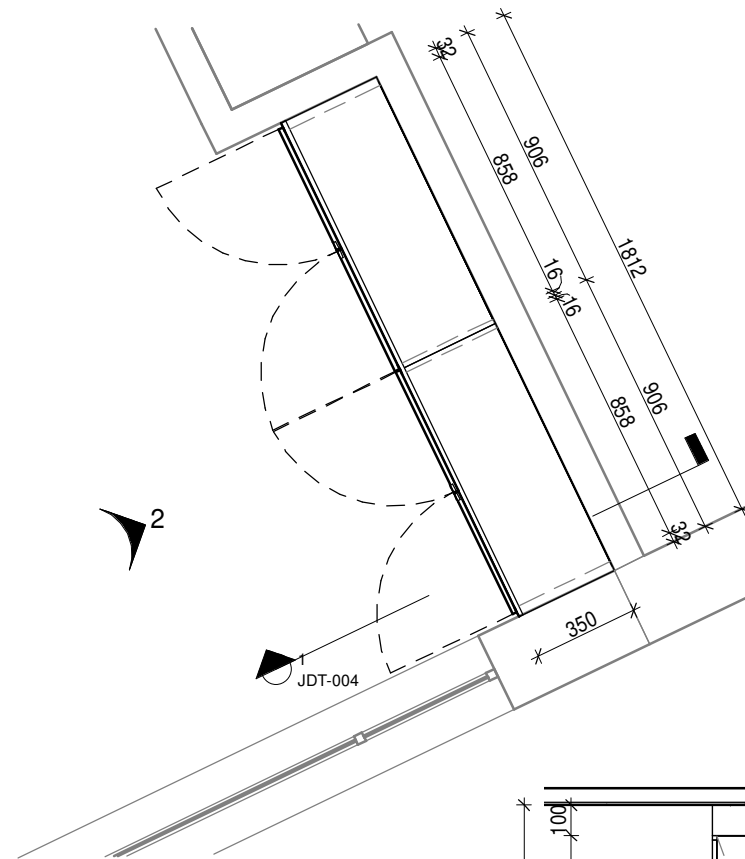
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

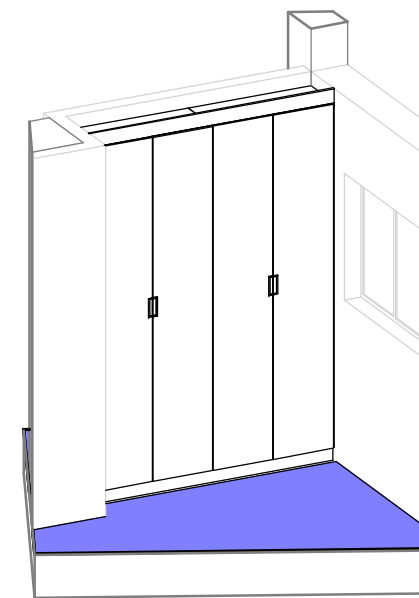
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

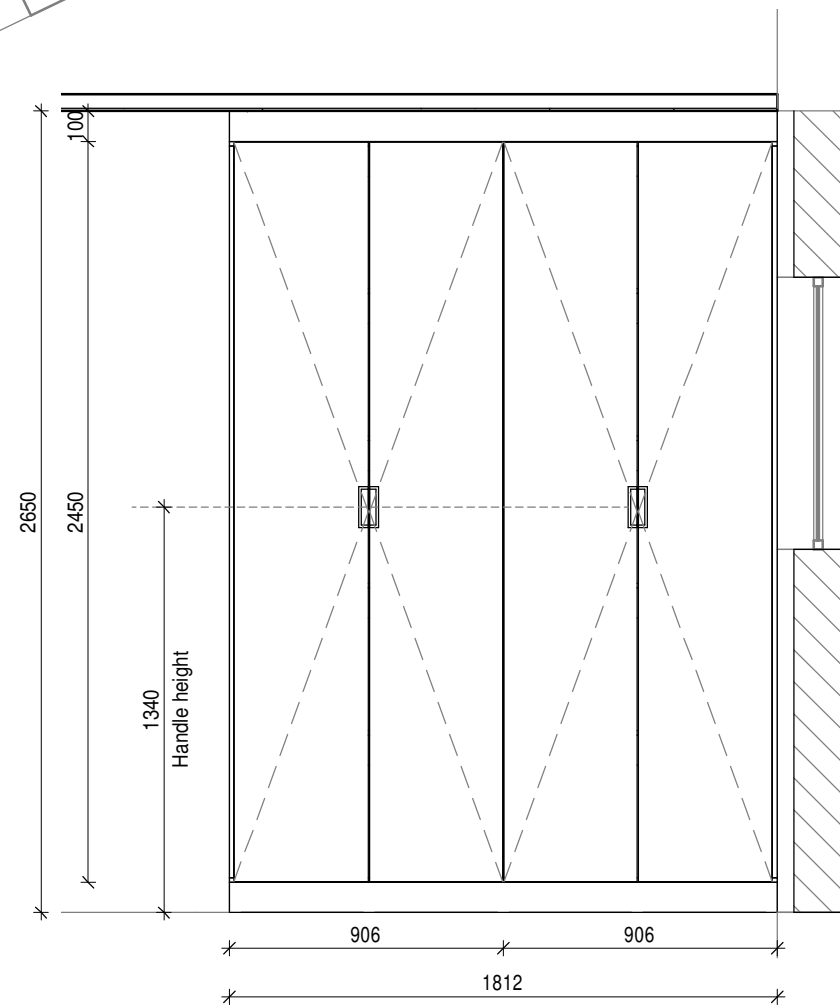
> All measurements to be confirmed on site prior to manufacture.



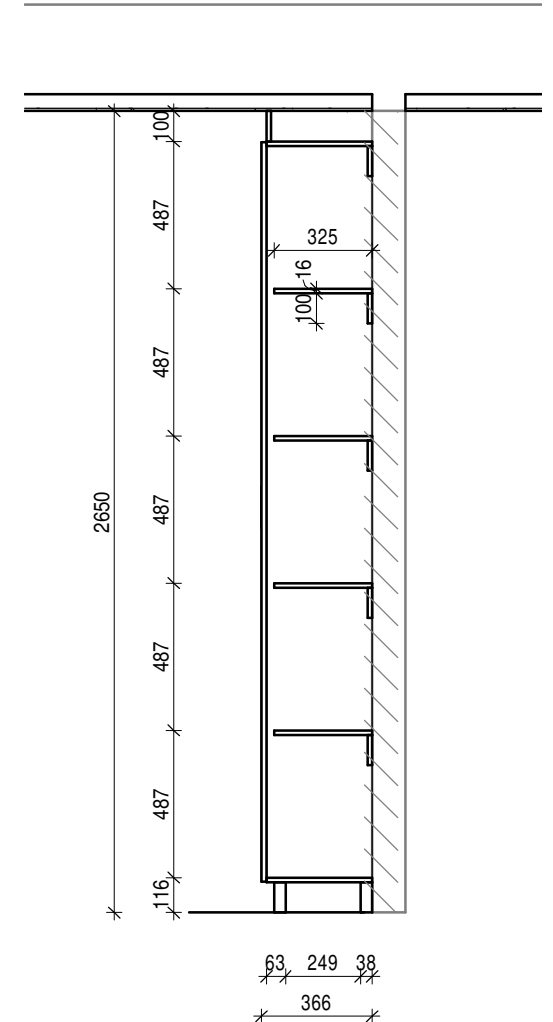
3 JDT 104 Plan
1 : 25



4 JDT104_Isometric



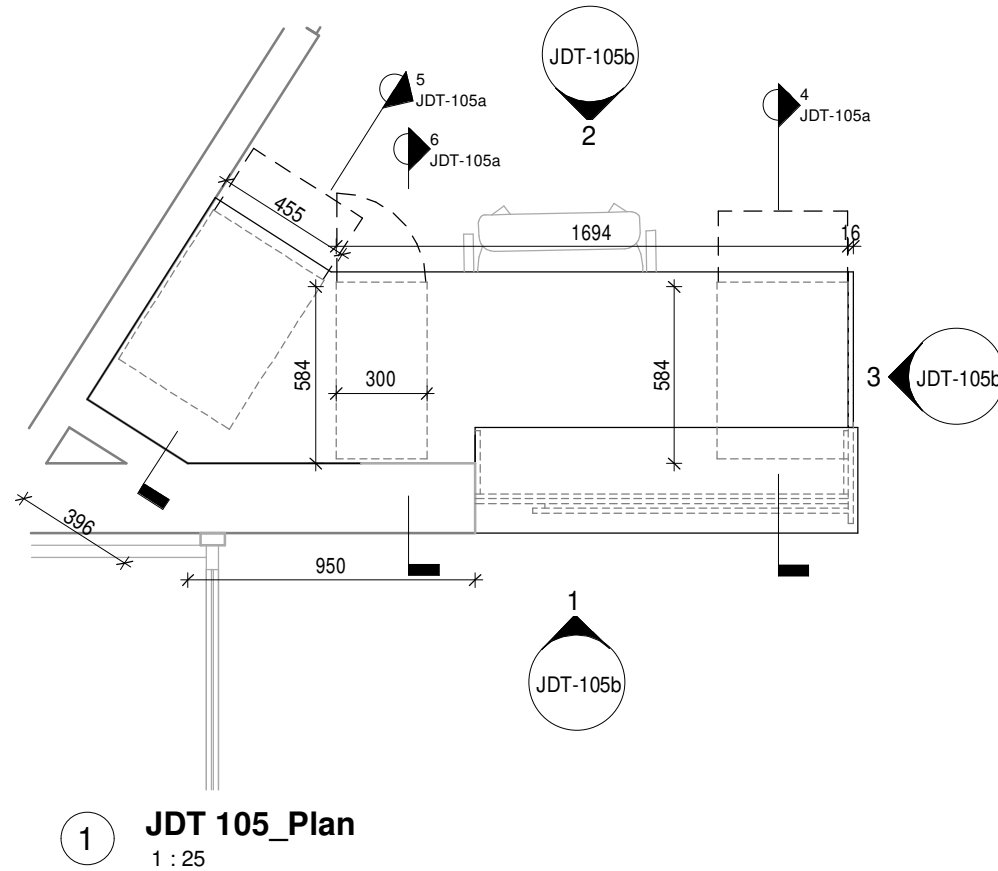
2 JDT104 Elevation
1 : 25



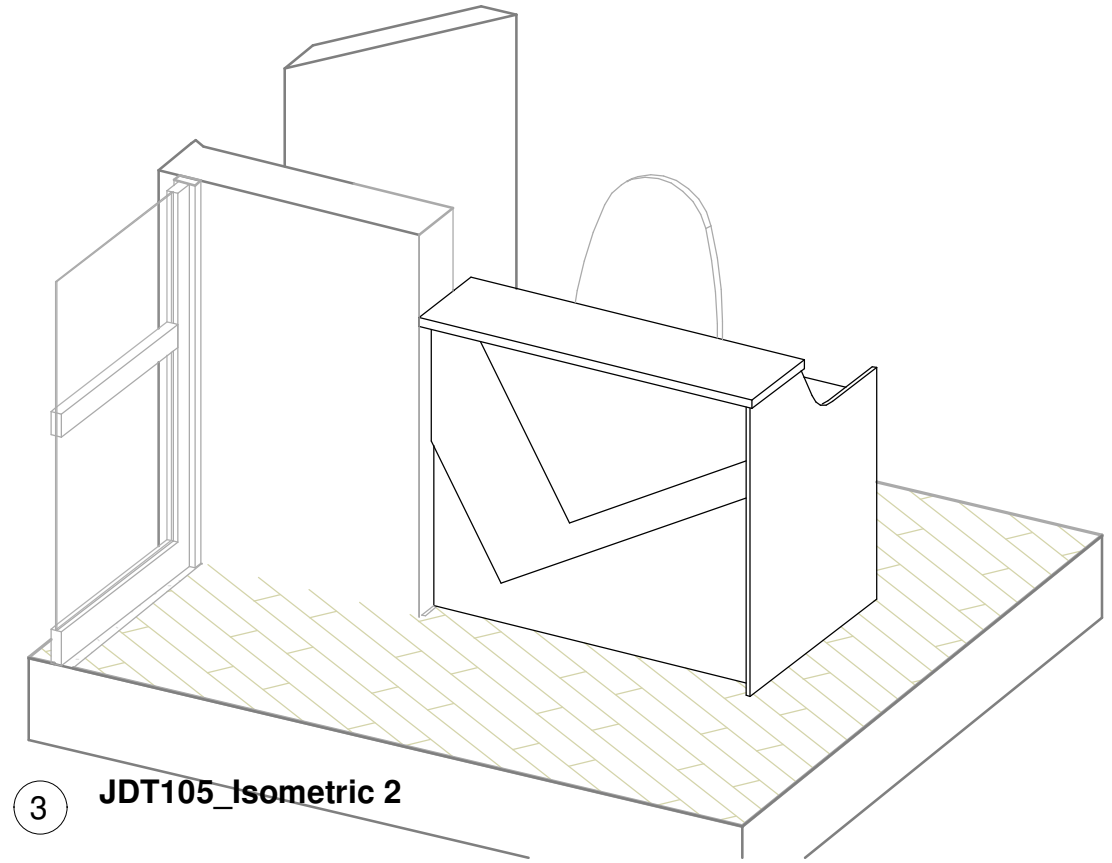
1 JDT104 Section
1 : 25

GENERAL JOINERY SPECIFICATION:

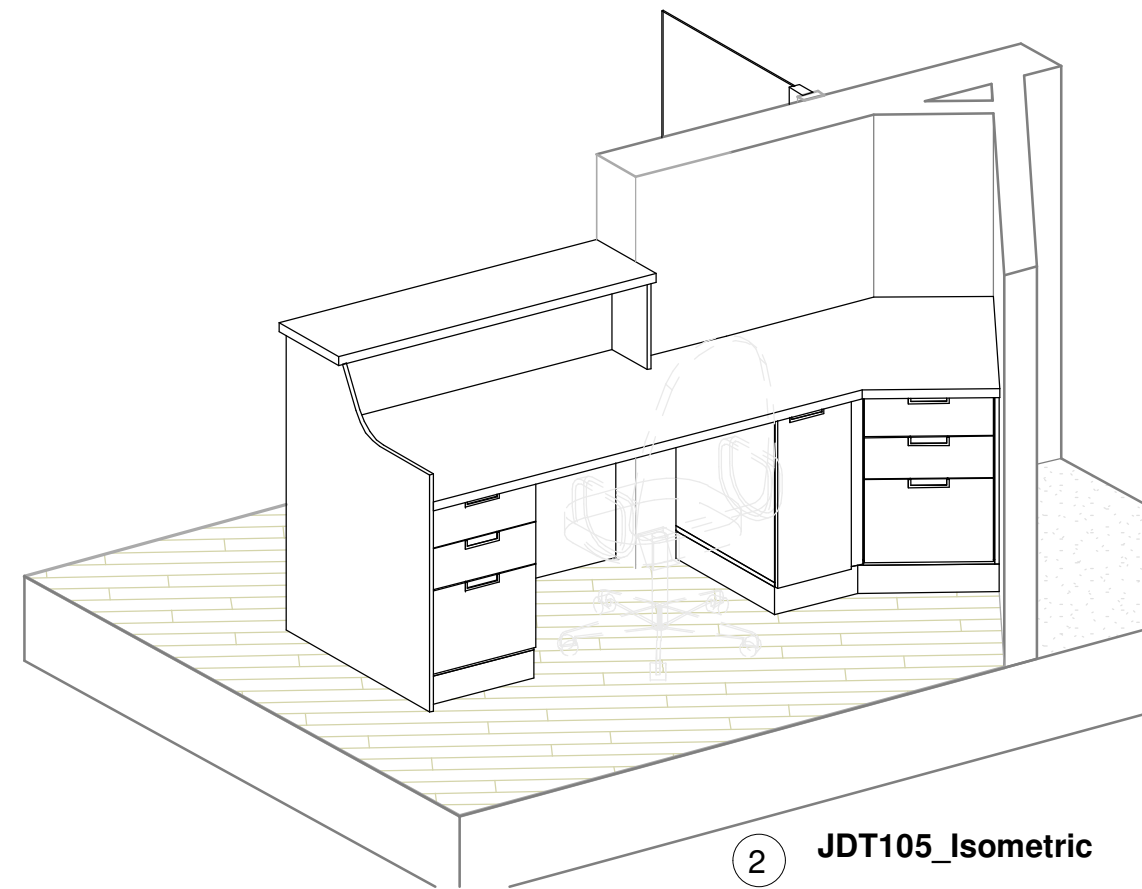
- > All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.
- > All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.
- > Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.
- > All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)
+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.
- > All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.
- > All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.
- > Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.
- > Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.
- > Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.
- > Handle specification:
Raiel Milano Grip Handle in Matt Chrome
- > All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.
- > Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing
- > All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)
- > All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.
- > Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.
- > **All measurements to be confirmed on site prior to manufacture.**



1 JDT 105_Plan
1 : 25



3 JDT105_Isometric 2



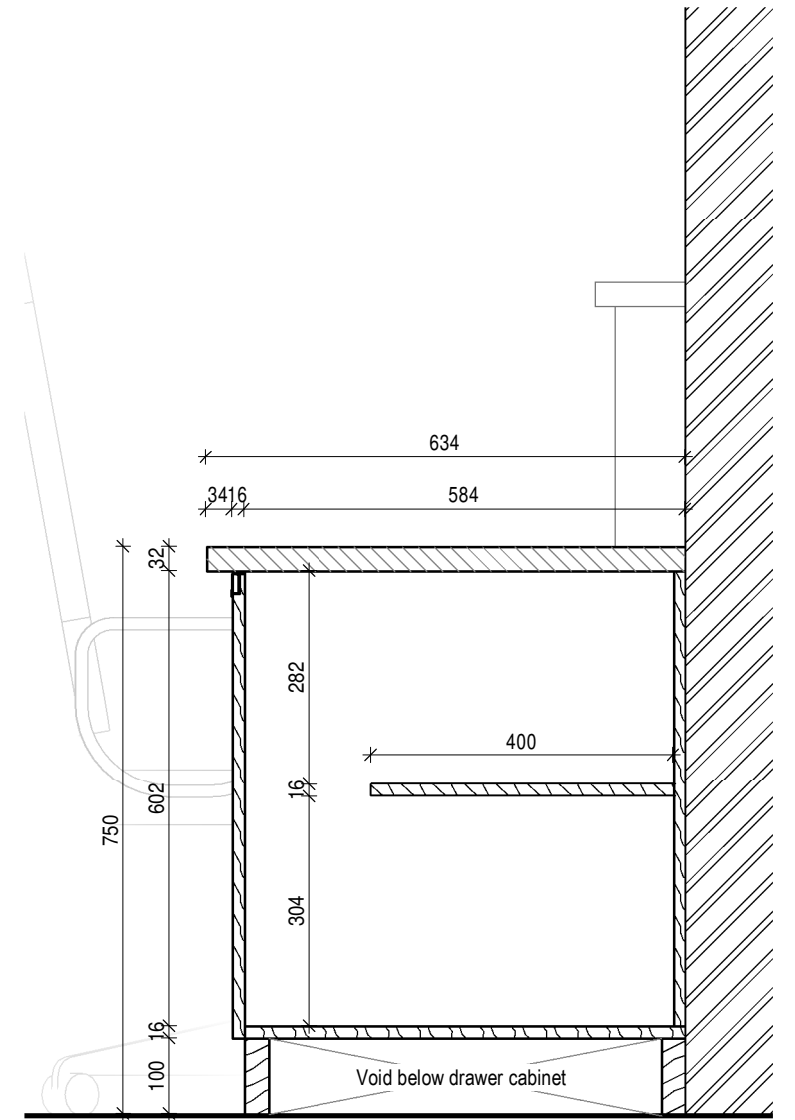
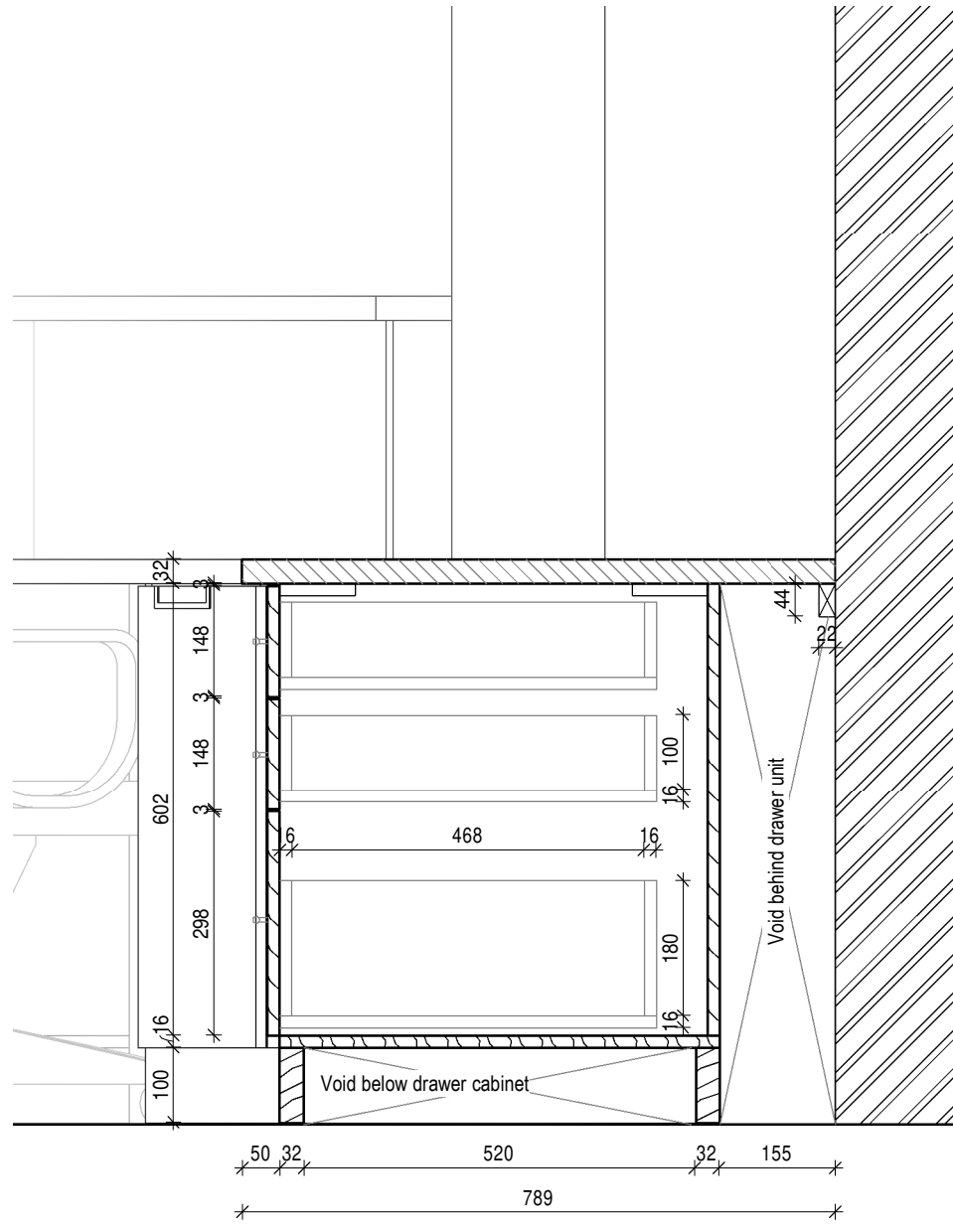
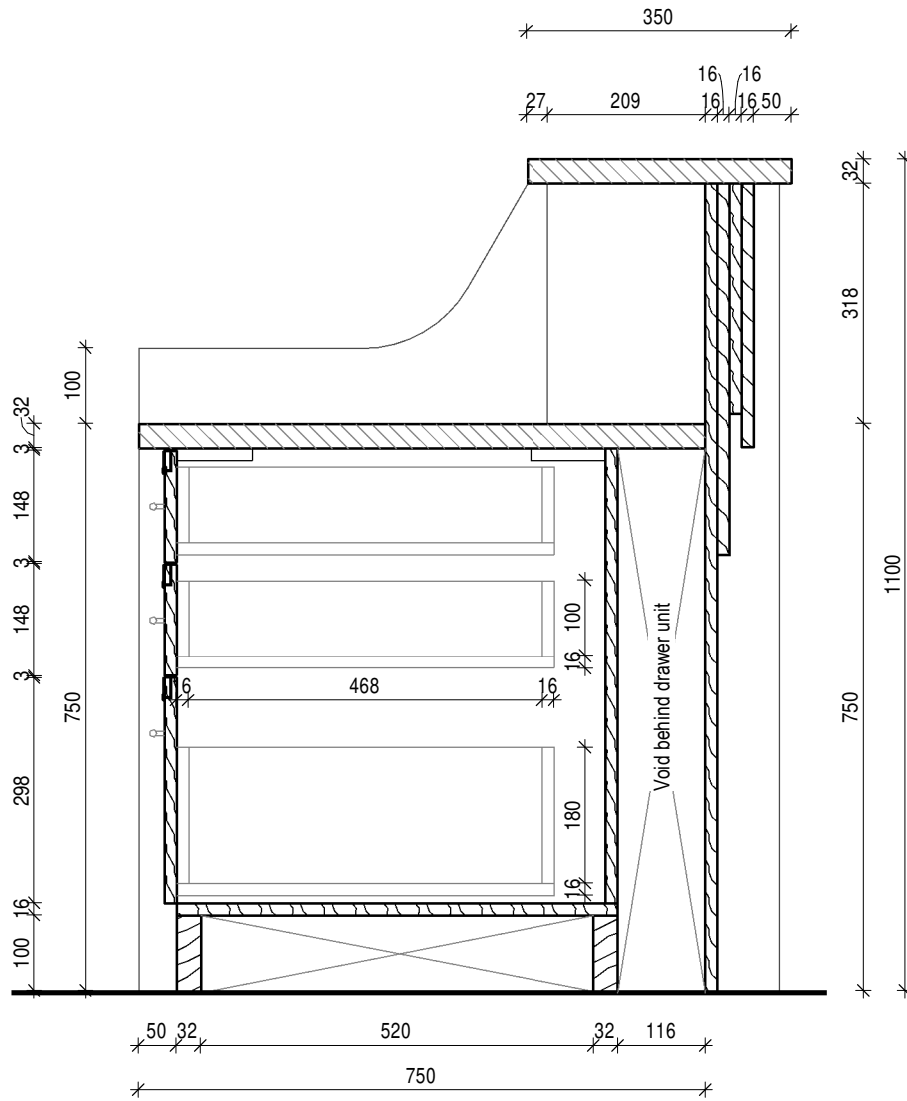
2 JDT105_Isometric

No.	Description	Date
1	Issued for pricing	20/11/2023
2	Update for Pricing	20/11/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit 105
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-105
FOR TENDER ONLY	
REV	3



4 **JDT105_Section 1**
1 : 10

5 **JDT105_Section 2**
1 : 10

6 **JDT105_Section 3**
1 : 10

b4 Architects cc
Resuscitating Healthcare Design



Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzm@b4arch.co.za

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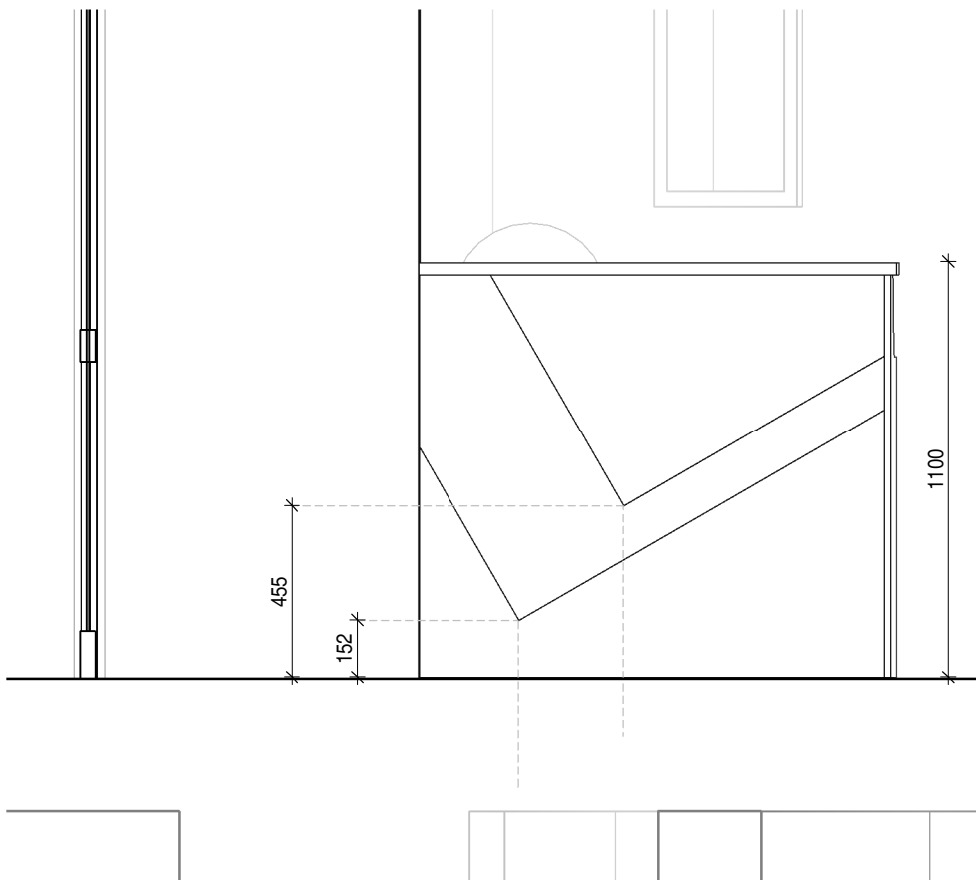
No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

PROJECT :	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

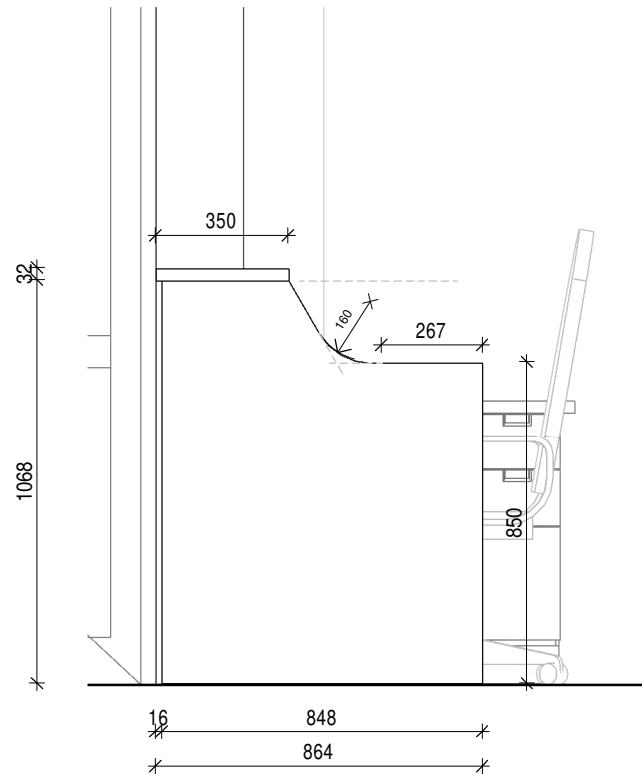
Scale:	1 : 10
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit 105 - Sections
B4 Project Ref No.:	305-019
Architect DWG No.:	JDT-105a
FOR TENDER ONLY	
REV	3

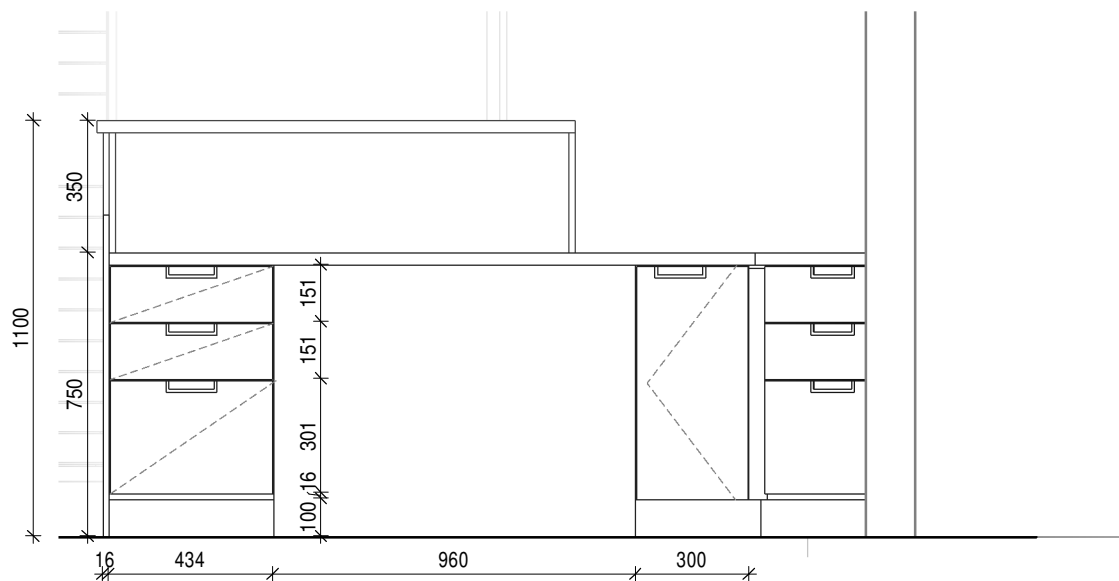
2023/11/27 2:59:10 PM



1 **JDT105_Elevation 1**
1 : 20



3 **JDT105_Elevation 3**
1 : 20



2 **JDT105_Elevation 2**
1 : 20

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All Contractors shall ensure that, before any work is put in hand, they comply with all the necessary Acts of Parliament of the Republic of South Africa.

All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS

Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for pricing	2011/02/23
2	Update for Pricing	2011/02/23
3	Issued for Tender	27/11/2023

PROJECT :	ECDoh
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 20
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit 105 - Elevations
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-105b
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.

+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

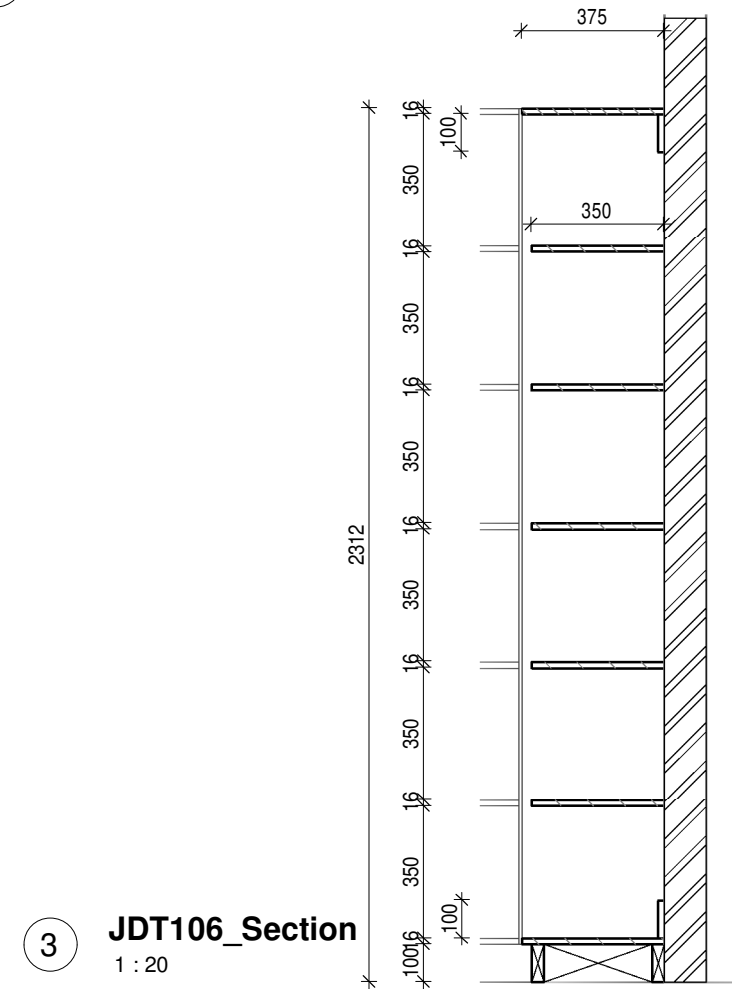
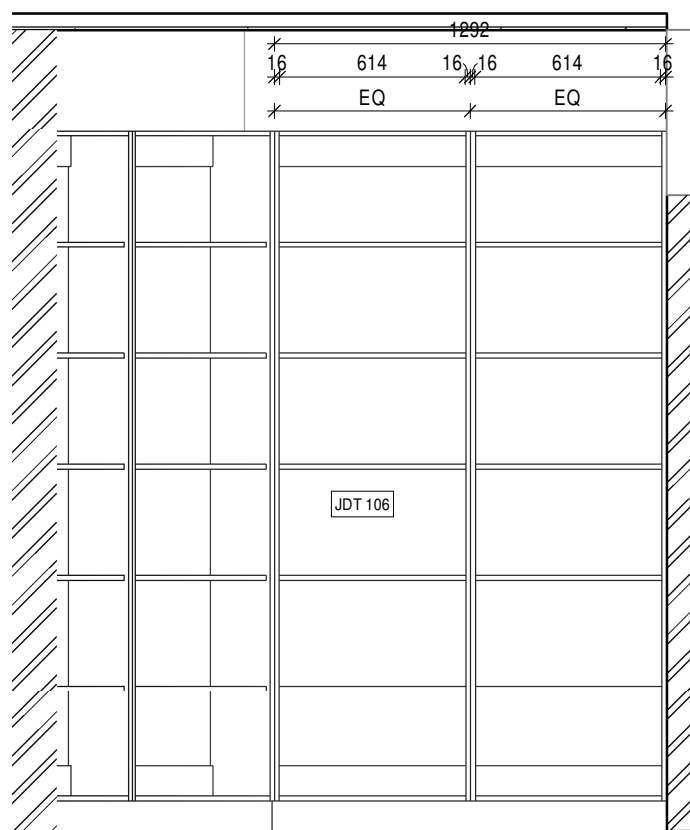
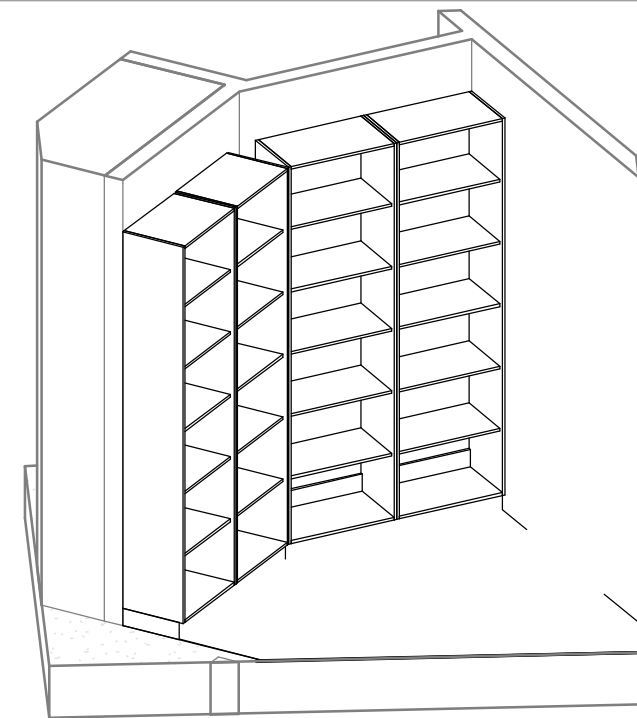
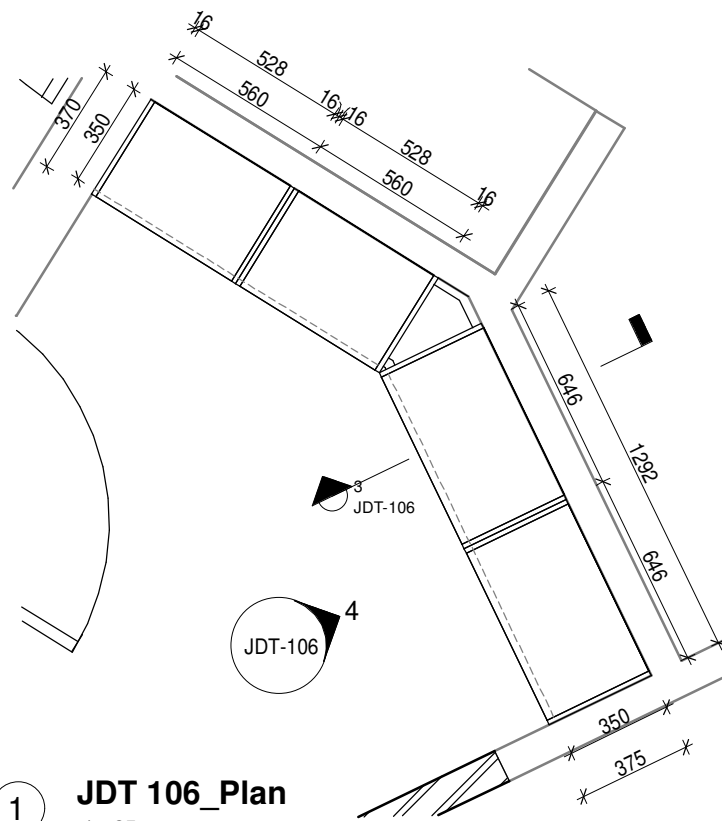
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

> All measurements to be confirmed on site prior to manufacture.



No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

PROJECT:	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit 106
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-106
FOR TENDER ONLY	

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

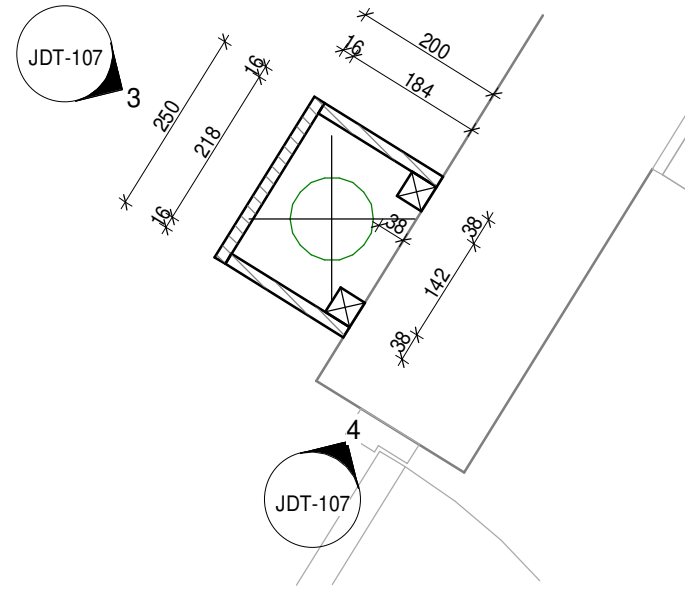
> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. Colour: TBC to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

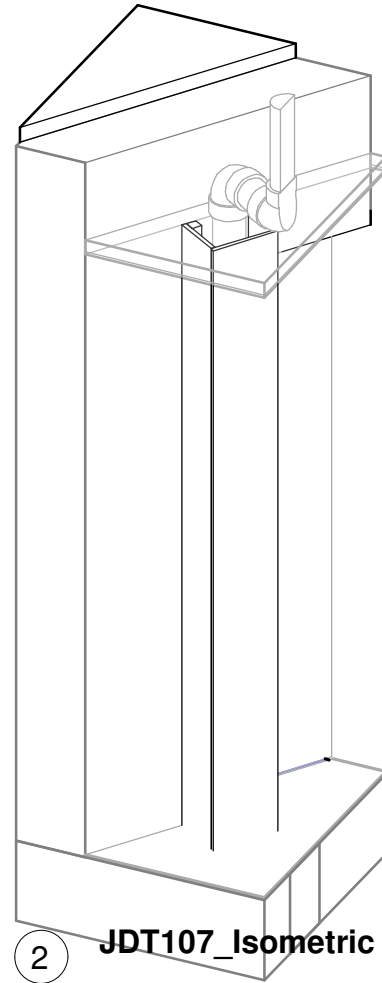
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

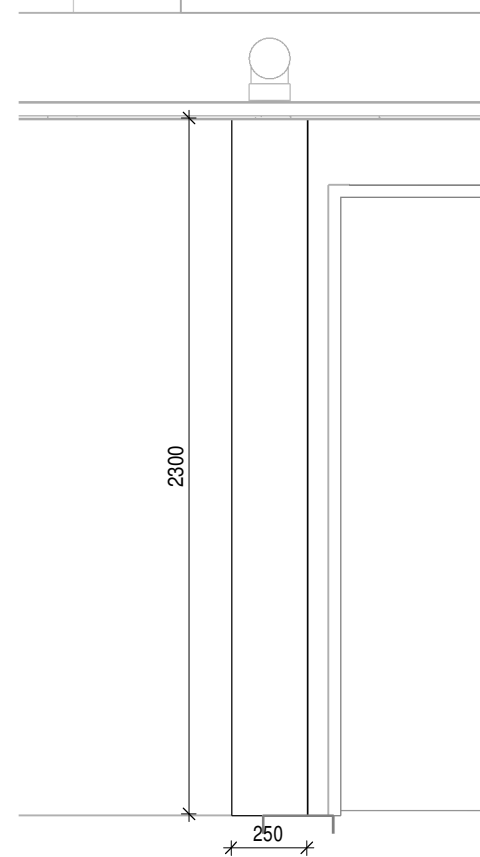
> All measurements to be confirmed on site prior to manufacture.



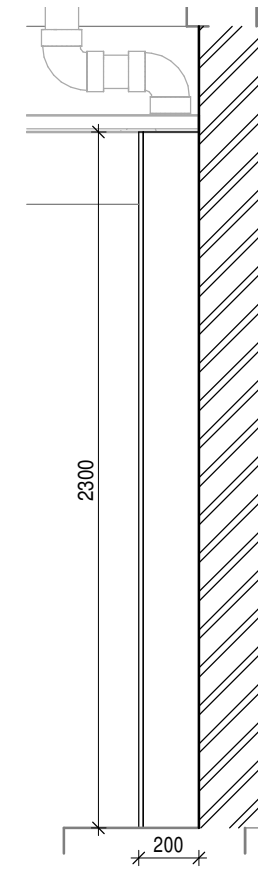
1 JDT 107_Plan
1 : 10



2 JDT107_Isometric



3 JDT107_Elevation 1
1 : 25



4 JDT107_Elevation 2
1 : 25



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

PROFESSIONAL: B4 Architects

CONSULTANT: Shaun Harvey

REVISION: v 1

REPORT DATE: 14/11/2023

305-019-DORMA001

dormakaba 

Project Information

All aspects of this Door Hardware Schedule should be checked and confirmed with all the current documentation available for this project by the hardware distributor prior to the ordering of any hardware.

- For pricing of this door hardware schedule, please contact your regular architectural hardware distributor or contact **dormakaba** for a list of distributors in your area. Alternatively, product and pricing assistance can be obtained via info.za@dormakaba.com
- Door and frame details (including sizes) shown in this door hardware schedule are indicative only and only used as a guide to hardware requirements. All door and frame details should be confirmed from the Architect's most recent documentation.
- If **dormakaba** Automatic doors have been noted in this specification, the full specification, pricing and installation details should be confirmed and priced by **dormakaba**. Please contact your preferred dormakaba consultant for further information.
- All non **dormakaba** hardware specified in this door hardware schedule must be checked with the relevant manufacturer for suitability and availability by the hardware distributor prior to ordering of the hardware.
- The hardware distributor will need to confirm all handing of all products from the latest floor plans prior to the ordering of any hardware. This includes, but is not limited to, all handed locks, furniture, offset pivots, lift-off hinges, etc.
- Where the **dormakaba** ED Series are specified, the provision / installation of fire stopping products or material to penetrations is not allowed for under the **dormakaba** scope of works. This to be carried out by others.
- Panic Bars (where specified) will need to have final sizes confirmed with actual door widths and heights by the hardware distributor prior to ordering.
- Where surface mounted door closers have been scheduled, they should generally be installed to the less visible side of the door. The door closers scheduled require minimum nib room of 60mm when mounted to the pull side of the door.
- Where surface mounted door closers have been scheduled to aluminium or timber glazed doors, a larger top rail (nominal 110mm) should be specified to allow for secure mounting of the door closer. The hardware distributor is to confirm with the door supplier the need for a drop or trim plate.
- Where kickplates have been specified, the builder should organize and allow for the cost of providing final kickplate measurements to the hardware distributor prior to ordering.
- Where door seals have been specified, the hardware distributor will need to confirm the seal sizes and types are compatible with the actual door type, door widths and heights prior to ordering.
- Where seals have been specified to match acoustic requirements, the acoustic consultant is to confirm these seals are suitable to achieve the acoustic ratings required. The door hardware specified may need to be altered if different seals are used.
- Where seals have been specified to smoke doors, the fire / smoke door contractor is to confirm these seals are suitable to comply with the SABS requirements for this project. The door hardware specified may need to be altered if different seals are used.

Project Information

- Where access control and security products have been scheduled, they are only indicatively specified in this door hardware schedule. For full details and specifications refer to the separate Access Control Quotation. The electronic products included in this door hardware schedule should be checked and coordinated with the information shown on the separate Access Control Quotation to ensure adequate power and cabling has been allowed for. The builder is to confirm that the electronic products included in this door hardware schedule are to be part of the hardware distributor's package.
- Refer to individual doors, hardware sets and products for notes that will need to be addressed.

Abbreviations used, finishes and descriptions

CYL	Cylinder
MK	Master Keyed
GMK	Grand Master Keyed
KA	Keyed Alike
KD	Keyed to Differ
BT	Bolt Through
BTB	Back to Back
LH	Left Hand
RH	Right Hand
N/S	Narrow Stile
H/O	Hold Open
D/A	Delayed Action
DD	Double Door
SLD	Sliding Door
EAC	Electronic Access Control
PSS	Polished Stainless Steel
SSS	Satin Stainless Steel
SS	Stainless Steel
GAL	Galvanized
ZP	Zinc Plated
PB	Polished Brass
SB	Satin Brass
PCP	Polished and Chrome Plated
SCP	Satin Chrome Plated
PNP	Polished Nickel Plated
SNP	Satin Nickel Plated
PC	Powder Coated
EP	Electro-plating
PVD	Physical Vapor Disposition

Colouring Legend

	Door / Product has been added to this revision.
	Door / Product has changed since the last revision.
	Door / Product has been removed from this revision.

Control List

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Door Number	Hardware Set	Area	Location	Door Type	Handing	MK	Door Material	Fire Rating
D109	01	10TH FLOOR	BOARDROOM	S01	SGD	MK1	ALUMINIUM	
D106	02	10TH FLOOR	PASSAGE	DT02	SA	MK1	ALUMINIUM	
D107	03	10TH FLOOR	DUCT	DT05	SA	MK1	TIMBER	
D103	04	10TH FLOOR	OFFICE	DT03	SA	MK1	ALUMINIUM	
D104	11	10TH FLOOR	BATHROOM	DT01	SA		TIMBER	
D105	05	10TH FLOOR	WC	DT01	SA		TIMBER	
D102	07	10TH FLOOR	MAIN OFFICE	DT02	SA	MK1	ALUMINIUM	
D101	06	10TH FLOOR	STORE	DT01	SA	MK1	TIMBER	
D108	08	10TH FLOOR	RECEPTION	DT04	SA	MK1	ALUMINIUM	
D!	09	9TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	10TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	10	10TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	09	8TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	7TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	6TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	5TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	4TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	3RD FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	2ND FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	1ST FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	GROUND FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	10	9TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	8TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	7TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	6TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	5TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	4TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	3RD FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	2ND FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y

HARDWARE PER SET



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		01		
Hardware Set Quantity :	1			
Notes				
Doors (1)	D109			
Product Code	Description	Finish	Qty	Units
SDABO	Sliding door accessories, track, hangers guides and stops by other to architects approval		1	Each
DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	4	Each
D02935 SS	dormakaba Narrow Stile Hook Lock Operating with European Profile Cylinder. Case dimentions (mm) 174H x 45D. Forend dimentions (mm) 290H x 22W. Backset 35mm. 18mm Throw	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-105 S.S	dormakaba Narrow Stile Cylinder escutcheon	Stainless Steel	1	Pair

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		02		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Prepare Doorstyle With "Timber Insert" Ensuring Stable Fixing Of Specified Pull Handles. Aluninium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth.			
Doors (1)	D106			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TS91B HO - SL	dormakaba MECHANICAL HOLD OPEN Cam action slide channel door closer. Max door width 950mm. Closing Force EN 3. Hydraulic speed control. Pull-side door leaf fixing (Standard), Push-side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001. NOTE: Door closer to be installed on pull side	Silver	1	Each
DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	1	Pair
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	1	Pair
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		03		
Hardware Set Quantity :	1			
Notes	Half Cylinder Fitted To Outside Frame Prepared To Accept Roller Catch.			
Doors (1)	D107			
Product Code	Description	Finish	Qty	Units
HBSFM	Other Hinges by steel frame manufacturer.		0	Each
DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	1	Each
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DSC204101 MK	dormakaba 40.5 - Europrofile Nickel Plated E-SP 5 Pin Single Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	0.5	Pair
DBC-SS-022	dormakaba Adjustable Roller Bolt	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		04		
Hardware Set Quantity :	1			
Notes	Male/Female Screws To Be Used to Fix Lever Furniture To Door. Through Fix Through The Lockcase. Grub Screw On Underside Of Lever Furniture Tightened Into Groove Of Spindle. Spindle Orientation To Be Correct. Wood Screws (4) Top And Bottom Of Rose To Be Utilised As Additional Securing. Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth.			
Doors (1)	D103			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDH-SS-020	dormakaba Wall Buffer NOTE: Buffer positioned to prevent pull handle hitting wall. Wall mounted accordingly	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

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CONSULTANT: Shaun Harvey

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HARDWARE FOR SET:		05		
Hardware Set Quantity :	1			
Notes	Handing Of Lever Furniture To Be Confirmed Prior To Ordering.			
Doors (1)	D105			
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1	Set
D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	1	Each
DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	2	Each

HARDWARE PER SET



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

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HARDWARE FOR SET:		06		
Hardware Set Quantity :	1			
Notes				
Doors (1)	D101			
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP Cyl S.S	dormakaba Lever handle on 170x170 plate with Cylinder cutout	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

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CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		07		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth. Male/Female Screws To Be Used To Fix Lever Furniture To Door. Through Fix Through The Lockcase. Grub Screw On Underside Of Lever Furniture Tightened Into Groove Of Spindle. Spindle Orientation To Be Correct. Wood Screws (4) Top And Bottom Of Rose To Be Utilised As Additional Securing.			
Doors (1)	D102			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

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CONSULTANT: Shaun Harvey

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HARDWARE FOR SET:		08		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Prepare Doorstyle With "Timber Insert" Ensuring Stable Fixing Of Specified Pull Handles. Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth. Doorcloser Fitted To Inside, Parallel Arm Fixing.			
Doors (1)	D108			
Product Code	Description	Finish	Qty	Units
2040	Alufab 2040 200mm Aluminium Sinkless Hinges, Centre Pin, Anodised		3	Each
TS83 PA HO	dormakaba EN 3-6 Parallel Arm HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part1 Fire Resistant Doors. Certified manufacturer to ISO 9001 NOTE: Parallel Arm Bracket (Rack & Pinion) to be used for push-side fixing. Please note fixing instructions supplied with the product	Silver	1	Set
TS73v or TS83 Drop Plate	dormakaba Drop Plate Only For installation on frame when direct fixing of closer is not possible.	-	1	Each
DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	1	Pair
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	1	Pair
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDH-SS-020	dormakaba Wall Buffer NOTE: Buffer positioned to prevent pull handle hitting wall. Wall mounted accordingly	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

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HARDWARE FOR SET:		09		
Hardware Set Quantity :	1			
Notes	Signage Denoting Escape Route To Be Promintly Displayed. Requirement States Door Must Be Self Closing. Doorcloser Utilised Needs To Be Fire Rated. Panic Hardware fitted to door using male/female type fixing screws Doorcloser Fitted To Inside, Parallel Arm Fixing.			
Doors (11)	D!, D!, D!, D!, D!, D!, D!, D!, D!, D!, D!			
Product Code	Description	Finish	Qty	Units
HBFMF	Hinges by fire door manufacturer		1	Each
TS83 PA	dormakaba EN 3-6 Parallel Arm NON HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant Doors. Certified manufacturer to ISO 9001 NOTE: Parallel Arm Bracket (Rack & Pinion) to be used for push-side fixing. Please note fixing instructions supplied with the product	Silver	1	Set
TS83-SS-FP	60X245X1,6mm Thick Grade 304 Stainless Steel Fixing Plate With Pre Drilled Holes To Suit Doorcloser Fixing Holes.Plate To Be Installed On Opposite Side Of Door Using dormakaba M5 Male/FemaleFixing Screws.		1	eACH
Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	4	Each
PHA2 S SD	dormakaba Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201. 2104. PHX02. PHX04)	-	1	Set

HARDWARE PER SET

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CONSULTANT: Shaun Harvey

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HARDWARE FOR SET:		10		
Hardware Set Quantity :	1			
Notes	Requirement States Door Must Be Self Closing. Doorcloser Utilised Needs To Be Fire Rated.			
Doors (9)	D!, D!, D!, D!, D!, D!, D!, D!, D!			
Product Code	Description	Finish	Qty	Units
HBFMF	Hinges by fire door manufacturer		1	Each
TS91B G-SR EMF 1 VK	dormakaba ELECTRO MECHANICAL HOLD OPEN Co-ordinated door closer system for rebated doors between 1220-1350mm. Closing Force EN 3. Hydraulic speed control. Max door width 950mm per leaf. Pull-side fixing. Door closer compliant with EN 1154. Door co-ordinators tested to EN 1158. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001. NOTE: dormakaba recommends that in addition to the connection to a fire alarm system; the G-SR EMF HO also should include a "push to release" button. This needs to be integrated into the circuit in close vicinity to the door, allowing for a controlled release of the door leaves for cleaning and maintenance.	Silver	1	Set
TS91 EN3 FP	Plate to be fabricated from 1.2mm thick stainless steel with 8mm diameter predrilled holes positioned according to the relevant drawings. All corners to receive 5mm radius fillet.	Stainless Steel	2	Each
DHP-430-CL-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout left. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	1	Each
DHP-430-CR-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout right. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	1	Each
Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	8	Each
Fixing Screws	dormakaba M4 Patent Male / Female fixing screw pack (2 pairs per pack)	Stainless Steel	1	Pack
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

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CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		11		
Hardware Set Quantity :	1			
Notes	Handing Of Lever Furniture To Be Confirmed Prior To Ordering.			
Doors (1)	D104			
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1	Set
D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	1	Each
DSS-132 MF	dormakaba 150x150mm MALE/FEMALE sign	Stainless Steel	1	Each
DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

BILL OF MATERIALS

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

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CONSULTANT: Shaun Harvey

REVISION: v 1

Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		Pair	4.5		
	2040	Alufab 2040 200mm Aluminium Sinkless Hinges, Centre Pin, Anodised		Each	3.0		
	DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	Pair	4.5		
	HBFMF	Hinges by fire door manufacturer		Each	20.0		
	HBSFM	Other Hinges by steel frame manufacturer.		Each	0.0		
	SDABO	Sliding door accessories, track, hangers guides and stops by other to architects approval		Each	1.0		
	DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	Each	5.0		
	TH120 BP Cyl S.S	dormakaba Lever handle on 170x170 plate with Cylinder cutout	Stainless Steel	Set	1.0		
	TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	Set	2.0		
	TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	Set	2.0		
	TS83 PA	dormakaba EN 3-6 Parallel Arm NON HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant Doors. Certified manufacturer to ISO 9001	Silver	Set	11.0		
	TS83 PA HO	dormakaba EN 3-6 Parallel Arm HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part1 Fire Resistant Doors. Certified manufacturer to ISO 9001	Silver	Set	1.0		

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.






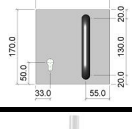
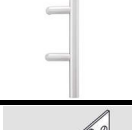
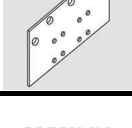




REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	TS91B G-SR EMF 1 VK	dormakaba ELECTRO MECHANICAL HOLD OPEN Co-ordinated door closer system for rebated doors between 1220-1350mm. Closing Force EN 3. Hydraulic speed control. Max door width 950mm per leaf. Pull-side fixing. Door closer compliant with EN 1154. Door co-ordinators tested to EN 1158. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001.	Silver	Set	9.0		
	TS91B HO - SL	dormakaba MECHANICAL HOLD OPEN Cam action slide channel door closer. Max door width 950mm. Closing Force EN 3. Hydraulic speed control. Pull-side door leaf fixing (Standard), Push-side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001.	Silver	Each	1.0		
	D02935 SS	dormakaba Narrow Stile Hook Lock Operating with European Profile Cylinder. Case dimensions (mm) 174H x 45D. Forend dimensions (mm) 290H x 22W. Backset 35mm. 18mm Throw	Stainless Steel	Each	1.0		
	D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	Each	2.0		
	D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	Each	3.0		
	DHP-430-CL-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout left. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	Each	9.0		
	DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	Pair	2.0		
	TS73v or TS83 Drop Plate	dormakaba Drop Plate Only For installation on frame when direct fixing of closer is not possible.	-	Each	1.0		
	TS83-SS-FP	60X245X1,6mm Thick Grade 304 Stainless Steel Fixing Plate With Pre Drilled Holes To Suit Doorcloser Fixing Holes. Plate To Be Installed On Opposite Side Of Door Using dormakaba M5 Male/Female Fixing Screws.		eACH	11.0		
	TS91 EN3 FP	Plate to be fabricated from 1.2mm thick stainless steel with 8mm diameter predrilled holes positioned according to the relevant drawings. All corners to receive 5mm radius fillet.	Stainless Steel	Each	18.0		
	D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	Each	3.0		
	DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	Each	6.0		

BILL OF MATERIALS

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.













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PROFESSIONAL: B4 Architects

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Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	Each	2.0		
	DHP-430-CR-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout right. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	Each	9.0		
	Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	Each	116.0		
	DSC204101 MK	dormakaba 40.5 - Europrofile Nickel Plated E-SP 5 Pin Single Cylinder - Master Keyed	Satin Nickel	Each	1.0		
	DSS-132 MF	dormakaba 150x150mm MALE/FEMALE sign	Stainless Steel	Each	1.0		
	DCE-105 S.S	dormakaba Narrow Stile Cylinder escutcheon	Stainless Steel	Pair	1.0		
	DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	Pair	2.5		
	Fixing Screws	dormakaba M4 Patent Male / Female fixing screw pack (2 pairs per pack)	Stainless Steel	Pack	9.0		
	PHA2 S SD	dormakaba Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201. 2104. PHX02. PHX04)	-	Set	11.0		
	DBC-SS-022	dormakaba Adjustable Roller Bolt	Stainless Steel	Each	1.0		
	DDH-SS-020	dormakaba Wall Buffer	Stainless Steel	Each	2.0		
	DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	Each	15.0		
Total (ZAR)							

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All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS
Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for Information	22/11/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

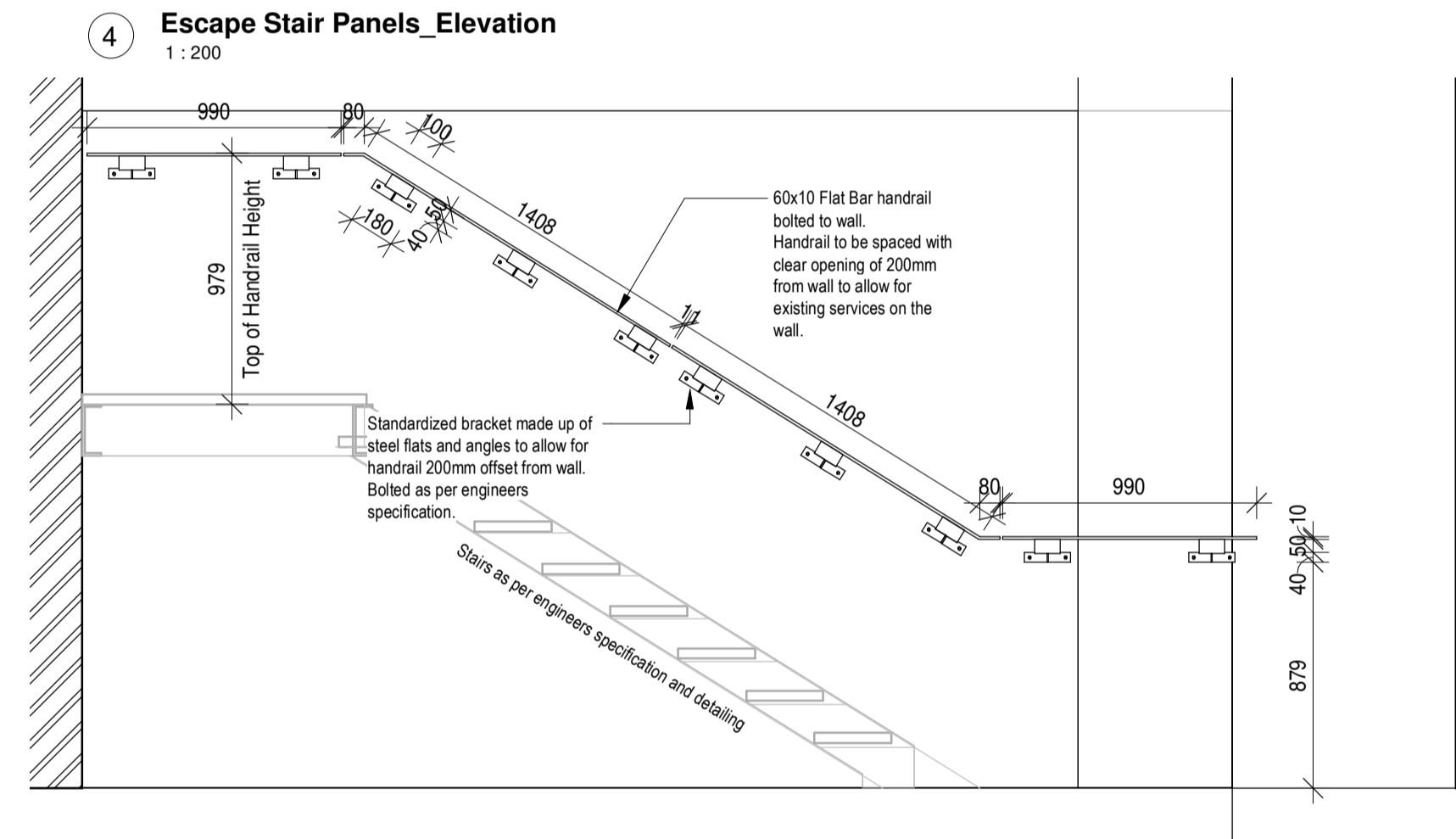
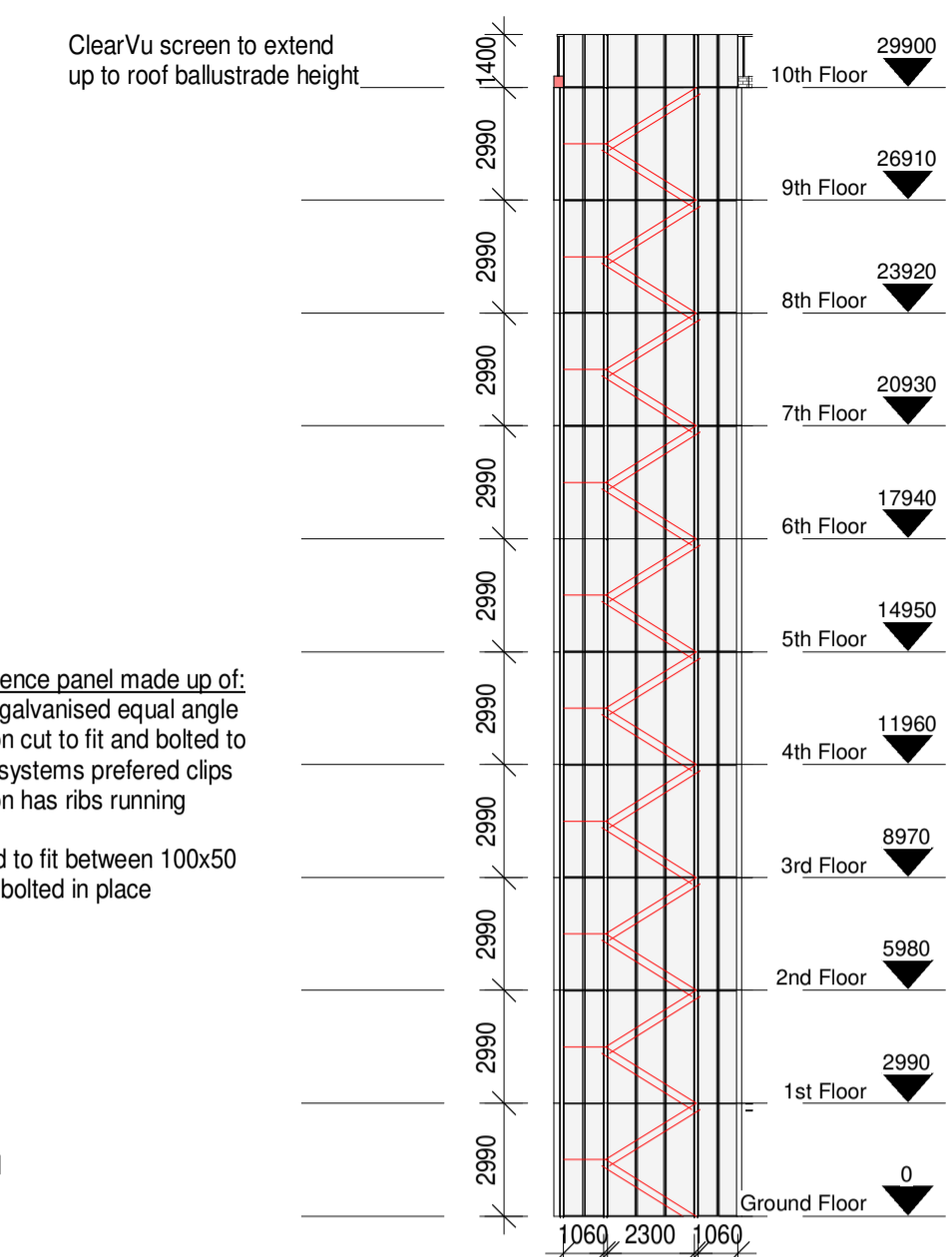
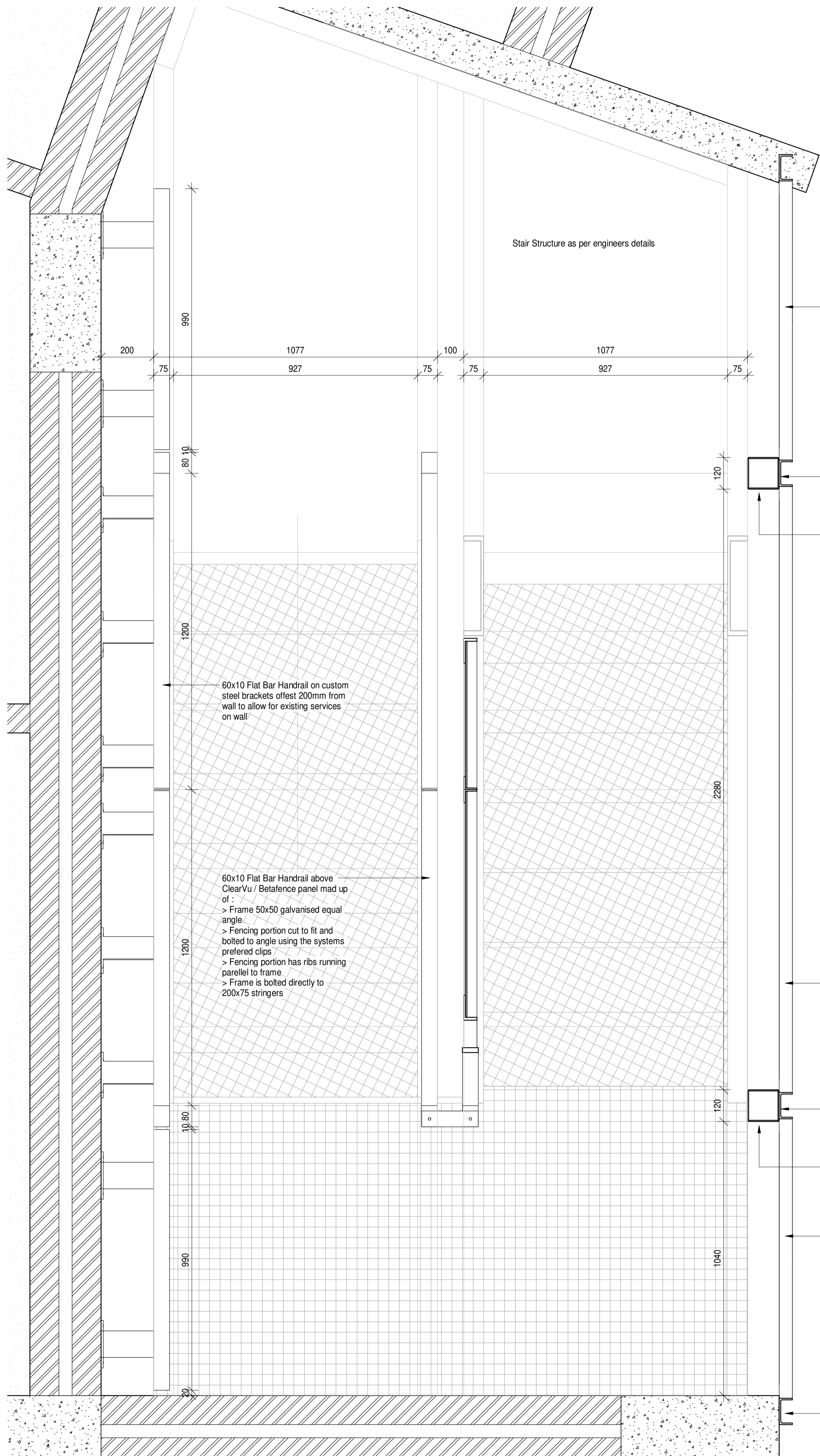
ECDoH

PROJECT: Protea Flats - New GSA Offices

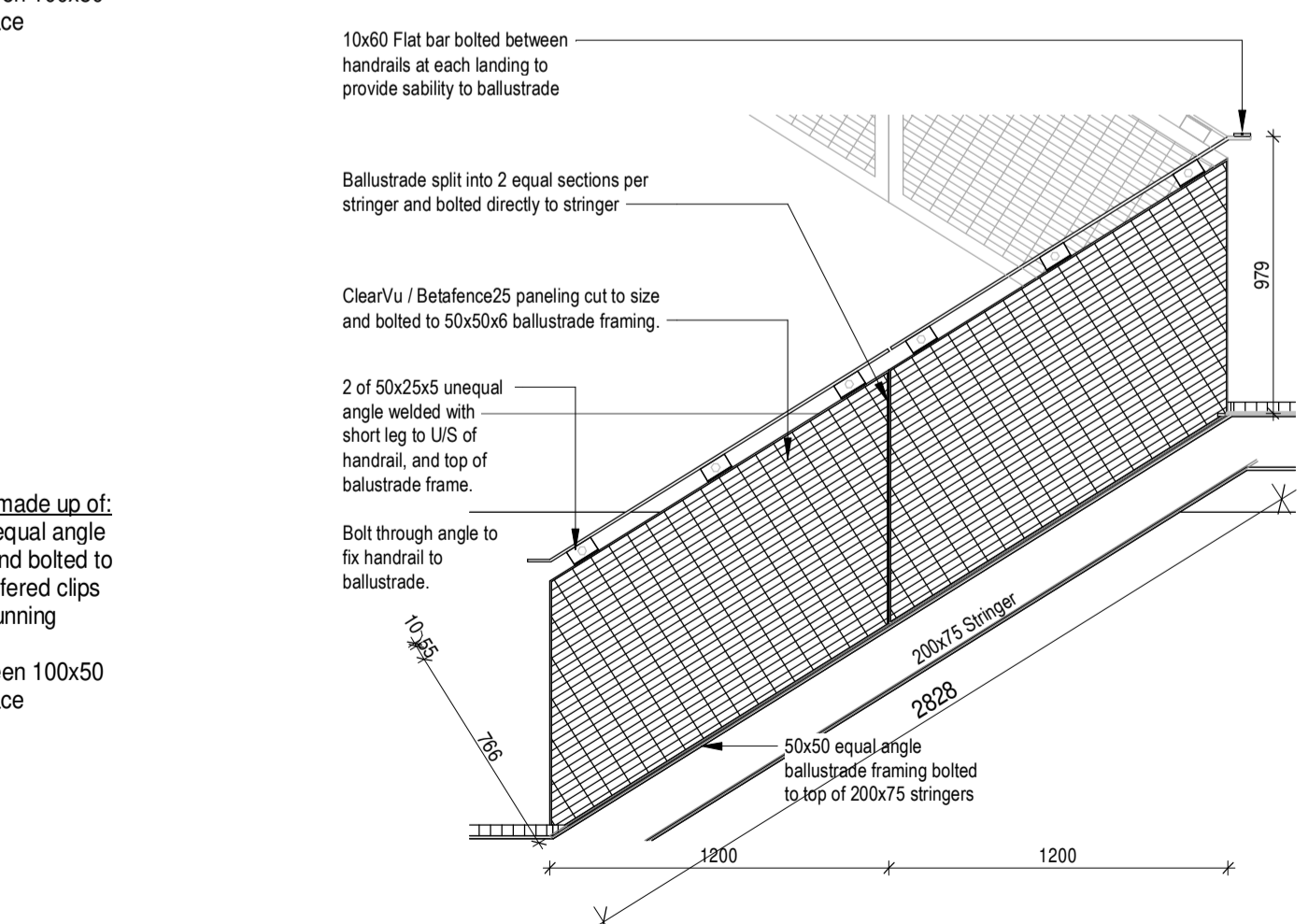
TITLE: Fire Escape Stair Ballustrade & Screen Details

Scale	As indicated
Date:	24 November 2023
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	
B4 Project Ref No.:	Architect DWG No:
305-019	DET-002

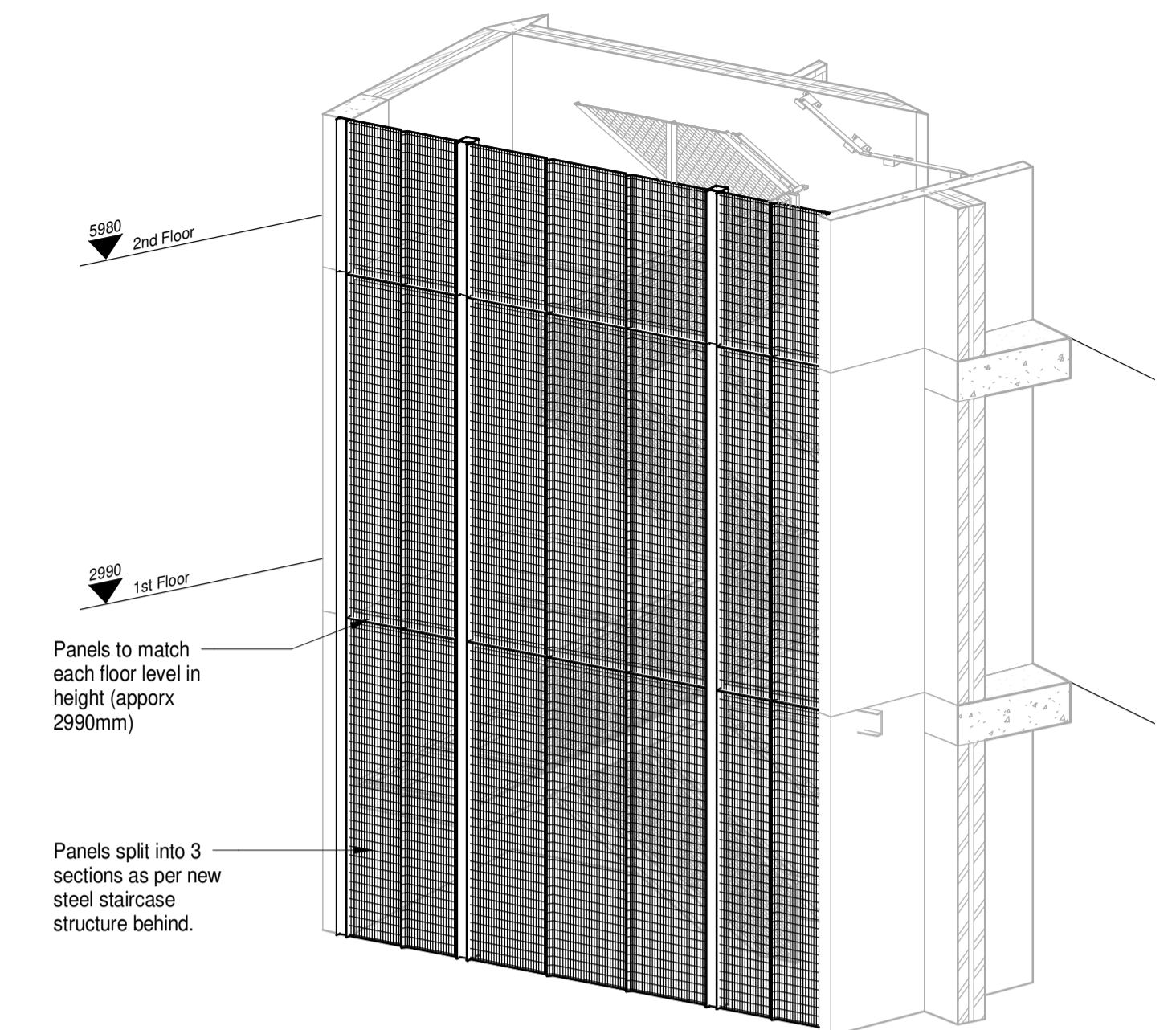
FOR TENDER ONLY REV: 2



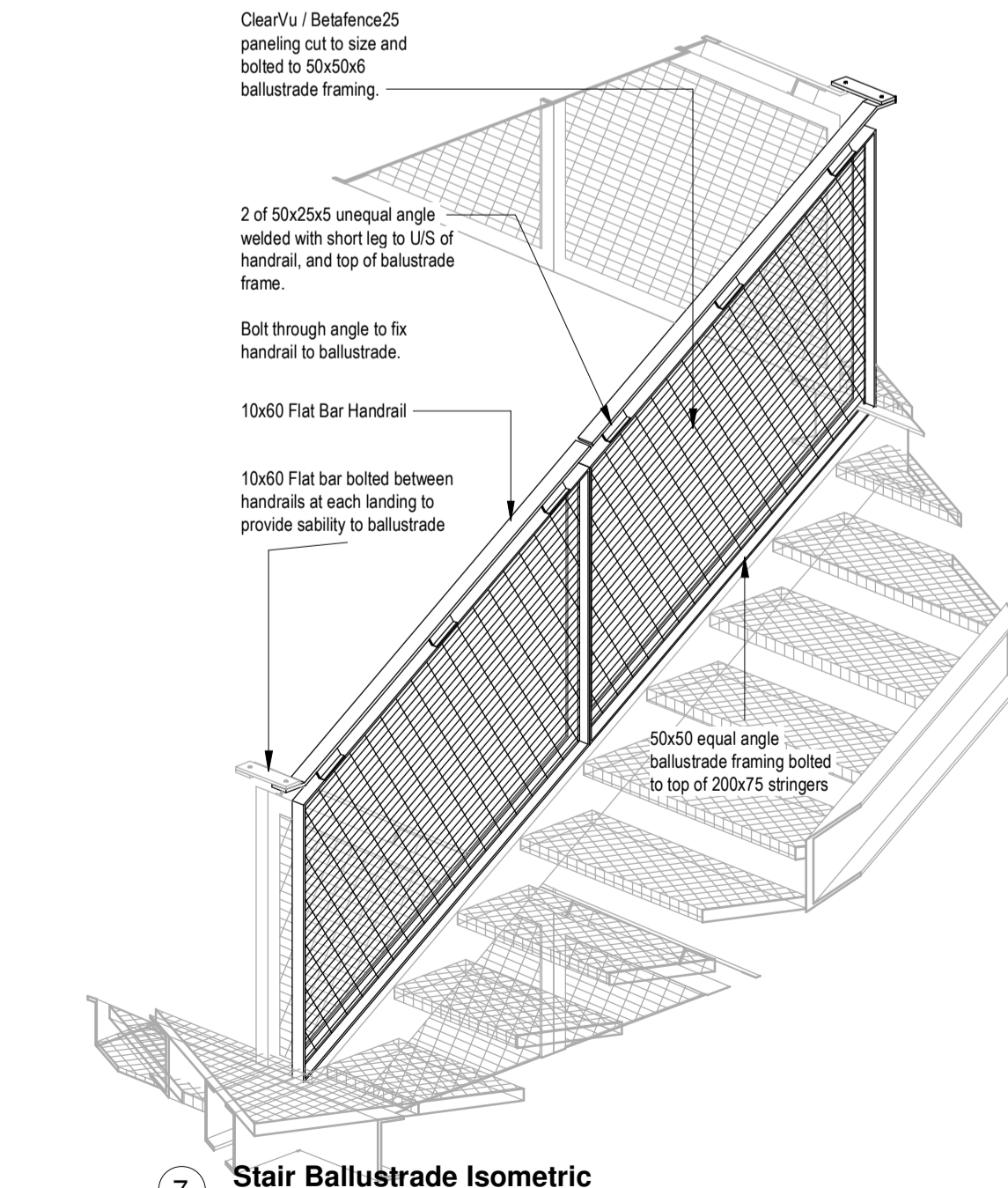
2 Stair sketch_Typical Wall Handrail 1 : 25



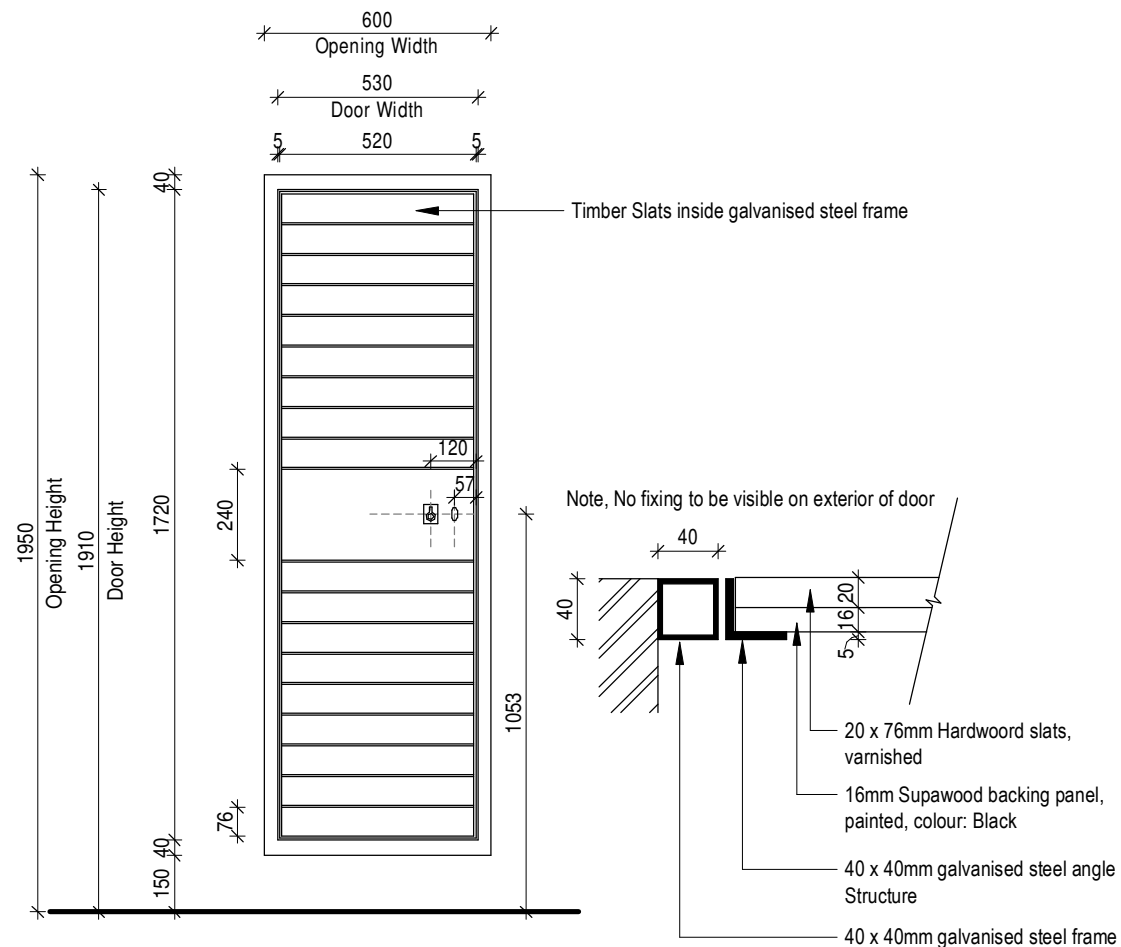
5 Stair sketch_Typical Internal Ballustrade 1 : 25



3 Stair ballustrade sketch



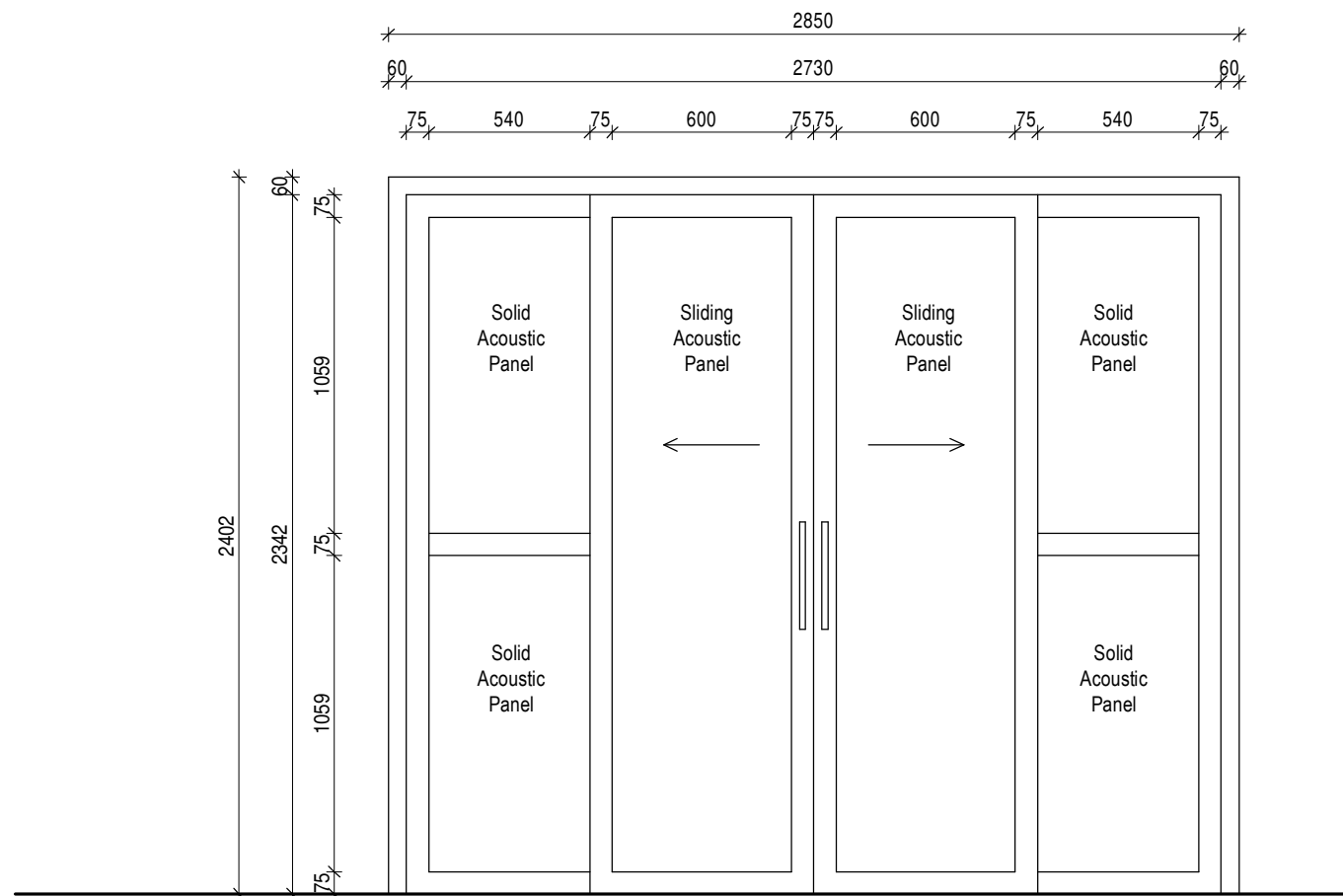
7 Stair Ballustrade Isometric



Door Type DT05

Solid 16mm timber infill layer with 20mm solid wood slats fixed on top

NOTE: All dimensions to be checked on site prior to manufacture



Door Type S01

Acoustic rated sliding door using Lift & Slide hardware system

Lift and Slide system by HBS Systems

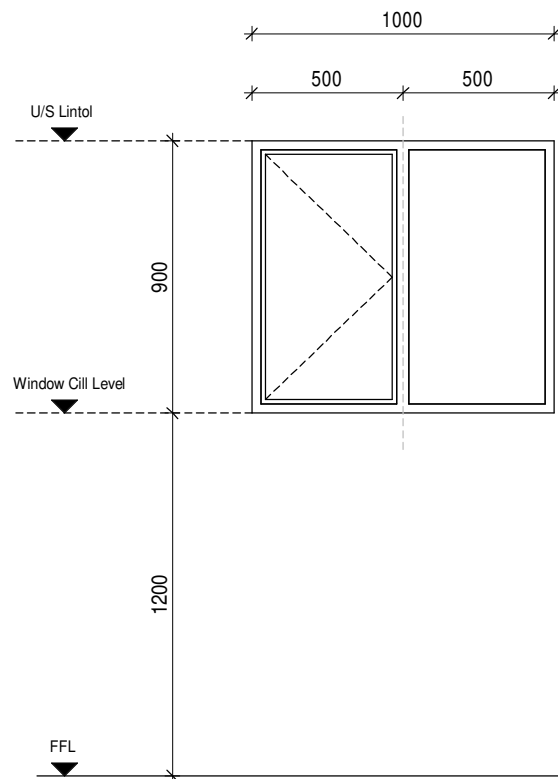
Lift and Slide system allows aluminium door system to be supported off floor slab to minimise structural intervention required to roof above

Panels hardware and technical design by HBS systems

Panels to be acoustically rated to achieve best acoustic rating possible

Door Schedule DT05

Mark	Type Mark	Height	Width	Construction Type	Finish	Comments
107	DT05	1950	600	Steel Frame, Timber slatted Duct Door	Natural Clear Varnish	40x40mm steel tube frame, 40x40mm Angle door rails and sides with timber infill
109	S01	2430	2850	Aluminium, Sliding System, Acoustic infill	Powder coated, Colour: TBC	Lift & Slide system to seal around door for sound
L01	FD02	2082	1360			



Standard aluminium window to specialist detail.
 Colour: Charcoal
 Glazing: 6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
 Note: Window to replaces existing steel window

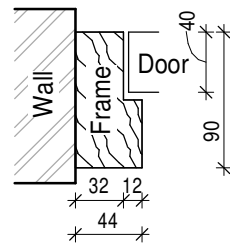
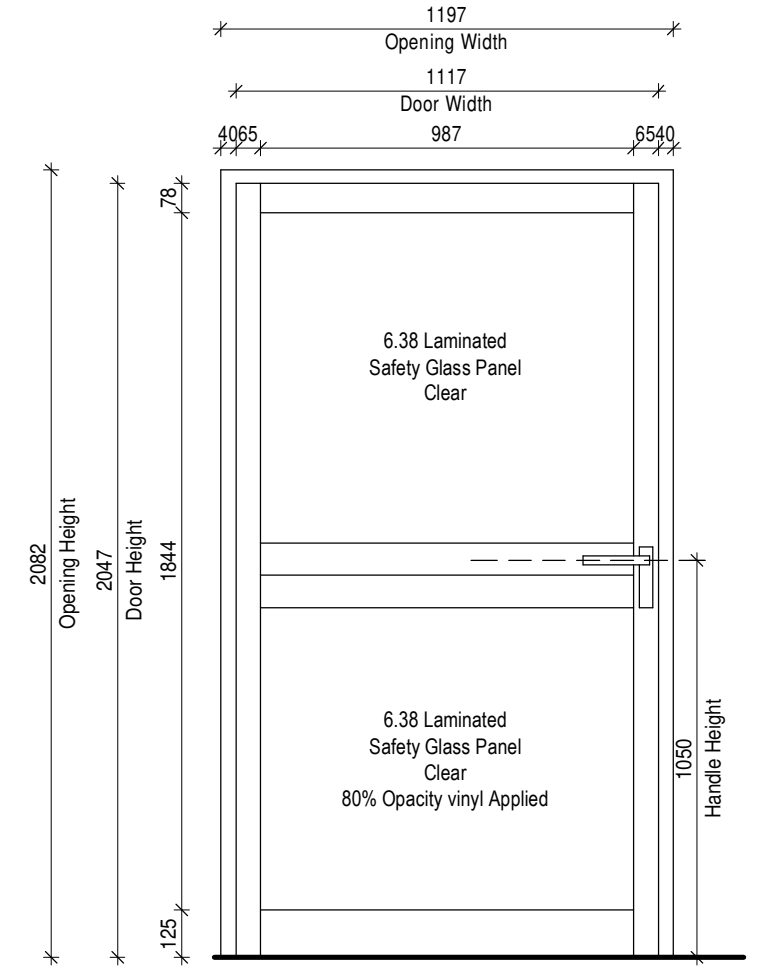
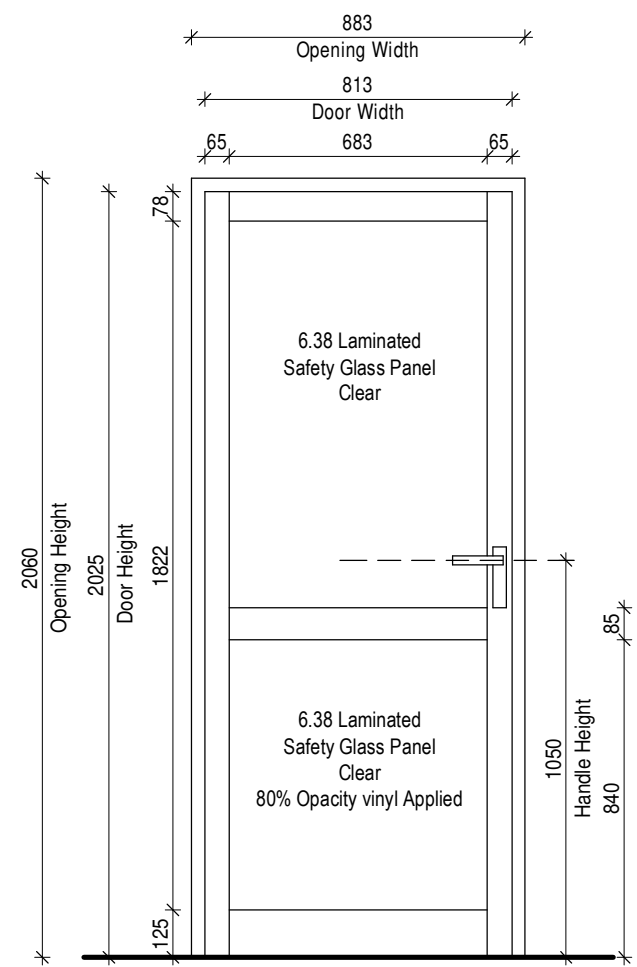
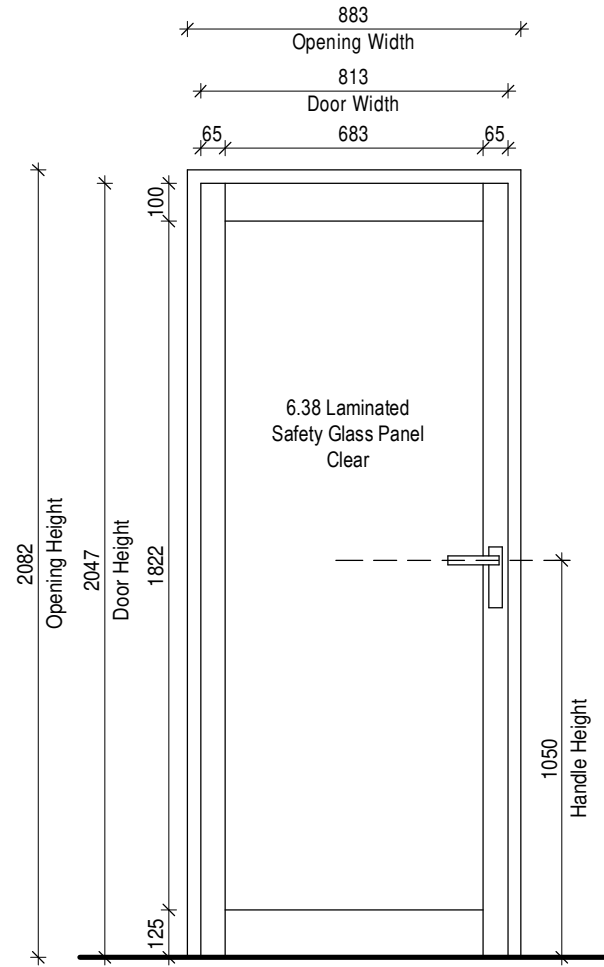
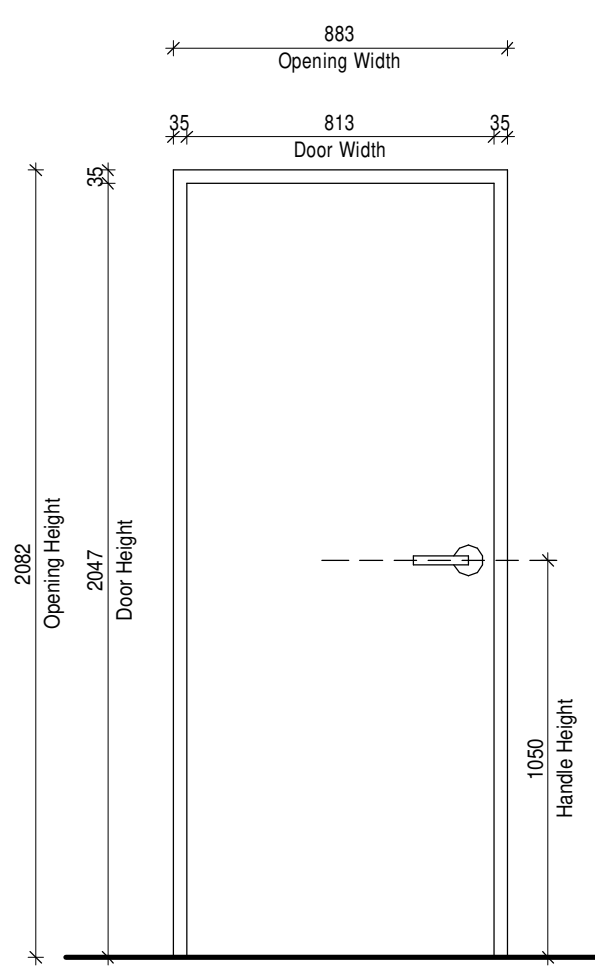
○ **WT01**
1 : 25

No.	Description	Date
1	Issued for pricing	2010/2023
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023
REVISIONS		

PROJECT	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	b4 Architects
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Window Type WT01
B4 Project Ref No.:	Architect DWG No:
305-019	WIN-001
FOR TENDER ONLY	



Door Type DT01

New standard hardwood timber frame (44x90mm) painted as per paint specification document

Door Type DT02

Door Type DT03

Part of shopfront, schedule to be read in conjunction with shopfront drawing

Height limited by beam onsite

Door Type DT04

Part of shopfront, schedule to be read in conjunction with shopfront drawing

NOTE: All dimensions to be checked on site prior to manufacture

Door Schedule DT01-DT04

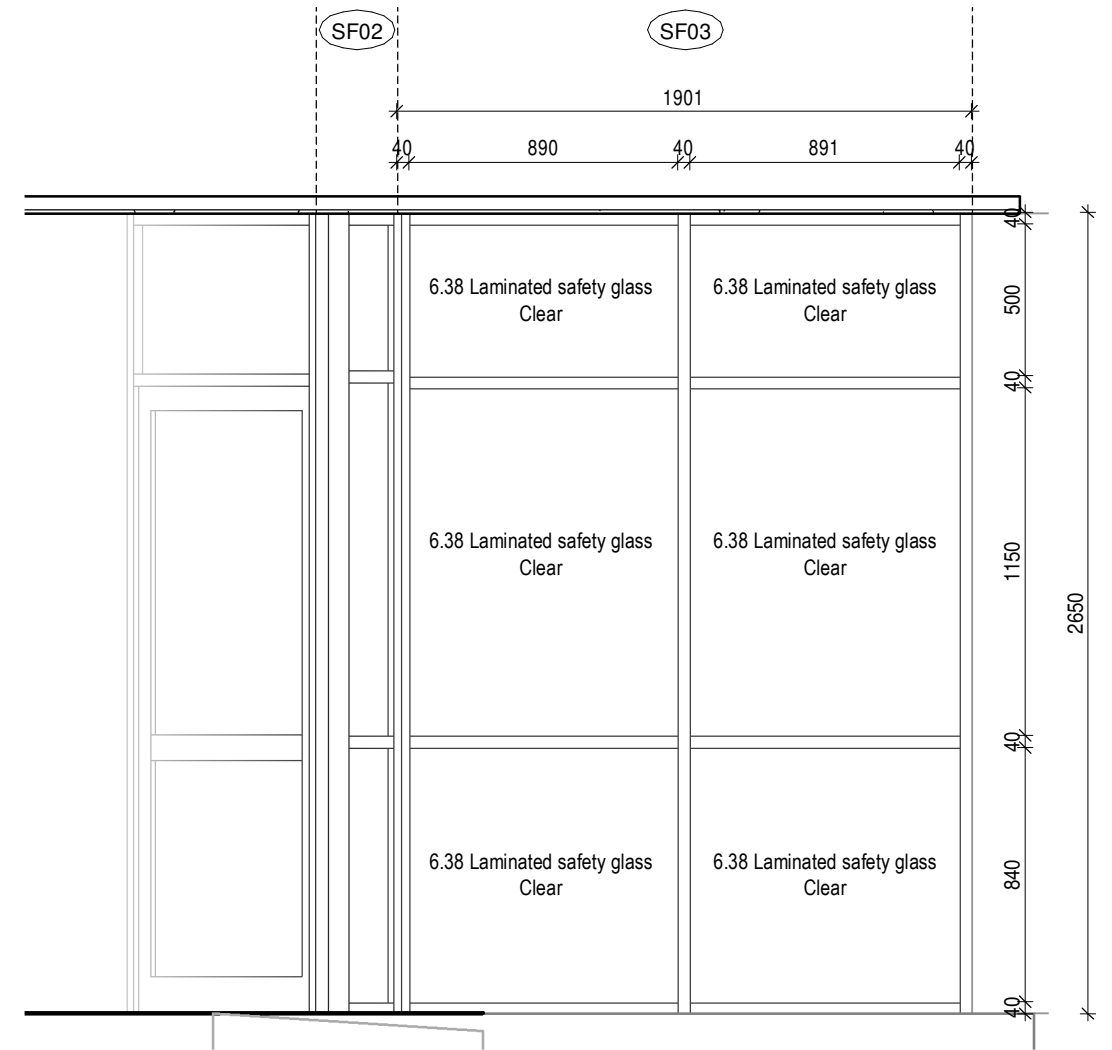
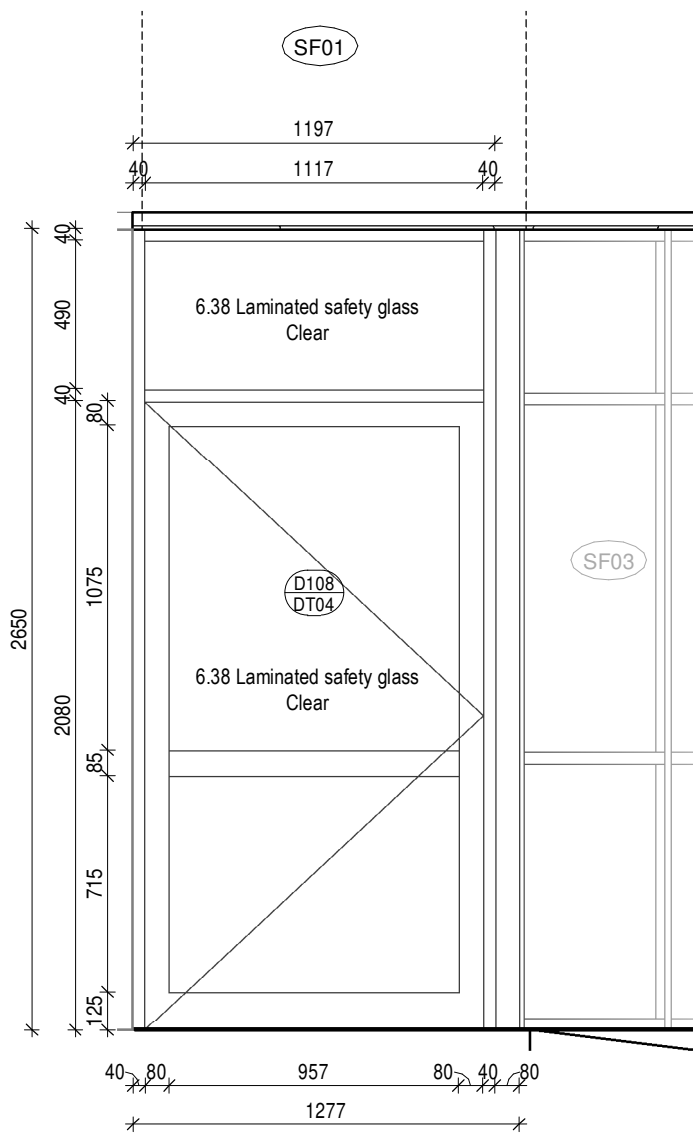
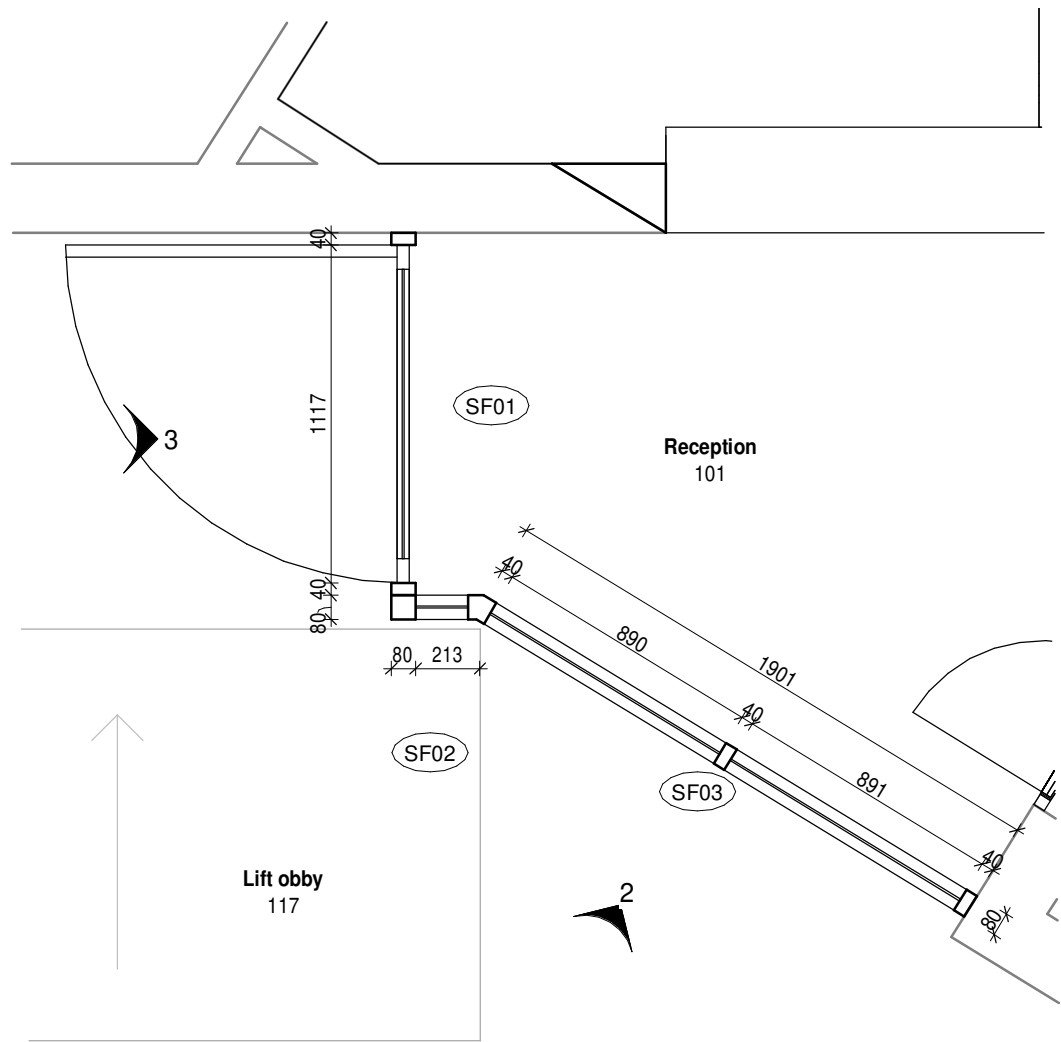
Mark	Type Mark	Height	Width	Construction Type	Finish	Comments
101	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
102	DT02	2082	883	Aluminium, glass panel infill	Powder coated, Colour: White	80% opacity vinyl to design applied
103	DT03	2020	813	Aluminium, glass panel infill	Powder coated, Colour: White	Height limited by beam on site, 80% opacity vinyl to design applied
104	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
105	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
106	DT02	2082	883	Aluminium, glass panel infill	Powder coated, Colour: White	80% opacity vinyl to design applied
108	DT04	2080	1117	Aluminium, glass panel infill		

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	31/10/2023
3	Update for pricing	08/11/2023
4	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

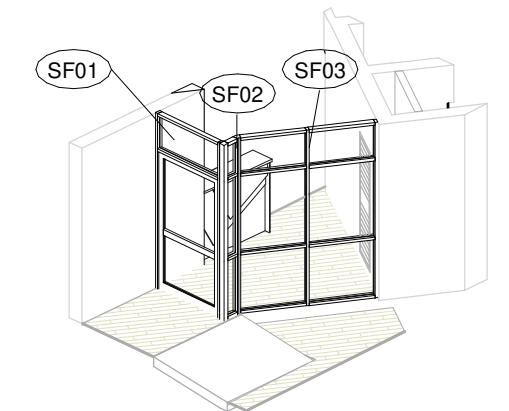
TITLE:	Door Type DT01, DT02, DT03, DT04
B4 Project Ref No.:	Architect DWG No:
305-019	DOR-001
FOR TENDER ONLY	
REV	4



1 Shopfront SF01, SF02, SF03_Plan
1 : 25

3 Shopfront SF01_Elevation
1 : 25

2 Shopfront SF02, SF03_Elevation
1 : 25



4 Shopfront SF01_Isometric

Shopfront Schedule SF01, SF02, SF03

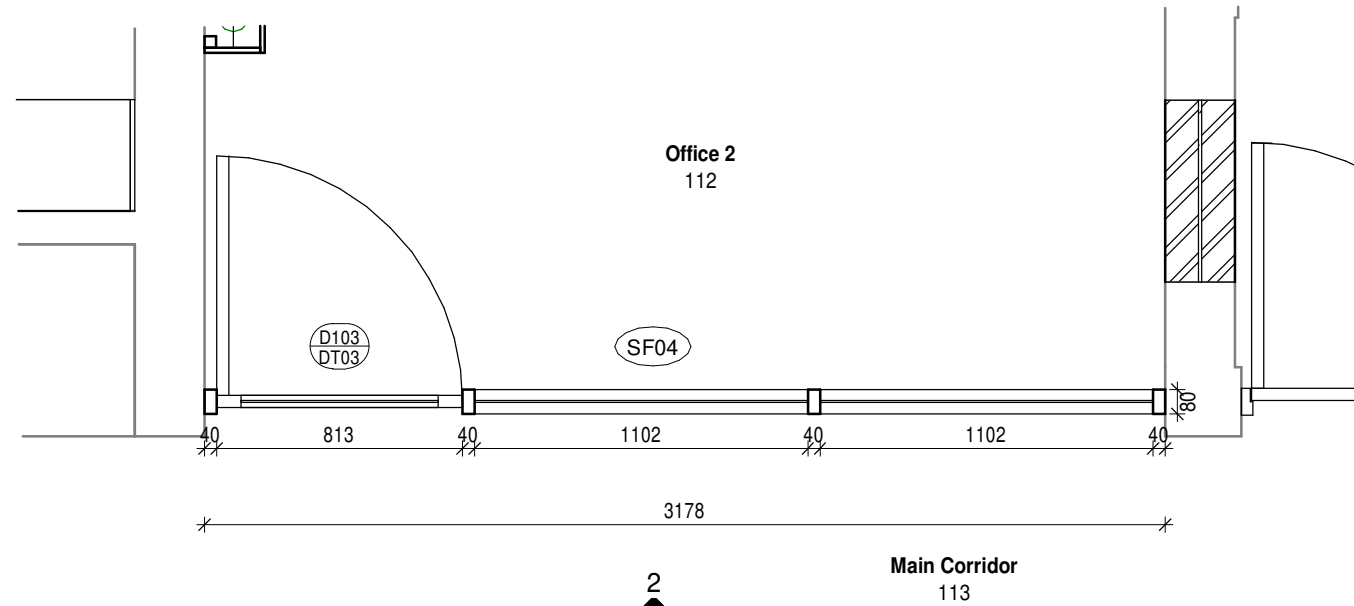
Mark	Comments	Family and Type	Vinyl Decal
01	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	N/A
02	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings
03	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings

No.	Description	Date
1	Issued for pricing	2019/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

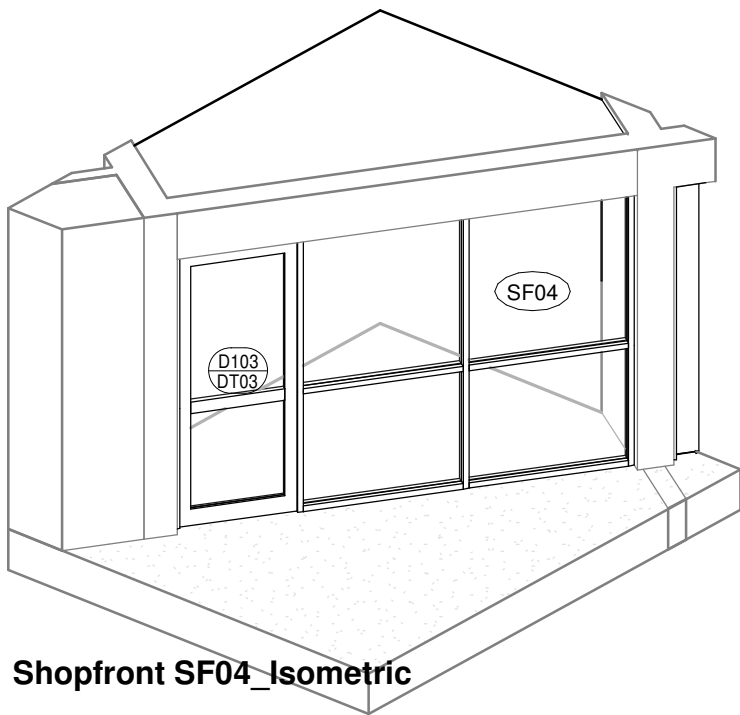
PROJECT:	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

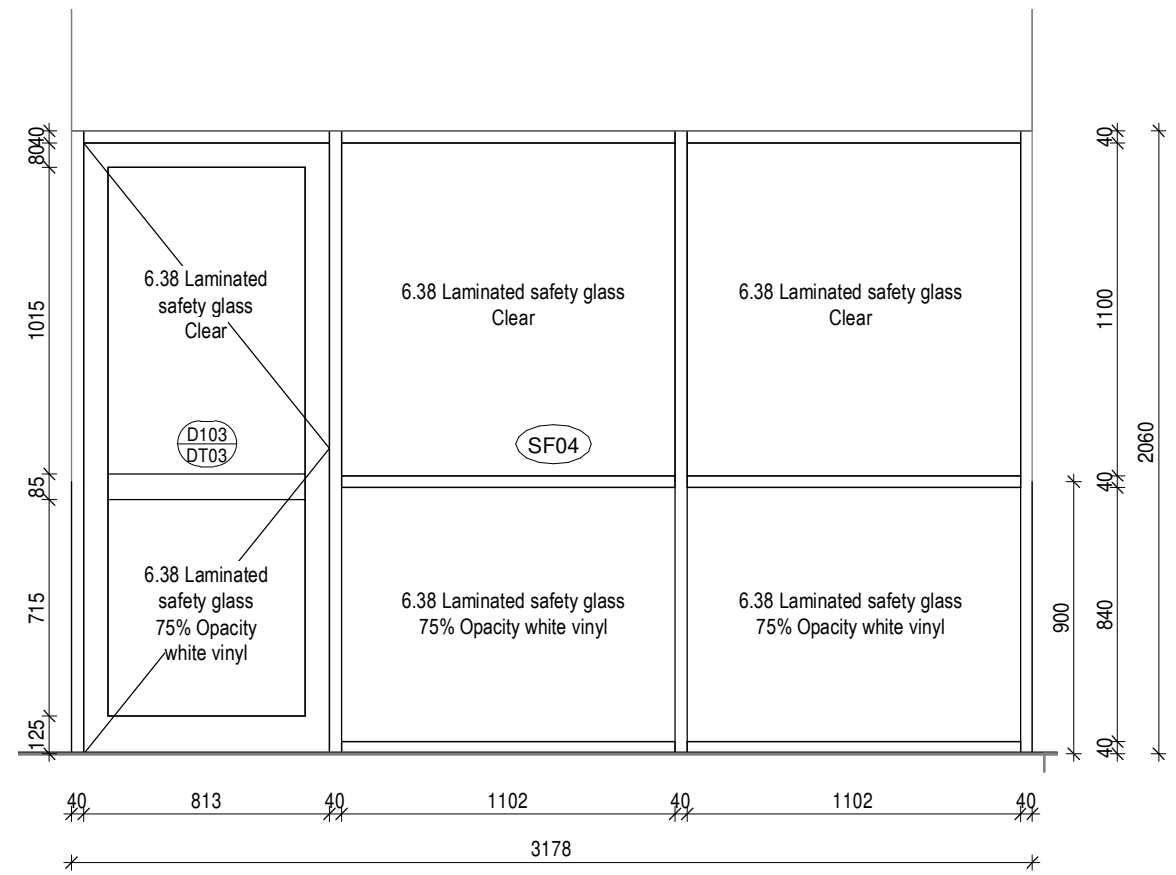
TITLE:	Shopfront Schedule SF01, SF02, SF03
B4 Project Ref No.:	Architect DWG No.:
305-019	SHF-001
FOR TENDER ONLY	
REV	3



1 Shopfront SF04
1 : 25



3 Shopfront SF04_Isometric



2 Shopfront SF04_Elevation
1 : 25

Shopfront Schedule SF04

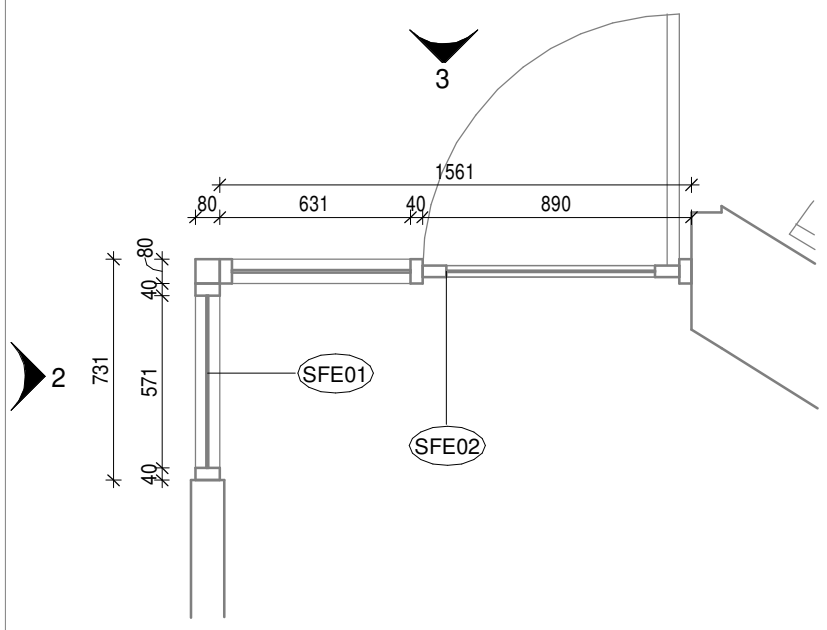
Mark	Comments	Family and Type	Vinyl Decal
04	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings

No.	Description	Date
1	Issued for pricing	2010/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

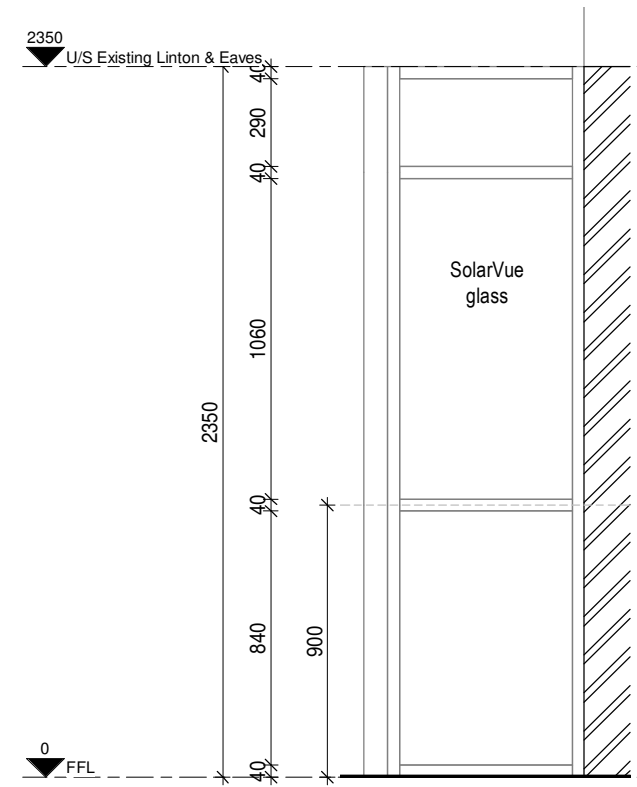
PROJECT:	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

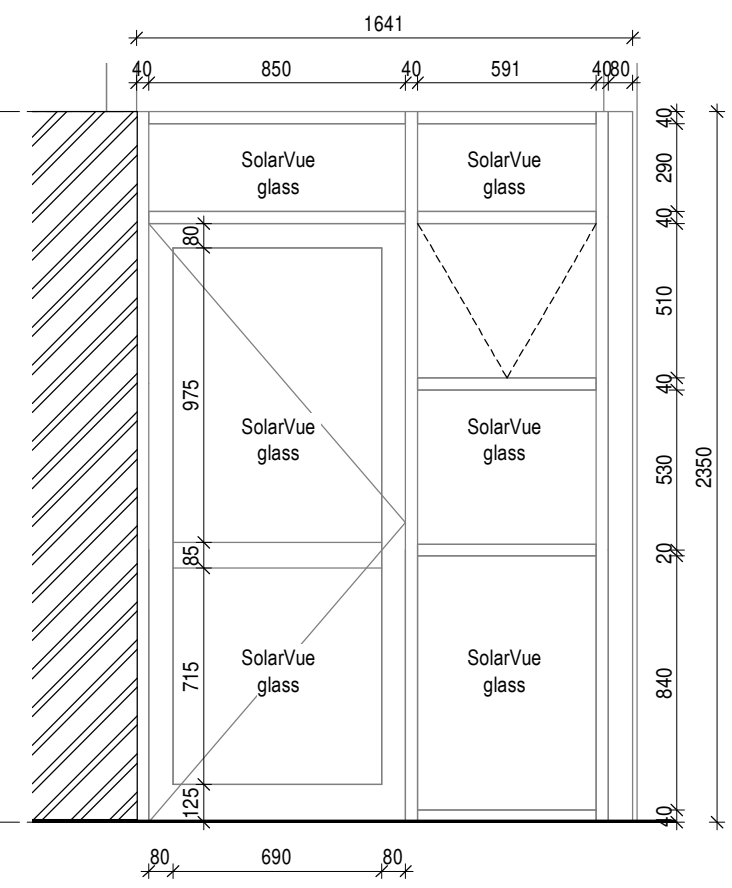
TITLE:	Shopfront Schedule SF04
B4 Project Ref No.:	Architect DWG No:
305-019	SHF-002
FOR TENDER ONLY	



1 Shopfront SFE01, SFE02_Plan
1 : 25



2 Shopfront SFE01_Elevation
1 : 25



3 Shopfront SFE02_Elevation
1 : 25

Shopfront Schedule SFE01, SHE02

Mark	Comments	Vinyl Decal	Glazing
E01	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E02	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E03	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E04	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E05	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E06	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E07	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)

No.	Description	Date
1	Issued for pricing	2019/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

PROJECT:

ECDoh
Protea Flats - New GSA Offices

Sakhiwo Ref No:

Date: 24 November 2023

Scale: 1 : 25

Drawn by: J Thomson

Designer: J Thomson

Professional Architect: B Brinkman

Checked by: B Brinkman

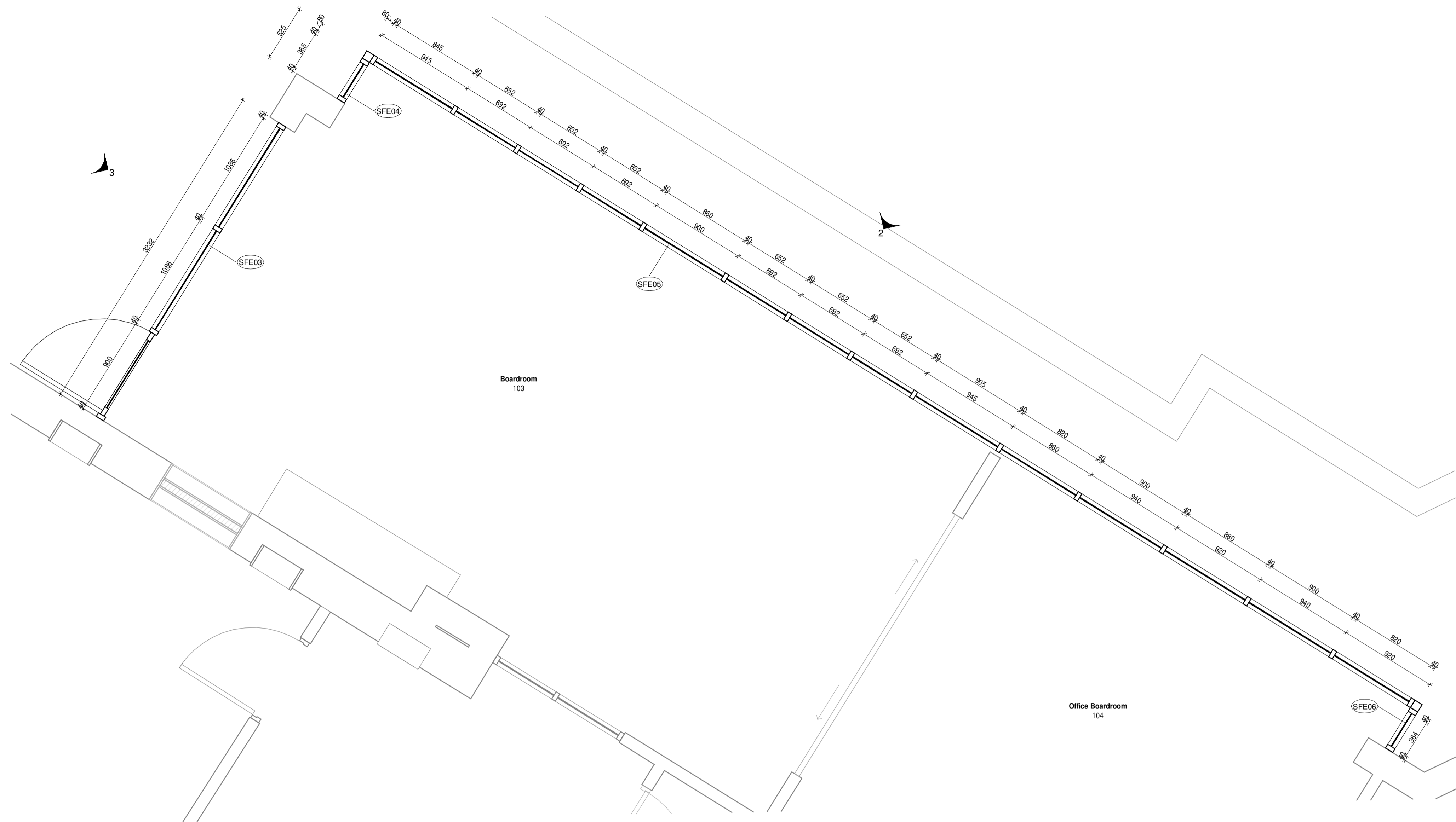
TITLE: Shopfront Schedule SFE01, SFE02

B4 Project Ref No.: Architect DWG No:

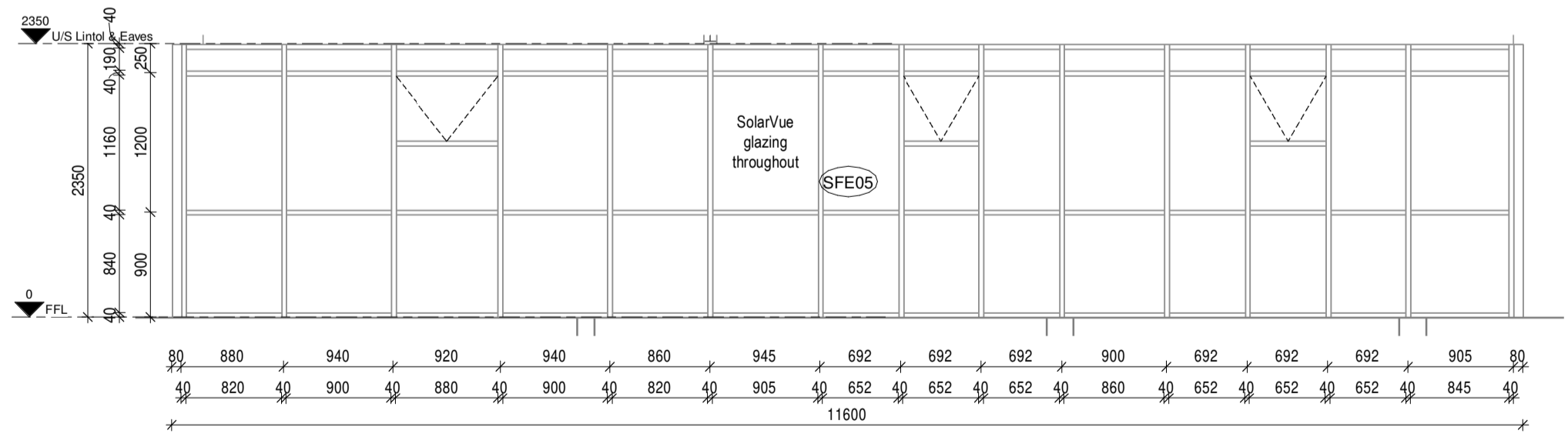
305-019 SHF-E01

FOR TENDER ONLY

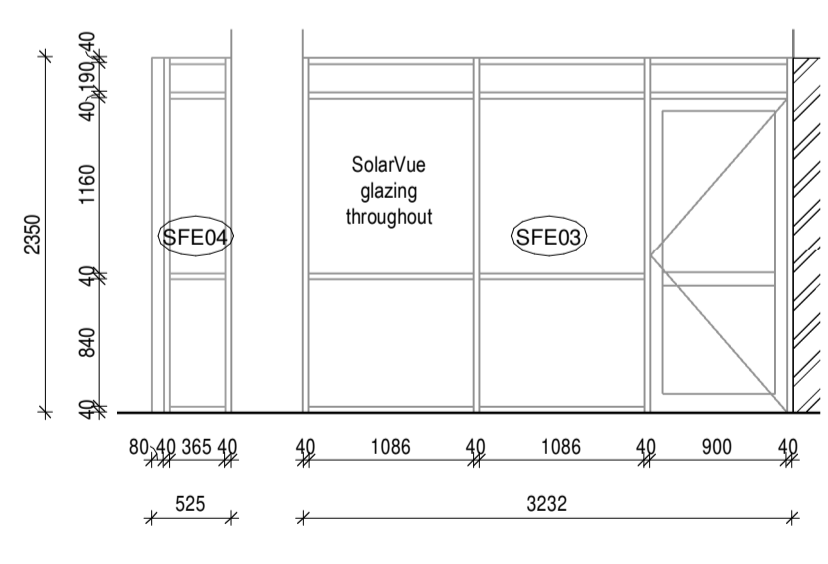
REV 3



1 Shopfront SFE03, SFE04, SFE05, SFE06_Plan
1 : 25



2 Shopfront SFE05_Elevation
1 : 50



3 Shopfront SFE03, SFE04_Elevation
1 : 50

Shopfront Schedule SFE03, SHE04, SFE05, SFE06			
Mark	Comments	Vinyl Decal	Glazing
E01	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E02	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E03	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E04	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E05	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E06	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E07	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)

b4 Architects cc
Resuscitating Healthcare Design

Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdales Office Park, 34 Ninth Avenue, Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za

Province of the **EASTERN CAPE** HEALTH

SAKHIWO HEALTH SOLUTIONS | HDG | MEMA SA

GREEN BUILDING COUNCIL SOUTH AFRICA
MEMBER ORGANISATION 2018

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ACTS OF PARLIAMENT
All Contractors shall ensure that, before any work is put in hand, they comply with all the necessary Acts of Parliament of the Republic of South Africa.

All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS
Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

No.	Description	Date
1	Issued for pricing	20/10/2023
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

PROJECT: **ECDODH**
Protea Flats - New GSA Offices

Date: 24 November 2023

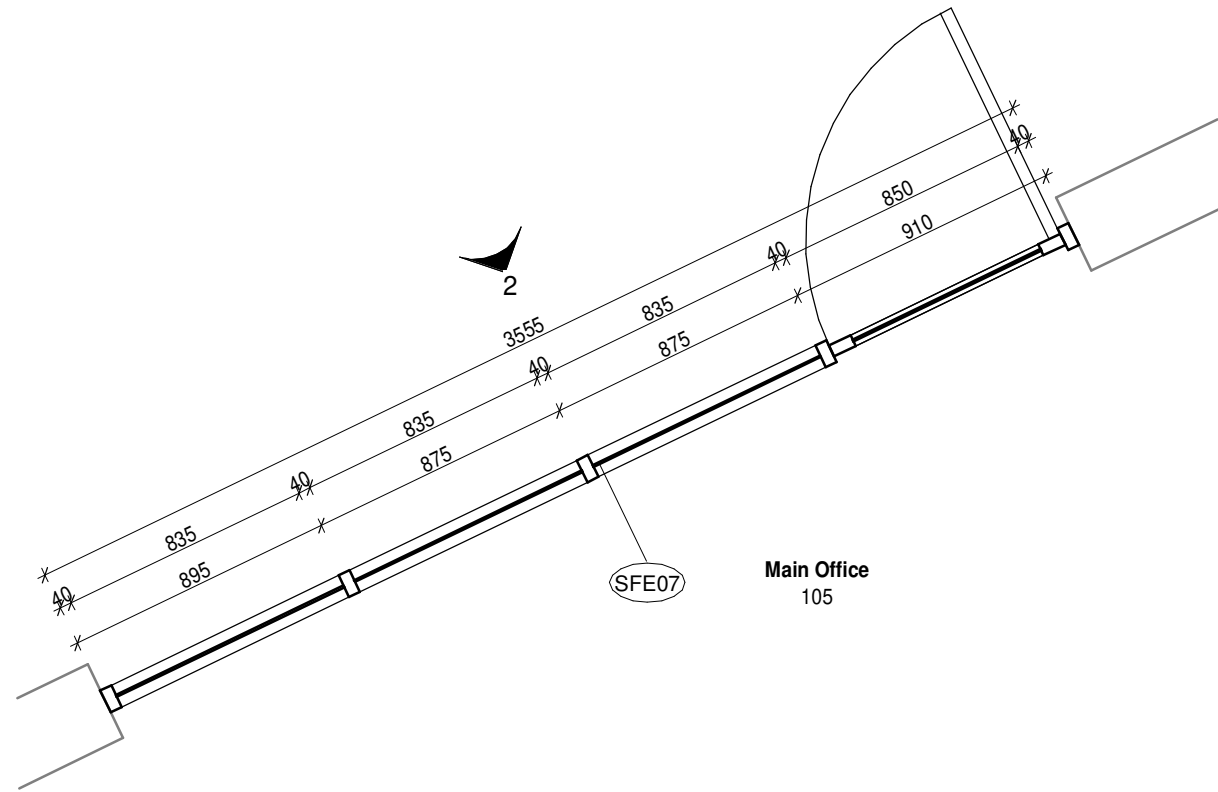
Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE: **Shopfront Schedule SFE03, SFE04, SFE05, SFE06**

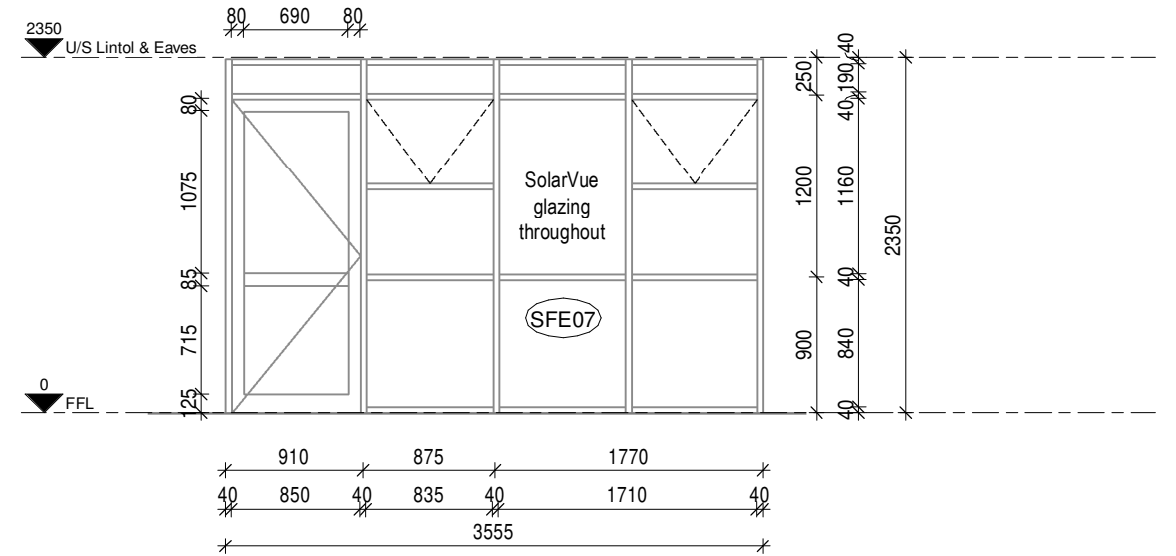
B4 Project Ref No.: **305-019** Architect DWG No.: **SHF-E02**

FOR TENDER ONLY

REV: **3**



1 Shopfront SFE07 - Plan
1 : 25



2 Shopfront SFE07 - External Elevation
1 : 50

Shopfront Schedule SFE07, SFE08

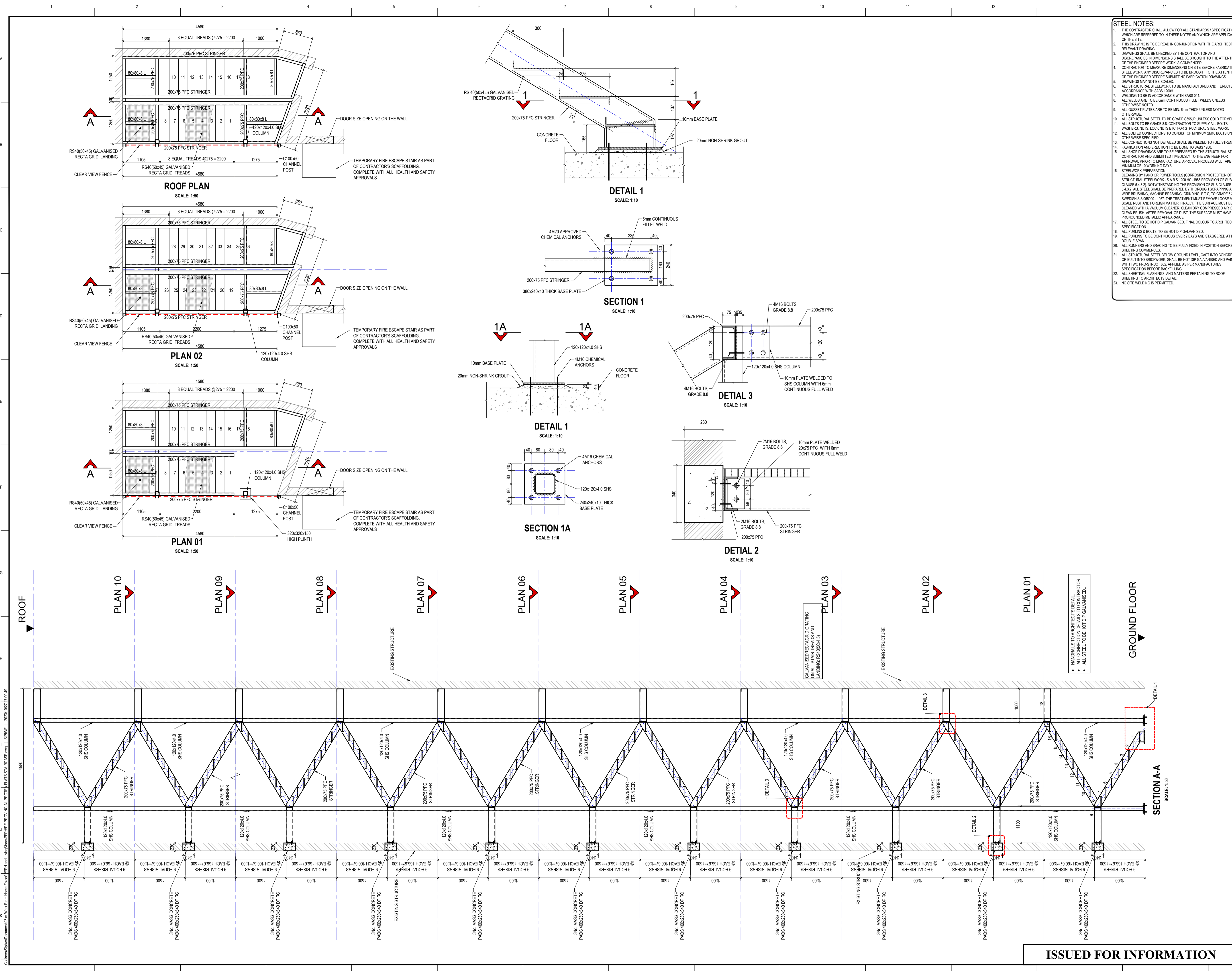
Mark	Comments	Glazing	Vinyl Decal
E01	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E02	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E03	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E04	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E05	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E06	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E07	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow

No.	Description	Date
1	Issued for pricing	2010/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Shopfront Schedule SFE07
B4 Project Ref No.:	Architect DWG No:
305-019	SHF-E03
FOR TENDER ONLY	
REV	3



STEEL NOTES:

1. THE CONTRACTOR SHALL ALLOW FOR ALL STANDARDS / SPECIFICATIONS WHICH ARE REFERRED TO IN THESE NOTES AND WHICH ARE APPLICABLE ON THE SITE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S RELEVANT DRAWING.
3. DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR AND DISCREPANCIES IN DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.
4. CONTRACTOR TO MEASURE DIMENSIONS ON SITE BEFORE FABRICATING STEEL WORK. ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING FABRICATION DRAWINGS.
5. DRAWINGS MAY NOT BE SCALED.
6. ALL STRUCTURAL STEELWORK TO BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH SABS 1200H.
7. WELDING TO BE IN ACCORDANCE WITH SABS 604.
8. ALL WELDS ARE TO BE 6mm CONTINUOUS FILLET WELDS UNLESS OTHERWISE NOTED.
9. ALL GUSSET PLATES ARE TO BE MIN 6mm THICK UNLESS NOTED OTHERWISE.
10. ALL STRUCTURAL STEEL TO BE GRADE S355JR UNLESS COLD FORMED.
11. ALL BOLTS TO BE GRADE 8.8. CONTRACTOR TO SUPPLY ALL BOLTS, WASHERS, NUTS, LOCK NUTS ETC. FOR STRUCTURAL STEEL WORK.
12. ALL BOLTED CONNECTIONS TO BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND THE RELEVANT S.A.N.S SPECIFICATIONS. ALL CONCRETE WORK IS TO BE DONE IN ACCORDANCE WITH S.A.N.S 1200G AND EARTHWORKS IN ACCORDANCE WITH S.A.N.S 1200D.
13. ALL CONNECTIONS NOT DETAILED SHALL BE WELDED TO FULL STRENGTH. FABRICATION AND ERECTION TO BE DONE TO SABS 1200.
14. ALL SHOP DRAWINGS ARE TO BE PREPARED BY THE STRUCTURAL STEEL CONTRACTOR AND SUBMITTED TIMELY TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. APPROVAL PROCESS WILL TAKE A MINIMUM OF 10 WORKING DAYS.
15. STEELWORK PREPARATION: CLEANING BY HAND OR POWER TOOLS (CORROSION PROTECTION OF STRUCTURAL STEELWORK: S.A.S 8:18:1987 PROVISION OF SUB CLAUSE 5.4.3.2). NOTWITHSTANDING THE PROVISION OF SUB CLAUSE 5.4.3.2, ALL STEEL SHALL BE PREPARED BY THOROUGH SCRAPING AND WIRE BRUSHING, MACHINE BRUSHING, GRINDING, E.T.C. TO GRADE S.1 OF SWEDISH SIS 05590:1987. THE TREATMENT MUST REMOVE LOOSE MILL SCALE RUST AND FOREIGN MATTER. FINALLY, THE SURFACE MUST BE CLEANED WITH A VACUUM CLEANER. CLEAR DRY COMPRESSED AIR OR CLEAN BRUSH AFTER REMOVAL OF DUST. THE SURFACE MUST HAVE A PROHIBITED METALLIC APPEARANCE.
16. ALL STEEL TO BE HOT DIP GALVANISED. FINAL COLOUR TO ARCHITECT'S SPECIFICATION.
17. ALL PURLINS & BOLTS TO BE HOT DIP GALVANISED.
18. ALL PURLINS TO BE CONTINUOUS OVER 2 BAYS AND STAGGERED AT LEAST DOUBLE SPAN.
19. ALL RUNNERS AND BRACING TO BE FULLY FIXED IN POSITION BEFORE SHEETING COMMENCES.
20. ALL STRUCTURAL STEEL BELOW GROUND LEVEL CAST INTO CONCRETE OR BUILT INTO BRICKWORK SHALL BE HOT DIP GALVANISED AND PAINTED WITH TWO PROTECTIVE COATS, APPLIED AS PER MANUFACTURER'S SPECIFICATION BEFORE BACKFILLING.
21. ALL SHEETING, FLASHINGS, AND MATTERS PERTAINING TO ROOF SHALL BE TO ARCHITECT'S DETAIL.
22. NO SITE WELDING IS PERMITTED.

CONCRETE NOTES:

- 1.0 SETTING OUT AND GENERAL
- 1.1 THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
- 1.2 ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK IS PUT IN HAND.
- 1.3 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.
- 1.4 THIS DRAWING MUST NOT BE USED TO SCALE. USE ONLY WRITTEN DIMENSIONS. CONTACT THE ENGINEER OR ARCHITECT WHERE CLARITY IS SOUGHT.
- 1.5 FOR SETTING OUT DATA, SETTING OUT POINTS AND DATUM LEVELS REFER TO SURVEY INFORMATION AND ARCHITECT'S DRAWINGS.
- 1.6 ALL STRUCTURAL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND THE RELEVANT S.A.N.S SPECIFICATIONS.
- 1.7 ALL CONCRETE WORK IS TO BE DONE IN ACCORDANCE WITH S.A.N.S 1200G AND EARTHWORKS IN ACCORDANCE WITH S.A.N.S 1200D.
- 1.8 CONSULT RELEVANT ARCHITECTS, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND DETAILS AS RELEVANT FOR DRAINAGE, STORMWATER OUTLETS, RWPS AND HOLES AND SLEEVES FOR THESE SERVICES. NO HOLES ARE TO BE CORED WITHOUT ENGINEERS WRITTEN APPROVAL.
- 2.0 FOUNDATIONS
- 2.1 ALL FOUNDATION EXCAVATIONS TO BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS CAST.
- 2.2 NO FOUNDATIONS ARE TO BE CAST IN FILL MATERIAL. A 50mm THICK LAYER OF 100% 19mm BLANKING CONCRETE IS TO BE CAST UNDER ALL REINFORCED BASES, REINFORCED STRIP FOOTINGS AND GROUND BEAMS.
- 2.3 ANY OVER EXCAVATIONS ARE TO BE MADE GOOD WITH 100% 19mm CONCRETE AT THE CONTRACTOR'S EXPENSE.
- 2.4 BACKFILL OVER COLUMNS AND BASES SHALL BE DONE WITH AN APPROVED MATERIAL COMPACTED IN LAYERS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2.5 ALLOWABLE BEARING PRESSURE UNDER: CONCRETE BASES = 150kPa.
- 3.0 CONCRETE CHARACTERISTIC 28 DAY STRENGTH: BASES = 25MPa / 19mm STRIP FOOTINGS = 25MPa / 19mm SURFACE BEDS = 30MPa / 19mm SUSPENDED SLABS & BEAMS = 30MPa / 19mm COLUMNS = 30MPa / 19mm
- 3.2 CONCRETE MIX DESIGNS FOR ALL GRADES OF CONCRETE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION. CONCRETE MIX DESIGNS FOR SURFACE BEDS TO HAVE MINIMUM BLEED CHARACTERISTICS.
- 3.3 ALL CONCRETE TO BE ADEQUATELY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP FOR AT LEAST 7 DAYS AFTER CASTING.
- 3.4 ALL CONCRETE TO BE CONSTRUCTED TO THE S.A.N.S 1200G PERMISSIBLE DEVIATION DEGREE OF ACCURACY CLASS B UNLESS SPECIFIED OTHERWISE.
- 3.5 CONCRETE CURE TEST RESULTS TO BE SUBMITTED TIMELY TO THE ENGINEER FOR PERUSAL, RECORDS, COMMENT AND APPROVAL.
- 4.0 REINFORCEMENT
- 4.1 CHARACTERISTIC STRENGTH: MILD STEEL = 250N/mm² HIGH YIELD STEEL = 450N/mm²
- 4.2 ALL REINFORCEMENT TO BE CHECKED AND APPROVED BY ENGINEER BEFORE ANY CONCRETE IS CAST. 48 HOURS WRITTEN NOTICE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION.
- 4.3 LAP LENGTH TO REINFORCING TO BE MINIMUM SIX SMALLER BAR DIAMETER UNLESS OTHERWISE NOTED.
- 4.4 MESH AND REINFORCEMENT REFERENCE HAS TO BE PLACED IN SLAB (TOP) MINIMUM LAPS + 300mm UNLESS OTHERWISE NOTED.
- 4.5 THE CONTRACTOR MUST TAKE PARTICULAR CARE TO ENSURE THAT THE SPECIFIED COVER TO ALL REINFORCEMENT HAS BEEN ATTAINED THROUGHOUT BEFORE THE ENGINEER IS CALLED TO SITE FOR INSPECTION OF THE REINFORCEMENT.
- 4.6 STRIP FOOTINGS: 50mm BASES: 50mm COLUMNS AND WALLS: 40mm SUSPENDED SLABS: 40mm SUSPENDED BEAMS: 40mm
- 4.7 CONTRACTOR IS TO CONDUCT HIS OWN INSPECTION OF REINFORCEMENT BEFORE CALLING THE ENGINEER FOR INSPECTION. FORMWORK AND PROPPING
- 5.0 STRIPPING TIMES FOR: COLUMN AND WALL SHUTTERING: 15 DAYS BEAM SHUTTERING: 7 DAYS IN HOT WEATHER, 12 DAYS IN COLD WEATHER, 4 DAYS IN HOT WEATHER, 7 DAYS IN COLD WEATHER.
- 5.2 PROPPING TIMES FOR: SLABS & BEAMS (INCLUDING CANTILEVERS): 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER. (SUBJECT TO CUBE TEST RESULTS IN COLD WEATHER. TIMELY TO ENGINEER FOR APPROVAL). NO IS PROPPING OF SUSPENDED ELEMENTS UNTIL INSTRUCTED BY ENGINEER.
- 5.3 CONCRETE FINISHES: UNLESS NOTED OTHERWISE: COLUMNS AND WALLS: OFF SHUTTER BEAMS AND SLAB SOFFIT: OFF SHUTTER TOP OF SUSPENDED SLABS: SMOOTH SIDES OF GROUND BEAMS TO BE SHUTTERED.

No	Date	Revisions	ES	OK	Chd	Appd
A	27-10-23	ISSUED FOR INFORMATION				

Client: **EASTERN CAPE HEALTH**

Implementing Agent: **HDG**

Architect: **b4 Architects**

Engineer: **KEON CONSULTING ENGINEERS**

Project: **PE PROVINCIAL HOSPITAL**

Description: **PROTEA FLATS FIRE ESCAPE STEEL STAIRCASE**

Engineer: **G. Kuchera Pr Eng (20110431)**

Drawn By: **S. Chithanga** | Designed By: **S. Chithanga** | Checked By: **G. Kuchera**

Size: Scale: Original Date: **As Shown October 2023**

Issued For: **INFORMATION**

Project No: **J117** | Drawing No: **S010** | Revision: **A**

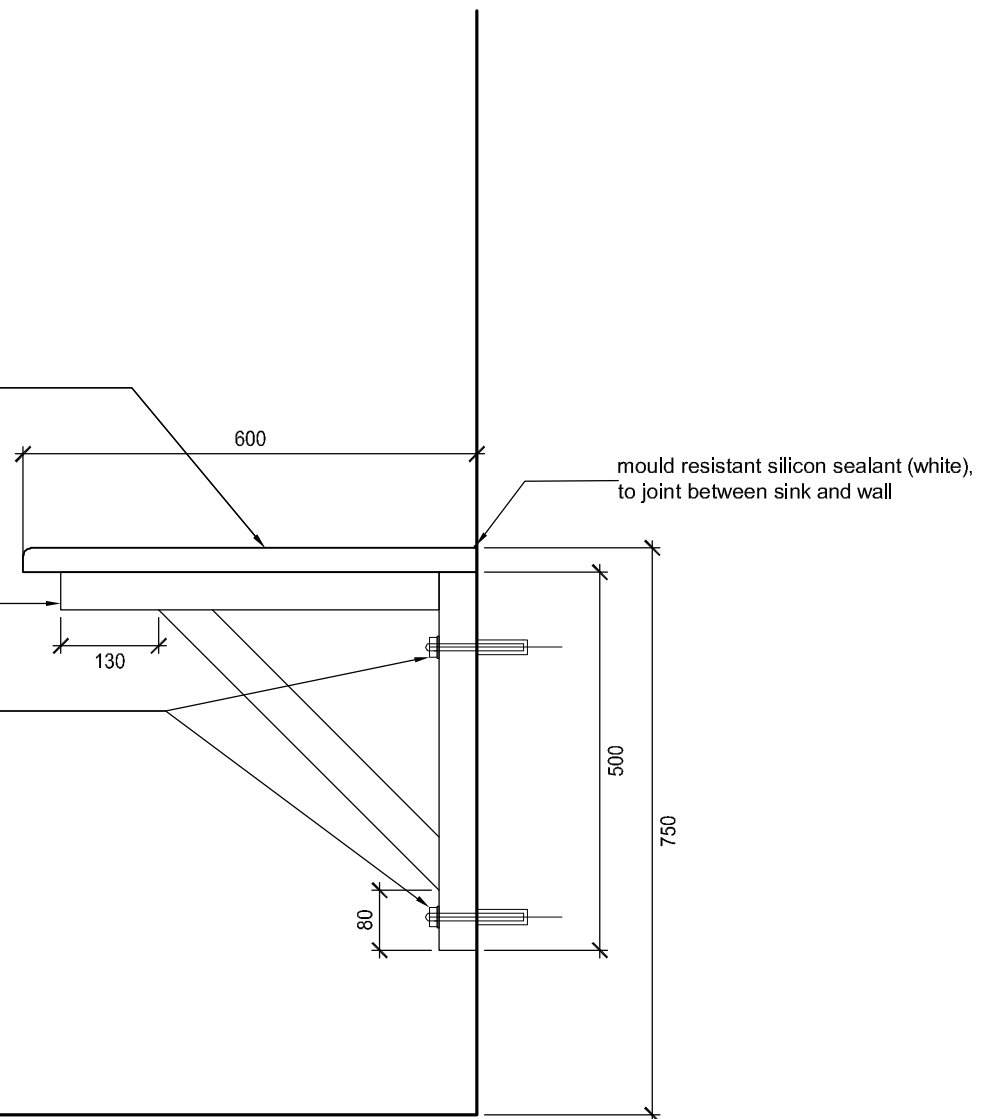
ISSUED FOR INFORMATION

TYPE BB

600 x 32mm Life seal FORMICA finished post formed worktop with 90° bullnose edging. All cuts and rear edges to be painted with pink wood primer. Worktop screwed and fixed to support rails from below

mild steel bracket to be made of 50 x 50 x 3mm square tubing, painted (colour white)

10mm diameter s/s rawlbolt.



SECTION

SCALE 1:10

Province of the **EASTERN CAPE** HEALTH

b4 Architects cc
Resuscitating Healthcare Design

SAKHIWO HEALTH SOLUTIONS | bigen | HDG HOSPITAL DESIGN GROUP | NEMA SA

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All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS
Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK

No.	Description	Date

PROJECT: PEPH
Boundary Wall Replacement

TITLE: Joinery Detail
Type B-B

Sakhiwo Ref No: _____

Scale: 1 : 10
Date: 19 October, 2023
Drawn by: ET
Checked by: BB

B4 Ref No.: _____ Architect Dwg No: _____

Proj No. _____

FOR PRICING ONLY

REV #

No.	Description	Date

PEPH
Boundary Wall Replacement

TITLE:
Joinery Plan 01

Scale
1 : 20

Date:
18 October, 2023

Drawn by:
ET

Designer:
ET

Professional Architect:
BB

Checked by:
BB

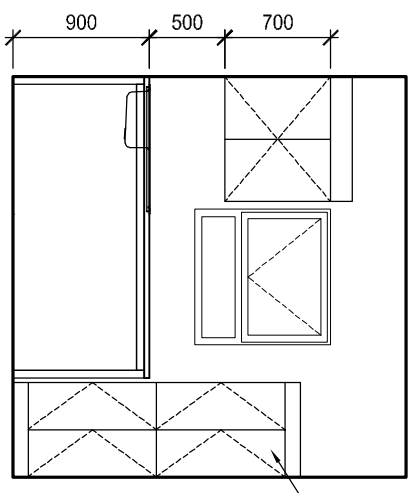
DWG No:
305-026 JP-01

FOR PRICING ONLY

ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification.

note (where applicable)

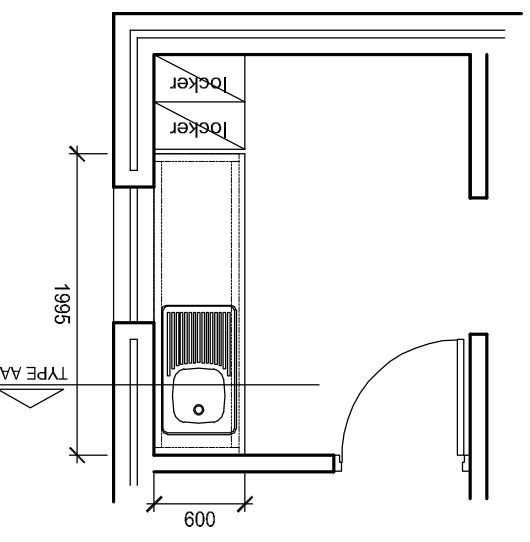
- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easyglide slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others),
- All handles to be Raial fingerrip flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Litesseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.



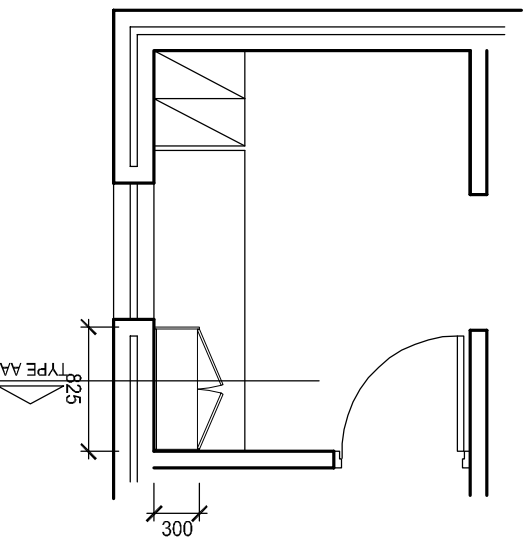
ELEVATION A
SCALE 1:50

Locker SP- slanted Industrial locker manufactured from 1.2mm-2.0mm steel from "METMEISTER" or similar approved

Lockers with split full-height cubicles are rigid and made from 1.2mm and 2mm heavy duty quality steel, epoxy coated in blue & grey texture, with 4 compartments and shelf. Each compartment fitted with 3 point lever lock. Locker mounted onto a 50mm plinth epoxy powder coated in RAL 9011 block



PLAN (LOWER LEVEL)
SCALE 1:50



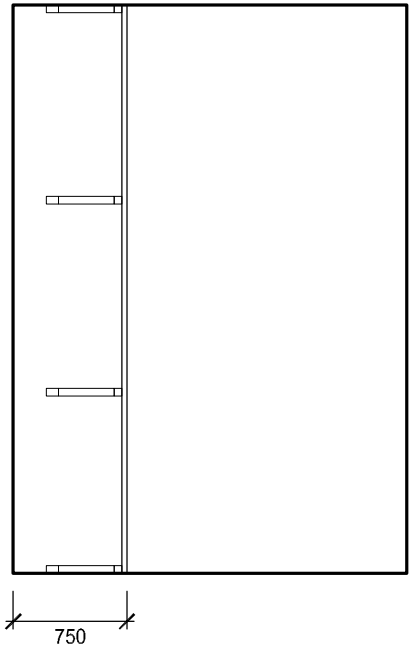
PLAN (UPPER LEVEL)
SCALE 1:50

No.	Description	Date

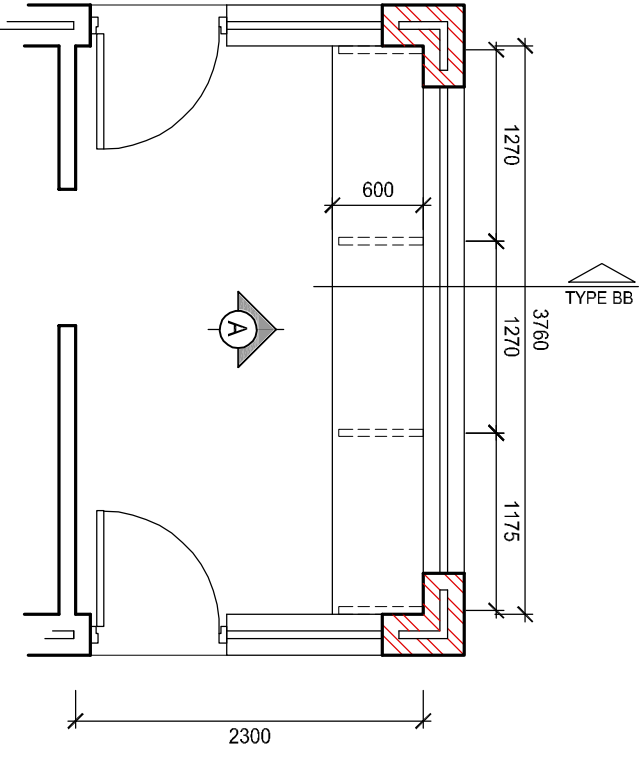
PROJECT: PEPH
Boundary Wall Replacement

TITLE: Joinery Plan 02

Scale: 1 : 20
Date: 18 October, 2023
Drawn by: ET
Designer: ET
Professional Architect: BB
Checked by: BB



ELEVATION A
SCALE 1:50



PLAN
SCALE 1:50

- ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification. note (where applicable)**
- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging. Colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
 - All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
 - All doors to be fixed on chrome plated continuous piano hinges.
 - All drawers to be fitted with MEPLA or other approved easyglide slides.
 - All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
 - 16mm BISONLAM SUPER WHITE board backing to fitting.
 - Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others),
 - All handles to be Raiel fingertip flat handles in natural anodized aluminium pull handle.
 - Skirting: refer to detail section.
 - Countertops: 32mm Formica Liteseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
 - All bases to be of solid SA Pine, treated for moisture resistance.
 - White silicone to be applied between worktops and walls / tiles.
 - All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

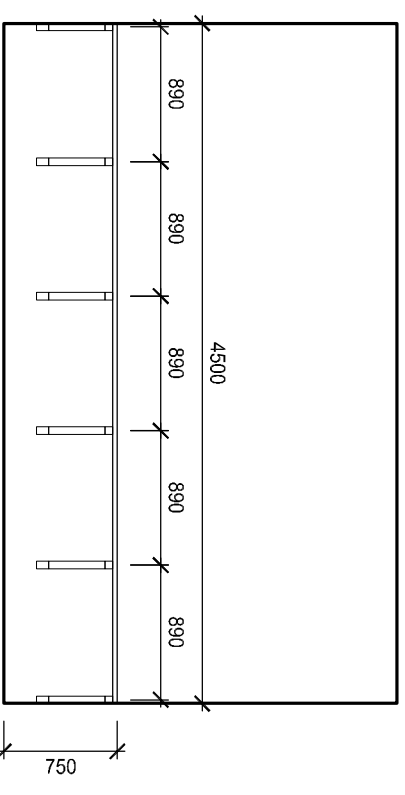
No.	Description	Date

PROJECT:
PEPH
Boundary Wall
Replacement

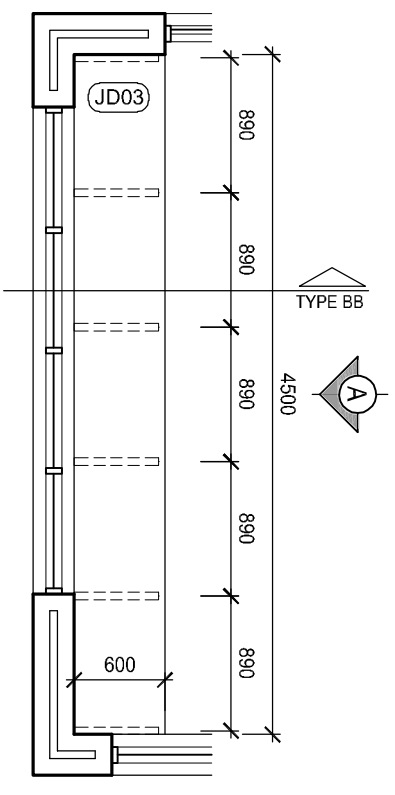
TITLE:
Joinery Plan 03

Scale
1 : 20
Date:
18 October, 2023
Drawn by:
ET
Designer:
ET
Professional Architect:
BB
Checked by:
BB

DWG No:
305-026 JP-03
FOR PRICING ONLY



ELEVATION A
SCALE 1:50



PLAN
SCALE 1:50

note (where applicable)
ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification.

- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easygilde slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others).
- All handles to be Ratiel fingertip flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Lifeseal Worktops width as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

No.	Description	Date

PROJECT: **PEPH**
Boundary Wall Replacement

TITLE: **Joinery Plan 04**

Scale: 1 : 20
Date: 18 October, 2023
Drawn by: ET
Designer: ET
Professional Architect: BB
Checked by: BB

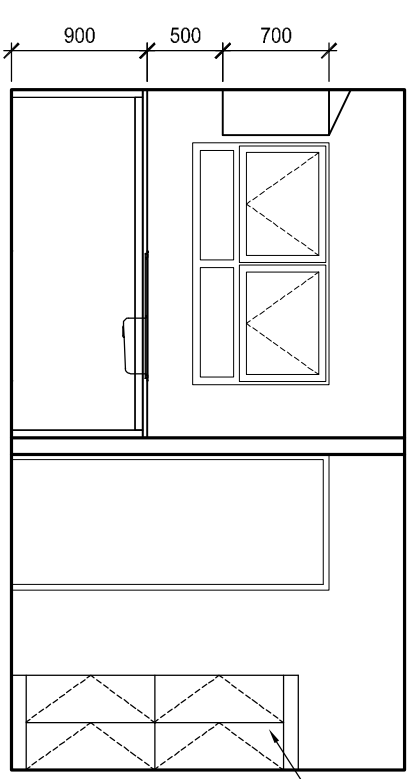
DWG No: **305-026 JP-04**

FOR PRICING ONLY

ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification.

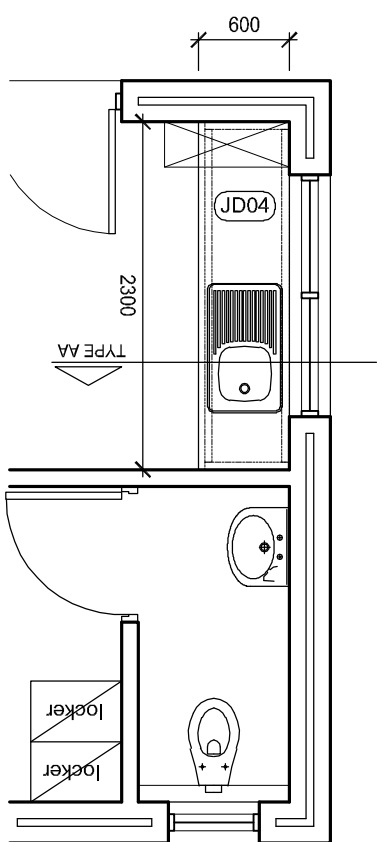
note (where applicable)

- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easyglide slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs (by others).
- All handles to be Ralel fingergrip flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Lifeseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

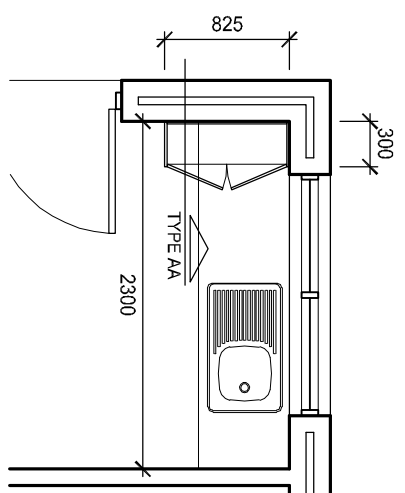


ELEVATION A
SCALE 1:50

Locker SP- slanted Industrial locker manufactured from 1.2mm-2.0mm steel from "METMEISTER" or similar approved
Lockers with split full-height cubicles are rigid and made from 1.2mm and 2mm heavy duty quality steel, epoxy coated in blue & grey texture, with 4 compartments and shelf. Each compartment fitted with 3 point lever lock. Locker mounted onto a 50mm plinth epoxy powder coated in RAL 9011 black



PLAN (LOWER LEVEL)
SCALE 1:50



PLAN (UPPER LEVEL)
SCALE 1:50

DOOR TYPE A

FRAME:

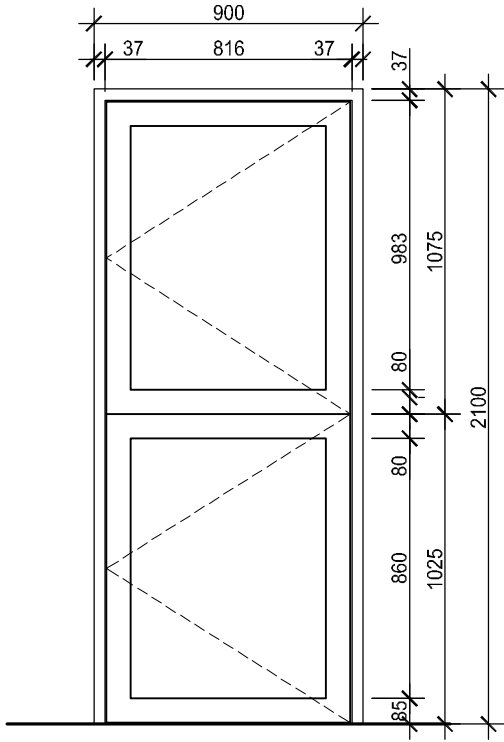
Aluminium frame, white powder coated.
Clip44 system

DOOR:

Aluminium framed stable door to fit in opening
2100 x 900mm - white powder coated

IRONMONGERY:

As per ironmongery schedule.



QUANTITY	DOOR NUMBERS
1	D01
GLAZING	6.4mm Laminated safety glass as glazing with spacer and deciccant

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Contractor must verify and check all dimensions on site prior to commencing work, show drawings or instructions. Do not scale this drawing, any discrepancy should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK

NO.	Description	Date

NOTE: DETAILS ARE AS FOR TYPICAL DOOR ILLUSTRATED

Scale: 1 : 10
Date: 19 October, 2023
Drawn by: ET
Checked by: BB
B4 Ref No.: Architect Dwg No:
Proj No. DS- 001

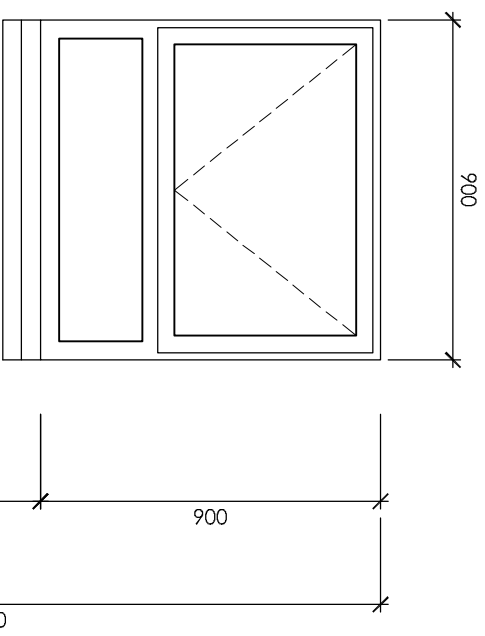
FOR TENDER ONLY

REVISIONS

SAKHIWO Ref No:

WINDOW TYPE A

WINDOW NOS	W05
QUANTITY	01
DESCRIPTION	900 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deciccont



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Waterloo, Port Elizabeth, 6020
Tel: 041 591 1217 Email: b4.ae@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
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REVISIONS :

No.	Description	Date
1	As per specification	27-10-2023

PROJECT: PEPH

Boundary Wall Replacement

TITLE: Window Type A

Scale: 1 : 20

Date: 16 October, 2023

Drawn by: PHV

Designer: ET

Professional Architect: BB

Checked by: BB

DWG No: 305-026 WIN-01

FOR TENDER ONLY

REV 1

No.	Description	Date
1	Added description	27/10/2023

PROJECT:
PEPH
Boundary Wall Replacement

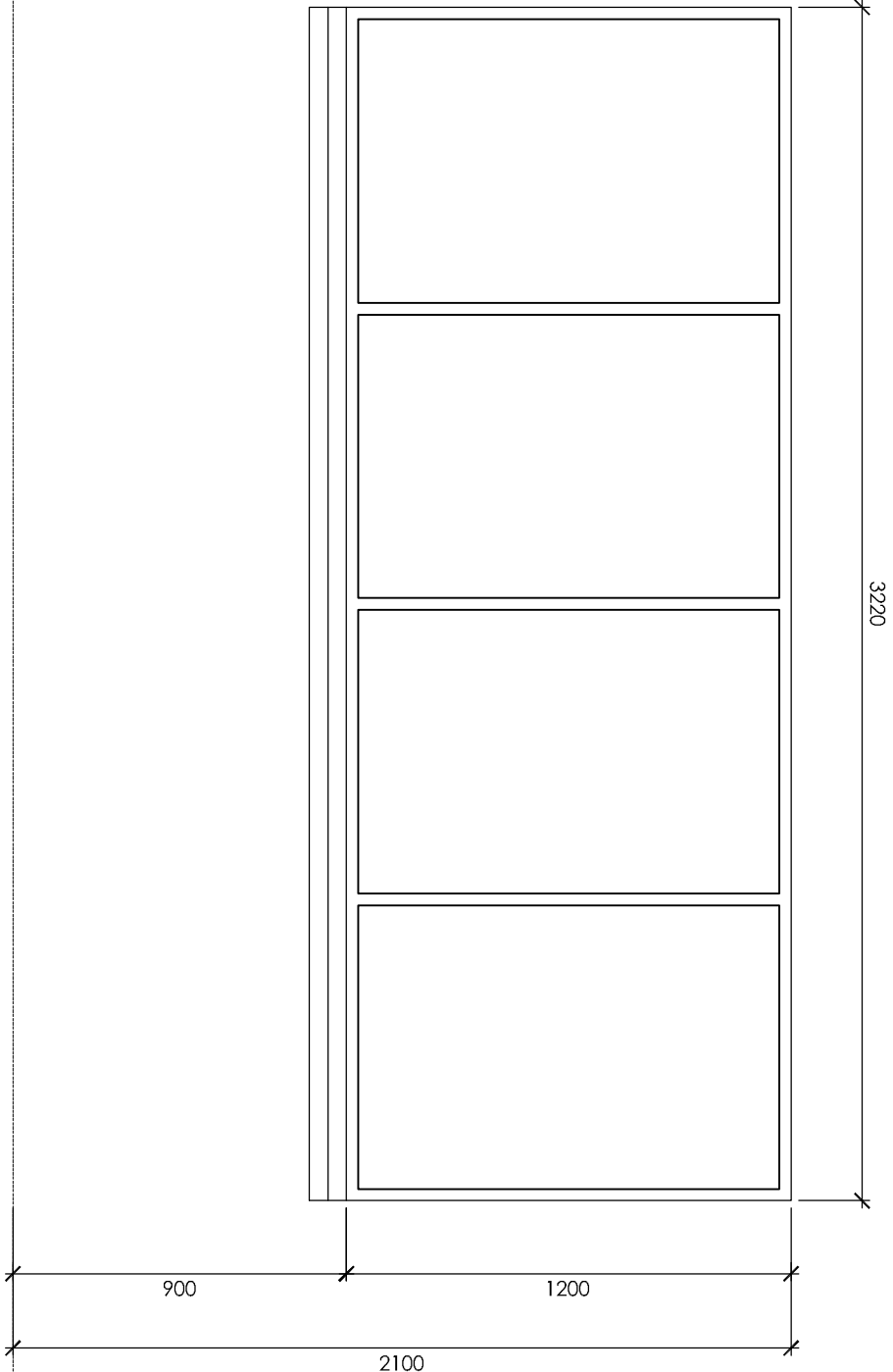
TITLE:
Window Type B

Scale
1 : 20
Date:
19 October, 2023
Drawn by:
PHV
Designer:
ET
Professional Architect:
BB
Checked by:
BB

DWG No:
305-026 WIN-02
FOR TENDER ONLY
REV 1

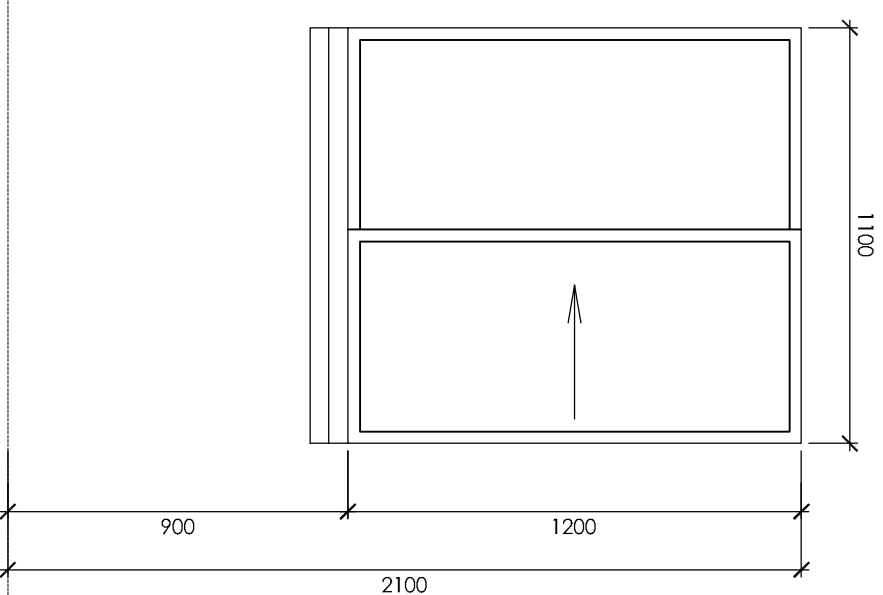
WINDOW TYPE B

WINDOW NOS	WO2
QUANTITY	02
DESCRIPTION	3220 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with Defender Slays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deiccant



WINDOW TYPE C

WINDOW NO'S	W01
QUANTITY	01
DESCRIPTION	1100 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deciccant



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1 Tamirine Close, Sunningdale, Umhlanga, 4139
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PROJECT: **PEPH**
Boundary Wall Replacement

TITLE: **Window Type C**

Scale: 1 : 20
Date: 19 October, 2023
Drawn by: PHV
Designer: ET
Professional Architect: BB
Checked by: BB

DWG No: **305-026 WIN-03**

REVISIONS :

No.	Description	Date
1	As per design	27/10/2023
2	Window size change	31/10/2023

FOR TENDER ONLY

REV 2

No.	Description	Date
1	Issue for tender	27-10-2023

PROJECT: **PEPH**
Boundary Wall Replacement

TITLE: **Window Type D**

Scale: **1 : 20**

Date: **19 October, 2023**

Drawn by: **PHV**

Designer: **ET**

Professional Architect: **BB**

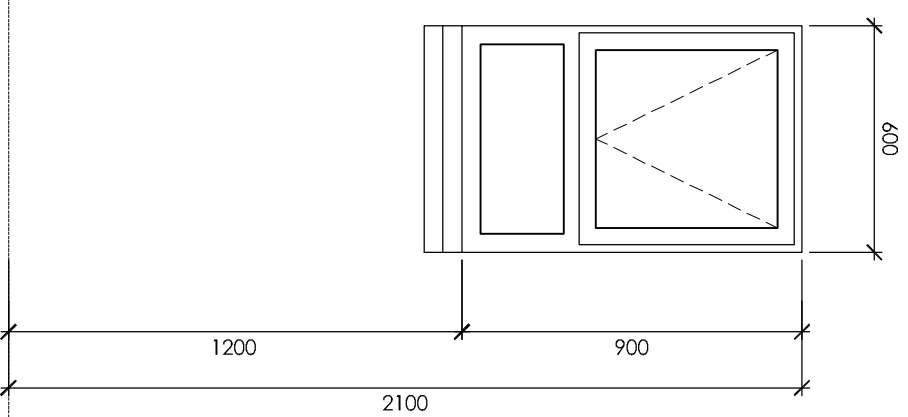
Checked by: **BB**

DWG No: **305-026 WIN-04**

FOR TENDER ONLY

REV 1

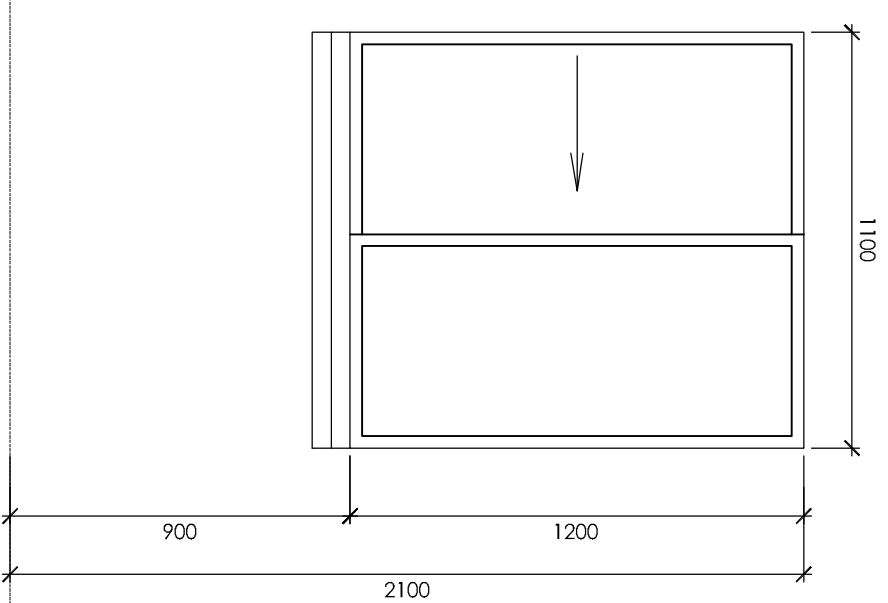
WINDOW TYPE D



WINDOW NOS	W04
QUANTITY	02
DESCRIPTION	600 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deiccant

WINDOW TYPE E

WINDOW NOS	W01
QUANTITY	01
DESCRIPTION	1030 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deccant



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REVISIONS :

No.	Description	Date
1	Client Request	27-10-2023
2	Client Site Change	31-10-2023

PROJECT:
PEPH
Boundary Wall Replacement

TITLE:
Window Type E

Scale
1 : 20

Date:
19 October, 2023

Drawn by:
PHV

Designer:
ET

Professional Architect:
BB

Checked by:
BB

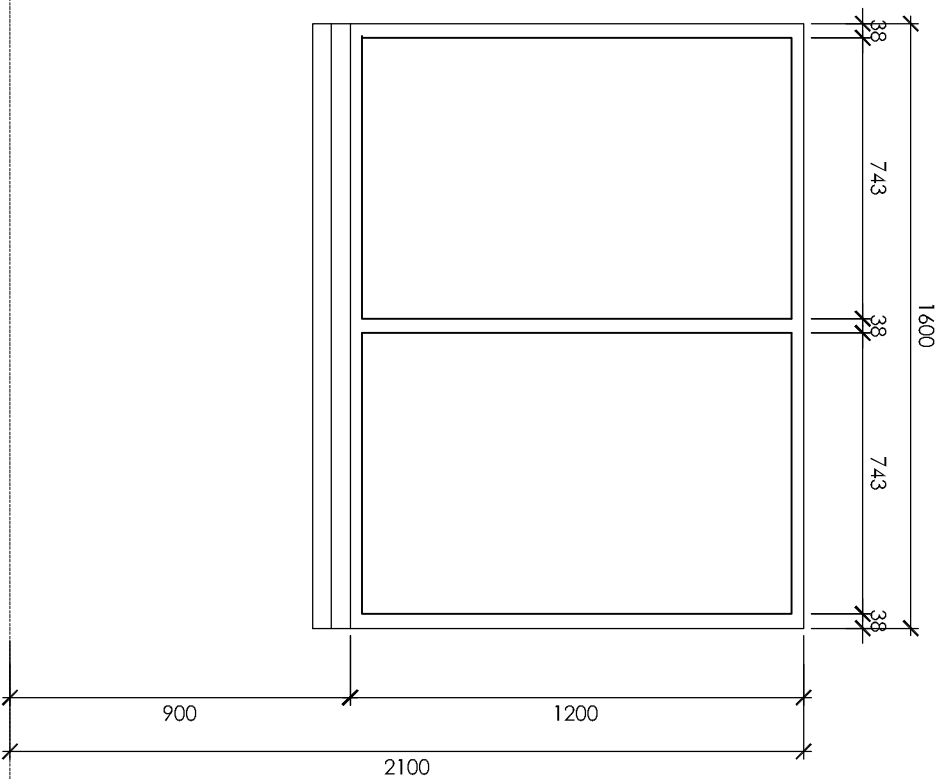
DWG No: **305-026 WIN-05**

FOR TENDER ONLY

REV 2

WINDOW TYPE F

WINDOW NOS	W03
QUANTITY	01
DESCRIPTION	1600 x 1200 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and decicant



2100

900

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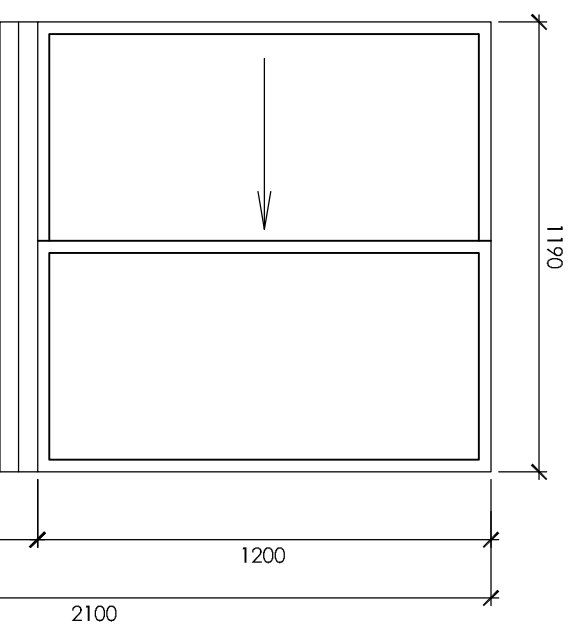
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 1 Tamaraire Close, Sunningdale, Umhlanga, 4139
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No.	Description	Date
1	Issue for tender	27-10-2023

FOR TENDER ONLY

WINDOW TYPE G

WINDOW NO'S	W06
QUANTITY	01
DESCRIPTION	1030 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deiccant



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No.	Description	Date
1	Issue description	27/10/2023

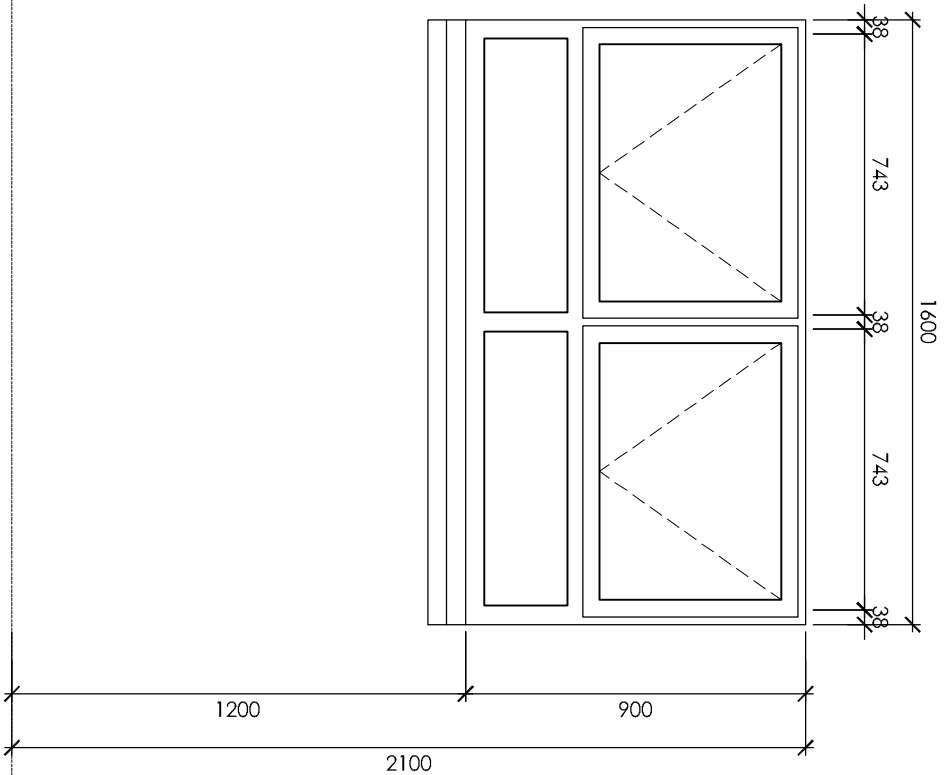
DRAWING 305-026 WIN007 WINDOW G

FOR TENDER ONLY

REV

WINDOW TYPE H

WINDOW NOS	W07
QUANTITY	01
DESCRIPTION	1600 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deccant



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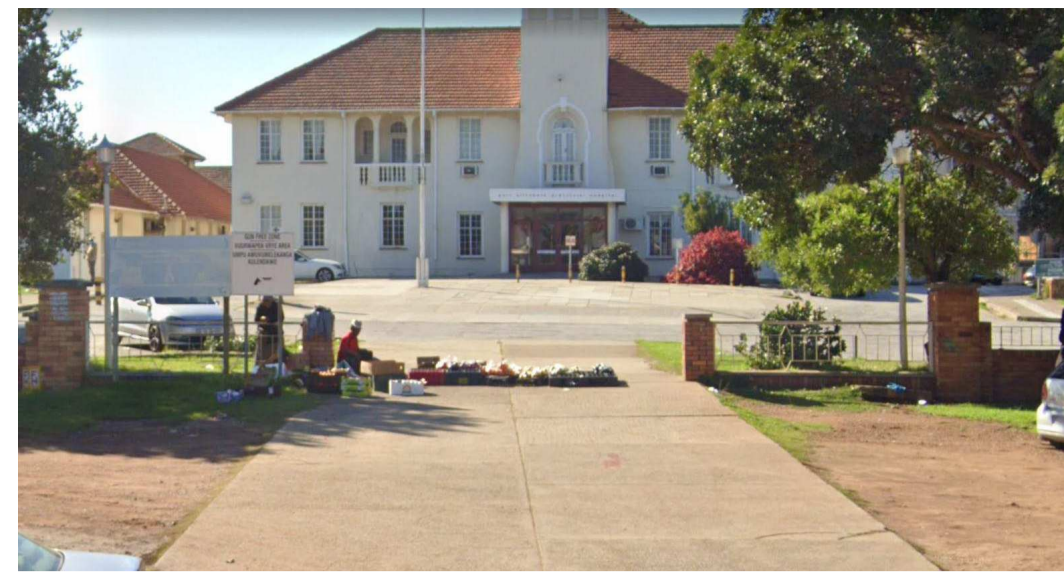
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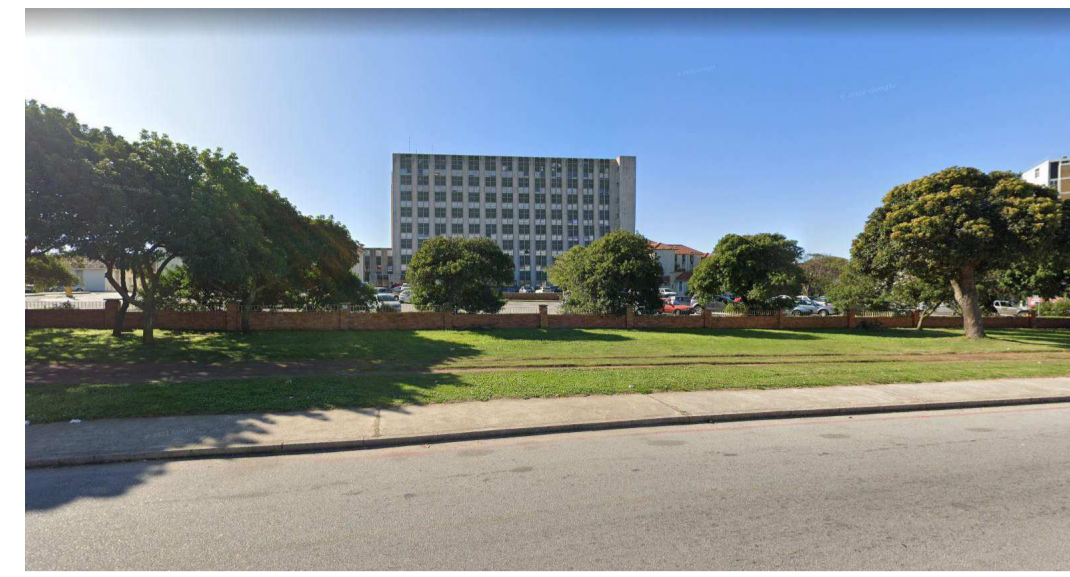
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No.	Description	Date
1	New Window Type	31.03.2023

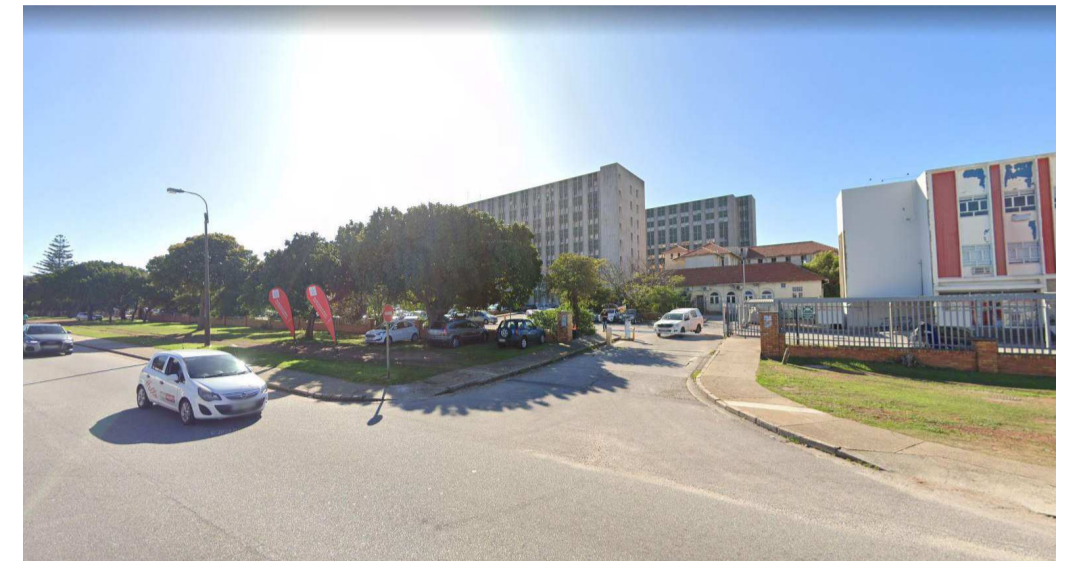
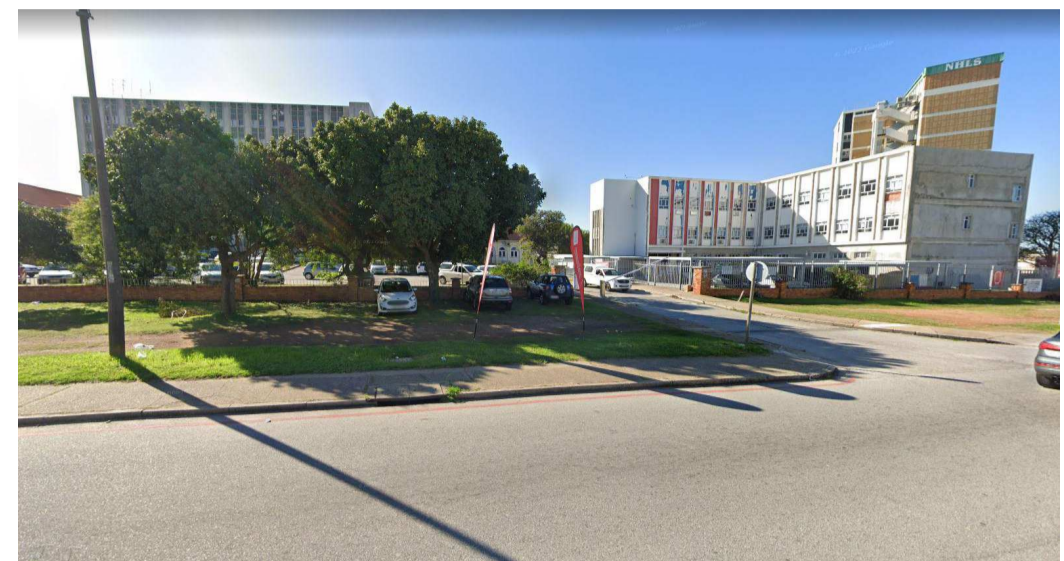
Photos of Existing Condition



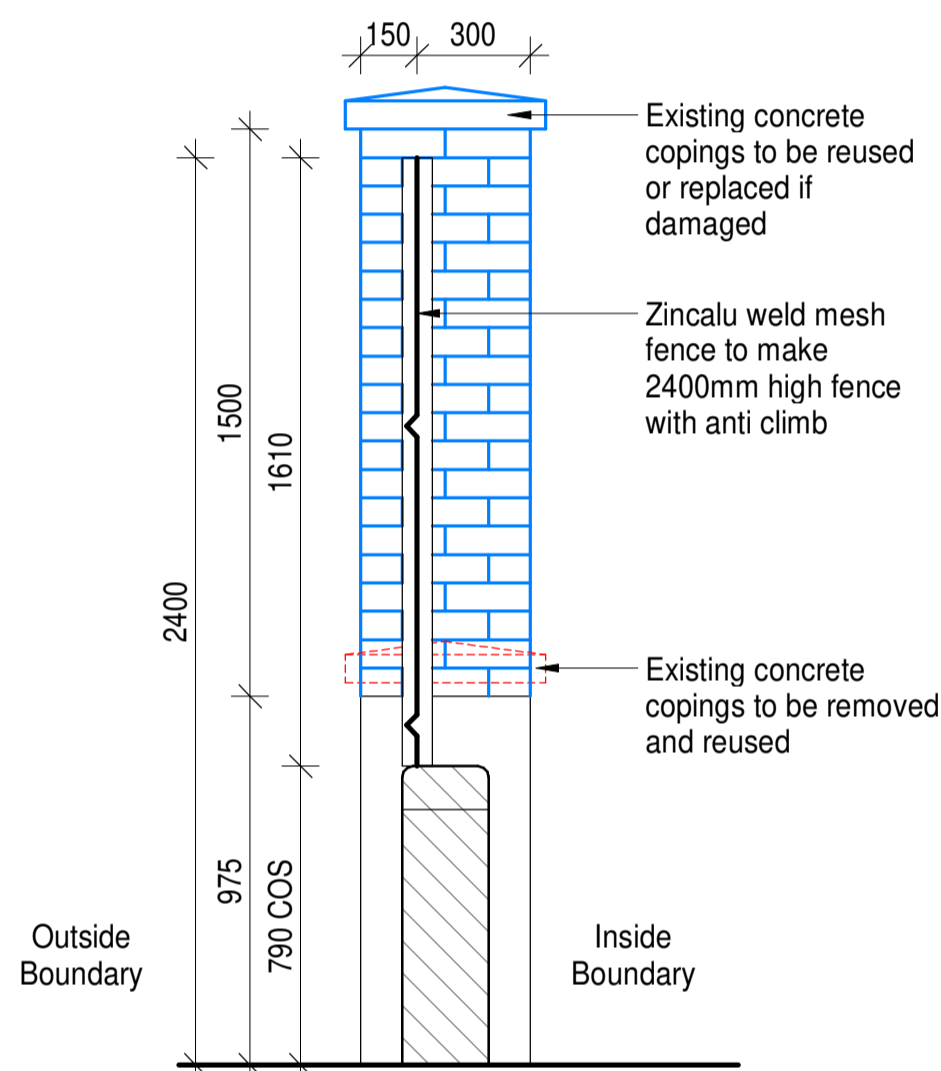
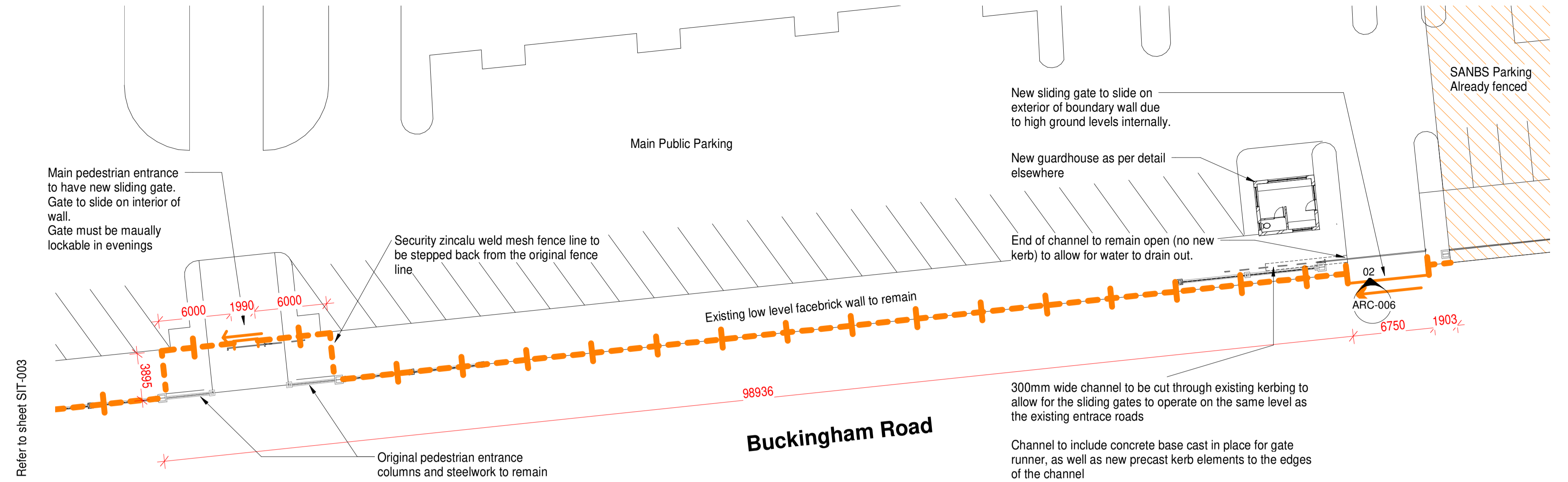
Main entrance to have single sliding gates
Swing gates as per standard betafence detailing
Gates must be lockable



Main Public Parking

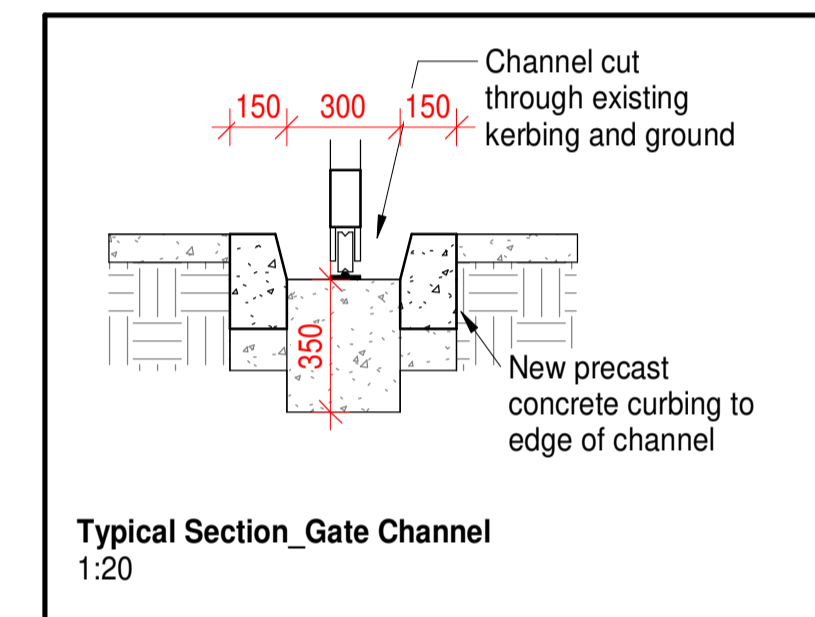


Single sliding gate to parking exit.
Existing boom arm to remain on inside of new gate position
Existing redundant security spikes to be removed and road made good.

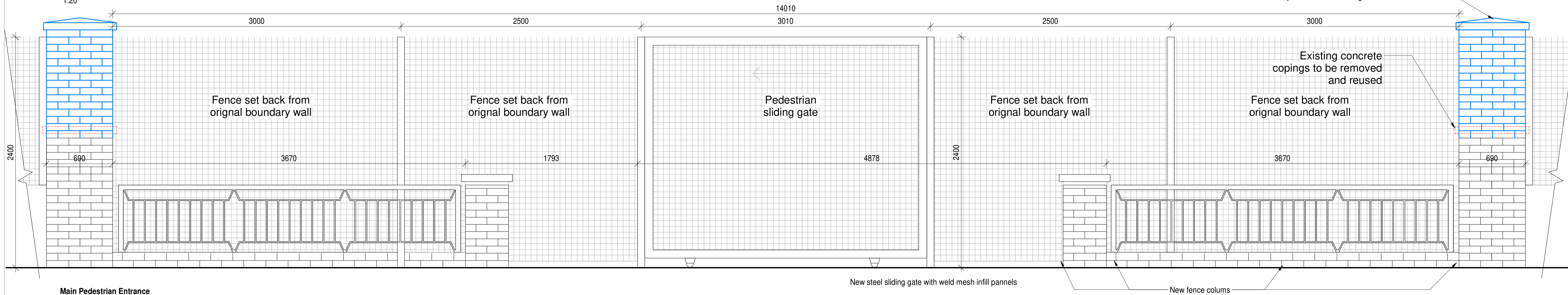


Typical Section_New weld mesh infill panel to front wall
1:20

New Fence Specification:
Rigid Mesh Security Fencing
 Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanising
 Secure Posts: H - shaped profile post 70mmx 44mm. The panel is to fit securely behind the lip of the post. Height: 3000mm hot dipped galvanized mild steel posts
 Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
 Secured using tamper-proof shear-off nuts. (no self drilling screws).
 All fixator components to be stainless steel Grade 304 per ISO 9223.
 All Foundations to be 600mm (d)x 400mm (h)x 400mm(w) concrete.
 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations



Existing security boom and floor spikes currently unused, no longer functional and redundant due to dirt ingress. Should be removed entirely as position will clash with sliding gate.



Main Pedestrian Entrance
1:20

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No.	Description	Date
1	Remove Trade Names	27-10-2023
REVISIONS:		

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement

Date: 02 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE: South Wall - Buckingham Road

B4 Ref No.: Architect DWG No:

305-026 SIT-004

FOR TENDER ONLY

REV: 1

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No.	Description	Date

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL

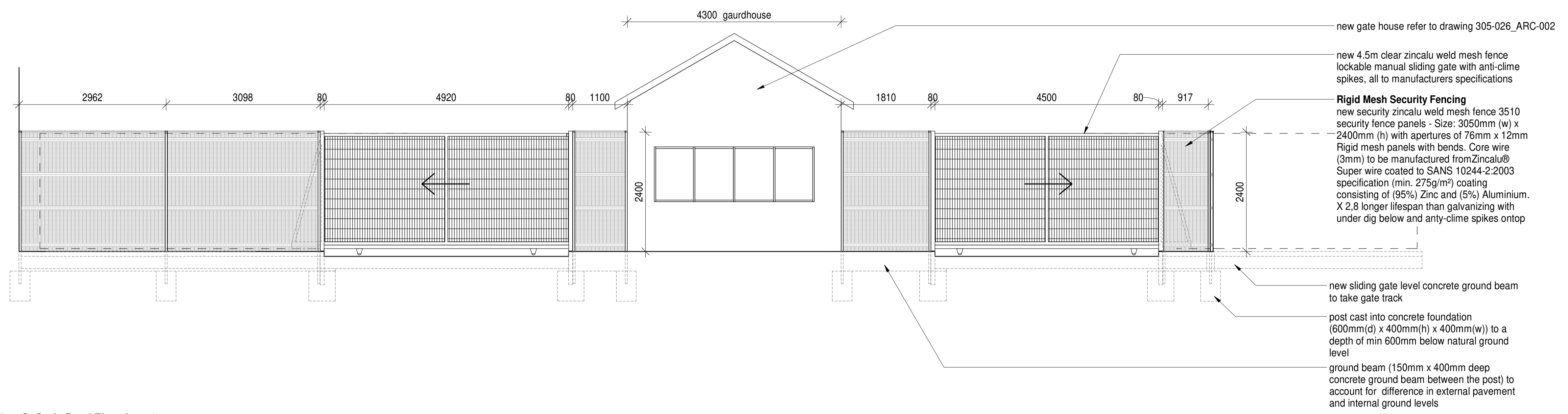
Boundary Wall Replacement

TITLE: New Gate Elevations A

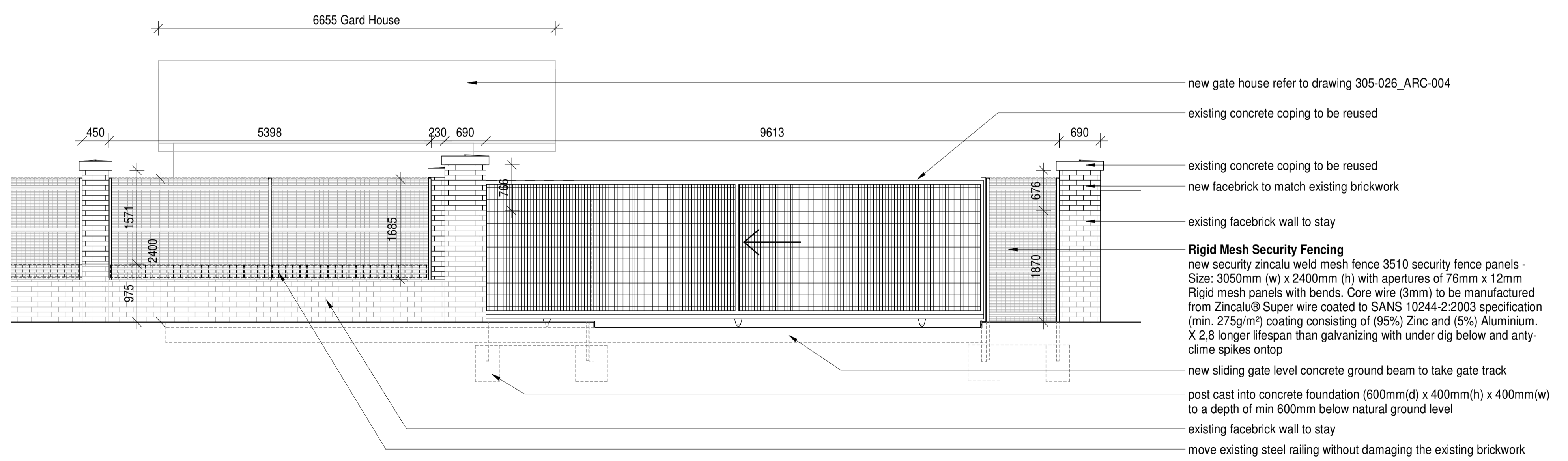
Scale	1 : 50
Date:	02 November 2023
Drawn by:	PHV
Designer:	BB
Professional Architect:	BB
Checked by:	BB

DWG No: **ARC-006**

FOR TENDER ONLY



01 St Croix Road Elevation - 1
1 : 50



02 Buckingham Road Elevation - 2
1 : 50

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IF IN DOUBT PLEASE ASK!

No.	Description	Date

PROJECT: **PORT ELIZABETH PROVINCIAL HOSPITAL**

Boundary Wall Replacement

TITLE: **New Gate Elevations B**

Scale: As indicated

Date: 02 November 2023

Drawn by: PHV

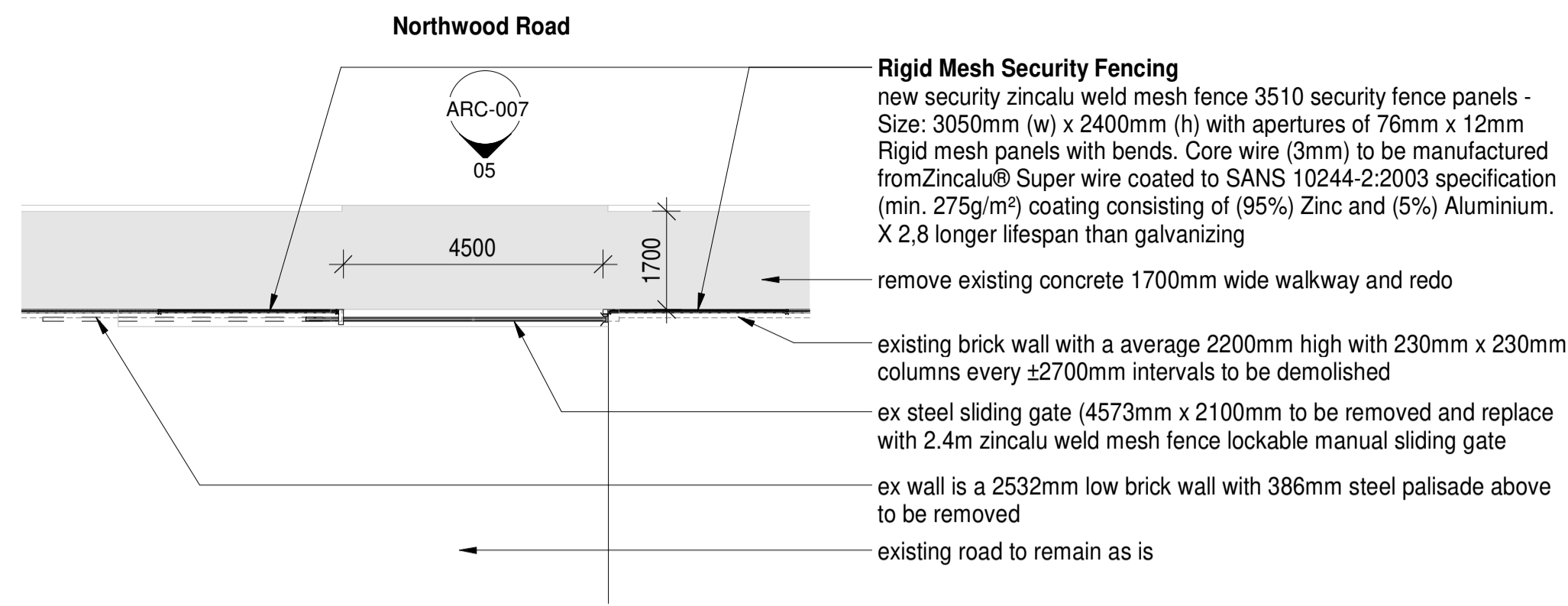
Designer: BB

Professional Architect: BB

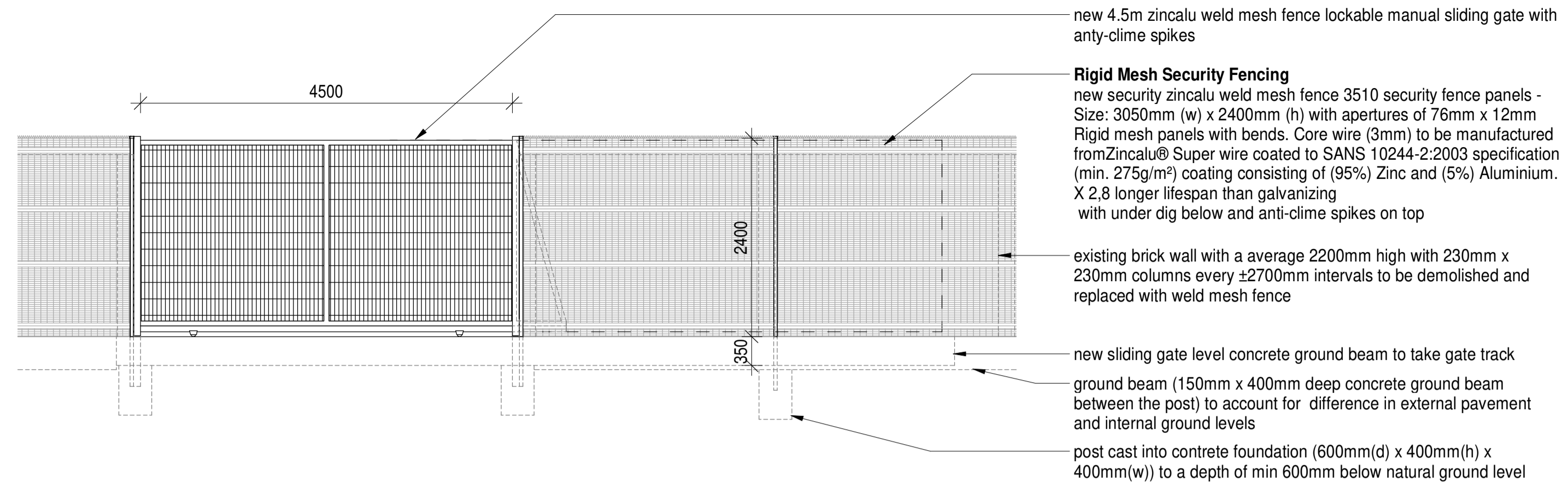
Checked by: BB

DWG No: **ARC-007**

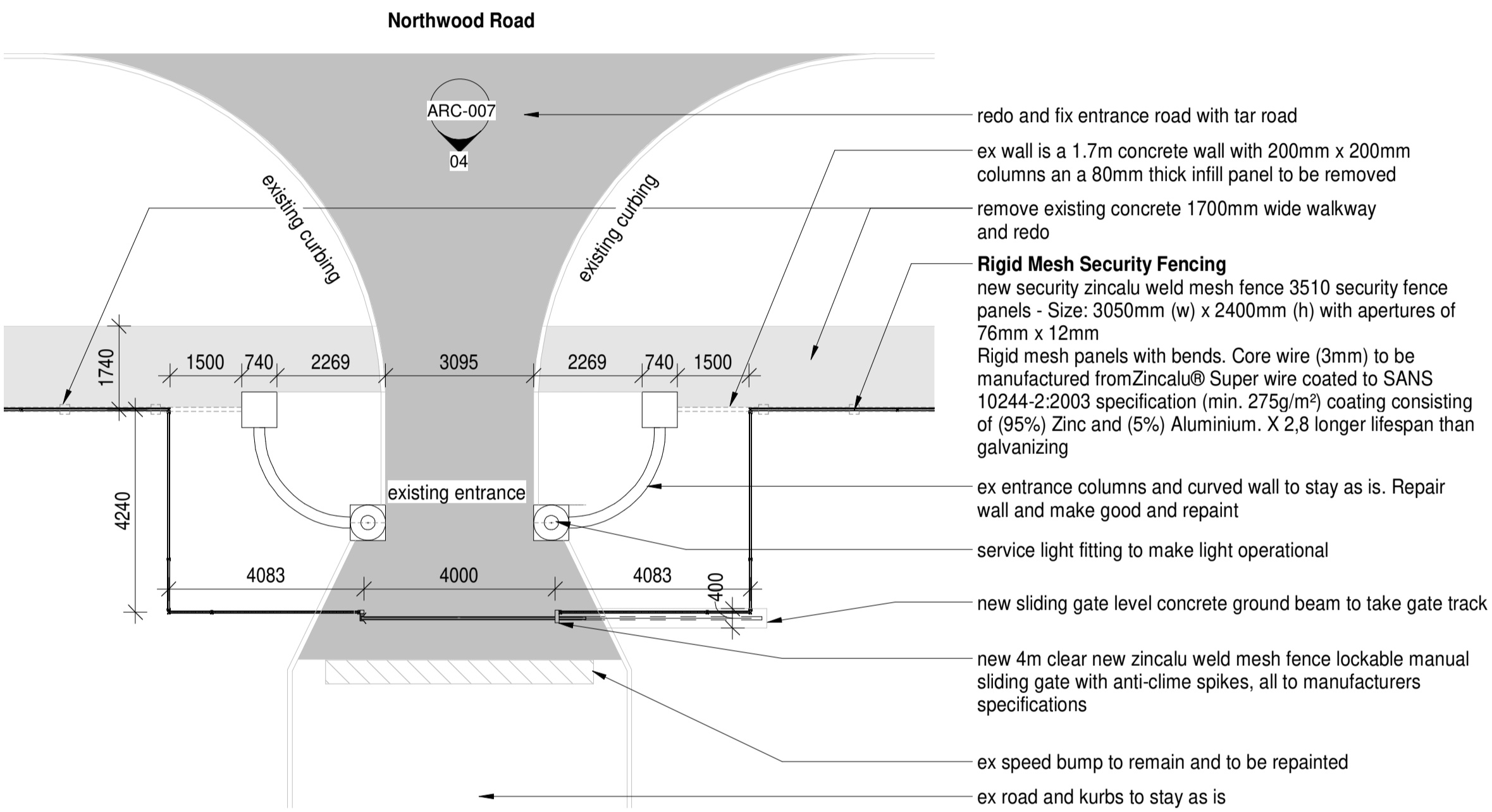
FOR TENDER ONLY



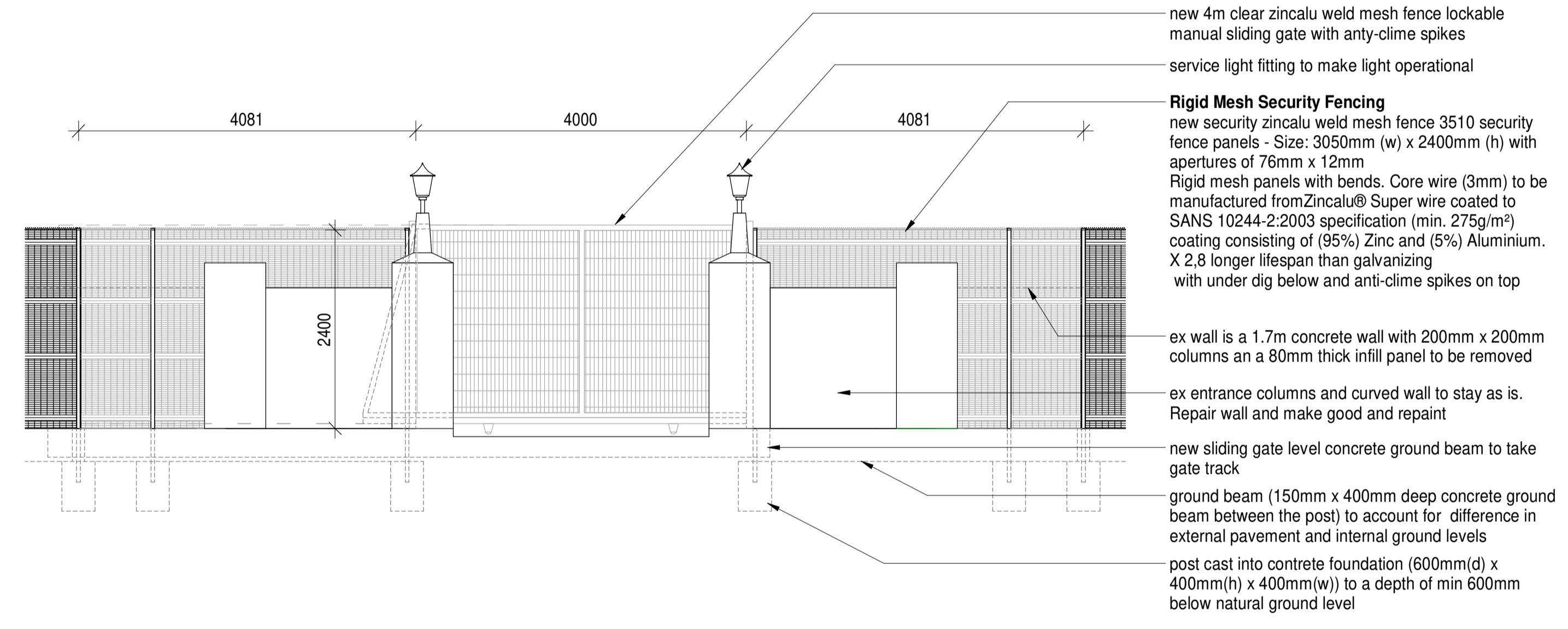
4 Site_North Wall_Northwood Road_sliding gate
1 : 100



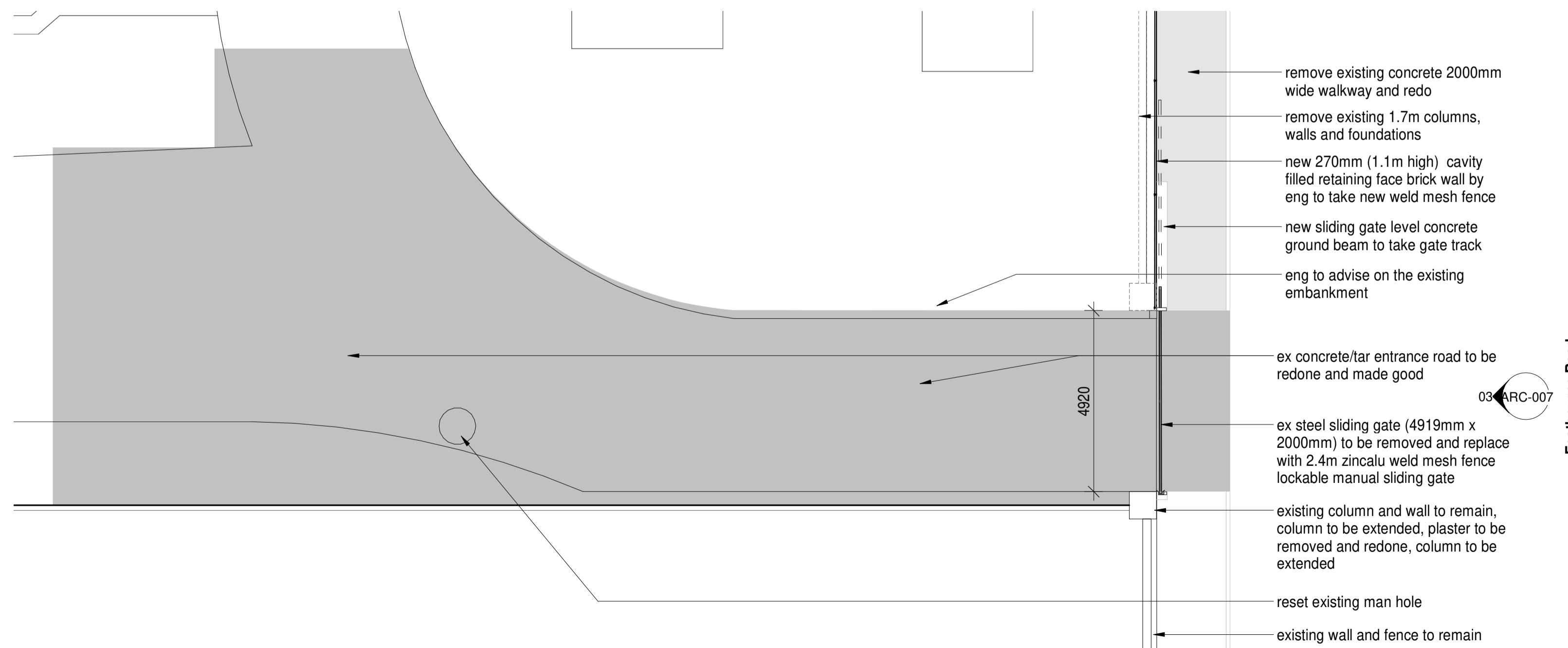
05 Northwood Road Elevation - 7
1 : 50



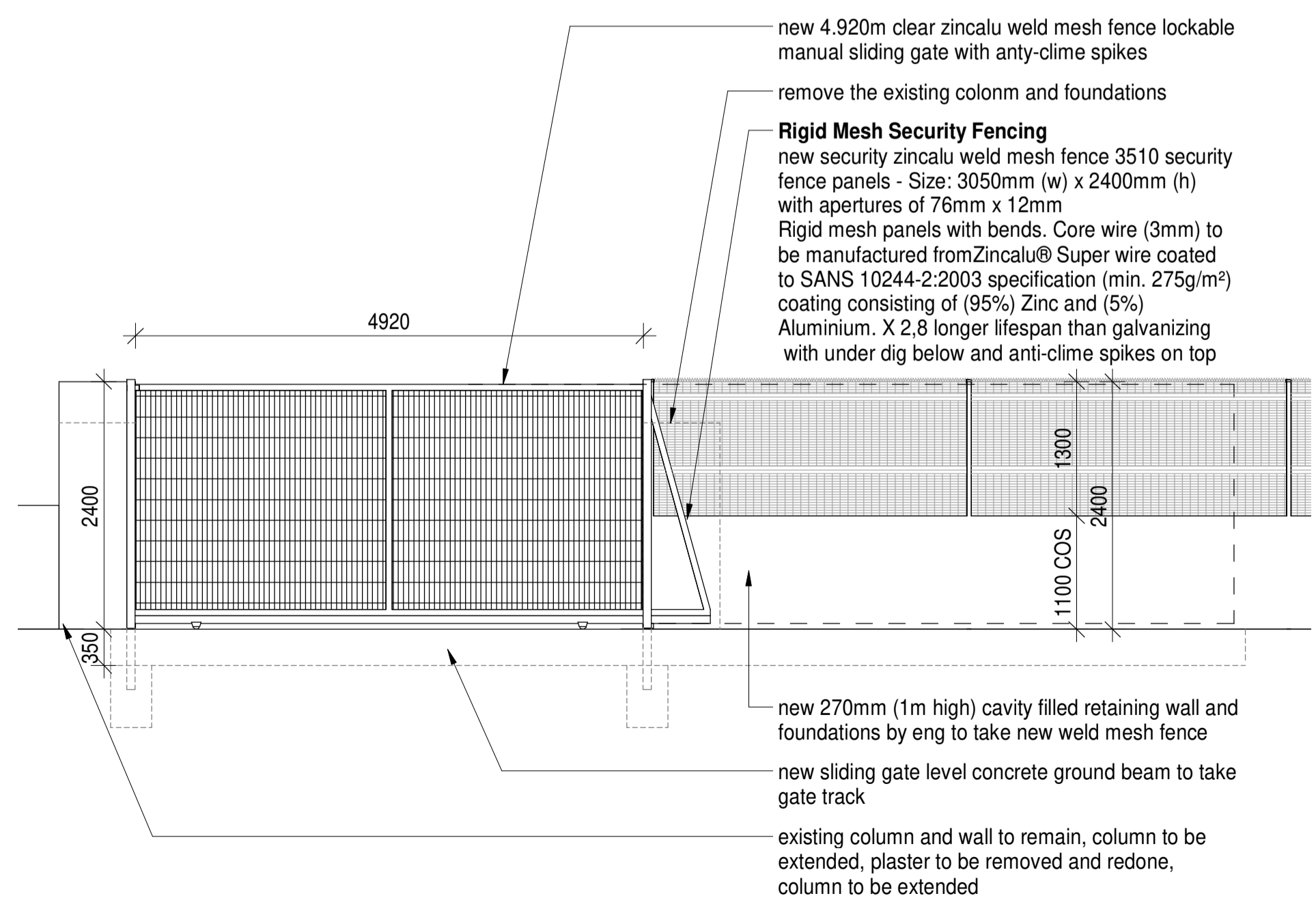
1 Site_North Wall_Northwood Road_Pedestrian Entrance
1 : 100



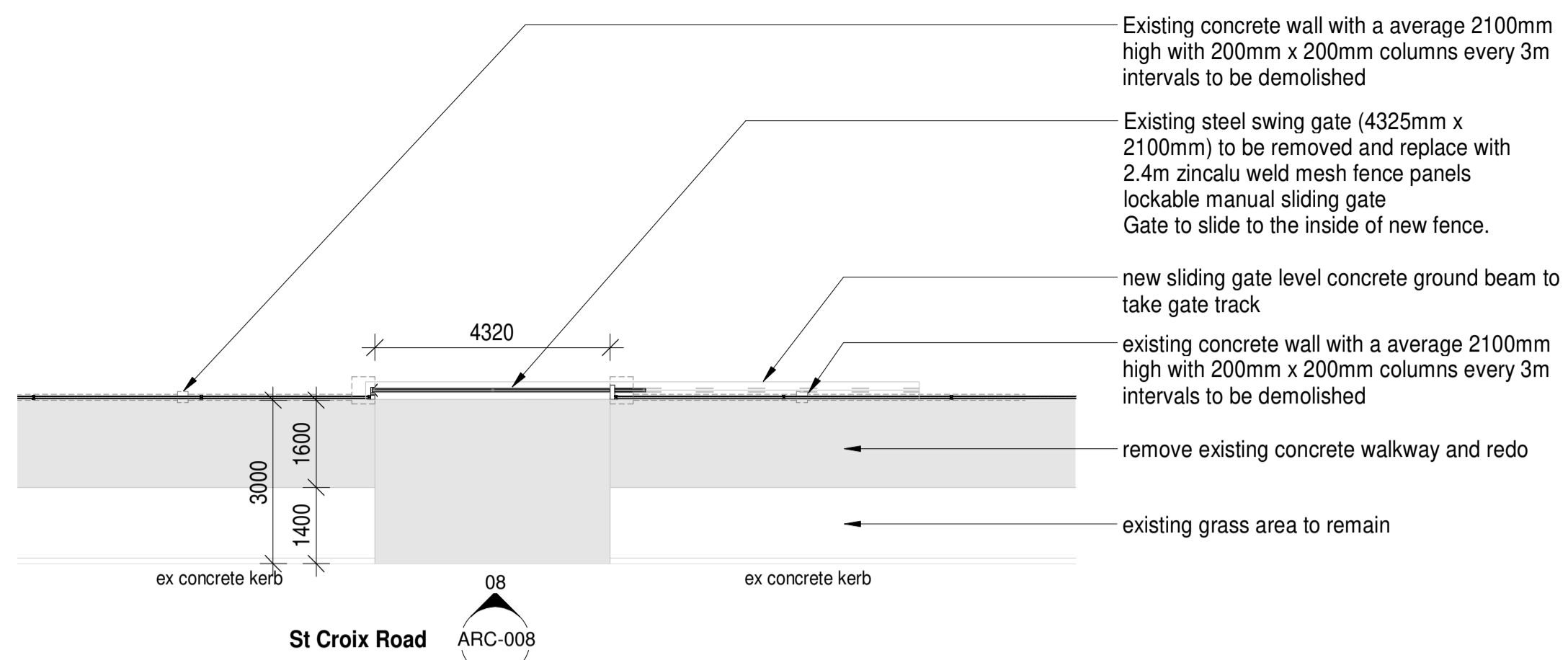
04 Northwood Road Elevation - 4
1 : 50



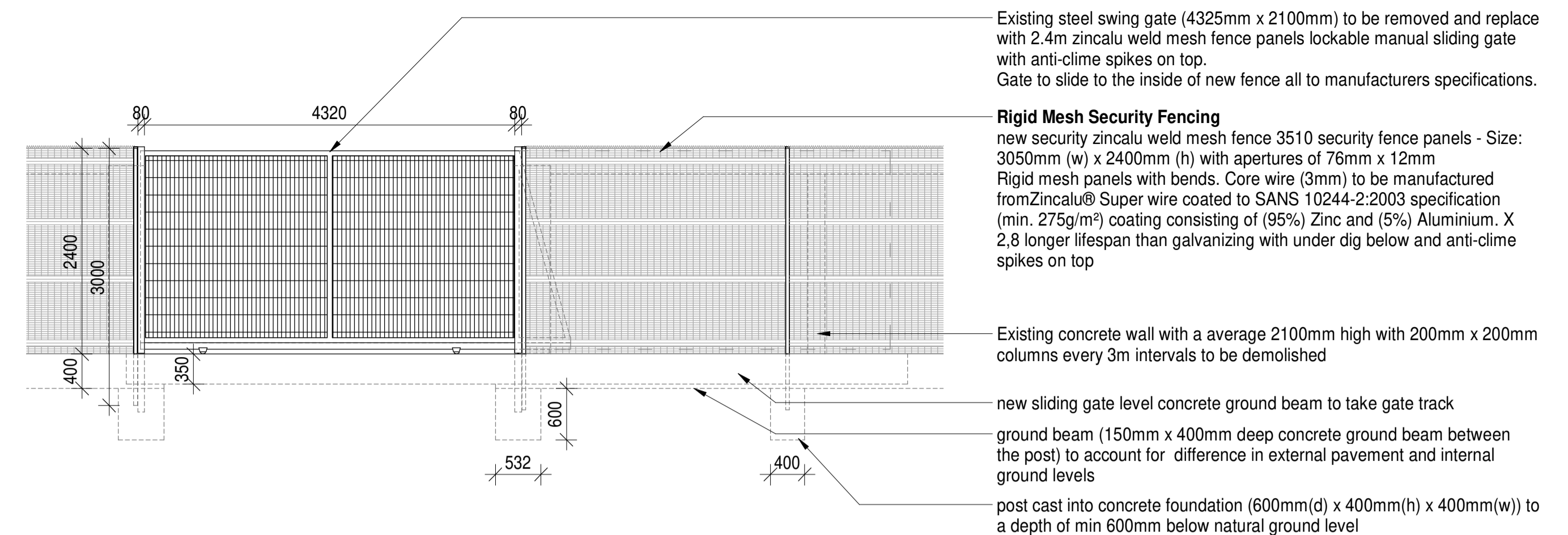
2 Site_East Wall_Eastbourne Road_Gate
1 : 100



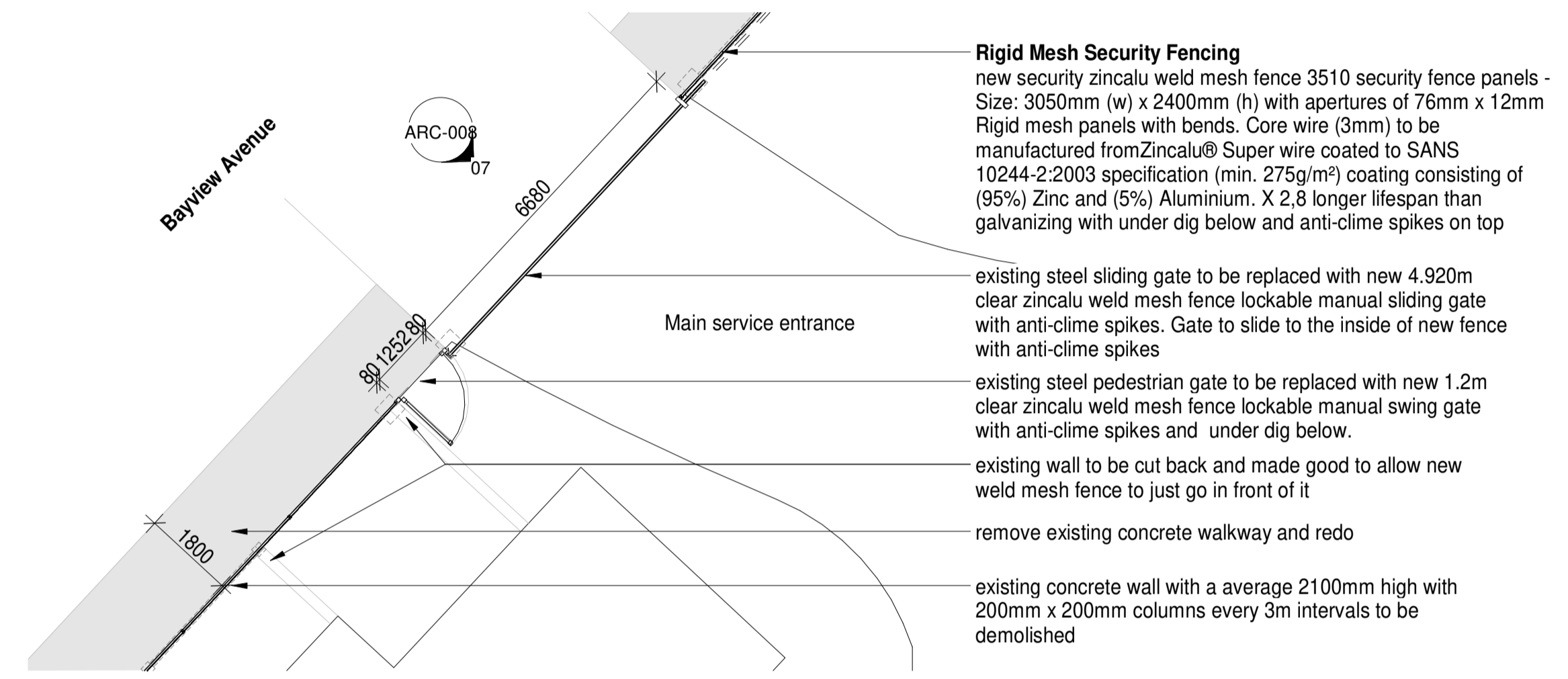
03 Eastbourne Road Elevation - 3
1 : 50



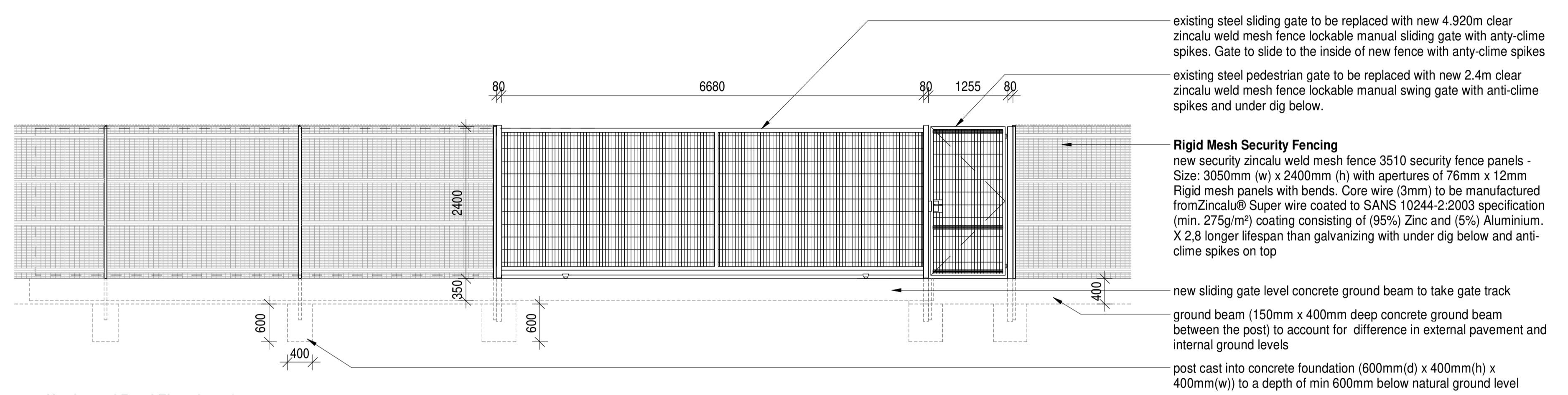
4 Site_West Wall_St Croix Avenue Copy 1
1 : 100



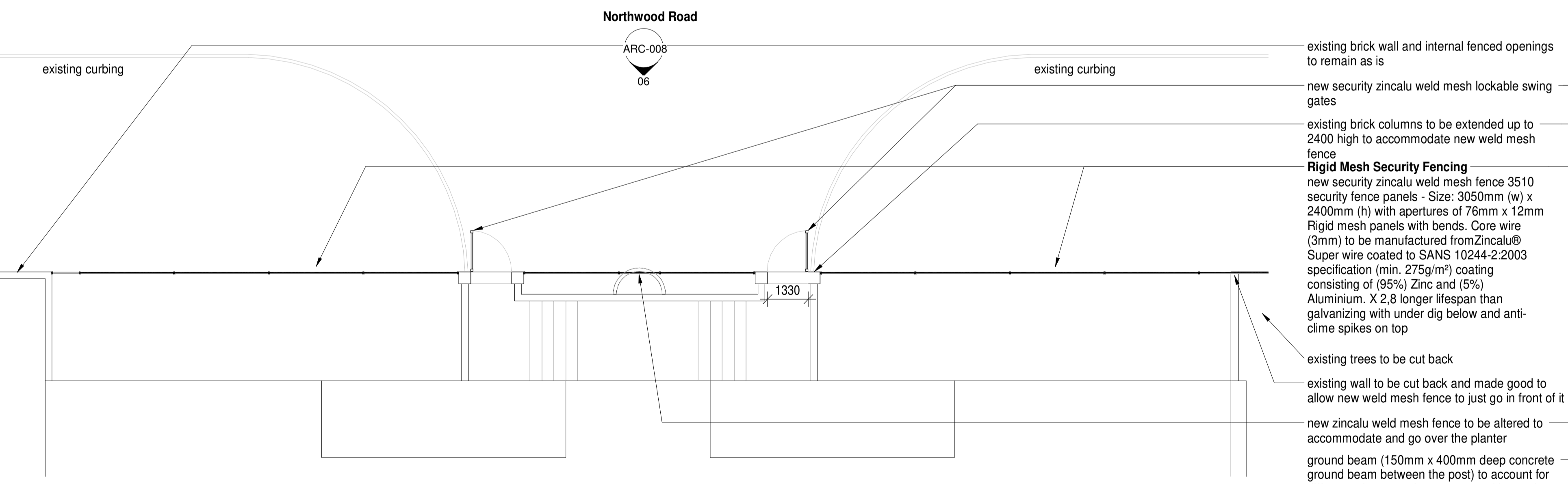
08 St Croix Avenue Elevation - 3
1 : 50



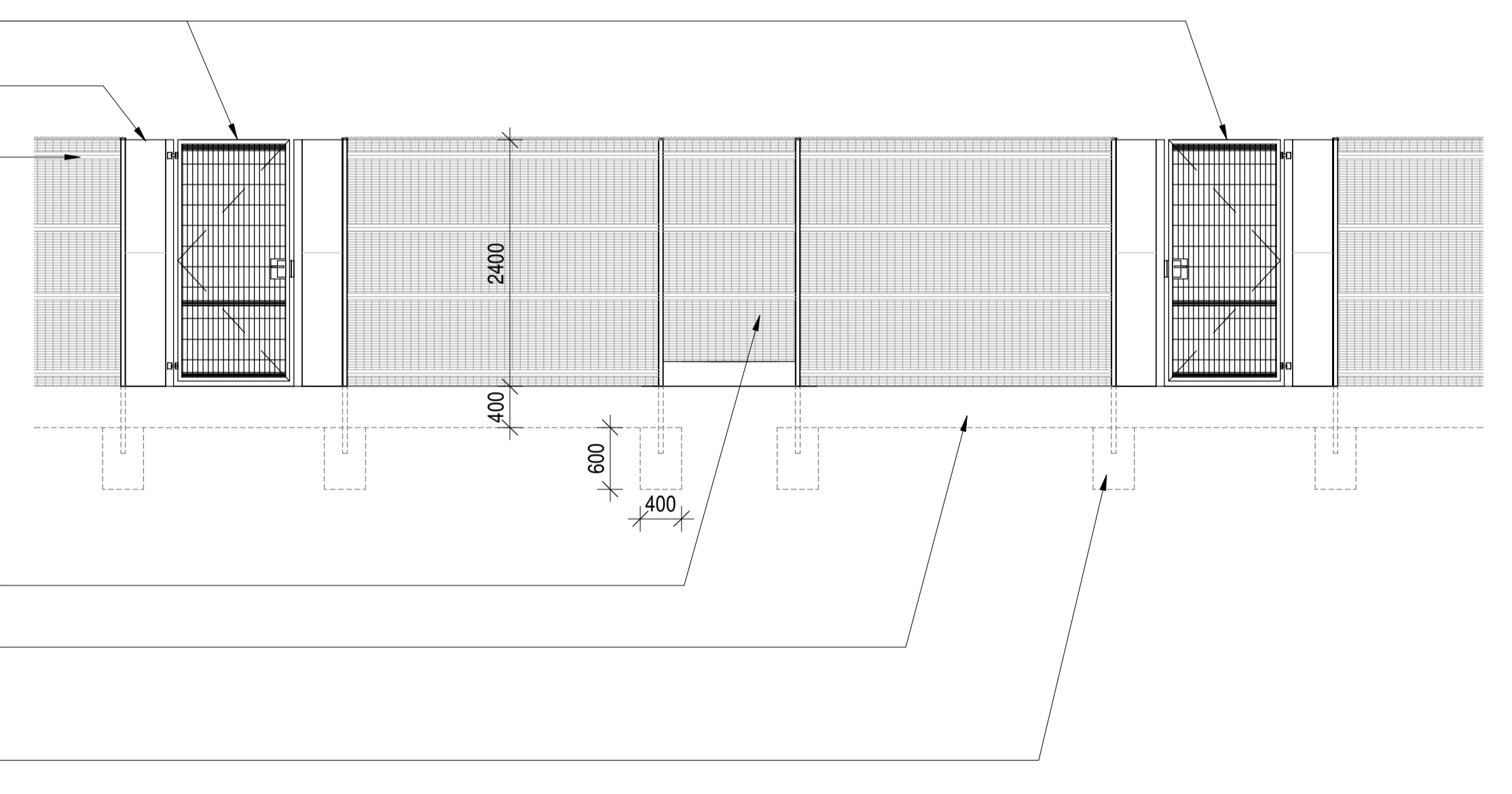
2 Site_North Wall_Northwood Road Back Entrance
1 : 100



07 Northwood Road Elevation - 6
1 : 50



1 Site_North Wall_Northwood Road back building entrance
1 : 100



06 Northwood Road Elevation - 8
1 : 50



Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
Westville, Durban, 3630
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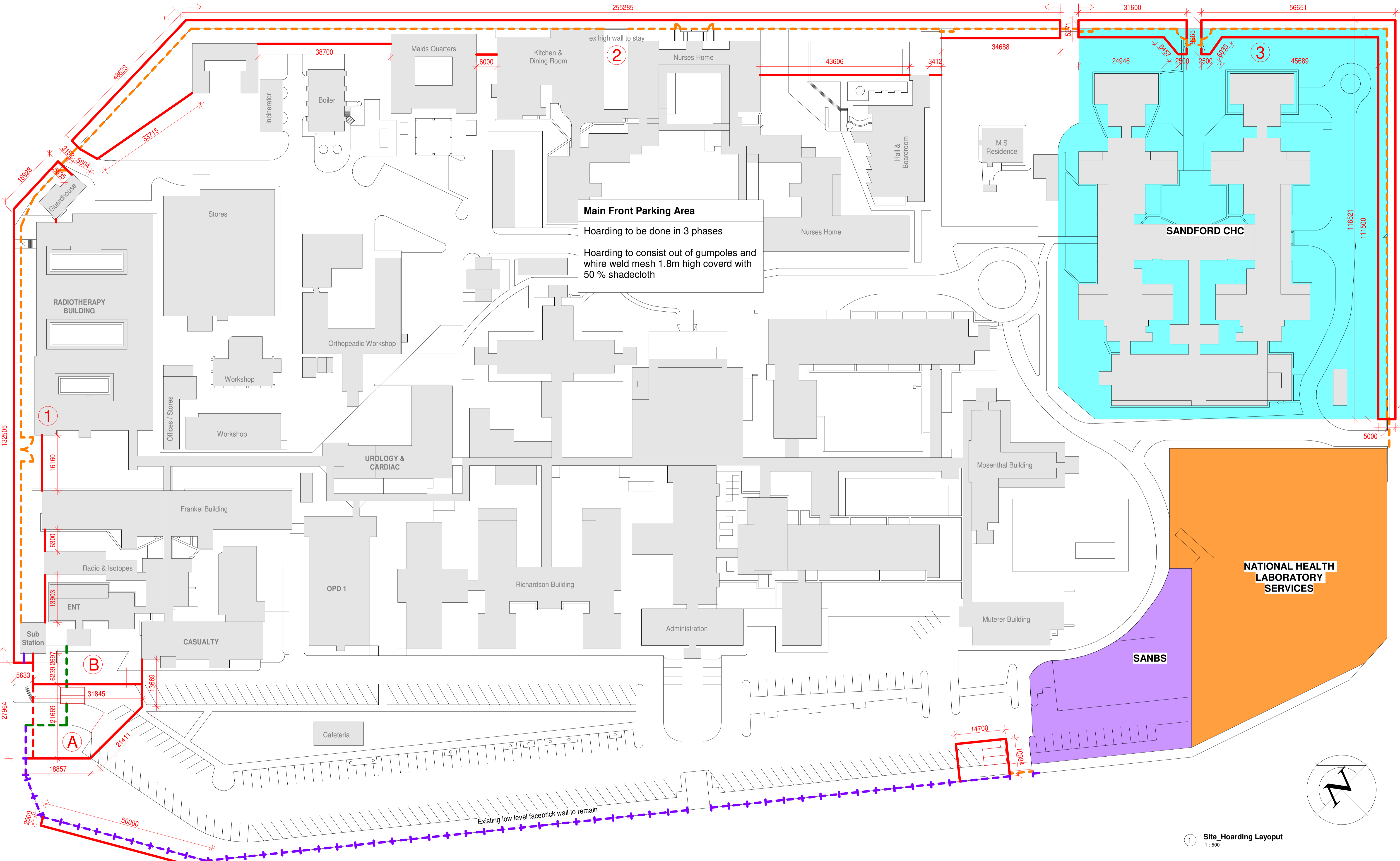
ACCURACY & DIMENSIONS
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No.	Description	Date

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement

Date: 02 November 2023

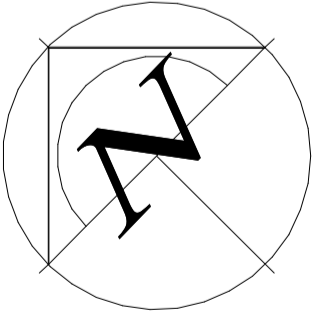
Scale:	As indicated	TITLE:	New Gate Elevations C	
Drawn by:	PHV	B4 Ref No.:	305-026	
Designer:	BB	Architect DWG No.:	ARC-008	
Professional Architect:	BB	Checked by:	BB	
Checked by:	BB	FOR TENDER ONLY		
				REV:



Main Front Parking Area
 Hoarding to be done in 3 phases
 Hoarding to consist out of gum poles and whire weld mesh 1.8m high coverd with 50 % shadecloth

NATIONAL HEALTH LABORATORY SERVICES

SANBS



1 Site Hoarding Layout
 1 : 500

b4 Architects cc
Resuscitating Healthcare Design



Port Elizabeth
 PO Box 5690, Walmer, Port Elizabeth, 6065
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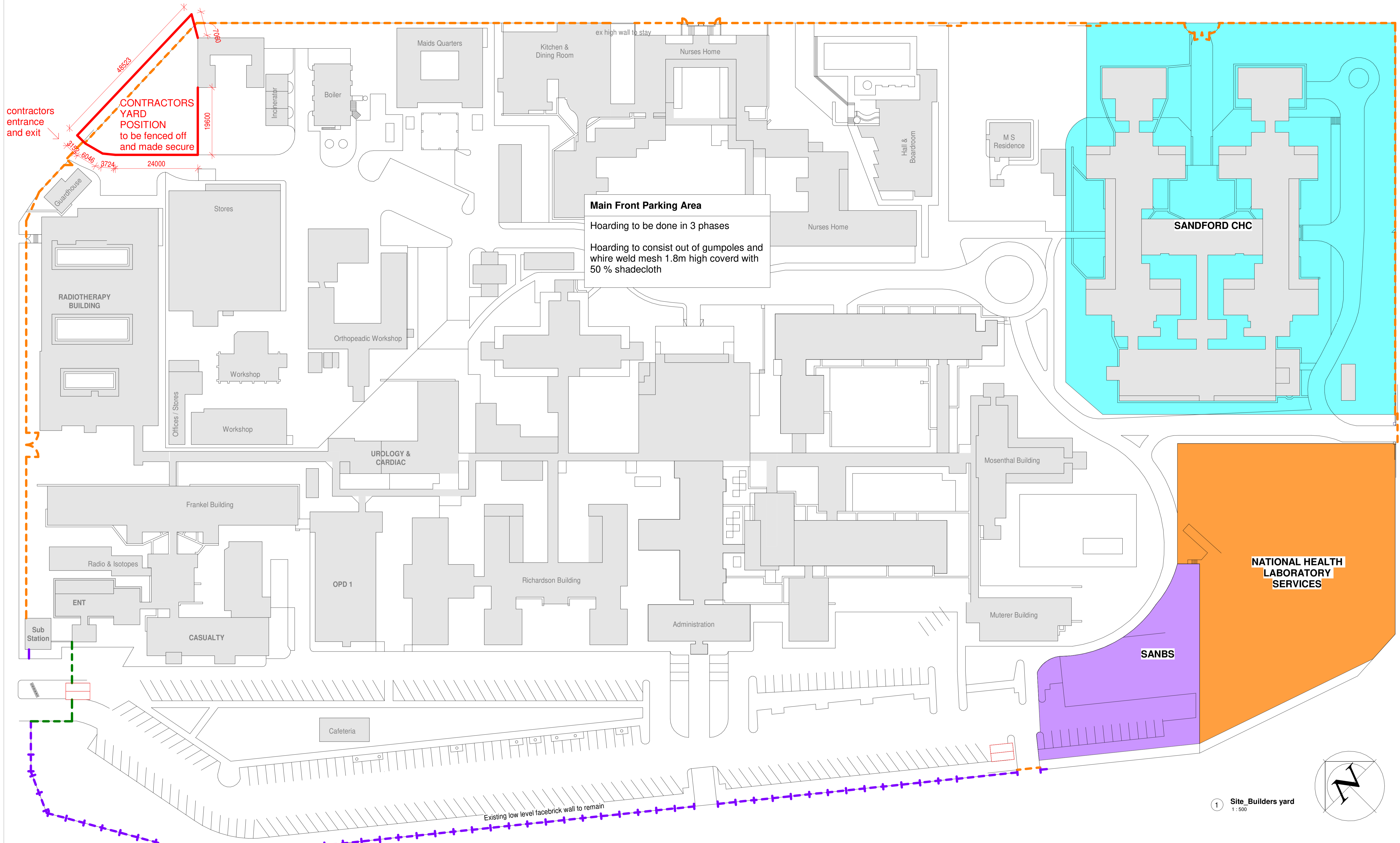
ACCURACY & DIMENSIONS
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No.	Description	Date

PROJECT:
PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement
 Date: 02 November 2023

Scale:	1 : 500	TITLE: Hoarding Drawing
Drawn by:	PHV	
Designer:	BB	B4 Ref No.: 305-026
Professional Architect:	BB	
Checked by:	BB	Architect DWG No.: SIT-007
FOR TENDER ONLY		
		REV:



Main Front Parking Area
 Hoarding to be done in 3 phases
 Hoarding to consist out of gumpoles and white weld mesh 1.8m high cover with 50 % shade cloth

contractors entrance and exit
CONTRACTORS YARD POSITION to be fenced off and made secure

1 Site Builders yard
 1 : 500

b4 Architects cc
Resuscitating Healthcare Design
 Port Elizabeth
 PO Box 5690, Walmer, Port Elizabeth, 6065
 Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
 Walmer, Port Elizabeth, 6070
 Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za
 Durban
 Westville, Durban, 3630
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Province of the
EASTERN CAPE
 HEALTH
 SAKHIWO HEALTH SOLUTIONS
 HDG
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REVISIONS:

No.	Description	Date

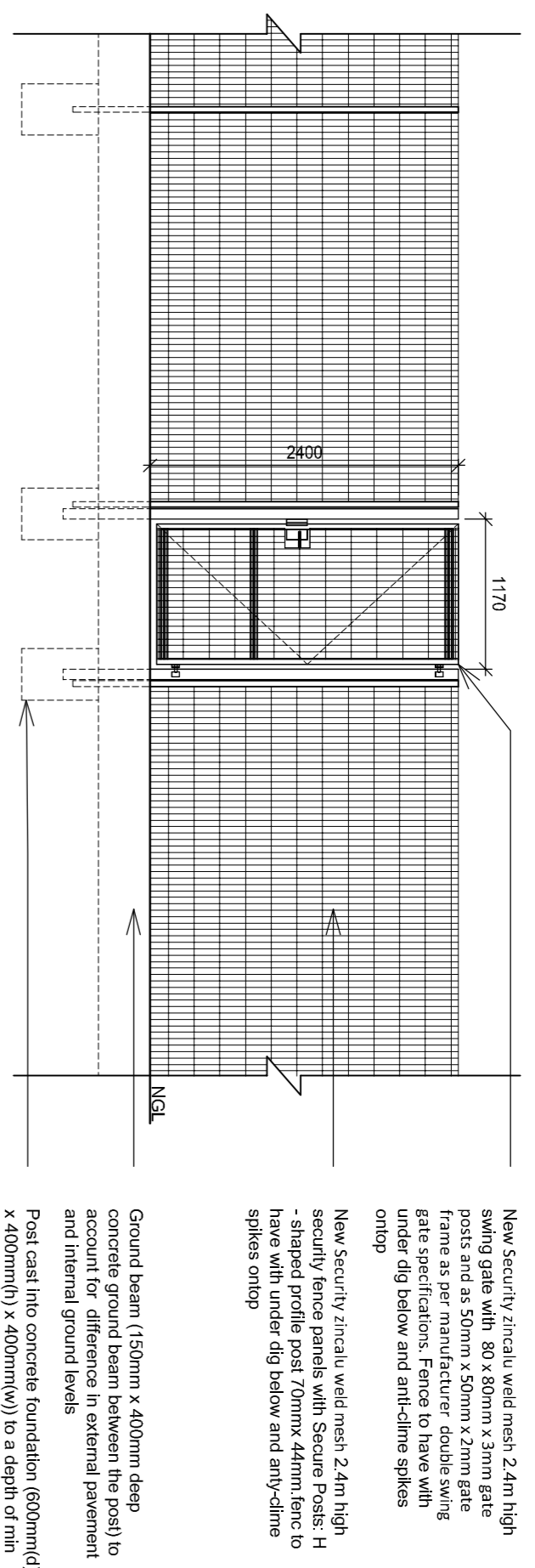
No.	Description	Date

PROJECT:
PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement
Date: 02 November 2023

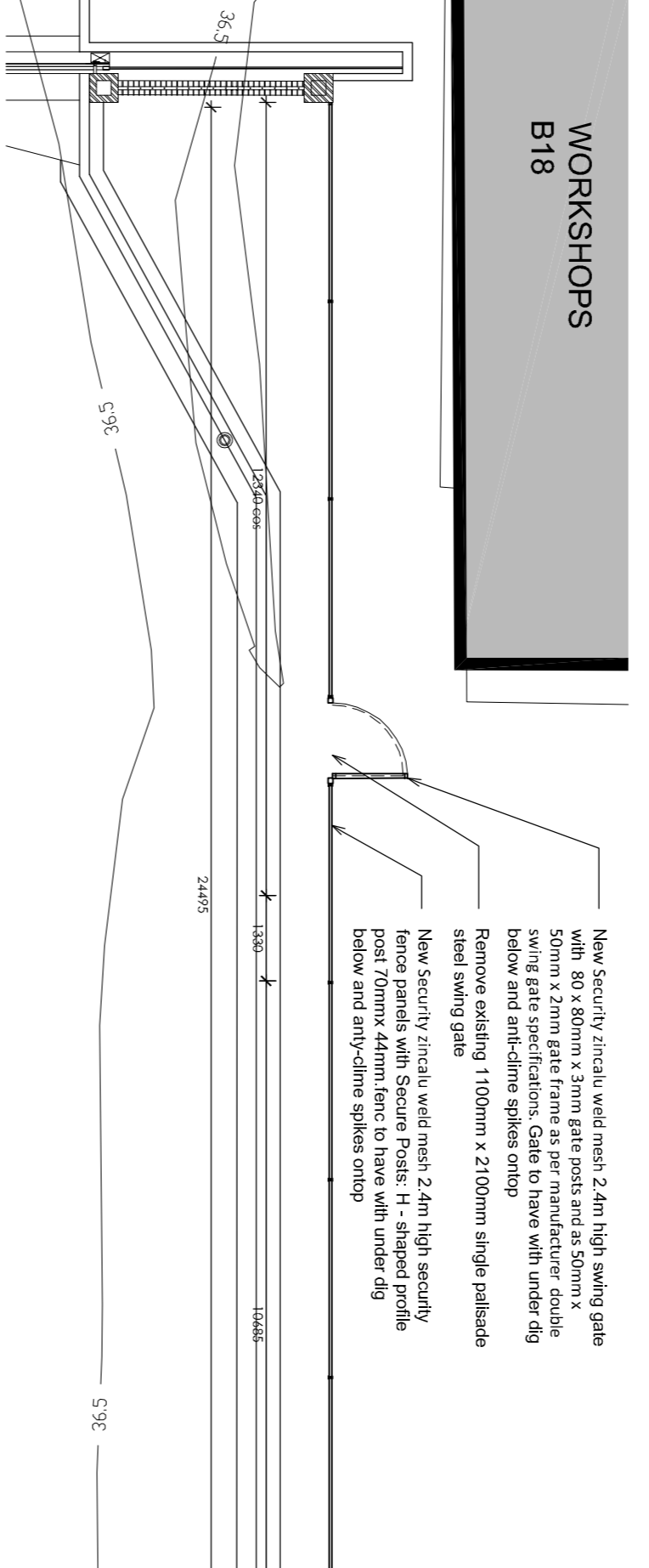
Scale:	1 : 500
Drawn by:	PHV
Designer:	BB
Professional Architect:	BB
Checked by:	BB

TITLE: Contractors Yard
B4 Ref No.: 305-026
Architect DWG No.: SIT-008
FOR TENDER ONLY

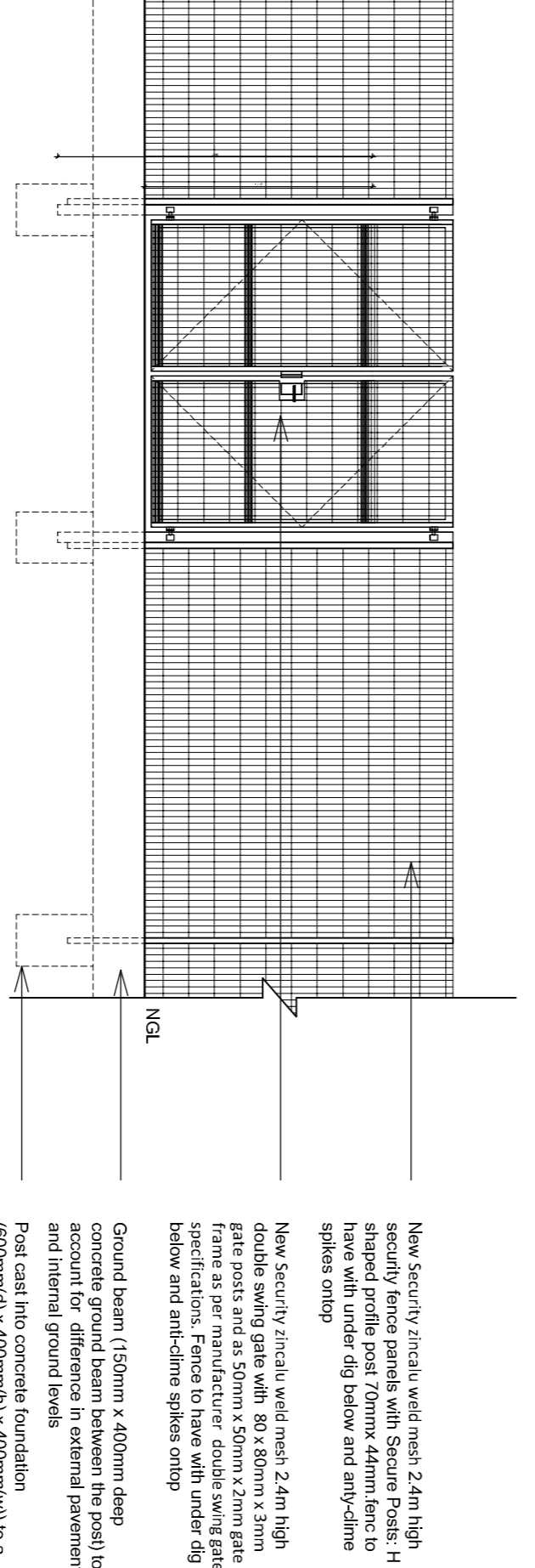
2023/11/22 09:27:14



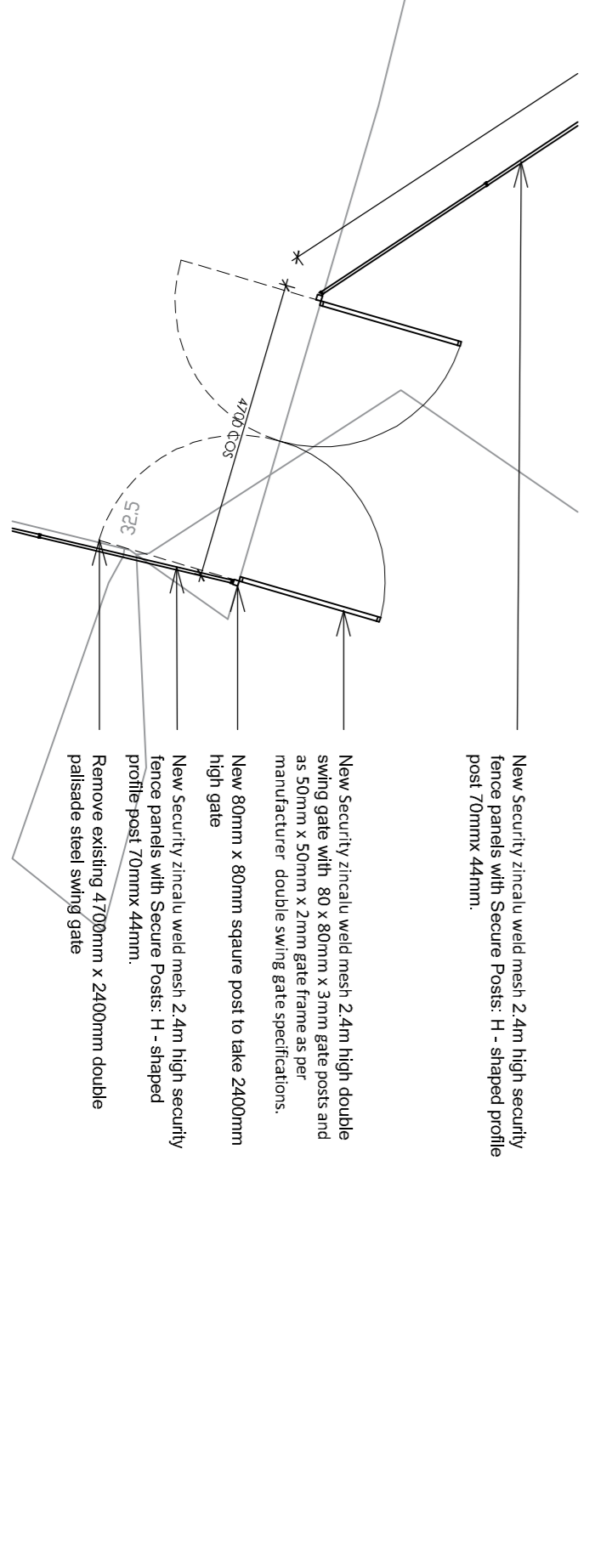
3. New single swing gate elevation
SCALE 1:150



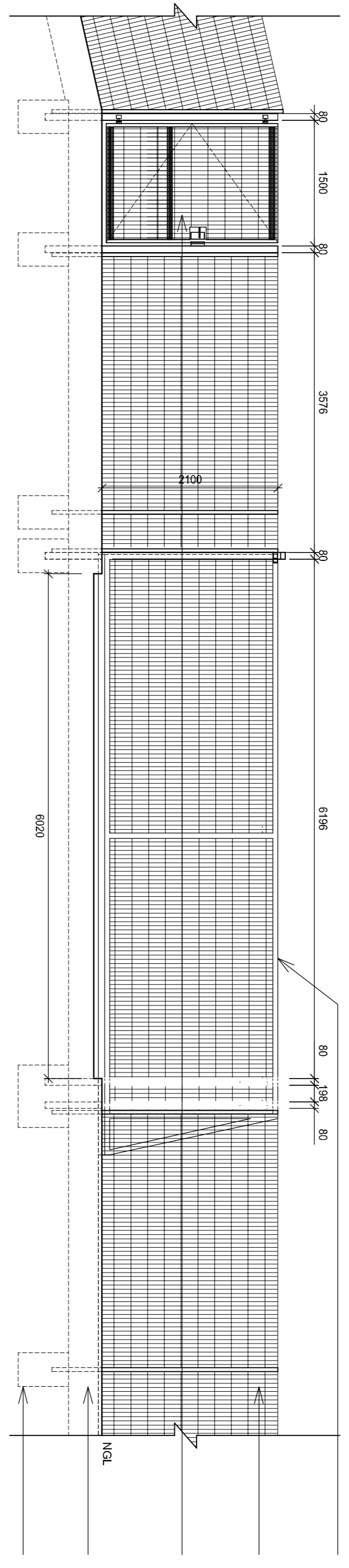
3. New single swing gate plan
SCALE 1:100



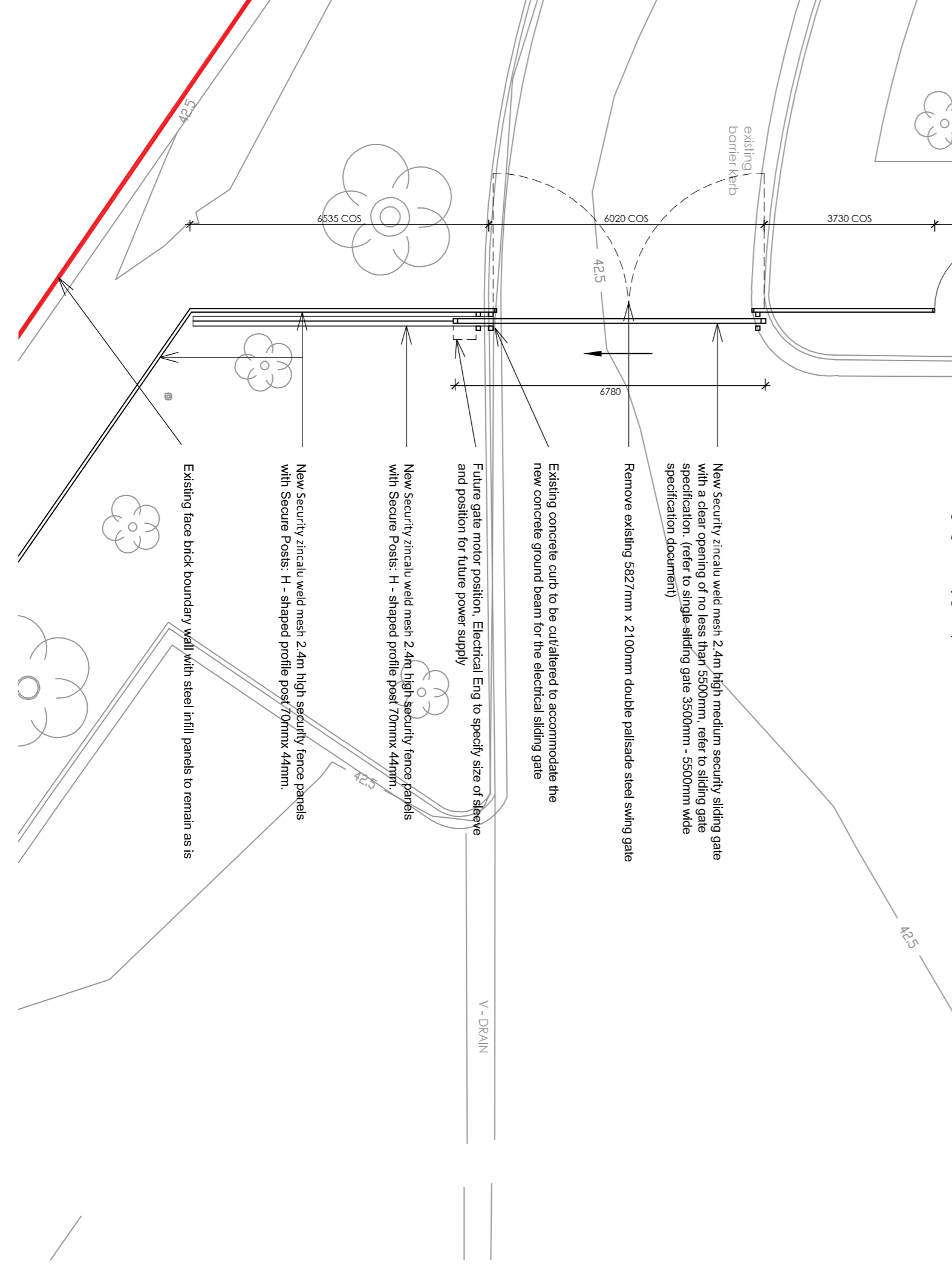
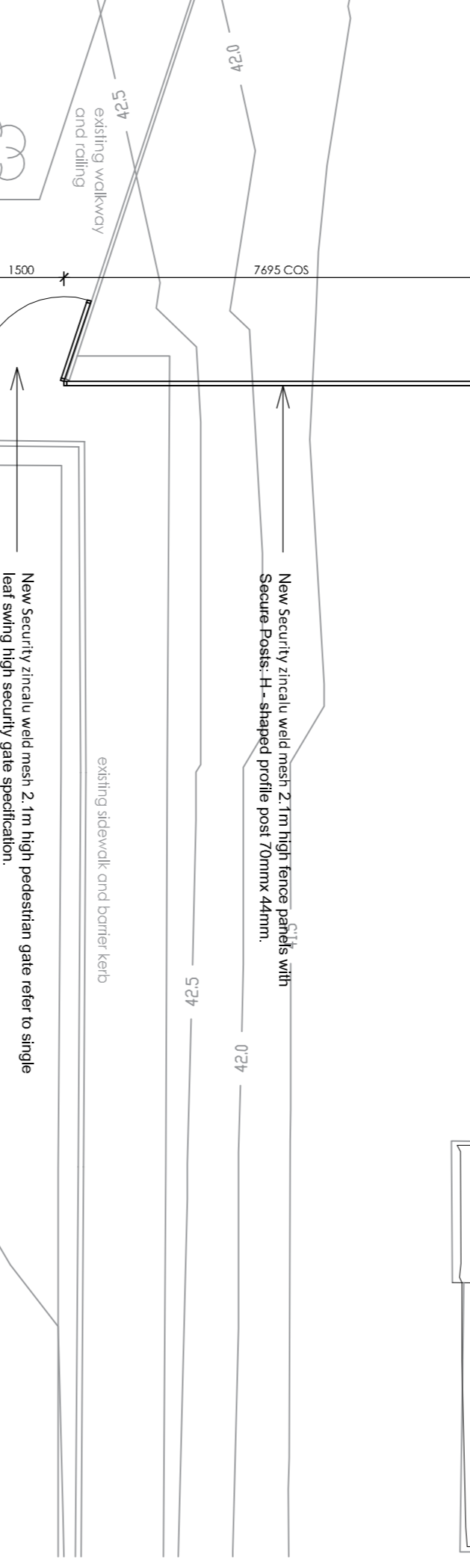
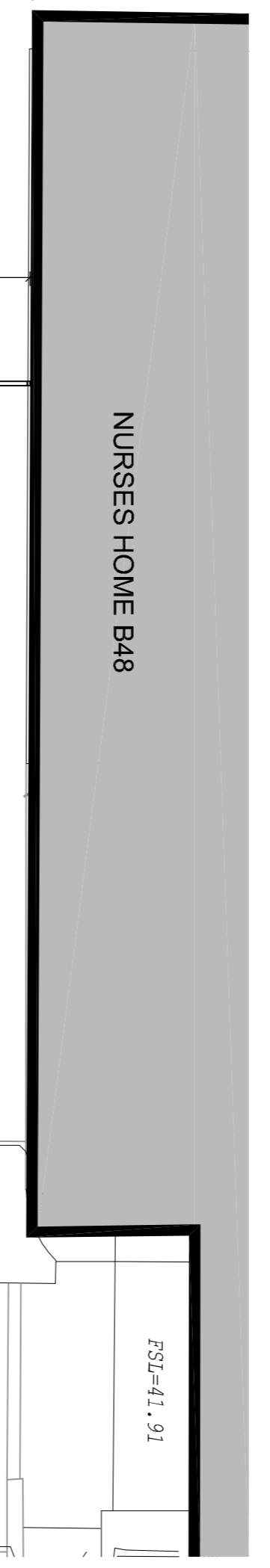
2. New double swing gate elevation
SCALE 1:50



2. New double swing gate plan
SCALE 1:100



1. New sliding and pedestrian gate elevation
SCALE 1:30



1. New sliding and pedestrian gate plan
SCALE 1:100

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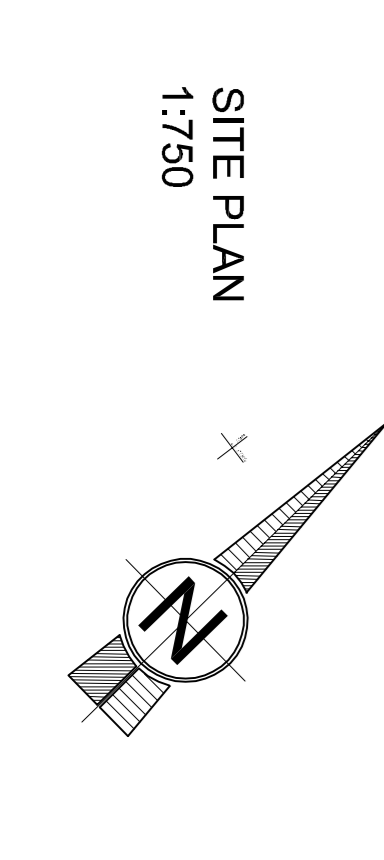
No.	Description	Date

**LIVINGSTONE HOSPITAL
PROPOSED NEW FENCE
LAYOUT**

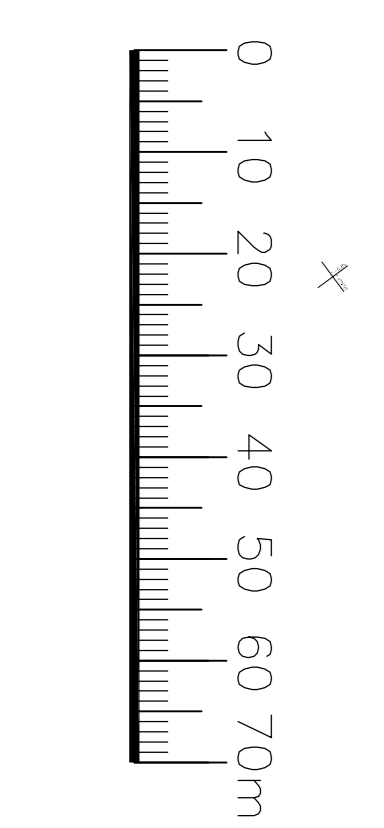
TITLE:
Site Layout
New Hoarding Plan

Scale: 1:750
Date: 10 NOVEMBER 2023
Drawn by: PHV
Designer: Bryan Brinkman
Professional Architect: Bryan Brinkman
Checked by: Bryan Brinkman
B4 Project Ref No.: 314-013
DWG No.: 314-013-S005

FOR TENDER ONLY



SITE PLAN
1:750



5.5 ALL DRAWINGS

Quantities noted are for total internal repairs to building and include all floors



Internal repairs to cacks and limited to curved section of corridor, throughout each floor.
Cracks present on each floor in similar position



Cracks on soffit of the slab:
Allow for use of crack injection resin(Sika Injection-201 or similar approved product).
Repair length = 20m

Allow for redecoration of soffit 1.5m either side of crack.



Dampness on internal walls:
Allow for an approved chemical damp proofing product(SikaTop Seal-107 Za or similar approved).
Repair area = 350m²

Allow for redecoration of wall equal to the repaired area

Vertical cracks in internal walls:
Allow for removal of the corroded conduit inside the wall and removal of one brick skin.
Allow for replacement of one brick skin and making the wall good.

Allow for redecoration of wall 1.5m either side of crack.

Repair area = 60m²



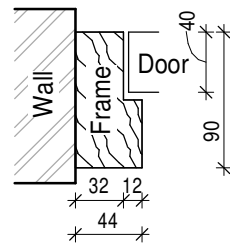
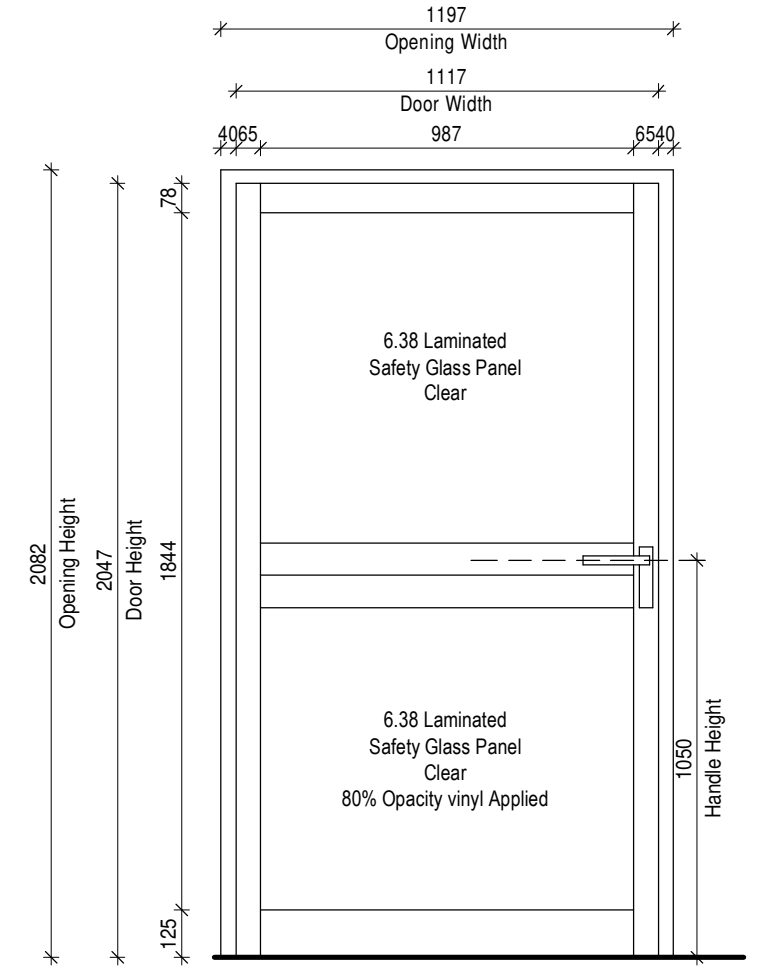
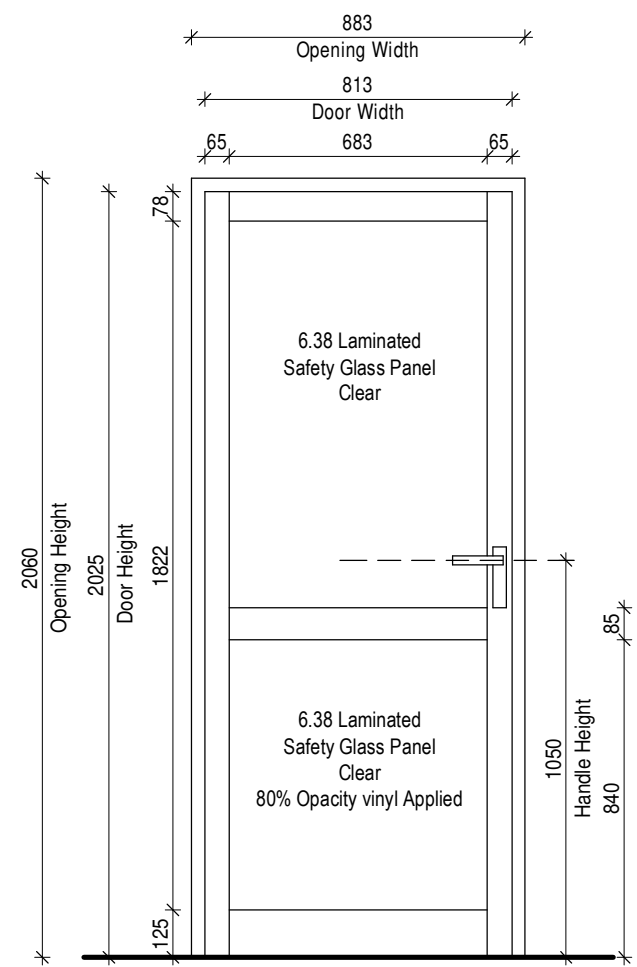
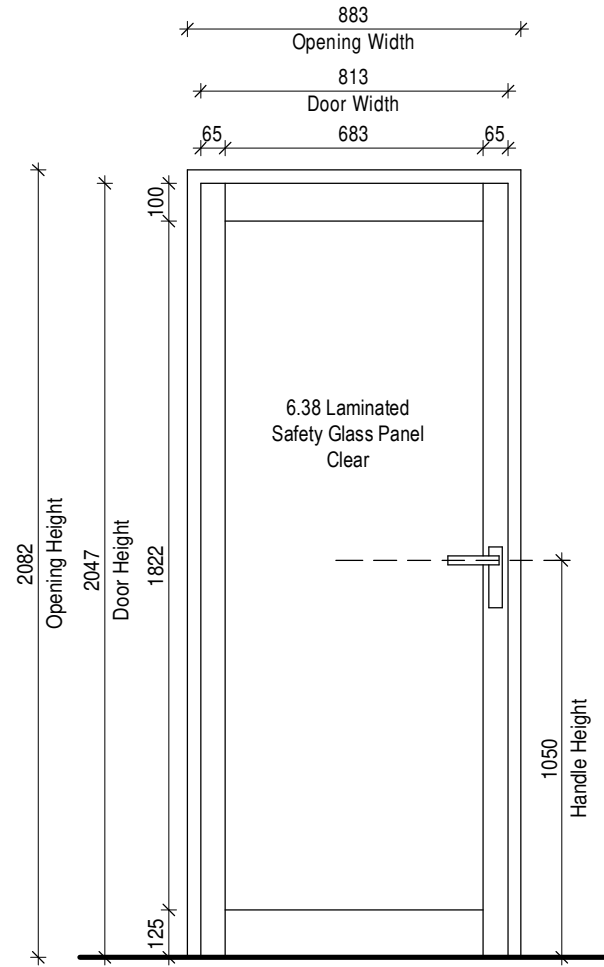
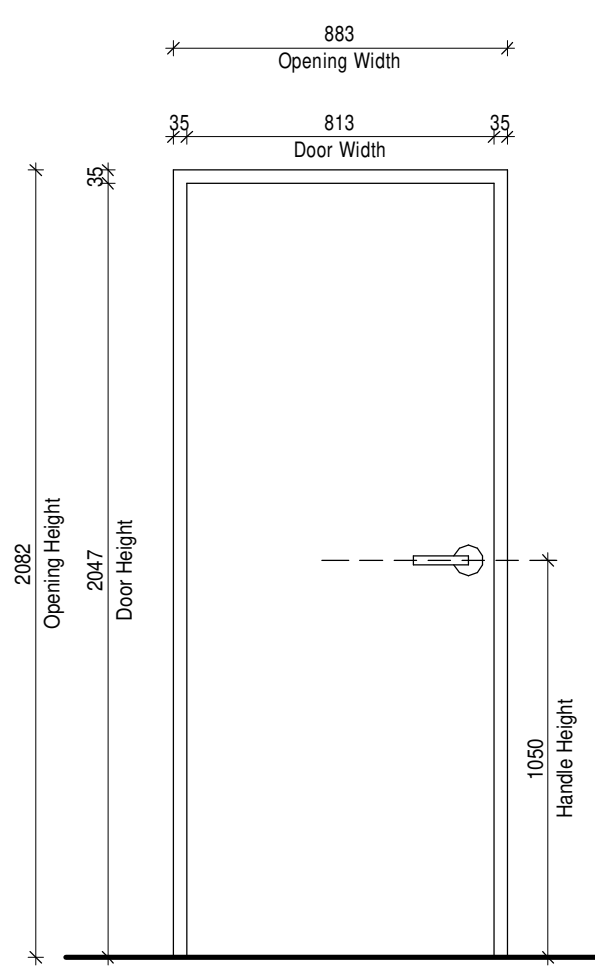
1 9th Floor_Crack Repair Location
1 : 200

No.	Description	Date
1	Update for pricing	08/11/2023
2	Update for Pricing	14/11/2023
3	Update for Pricing	20/11/2023
4	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 200
Drawn by:	J Thomson
Designer:	
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Internal Crack Repairs
B4 Project Ref No.:	Architect DWG No:
305-019	DET-001
FOR TENDER ONLY	
REV	4



Door Type DT01

New standard hardwood timber frame (44x90mm) painted as per paint specification document

Door Type DT02

Door Type DT03

Part of shopfront, schedule to be read in conjunction with shopfront drawing

Height limited by beam onsite

Door Type DT04

Part of shopfront, schedule to be read in conjunction with shopfront drawing

NOTE: All dimensions to be checked on site prior to manufacture

Door Schedule DT01-DT04

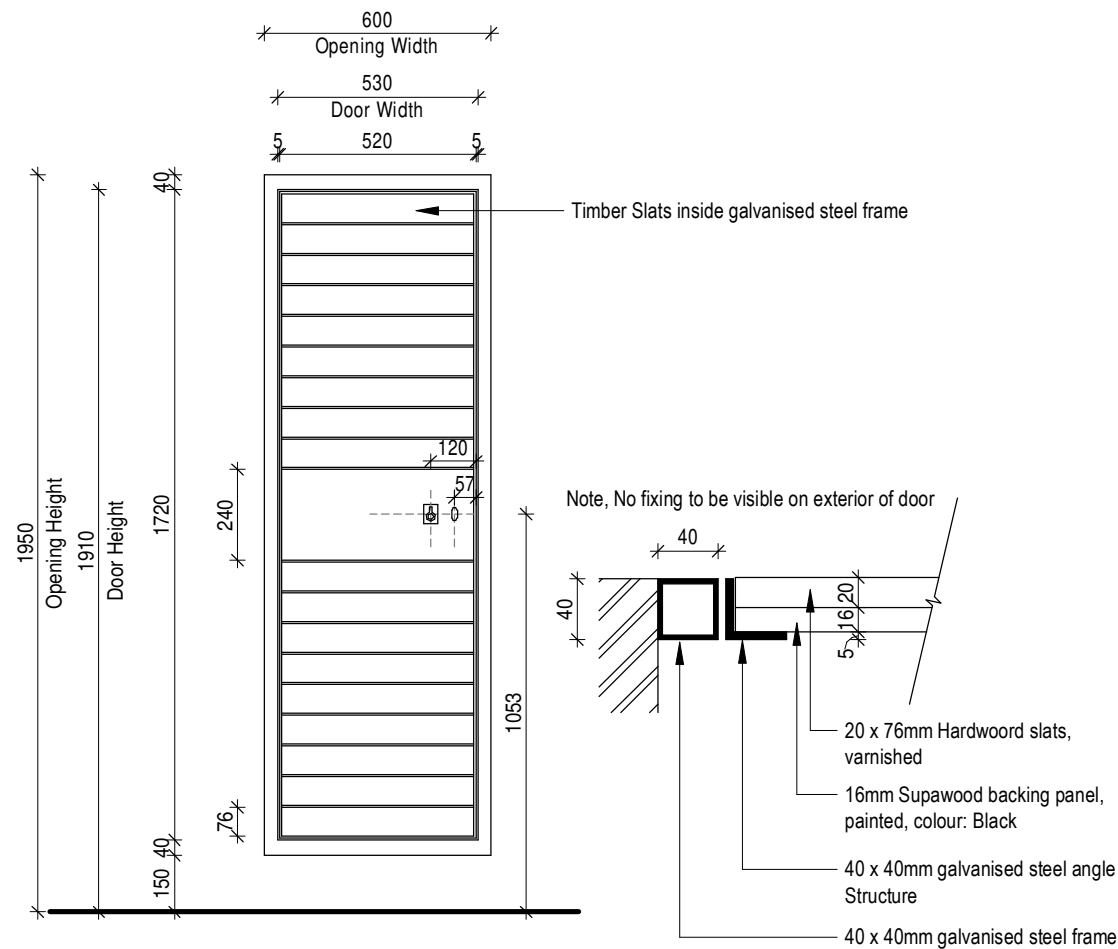
Mark	Type Mark	Height	Width	Construction Type	Finish	Comments
101	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
102	DT02	2082	883	Aluminium, glass panel infill	Powder coated, Colour: White	80% opacity vinyl to design applied
103	DT03	2020	813	Aluminium, glass panel infill	Powder coated, Colour: White	Height limited by beam on site, 80% opacity vinyl to design applied
104	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
105	DT01	2082	883	Solid Core Timber	Painted as per finishes schedule	New Hardwood Timber Frame
106	DT02	2082	883	Aluminium, glass panel infill	Powder coated, Colour: White	80% opacity vinyl to design applied
108	DT04	2080	1117	Aluminium, glass panel infill		

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	31/10/2023
3	Update for pricing	08/11/2023
4	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

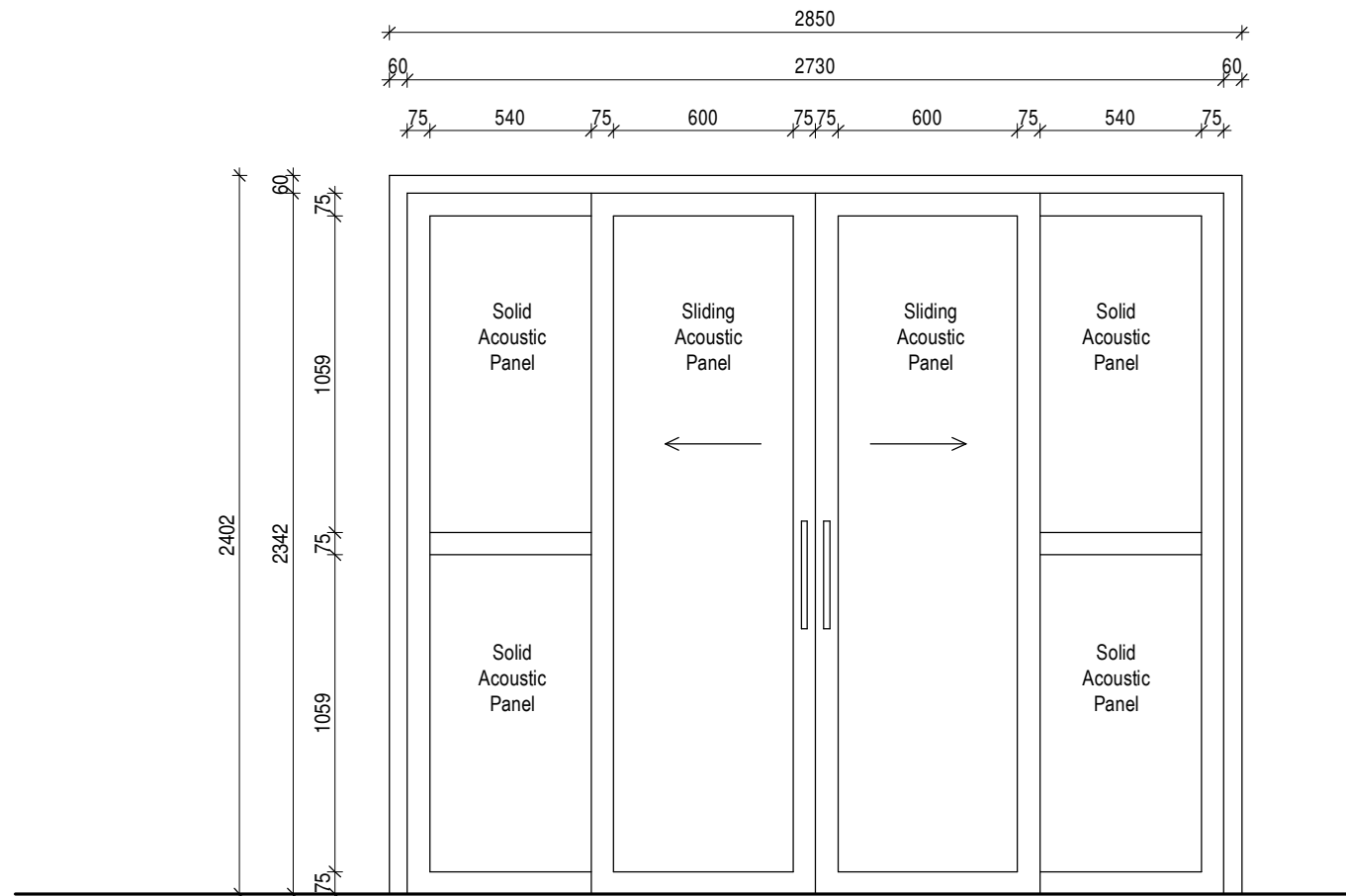
Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Door Type DT01, DT02, DT03, DT04
B4 Project Ref No.:	Architect DWG No:
305-019	DOR-001
FOR TENDER ONLY	
REV	4



Door Type DT05

Solid 16mm timber infill layer with 20mm solid wood slats fixed on top



Door Type S01

Acoustic rated sliding door using Lift & Slide hardware system

Lift and Slide system by HBS Systems

Lift and Slide system allows aluminium door system to be supported off floor slab to minimise structural intervention required to roof above

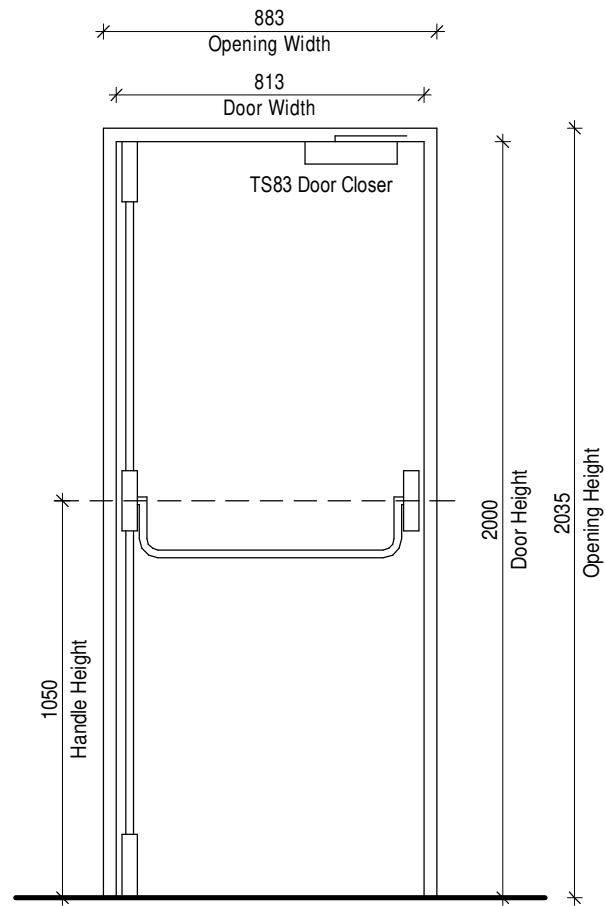
Panels hardware and technical design by HBS systems

Panels to be acoustically rated to achieve best acoustic rating possible

NOTE: All dimensions to be checked on site prior to manufacture

Door Schedule DT05

Mark	Type Mark	Height	Width	Construction Type	Finish	Comments
107	DT05	1950	600	Steel Frame, Timber slatted Duct Door	Natural Clear Varnish	40x40mm steel tube frame, 40x40mm Angle door rails and sides with timber infill
109	S01	2430	2850	Aluminium, Sliding System, Acoustic infill	Powder coated, Colour: TBC	Lift & Slide system to seal around door for sound
L01	FD02	2082	1360			



Door Type FD01
Internal Elevation

NOTE: All dimensions to be checked on site prior to manufacture

Specification:

- > ROCKLITE Class B Fire Door
- > Chromadek clad on both external and internal faces
- > Door (size 813mm x 2032mm door leaf) with chromadek channel surround.
- > Grade 316 1.6mm stainless steel frame with 3 x heavy duty stainless steel hinges per leaf to suit existing concrete opening 190mm deep.
- > Allow for modifications to existing opening and making good both internally and externally following fitting of door, including new floor edge trim and repainting internal wall that door is located in.

Ironmongery Requirements:

- TS83 Parallel Arm fixing, with TS83 fixing plate, 4 M5 Male/Female Screws
- PHA2 Single Panic Bolt, locked top and button, fitted to door with Male/Female Screws.

> 1 Door required per floor
Total 11 Doors (ground + 10 Storeys)

All doors to have new vinyl trim installed:
Kirk Marketing ASE030 3mm Aluminium Straight Edge Trim (2-3mm for vinyl/screed)

No.	Description	Date
1	Issued for Pricing	06/11/2023
2	Issued for Tender	27/11/2023

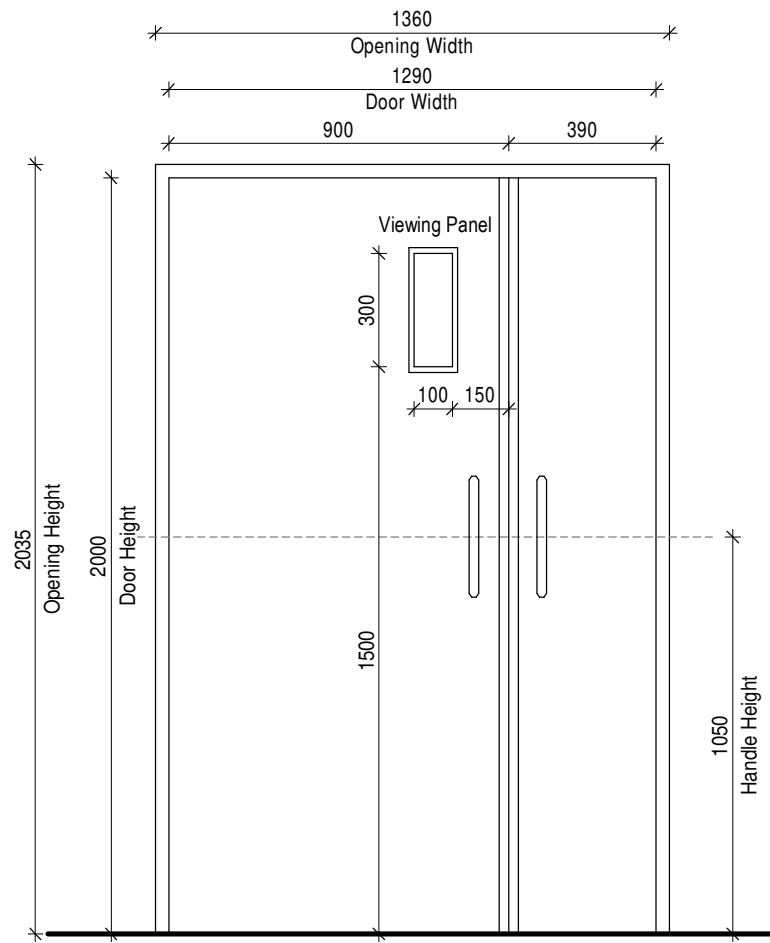
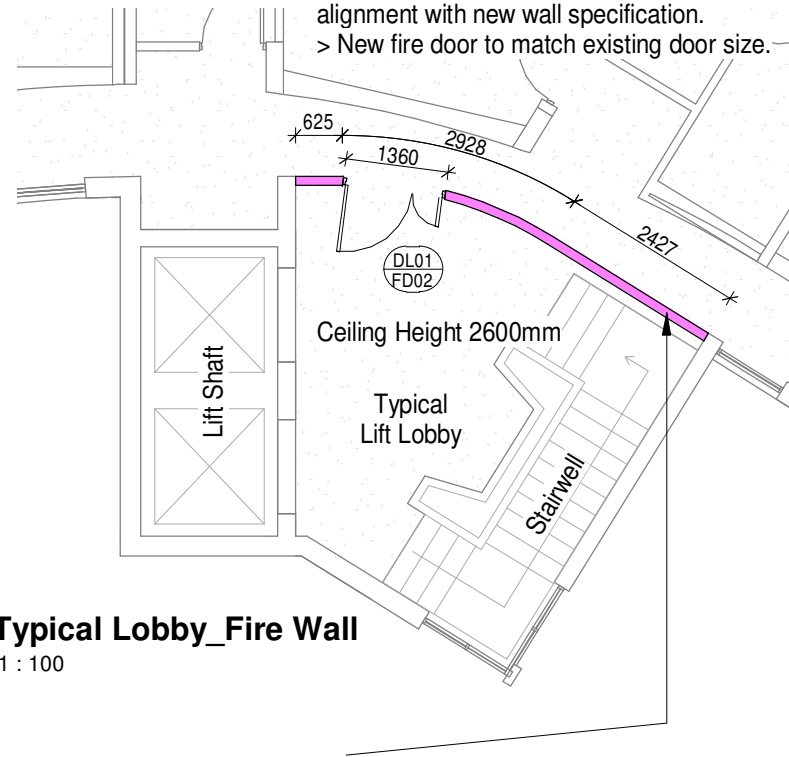
PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	1 : 20
Drawn by:	J Thomson
Designer:	b4 Architects
Professional Architect:	B Brinkman
Checked by:	B Brinkman

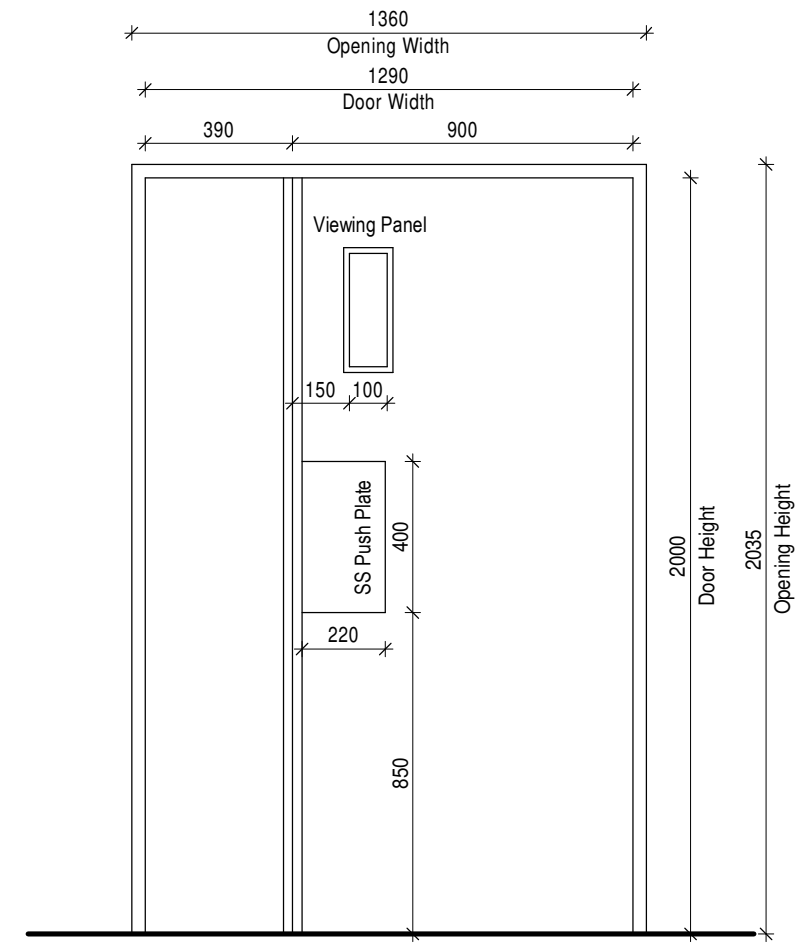
TITLE:	Fire Escape Door
B4 Project Ref No.:	Architect DWG No.:
305-019	DOR-FD01
FOR TENDER ONLY	
REV	2

NOTE: Existing surface mounted emergency fire buttons and conduits to be carefully removed from existing wall and kept intact while new firestop sheeting and cavity batt is installed.

- > New wall position to match existing wall position.
- > Existing wall paneling to be removed.
- > Existing wall stud structure to be reused if in alignment with new wall specification.
- > New fire door to match existing door size.



Lift Lobby Elevation



Passage Elevation

2 Door Schedule FD02
1 : 20

Door Type FD02

Door Specification:

- > ROCKLITE Class B Fire Door, with 100 x 300mm viewing panel.
- > Commercial Veneer clad on both external and internal faces.
- > Door to have paint finish as per paint specification for new timber.
Colour : TBC
- > Door (size 900mm x 2032mm door leaf) with (size 390mm x 2032mm door leaf) with chromadek channel surround.
- > Grade 316 1.6mm stainless steel frame with 3 x heavy duty stainless steel hinges per leaf to suit existing drywall opening 119mm deep.
- > Allow for modifications to existing opening and making good both sides of wall following fitting of door, including new paintwork to entirety of wall.

1 Typical Lobby Fire Wall
1 : 100

Existing Drywall to be converted to 2 hour rated, fire resistant drywall.

Total Length: Approx 5980mm
Height: 2600mm

Drywall Specification:

Gypwall Firestop drywall, consisting of 2 layers Gyproc Firestop fixed to both sides of the framework using sharp point screws 3.5mm diameter x 25mm (for base layer) and 3.5mm x 42mm (for face layer) at maximum 220mm centres. Base layer of 15mm Gyproc Firestop and Face layer of 12.5mm Gyproc Firestop. All joint to be staggered on framework of Donn Ultrasteel studs 63.5mm x 35mm friction fitted into top and bottom Donn Ultrasteel track 63.5mm x 25mm at 600mm centres. Apply Gyproc Rhinotape to all joints and Donn corner bead to all external corners. Install Isover Cavitybatt, 63mm thick, in the cavity. All joints, angles and accessories shall have two separate coats of RhinoGlide jointing compound applied. All screw heads to be spotted. A thin skim coat of RhinoLite skim plaster shall be applied to the entire surface of the drywall. The surface shall be completely smooth and free of any marks and surface blemishes. The entire surface shall be painted in accordance with the paint specification.

New hardwood timber skirtings 69 x 13mm and hardwood timber quadrants 19 x 19mm. Varnish finish to match existing corridors.

New Fire Door to be installed within drywall to replace existing door, as per detail FD02

Each floor to have fire resistant wall installed (9 Floors)

NOTE: All dimensions to be checked on site prior to manufacture

No.	Description	Date
1	Issued for Pricing	06/11/2023
2	Update for pricing	08/11/2023
3	Update for Pricing	14/11/2023
4	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Lift Lobby Fire Door
B4 Project Ref No.:	Architect DWG No:
305-019	DOR-FD02
FOR TENDER ONLY	REV 4

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IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for Tender	27/11/2023

PROJECT: ECDoH
Protea Flats - New GSA Offices

TITLE: Existing Elevations - Marked Up

Scale: As indicated

Date: 24 November 2023

Drawn by: R Groenewald

Designer: -

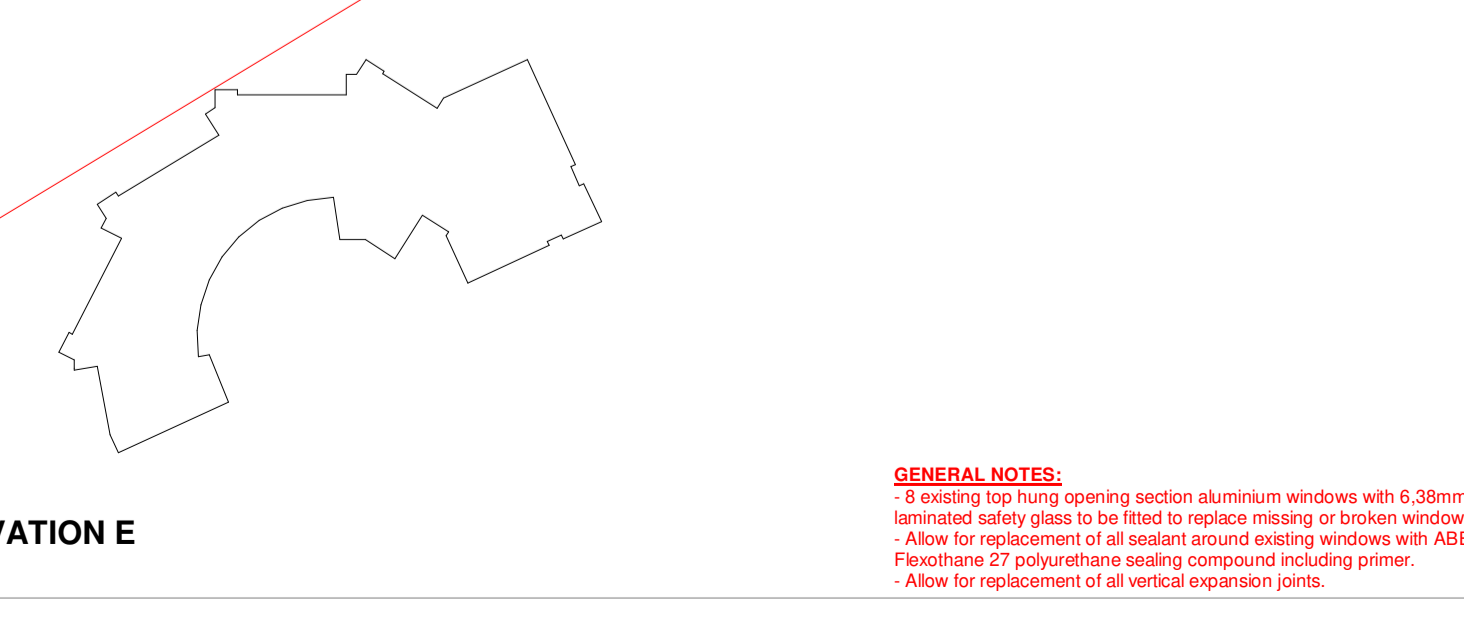
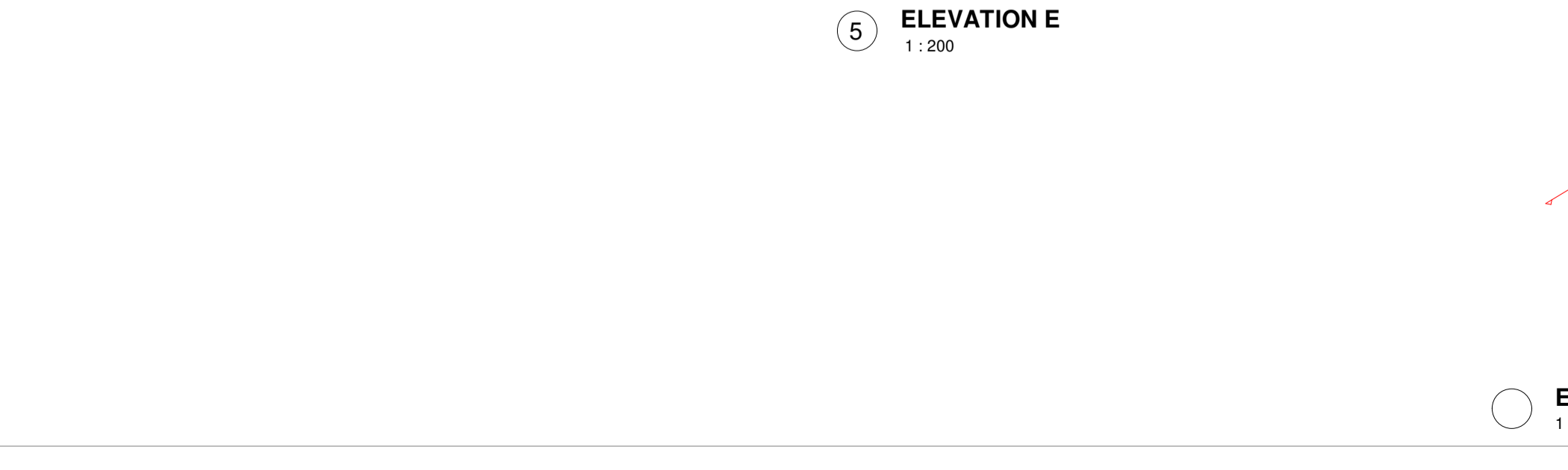
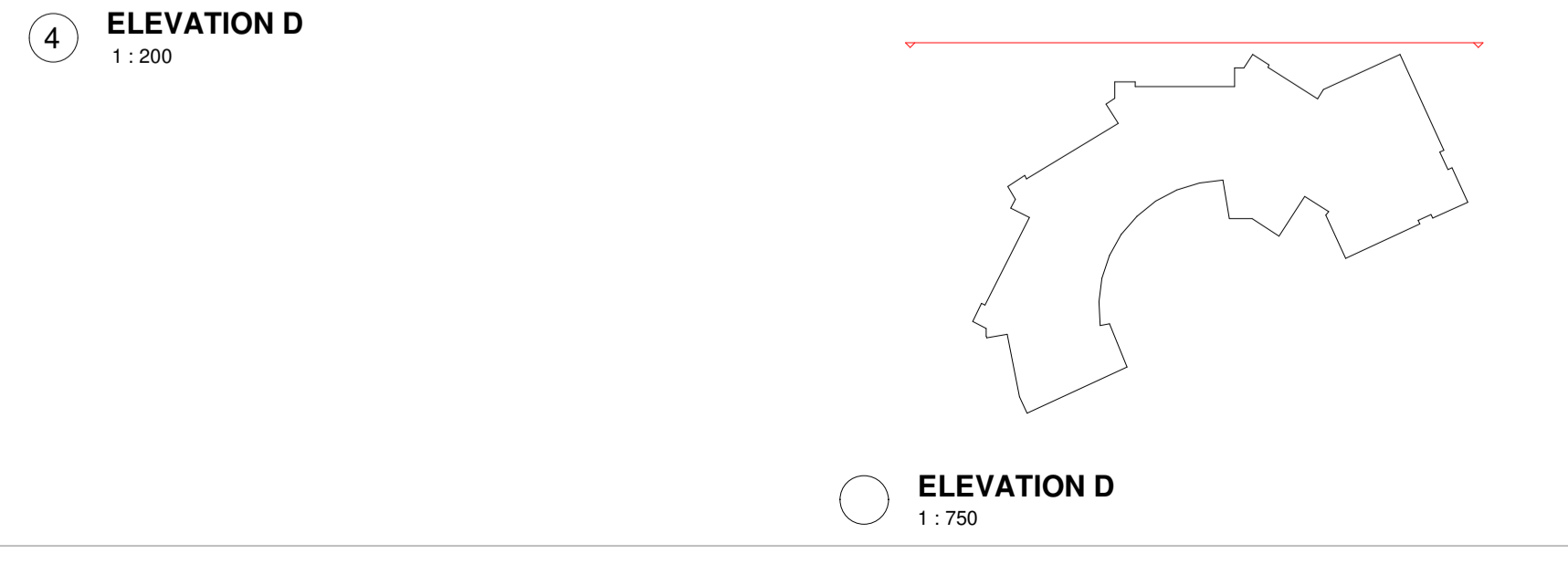
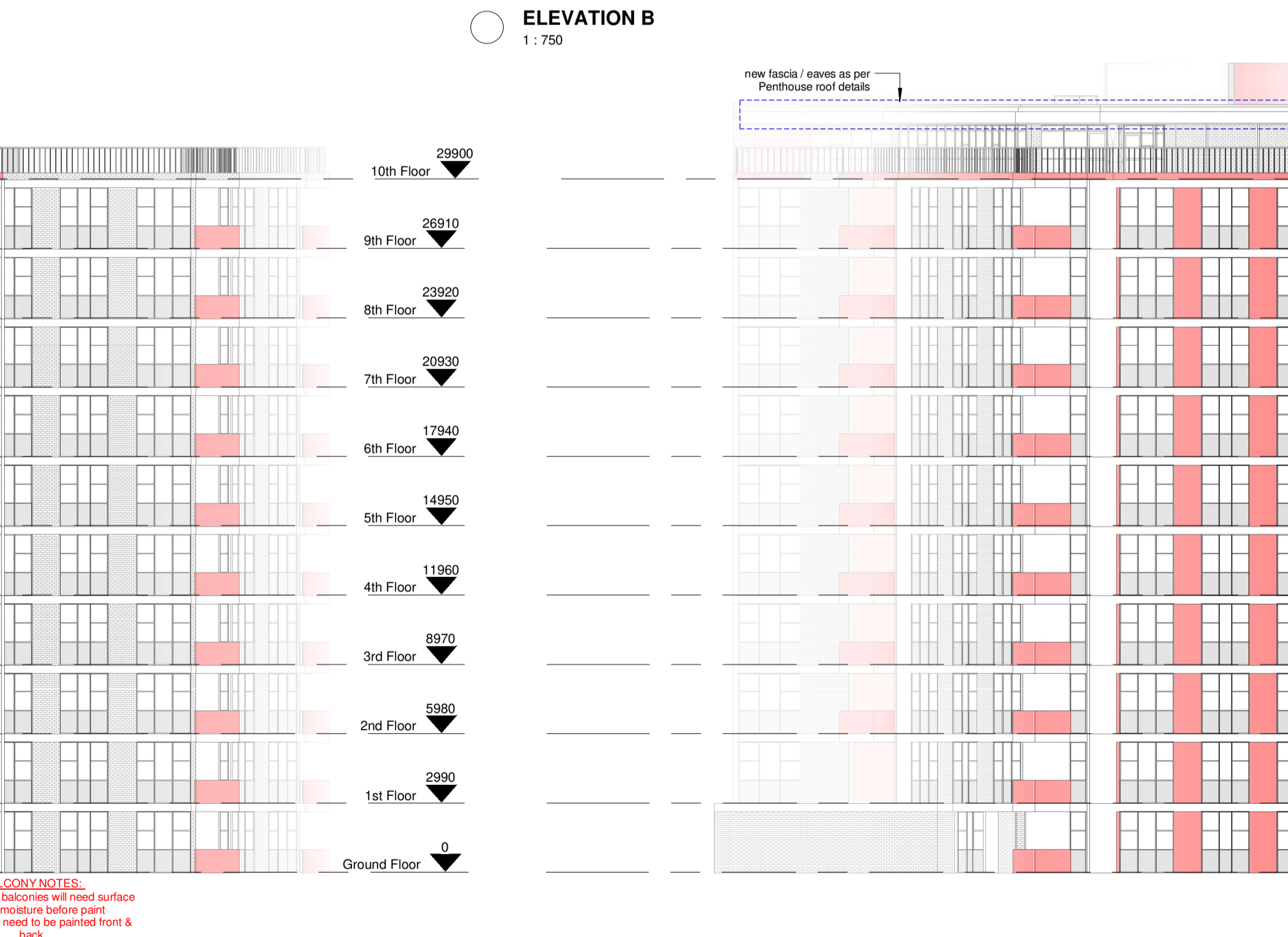
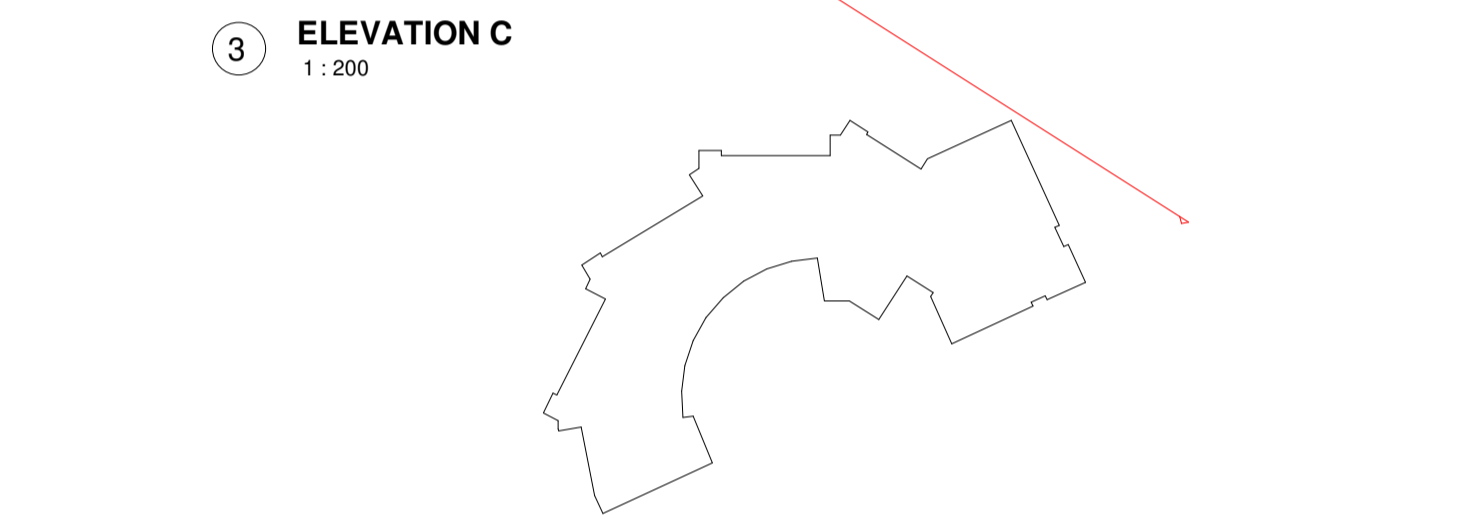
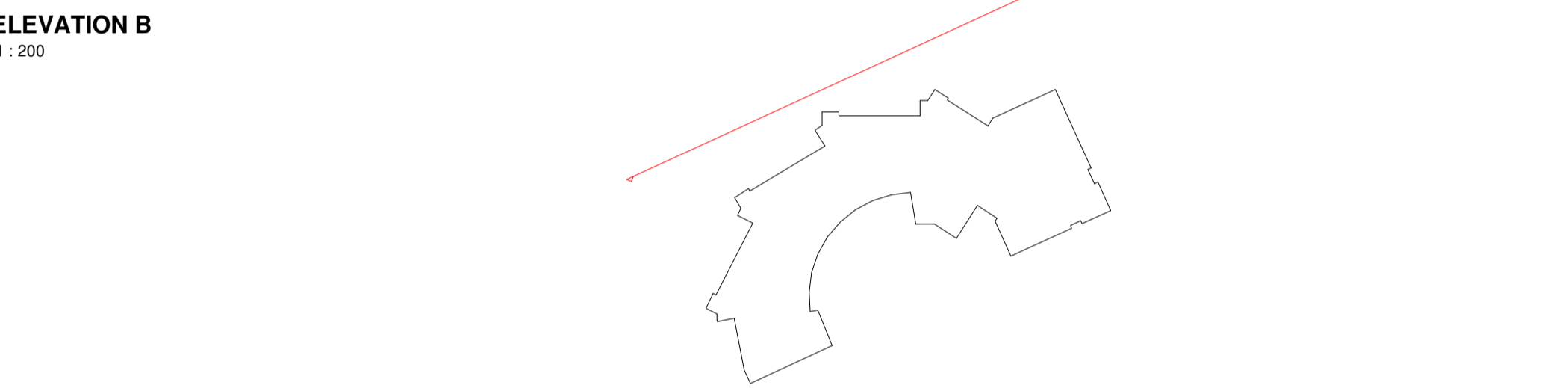
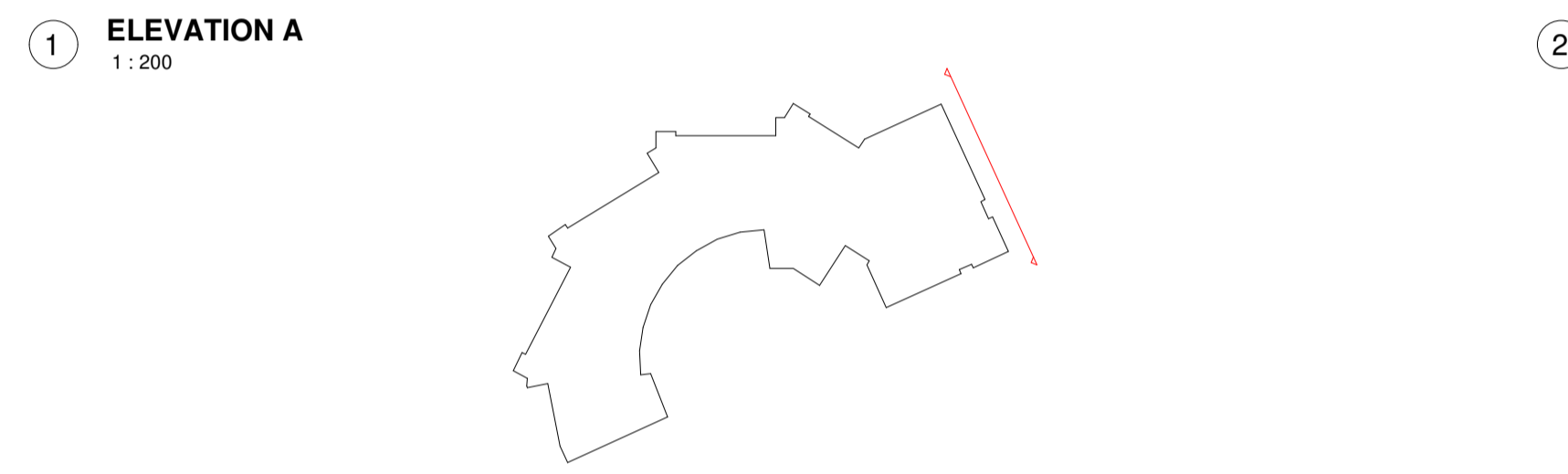
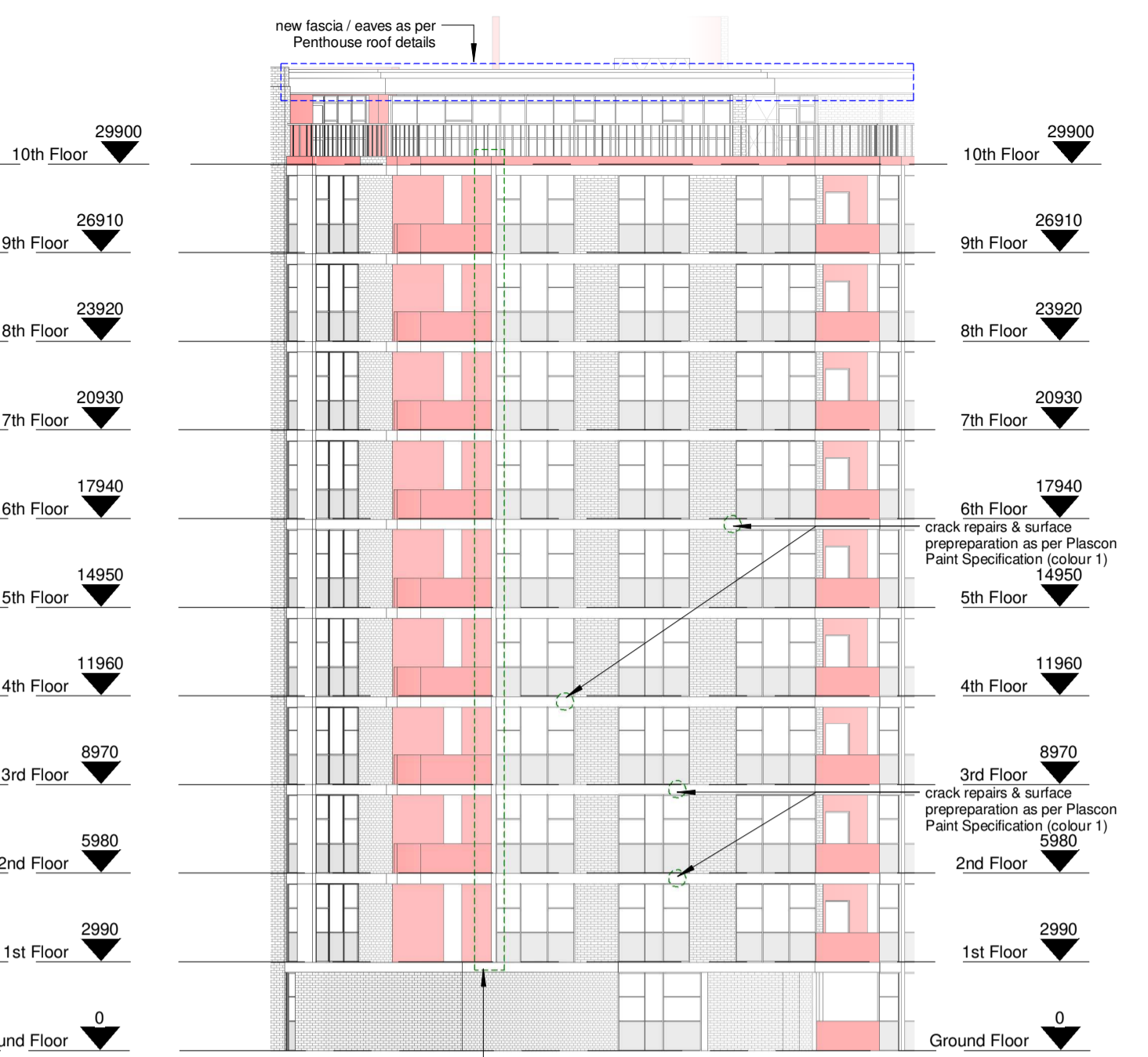
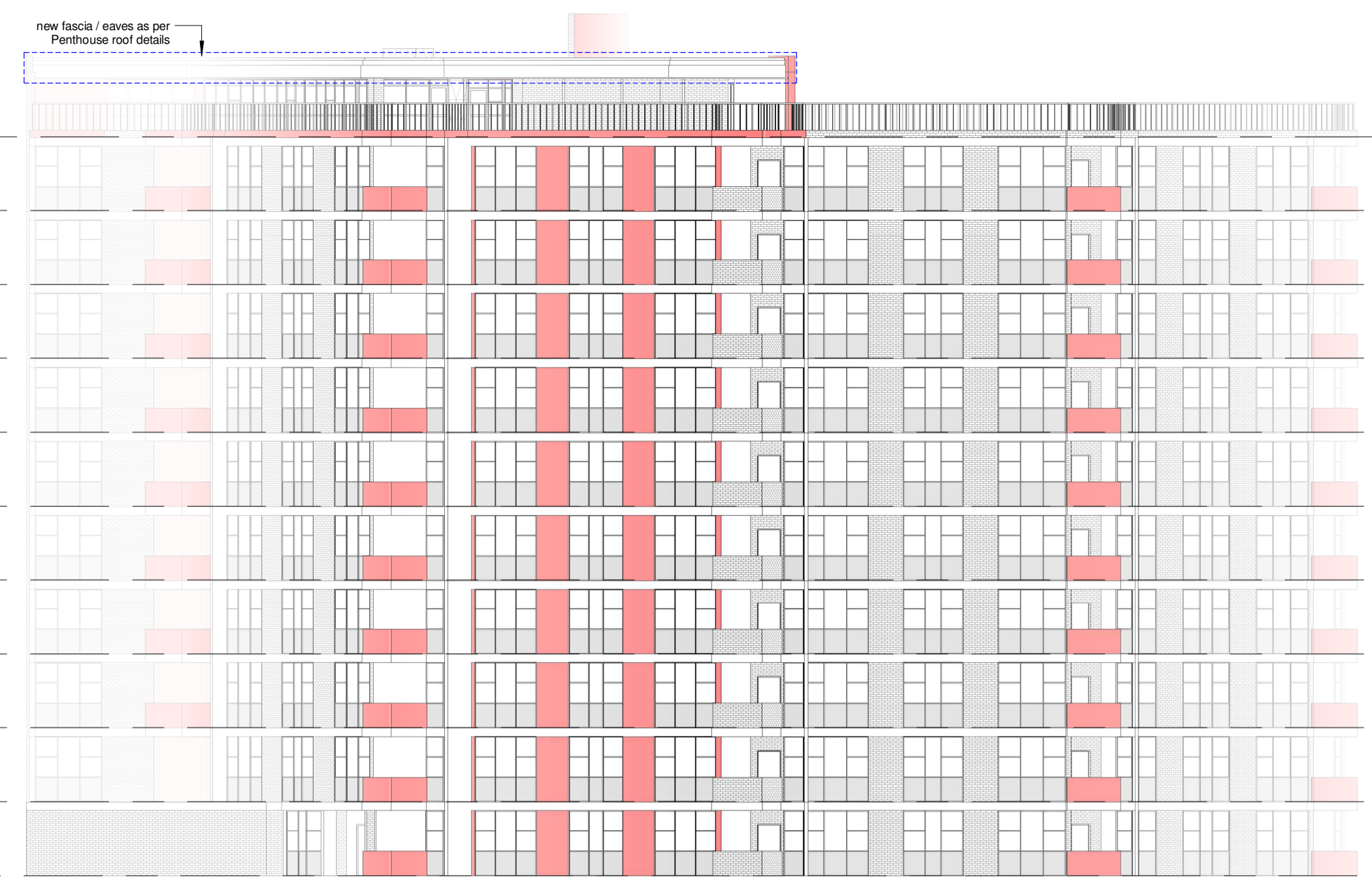
Professional Architect: B Brinkman

Checked by: B Brinkman

Sakhiwo Ref No: B4 Project Ref No.: Architect DWG No:

305-019 ELE-001

FOR TENDER ONLY REV: 1



GENERAL NOTES:
- Existing top hung opening section aluminium windows with 6.38mm laminated safety glass to be fitted to replace missing or broken windows.
- Allow for replacement of all sealant around existing windows with ABE Flexthane 27 polyurethane sealing compound including primer.
- Allow for replacement of all vertical expansion joints.

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ACTS OF PARLIAMENT

All Contractors shall ensure that, before any work is put in hand, they comply with all the necessary Acts of Parliament of the Republic of South Africa.

All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS

Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for Tender	27/11/2023

PROJECT: **ECDoH**
Protea Flats - New GSA Offices

TITLE: **Existing Elevations - Marked Up**

Scale: **As indicated**

Date: **24 November 2023**

Drawn by: **R Groenewald**

Designer: **-**

Professional Architect: **B Brinkman**

Checked by: **B Brinkman**

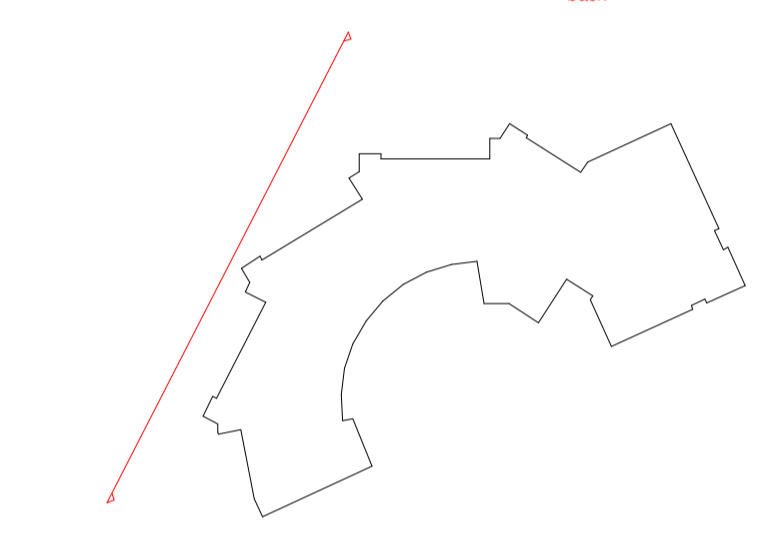
Sakhiwo Ref No: **-**

B4 Project Ref No.: **-** Architect DWG No: **-**

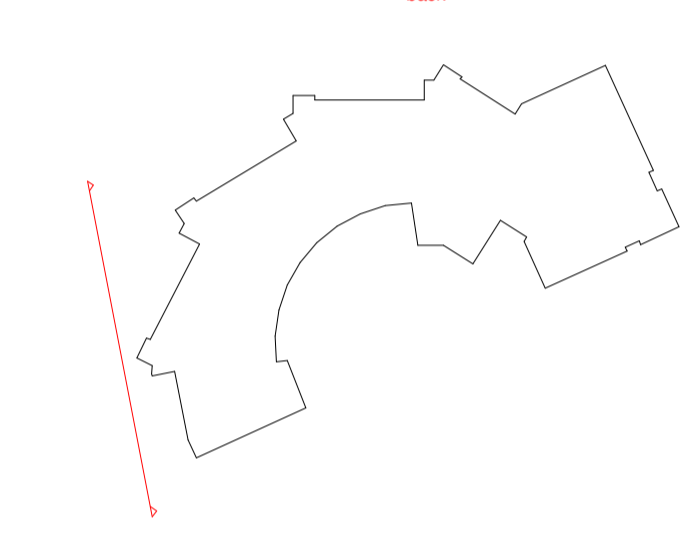
305-019 ELE-002

FOR TENDER ONLY

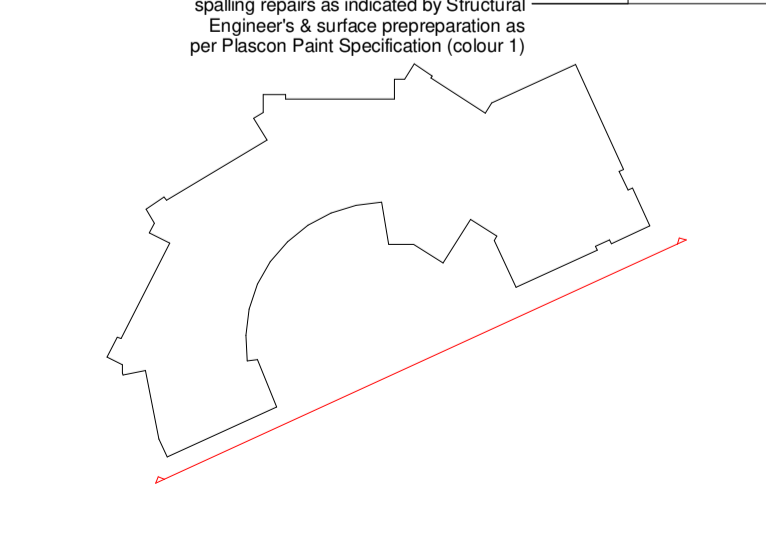
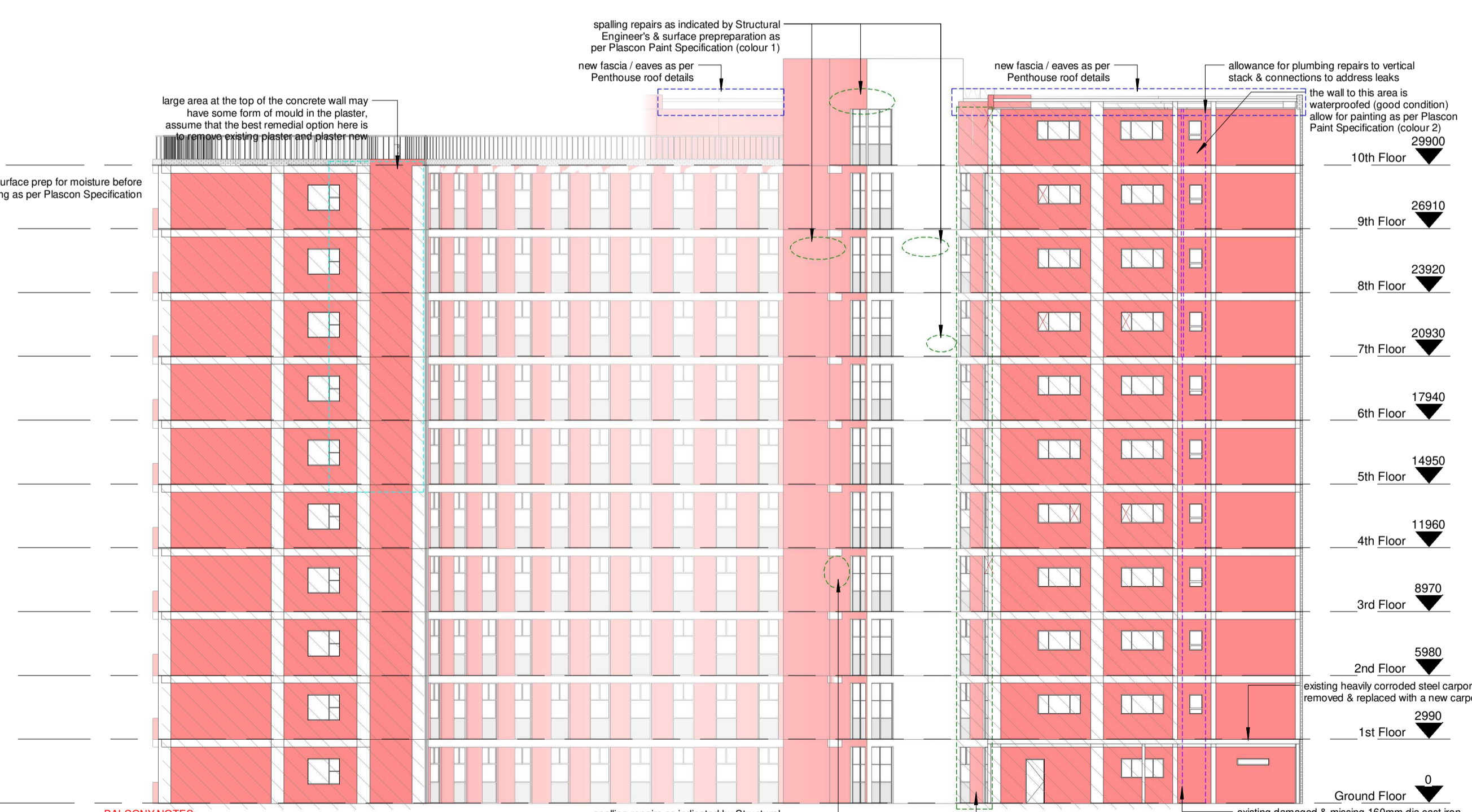
REV: **1**



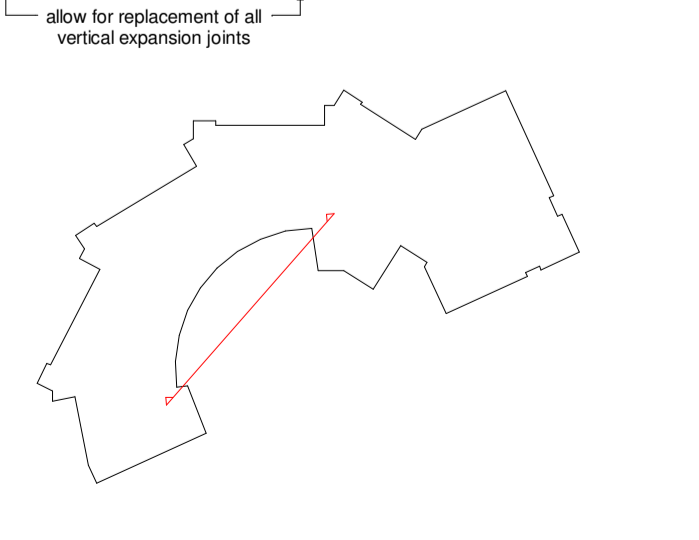
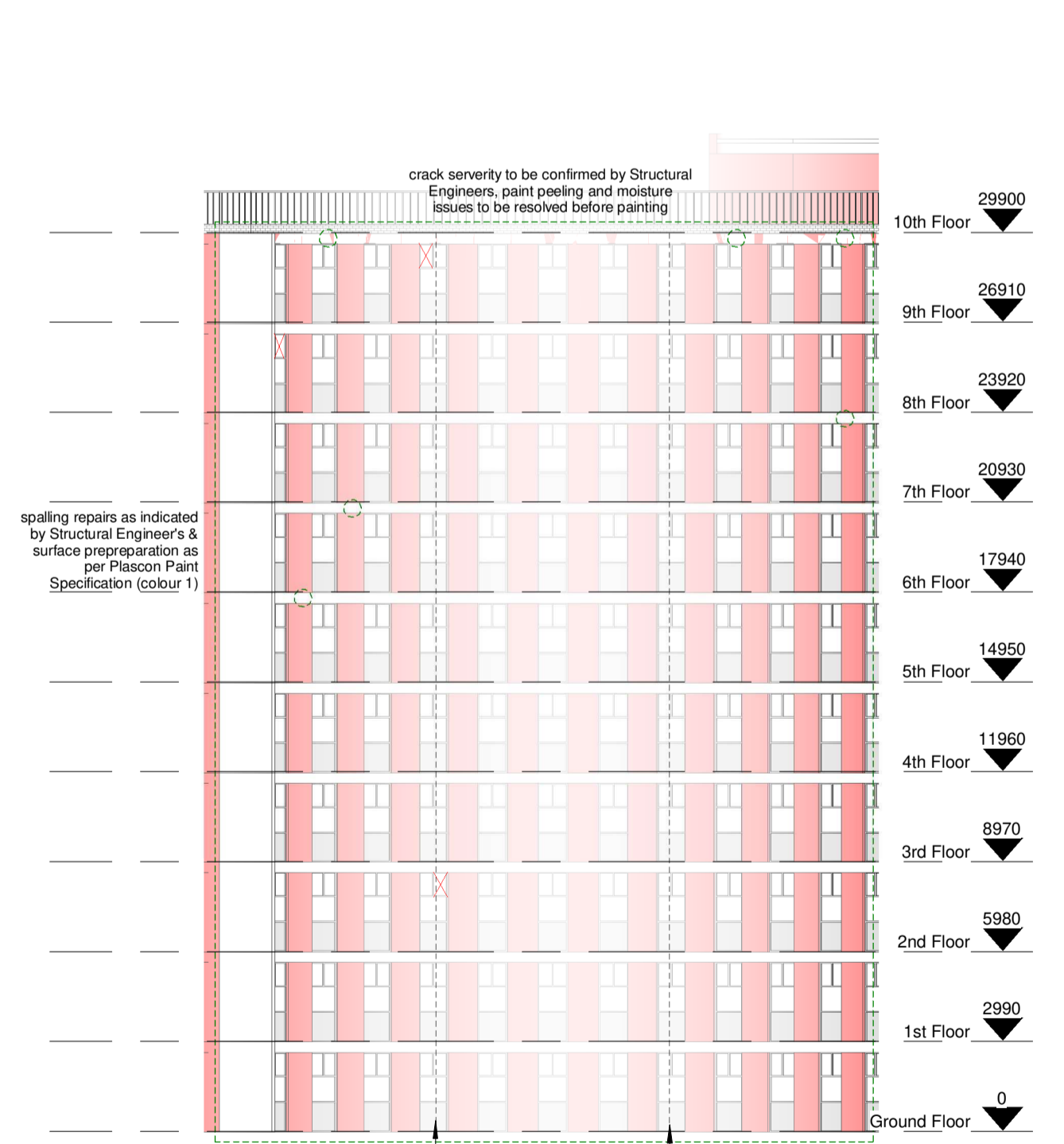
ELEVATION F
1 : 750



ELEVATION G
1 : 750



ELEVATION H
1 : 750



ELEVATION I
1 : 750

GENERAL NOTES:
- Existing top hung opening section aluminium windows with 6.38mm laminated safety glass to be fitted to replace missing or broken windows.
- Allow for replacement of all sealant around existing windows with ABE Flexthane 27 polyurethane sealing compound including primer.
- Allow for replacement of all vertical expansion joints.

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zink passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.

+ Bases to to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

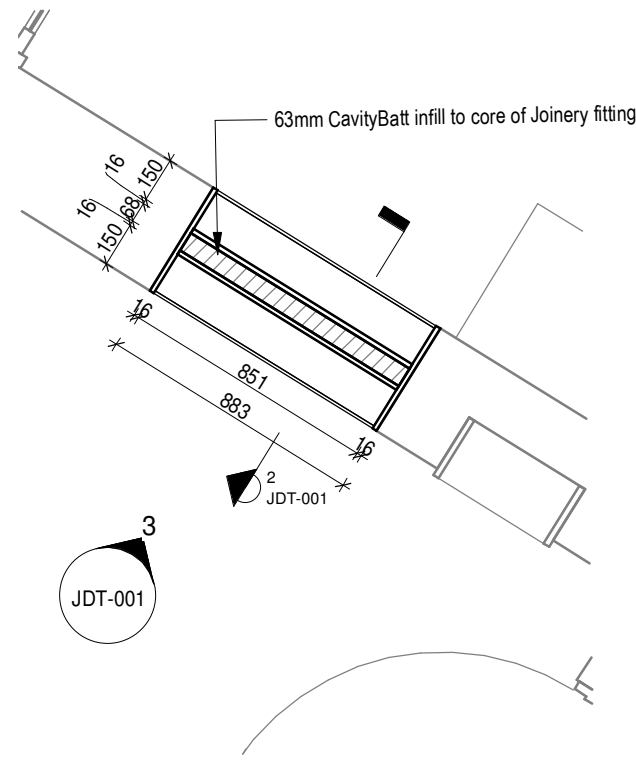
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

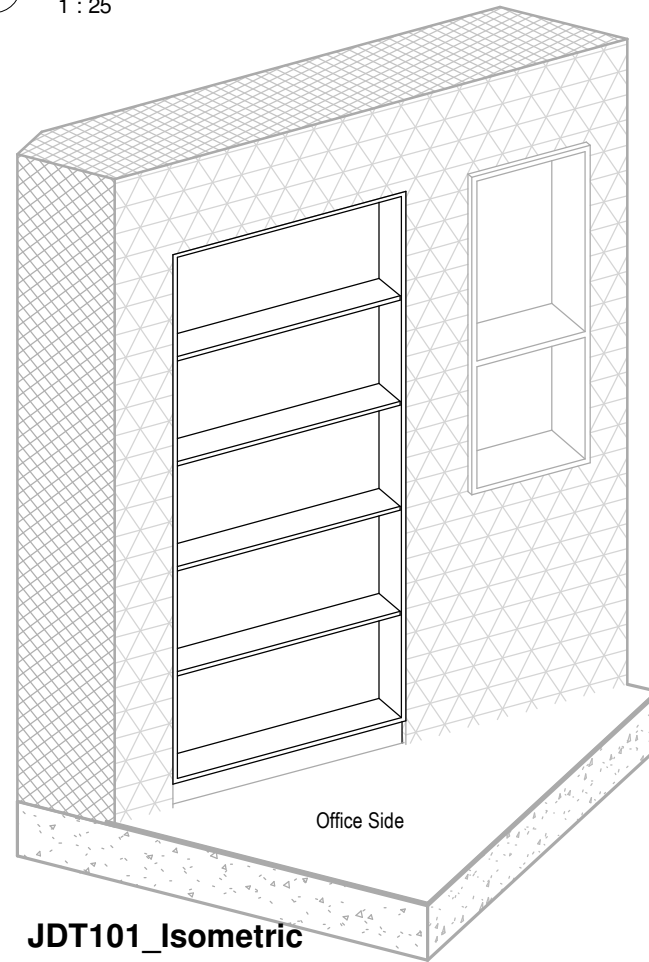
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

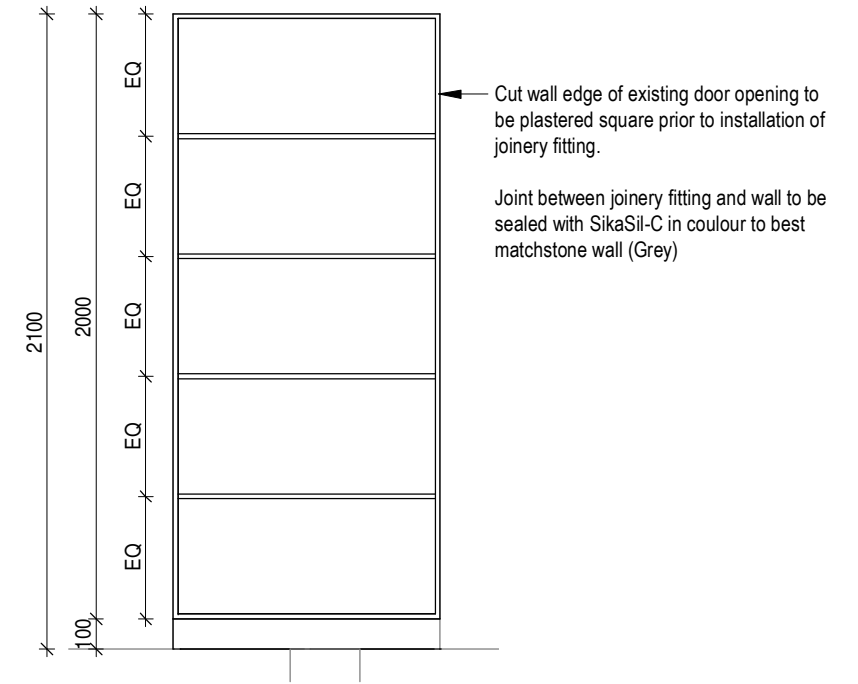
> All measurements to be confirmed on site prior to manufacture.



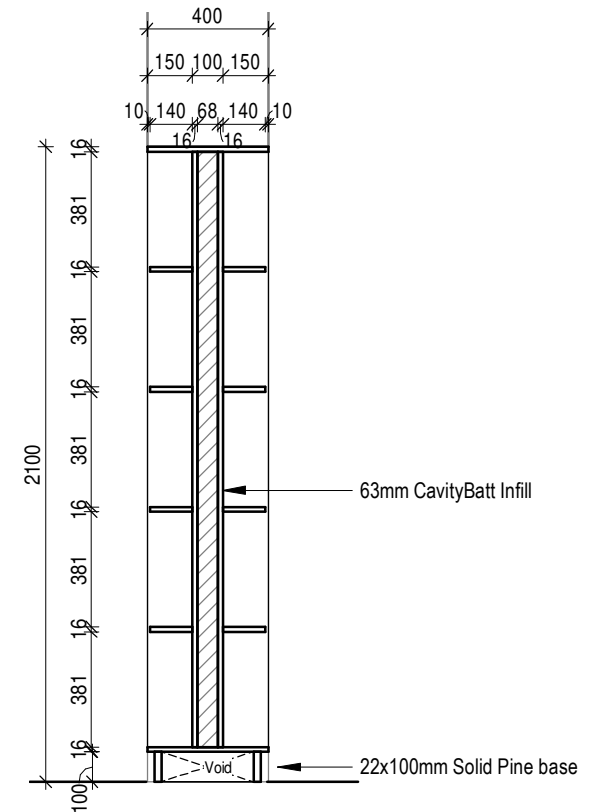
1 JDT 101_Plan
1 : 25



4 JDT101_Isometric



3 JDT101_Elevation
1 : 25



2 JDT101_Section
1 : 25

No.	Description	Date
1	Issued for pricing	2011/2023
2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023
REVISIONS :		

PROJECT :	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No :	
Date :	24 November 2023

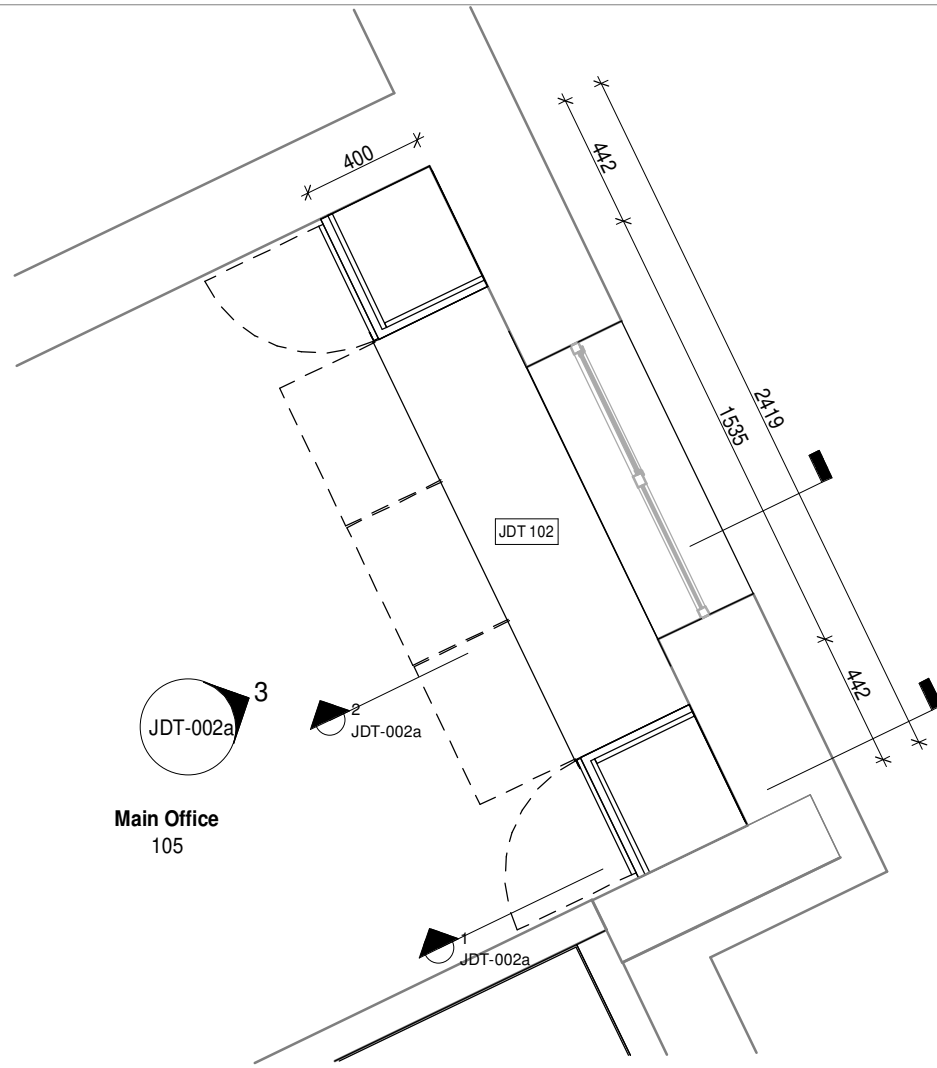
Scale :	1 : 25
Drawn by :	Author
Designer :	Designer
Professional Architect :	Approver
Checked by :	Checker

TITLE:	Joinery Unit JDT101
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-001
FOR TENDER ONLY	
REV	3

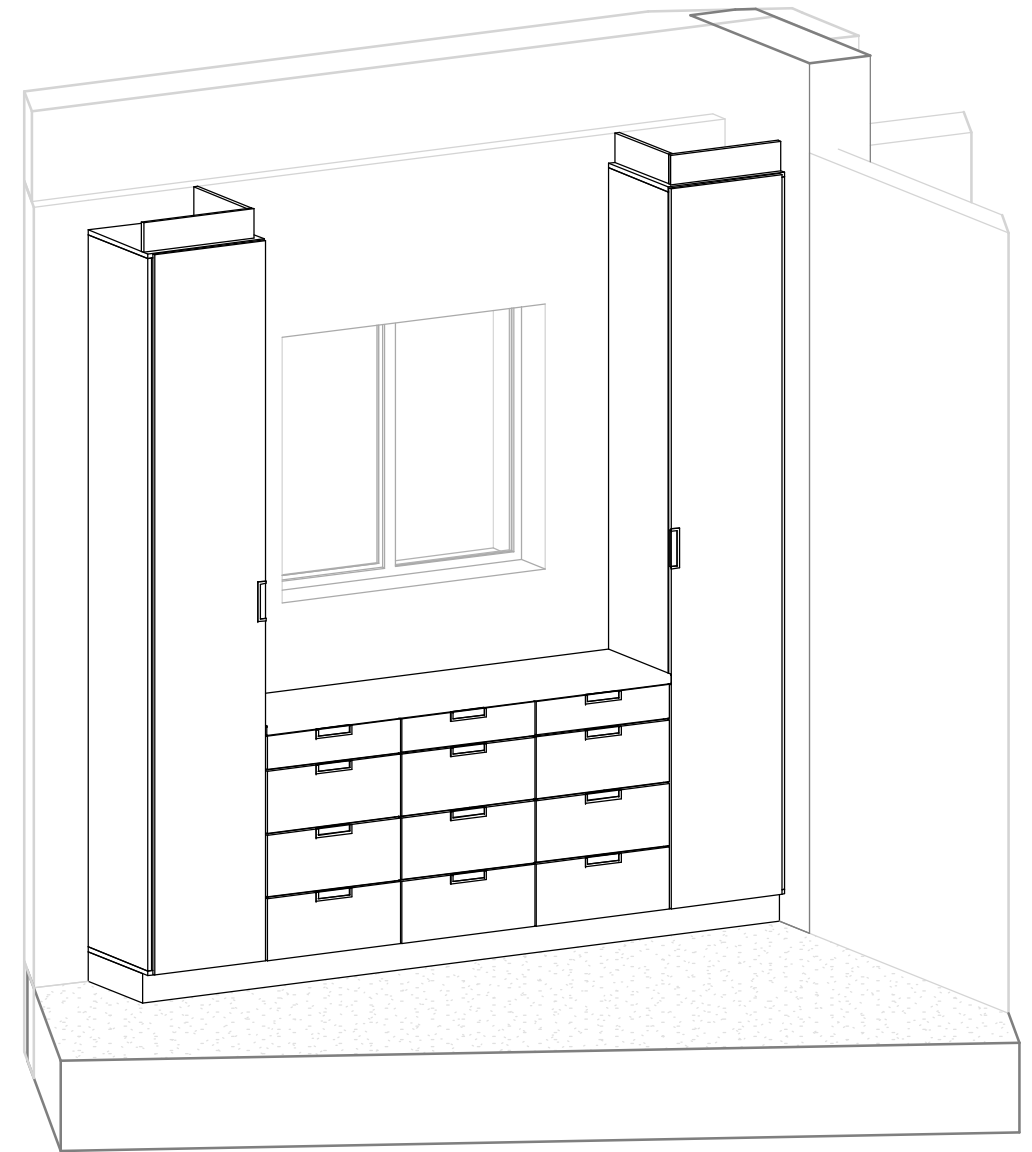
GENERAL JOINERY SPECIFICATION:

- > All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.
- > All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.
- > Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.
- > All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)
+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.
- > All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.
- > All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.
- > Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.
- > Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.
- > Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.
- > Handle specification:
Raiel Milano Grip Handle in Matt Chrome
- > All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.
- > Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing
- > All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)
- > All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.
- > Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

> All measurements to be confirmed on site prior to manufacture.



2 **JDT 102_Plan**
1 : 25



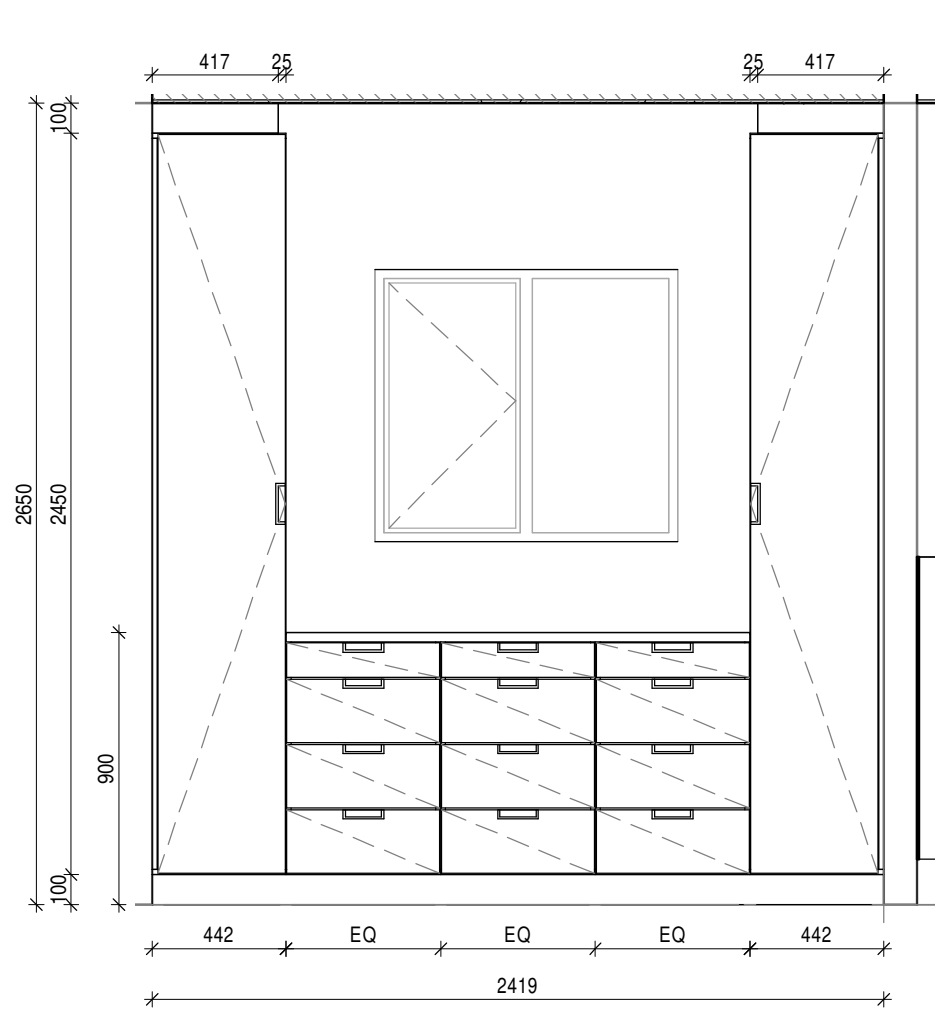
1 **JDT102_Isometric**

No.	Description	Date
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2	Update for Pricing	2011/2023
3	Issued for Tender	2711/2023

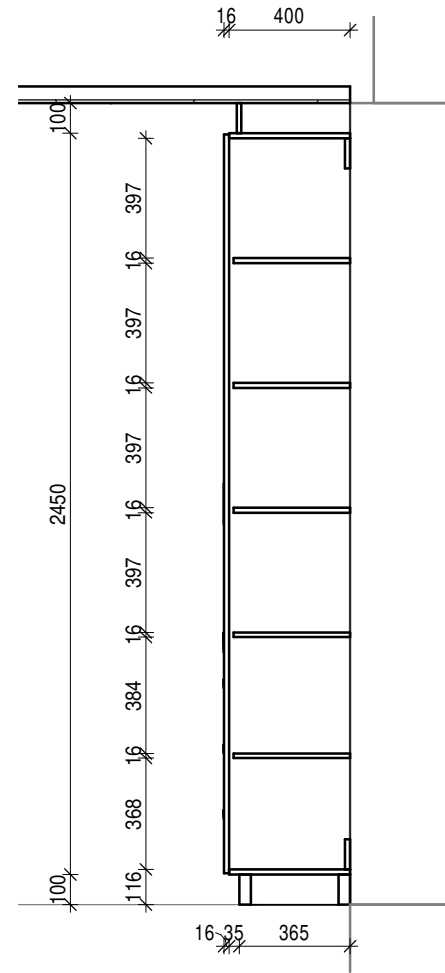
PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

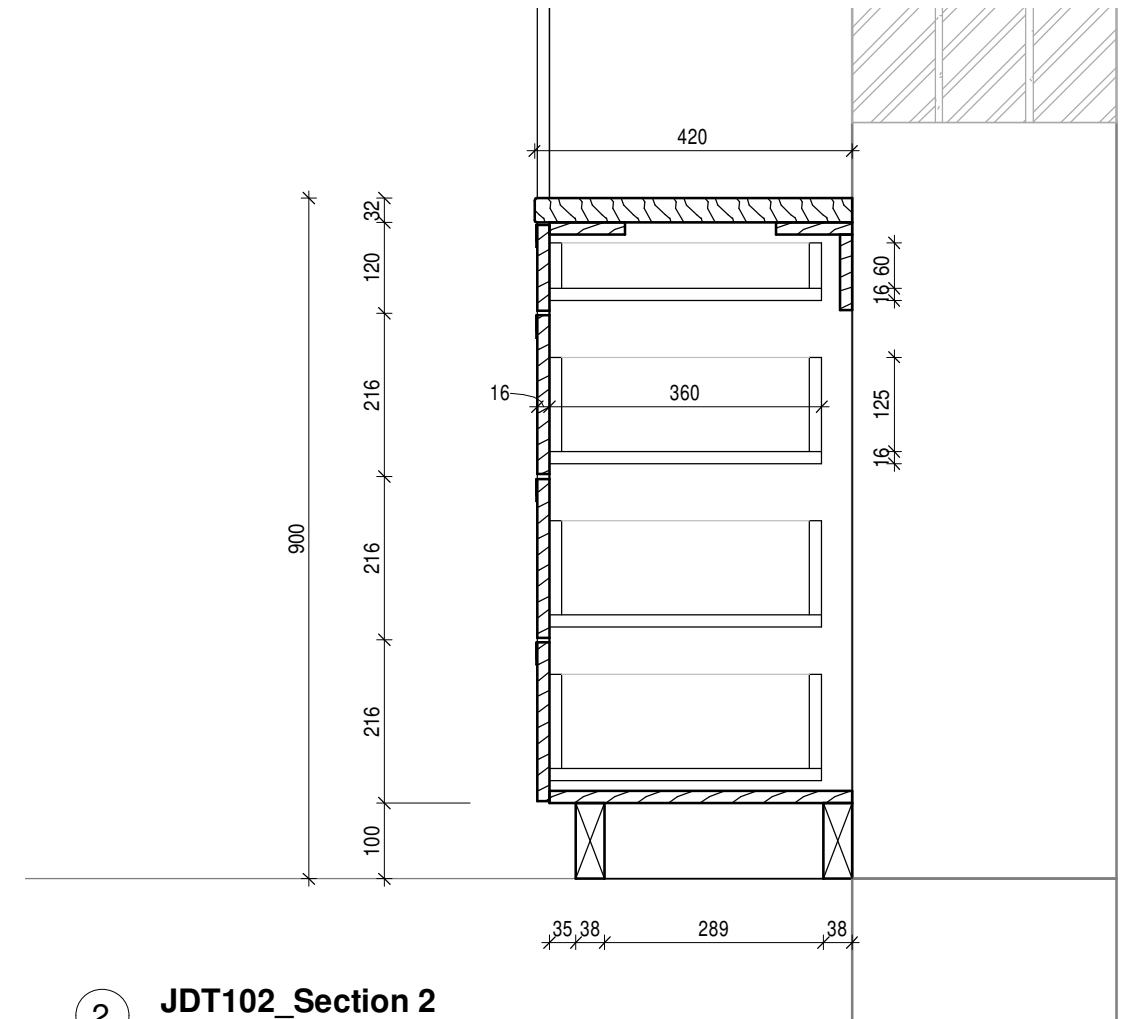
TITLE:	Joinery Unit JDT102
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-002
FOR TENDER ONLY	
REV	3



3 JDT102_Elevation
1 : 25



1 JDT102_Section 1
1 : 25



2 JDT102_Section 2
1 : 10

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit JDT 102 - Elevation & Sections
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-002a
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

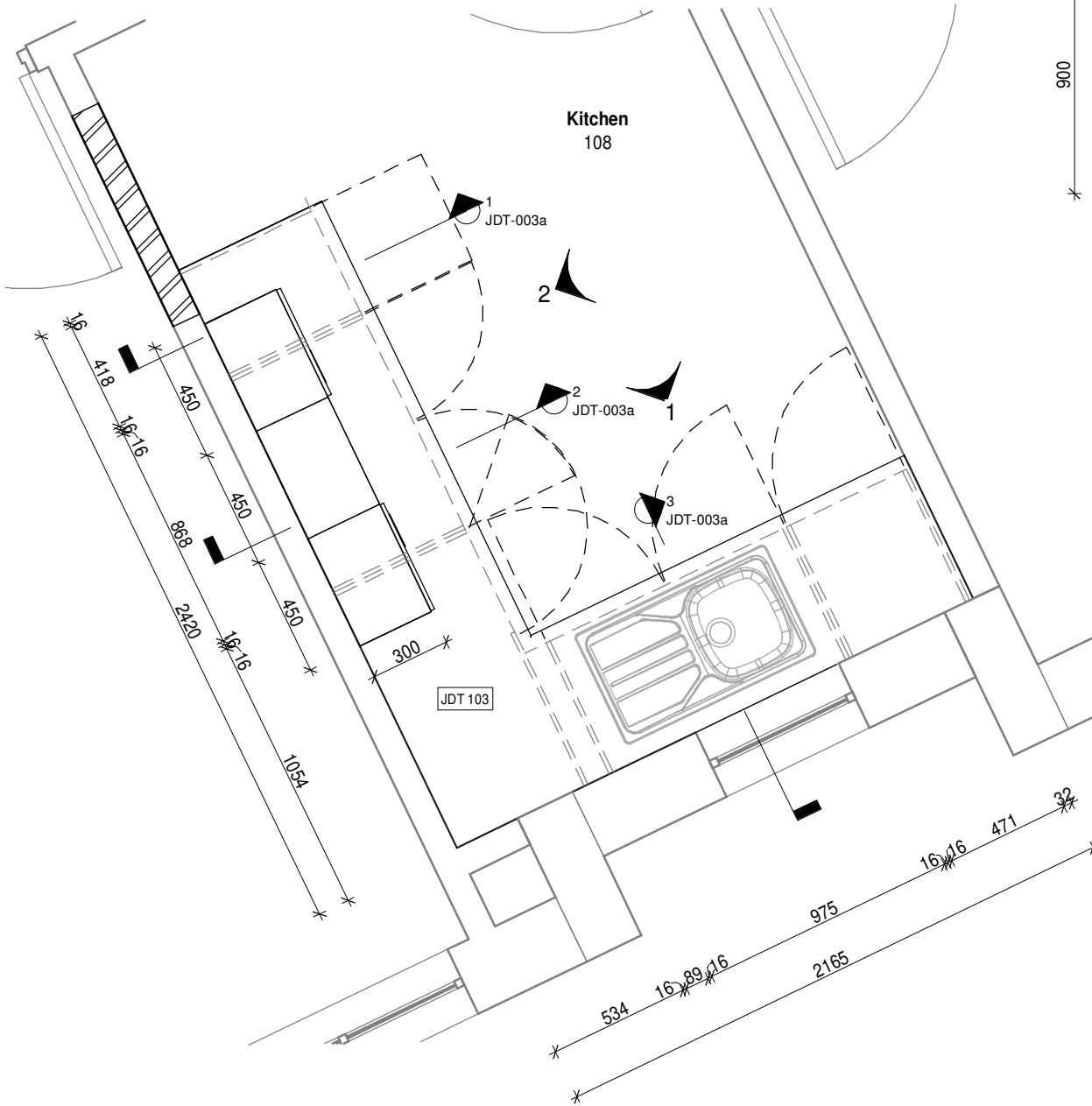
> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

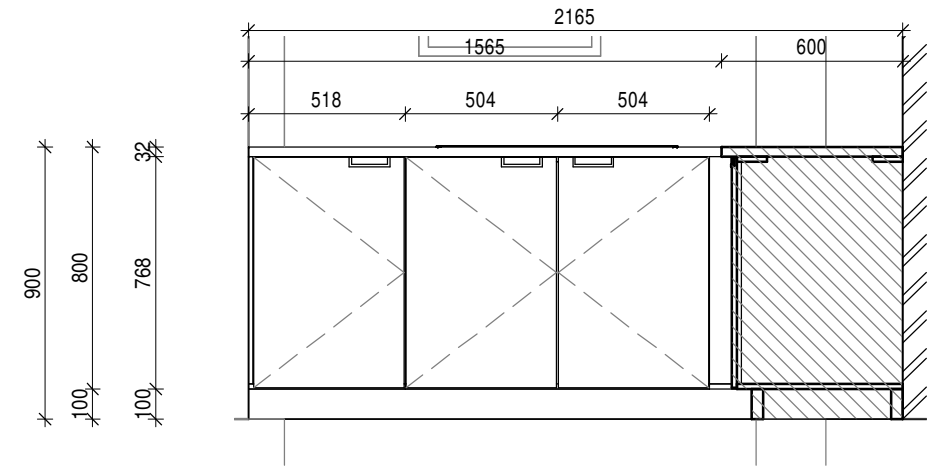
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

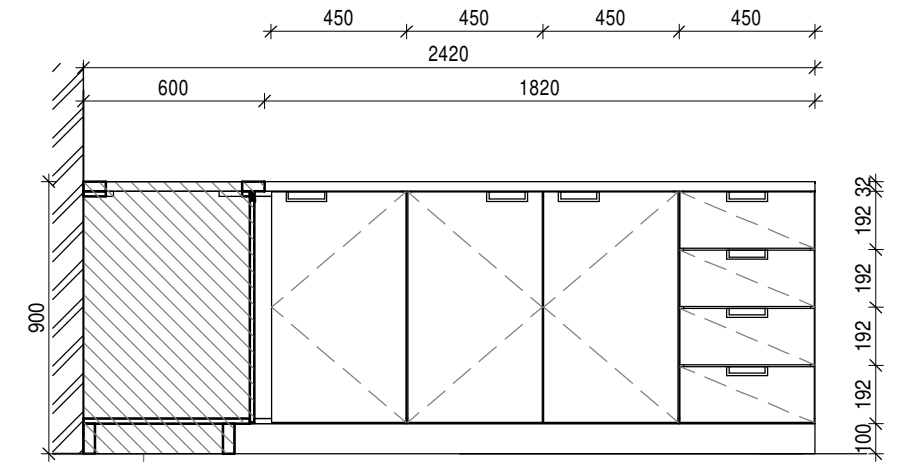
> All measurements to be confirmed on site prior to manufacture.



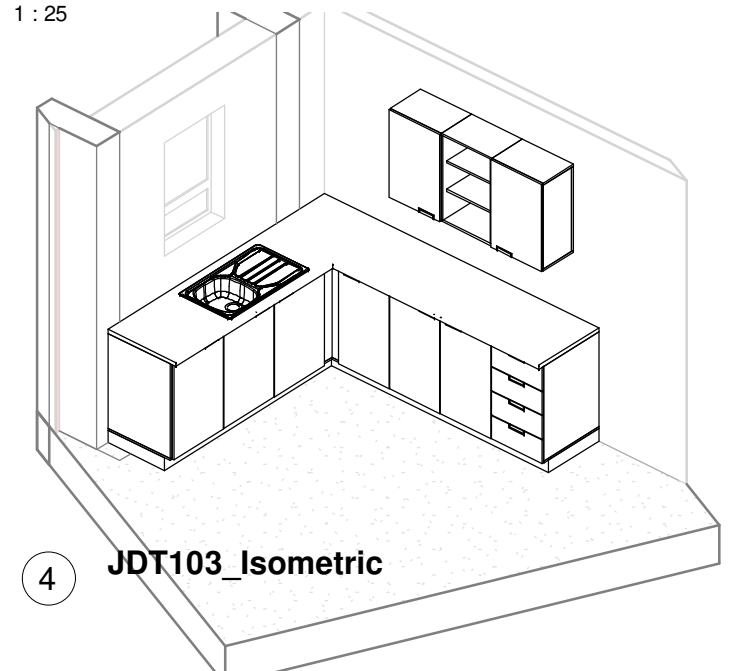
3 **JDT 103_Plan**
1 : 25



1 **JDT103_Elevation 1**
1 : 25



2 **JDT103_Elevation 2**
1 : 25



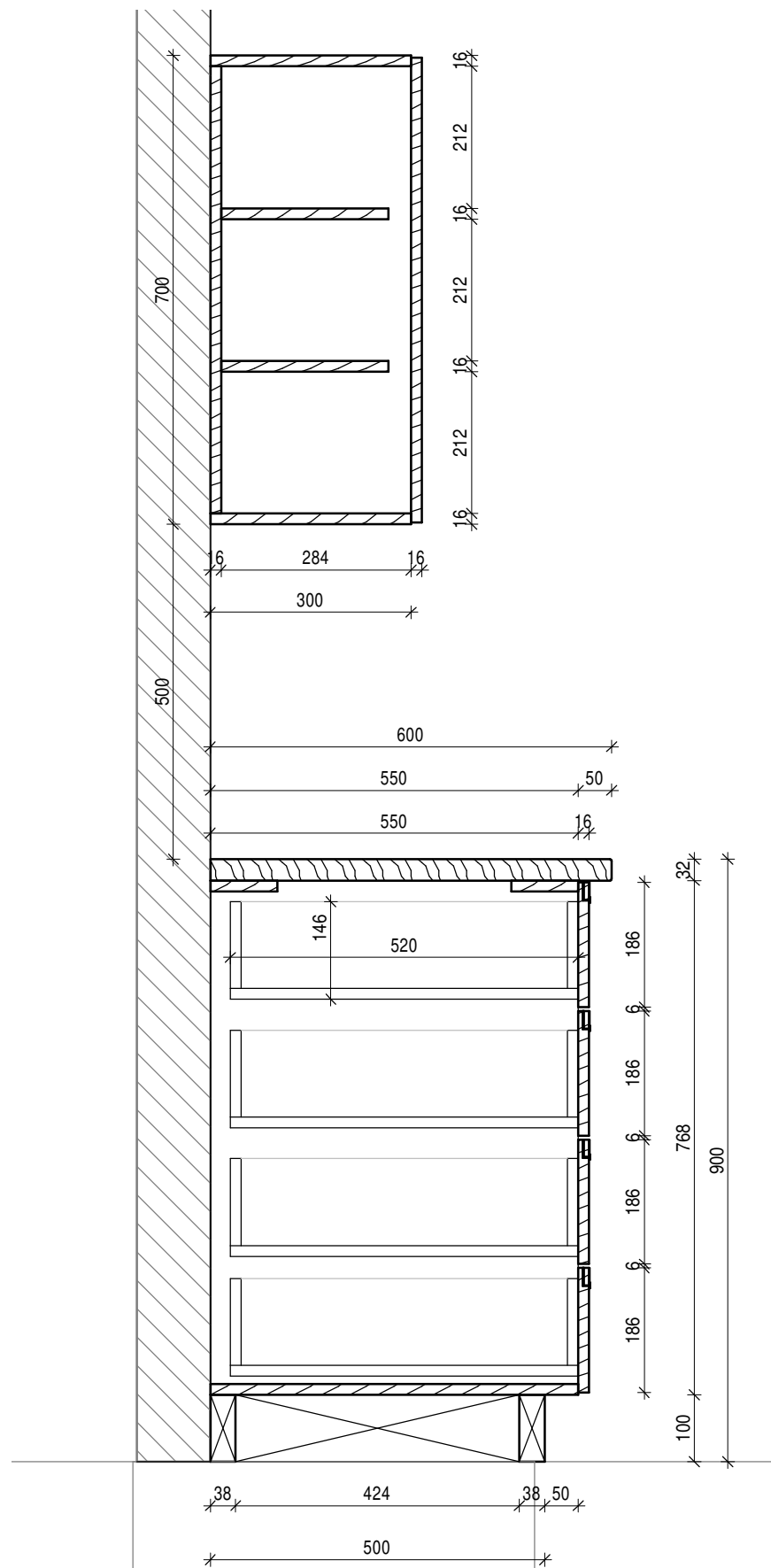
4 **JDT103_Isometric**

No.	Description	Date
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2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023

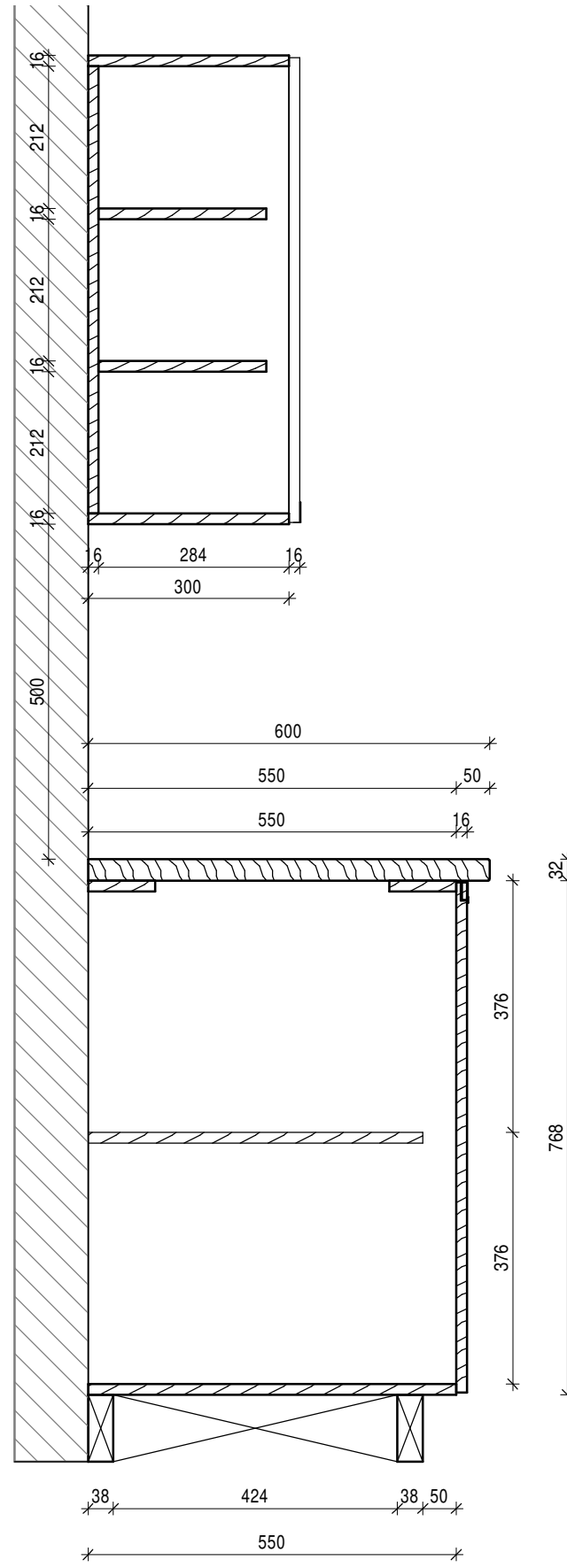
PROJECT:	ECDoh Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

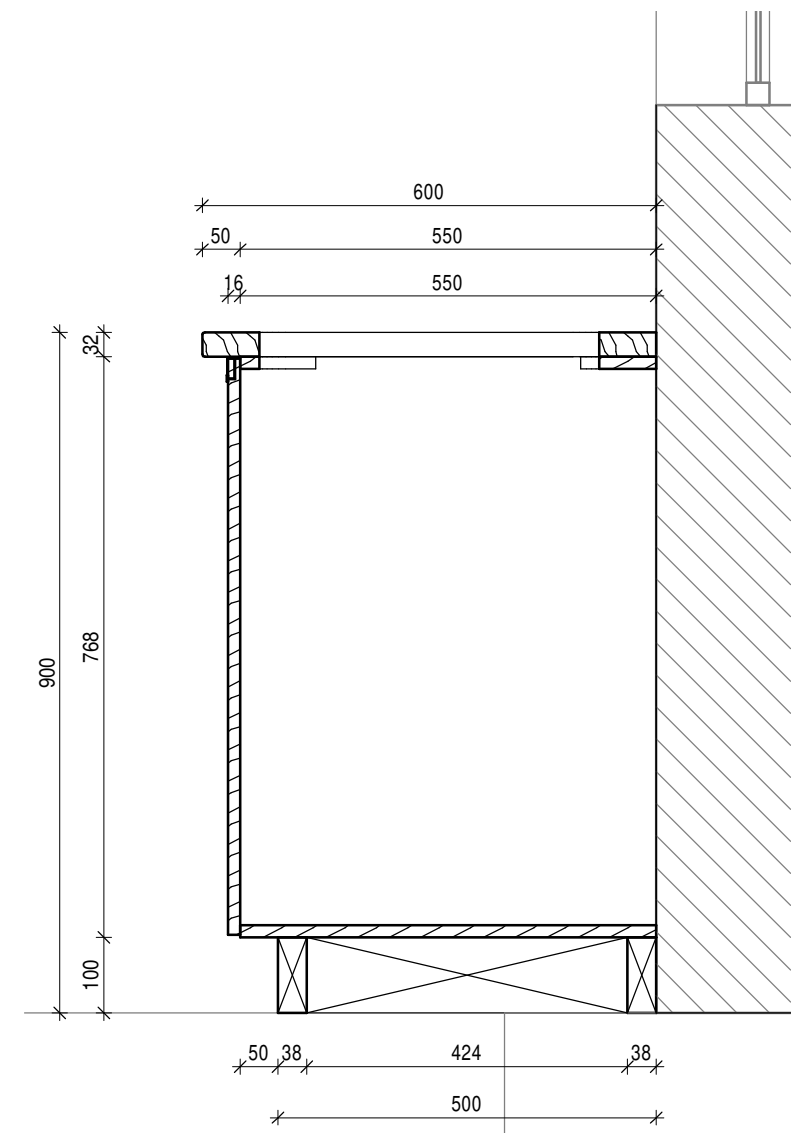
TITLE:	Joinery Unit JDT103
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-003
FOR TENDER ONLY	
REV	3



1 JDT103_Section 1
1 : 10



2 JDT103_Section 2
1 : 10



3 JDT103_Section 3
1 : 10

No.	Description	Date
1	Issued for pricing	2011/2023
2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 10
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit JDT103 - Sections
B4 Project Ref No.:	Architect DWG No.:
305-019	JDT-003a
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.

+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

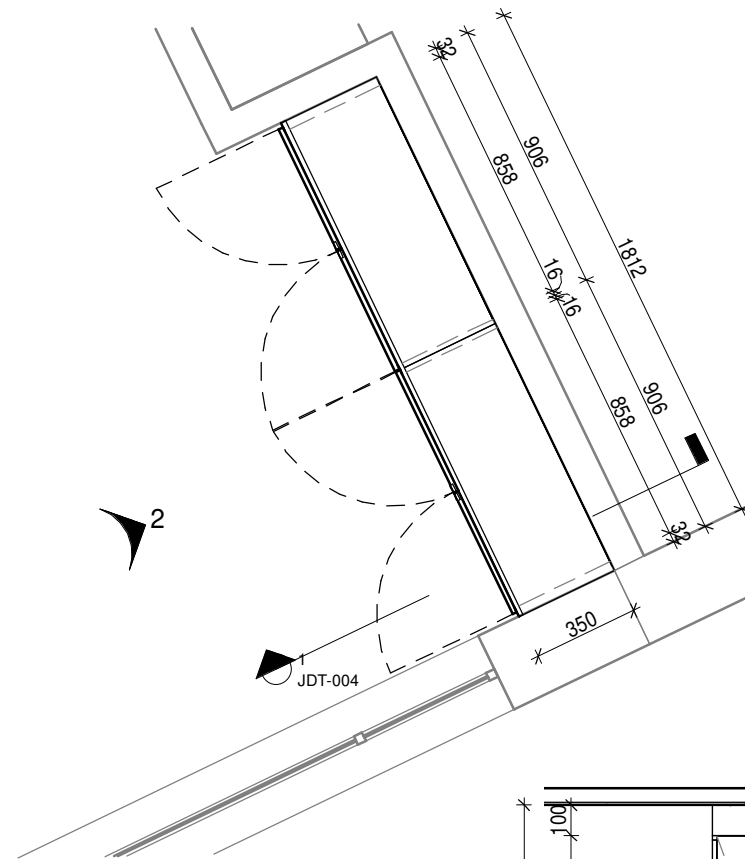
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

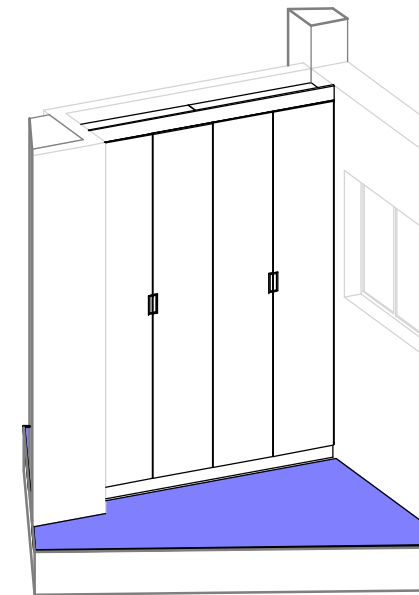
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

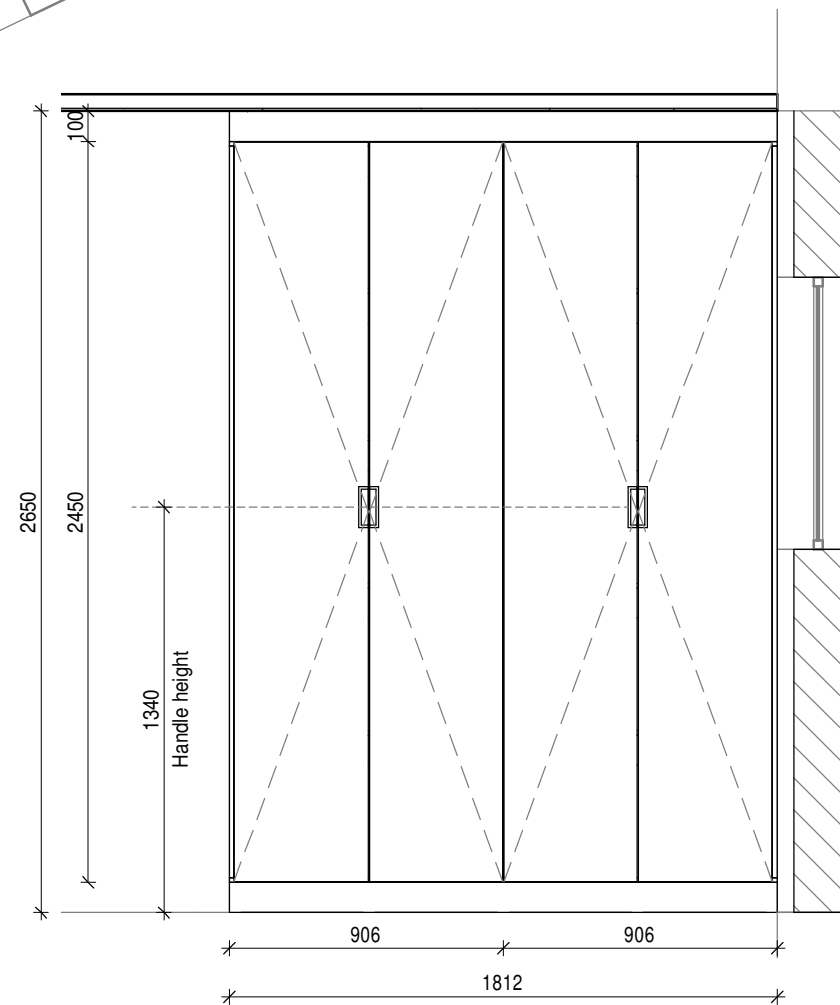
> All measurements to be confirmed on site prior to manufacture.



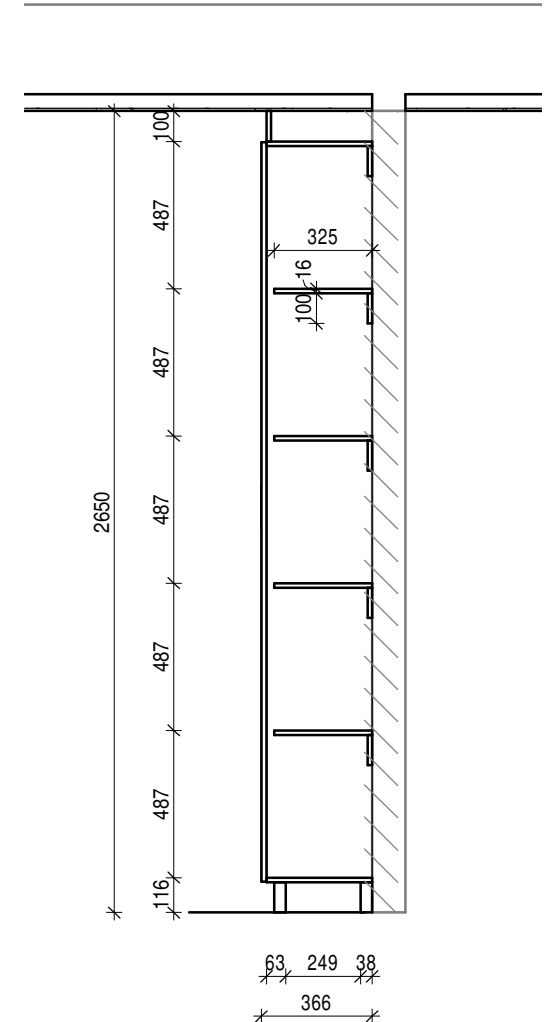
3 JDT 104 Plan
1 : 25



4 JDT104_Isometric



2 JDT104 Elevation
1 : 25



1 JDT104 Section
1 : 25

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

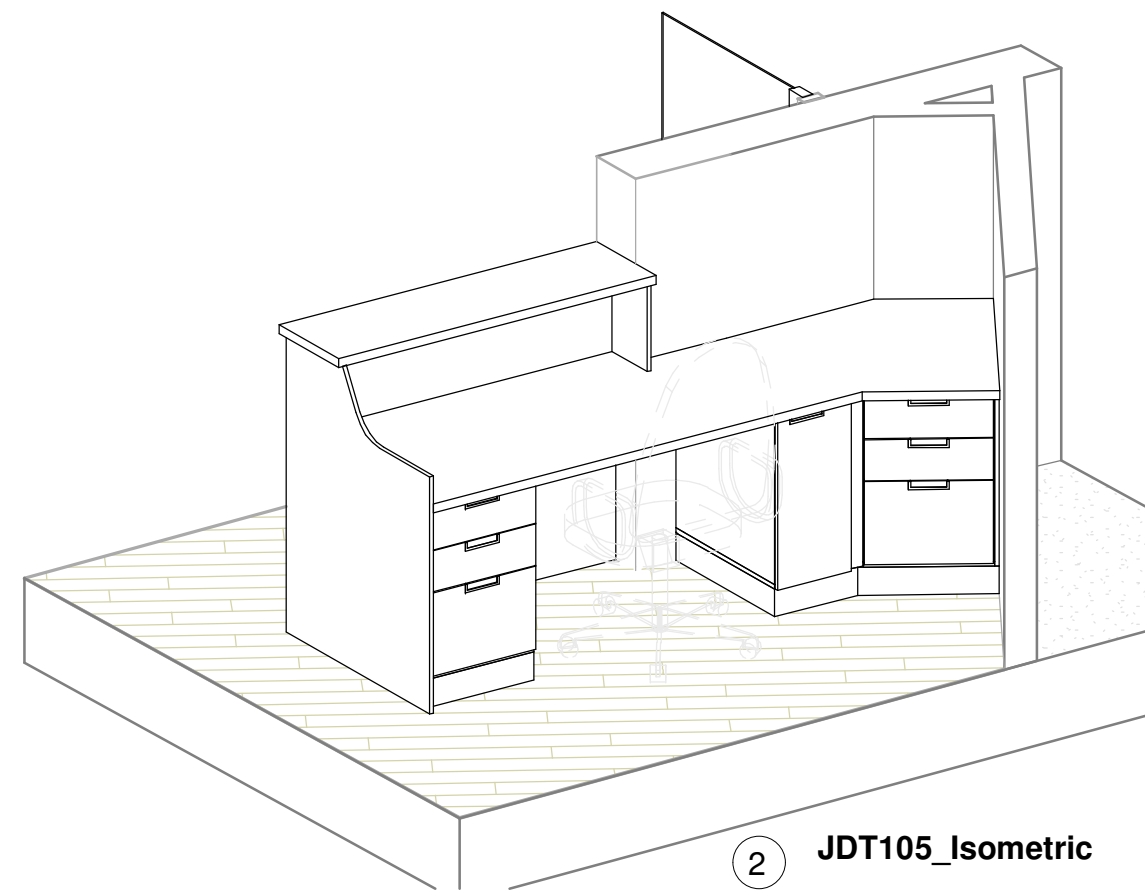
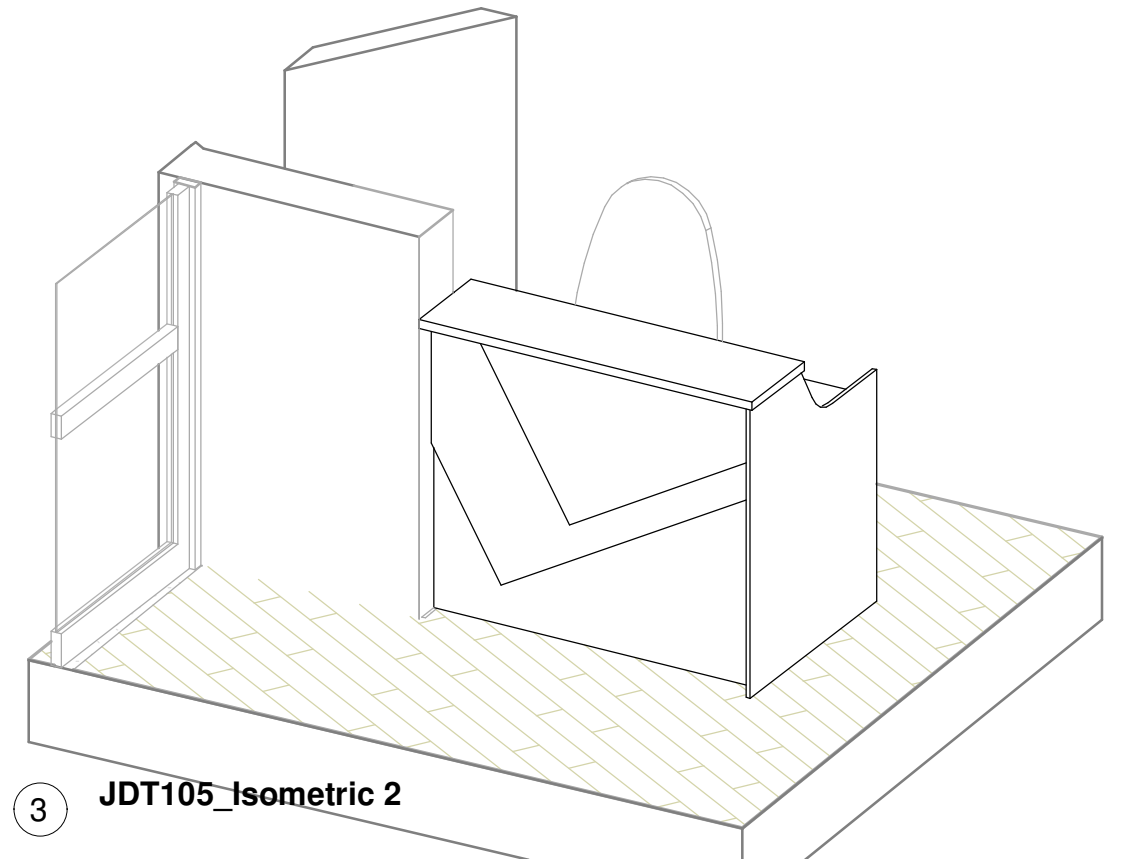
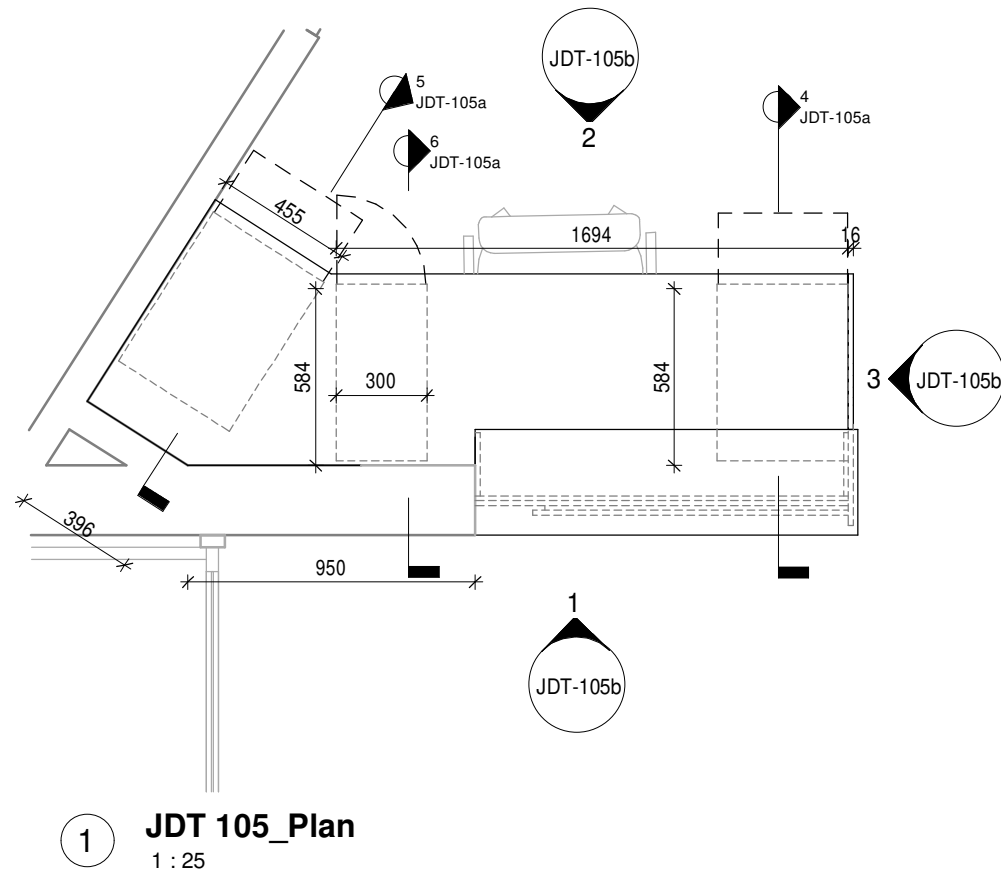
PROJECT:	ECDoh
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit JDT 104
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-004
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

- > All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.
- > All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.
- > Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.
- > All doors to be 16mm melamine faced board (**COLOUR TBC**) edged on all sides with 2mm high impact edging. (Colour to match door face)
+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.
- > All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.
- > All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.
- > Backing board to units with open sheving to be 16mm melamine faced board to match shelving colour.
- > Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.
- > Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.
- > Handle specification:
Raiel Milano Grip Handle in Matt Chrome
- > All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.
- > Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing
- > All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)
- > All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.
- > Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

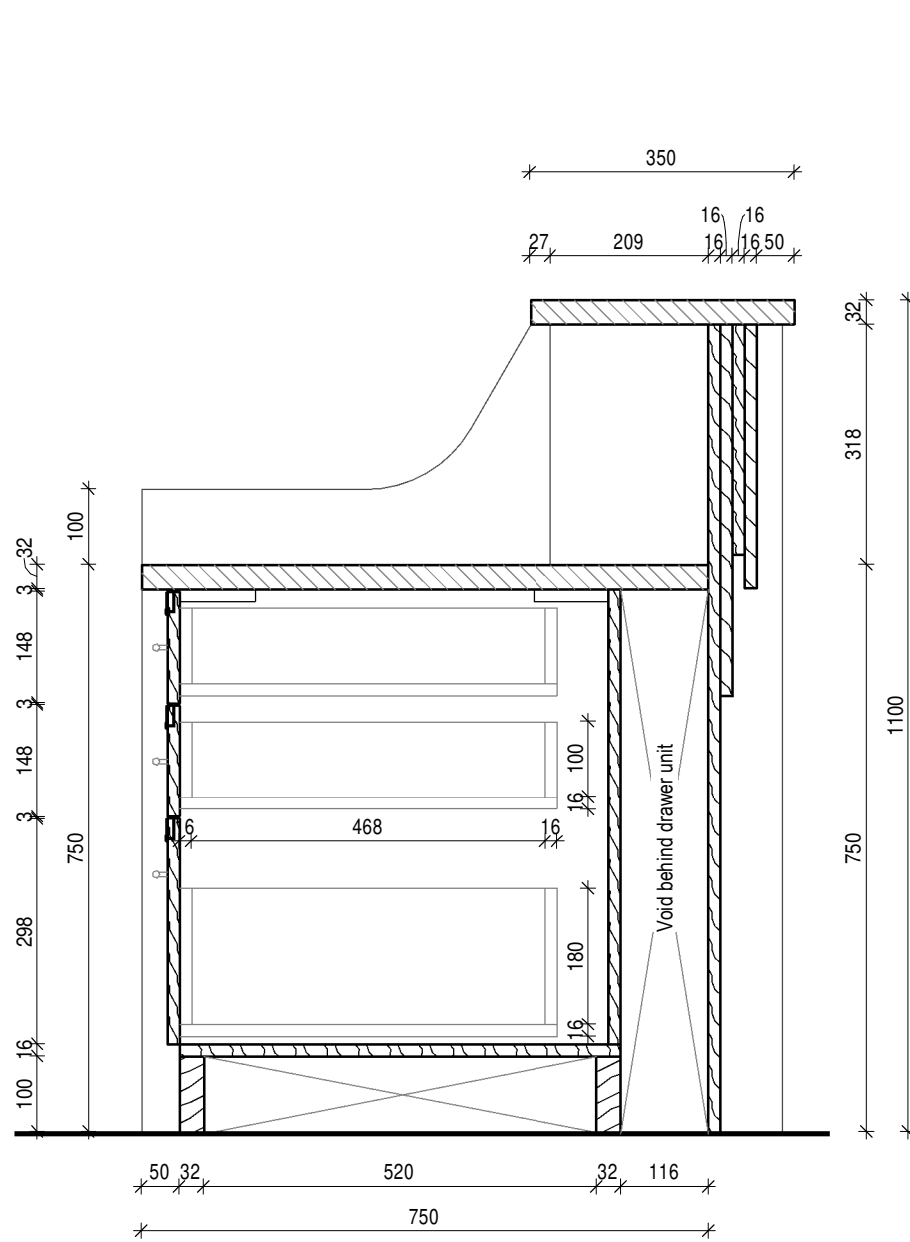


No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

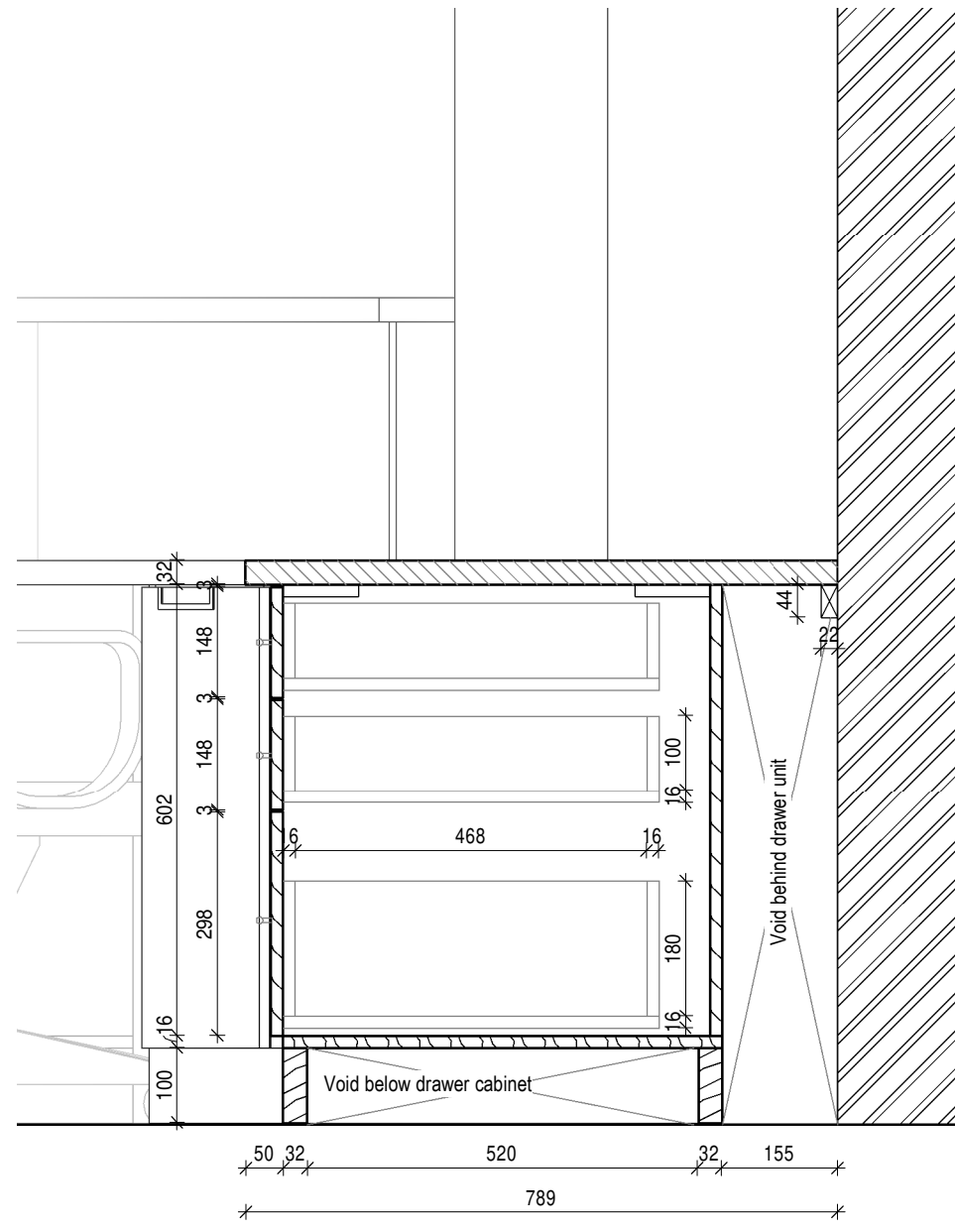
PROJECT:	ECDoh
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

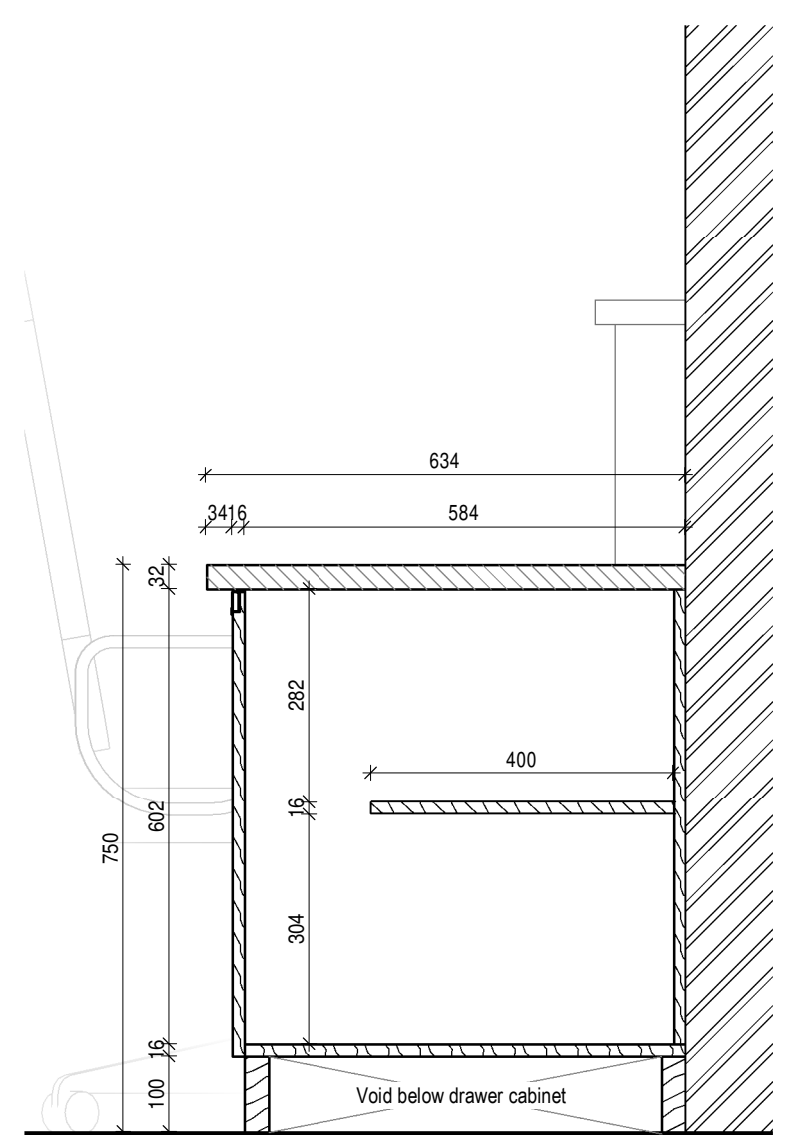
TITLE:	Joinery Unit 105
B4 Project Ref No.:	305-019
Architect DWG No.:	JDT-105
FOR TENDER ONLY	REV 3



4 JDT105_Section 1
1 : 10



5 JDT105_Section 2
1 : 10



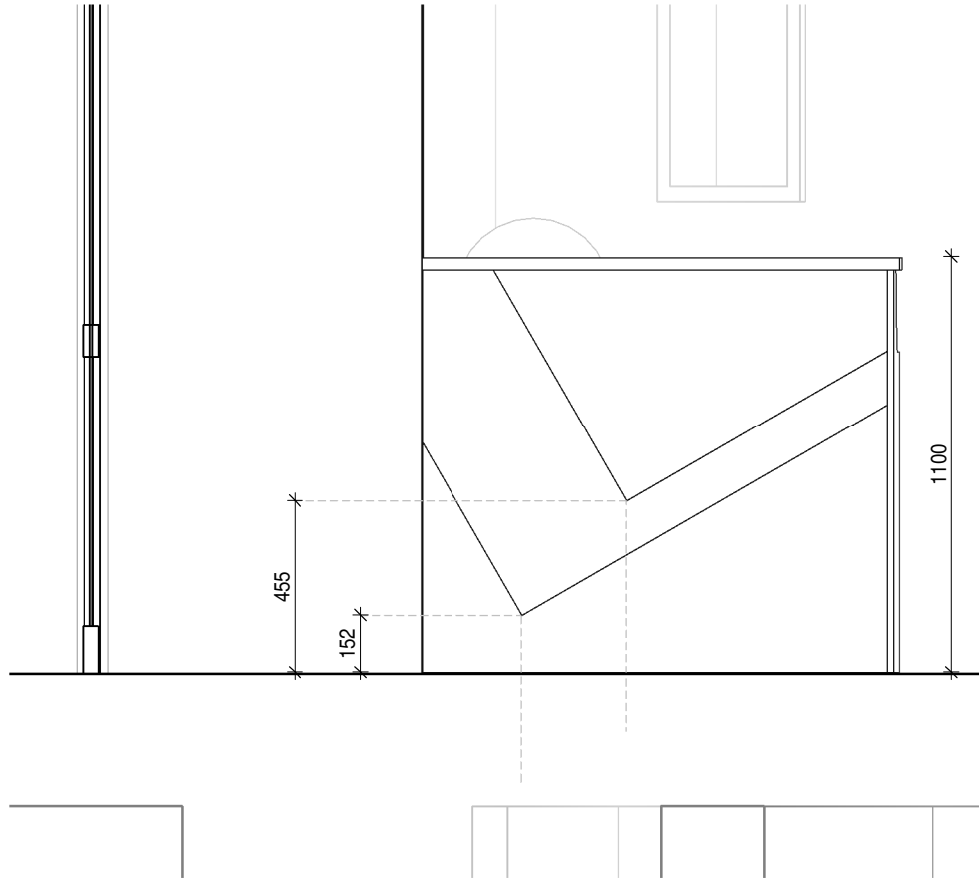
6 JDT105_Section 3
1 : 10

No.	Description	Date
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2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

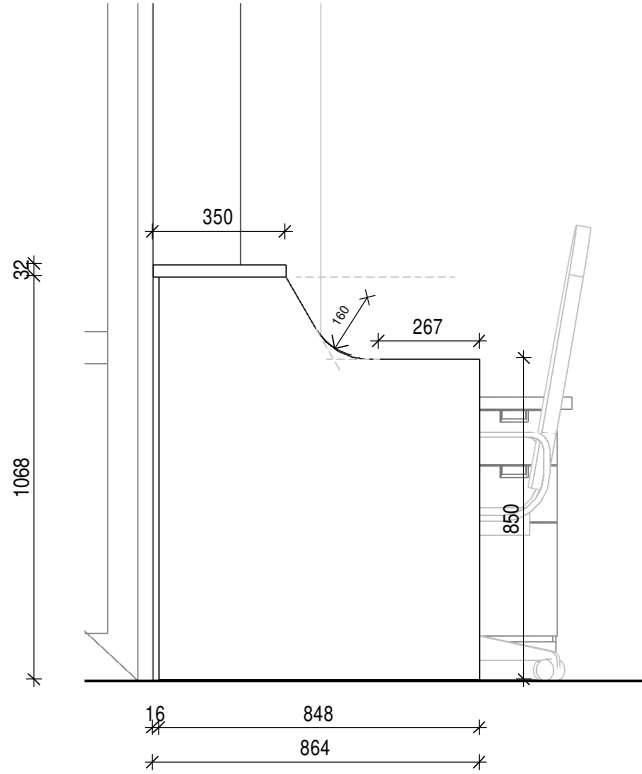
PROJECT:	ECDoH Protea Flats - New GSA Offices
Sakhiwo Ref No.:	
Date:	24 November 2023

Scale:	1 : 10
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

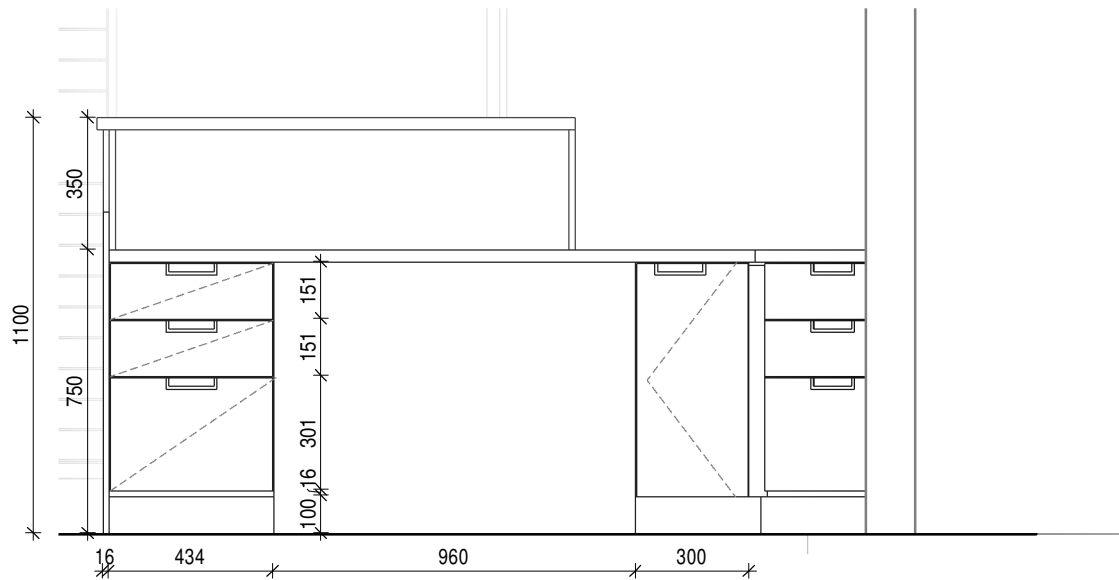
TITLE:	Joinery Unit 105 - Sections
B4 Project Ref No.:	305-019
Architect DWG No.:	JDT-105a
FOR TENDER ONLY	
REV	3



1 JDT105_Elevation 1
1 : 20



3 JDT105_Elevation 3
1 : 20



2 JDT105_Elevation 2
1 : 20

No.	Description	Date
1	Issued for pricing	2010/2023
2	Update for Pricing	2011/2023
3	Issued for Tender	27/11/2023

PROJECT	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
Date:	24 November 2023

Scale:	1 : 20
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkam

TITLE:	Joinery Unit 105 - Elevations
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-105b
FOR TENDER ONLY	
REV	3

GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.
+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

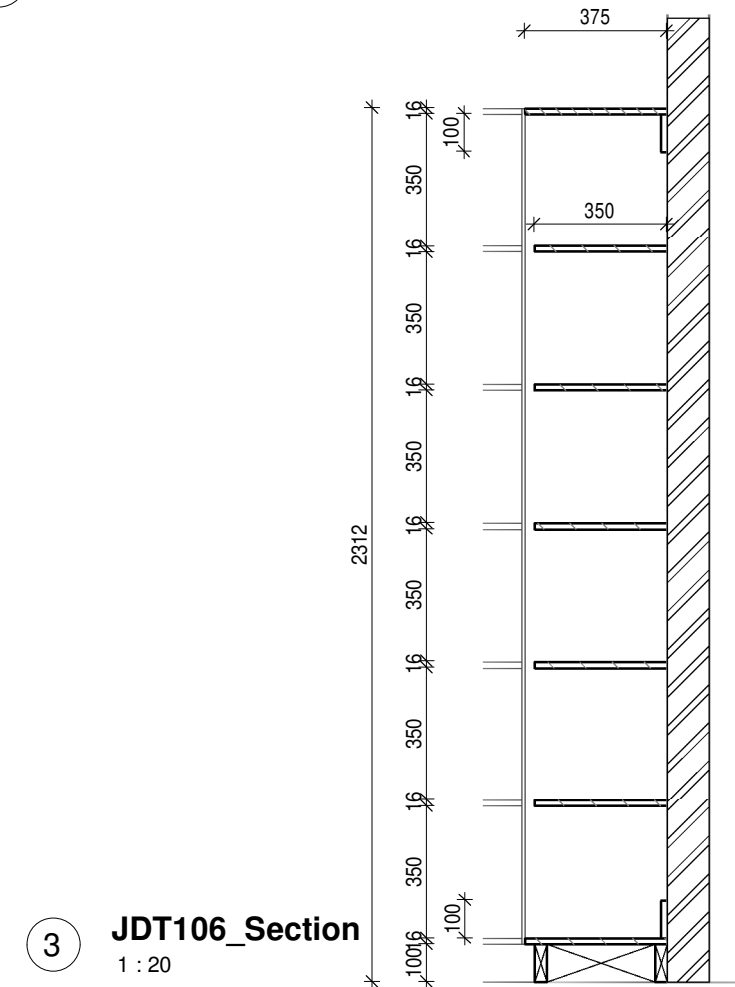
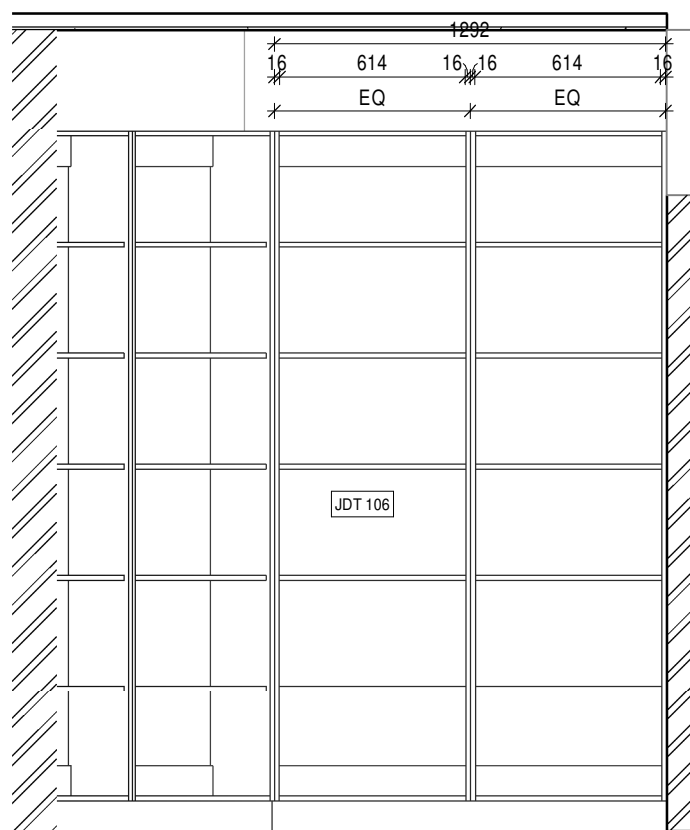
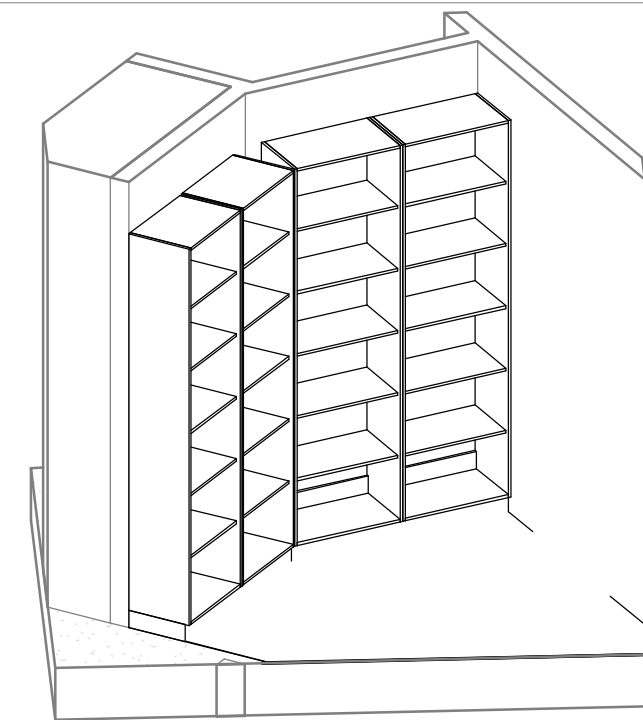
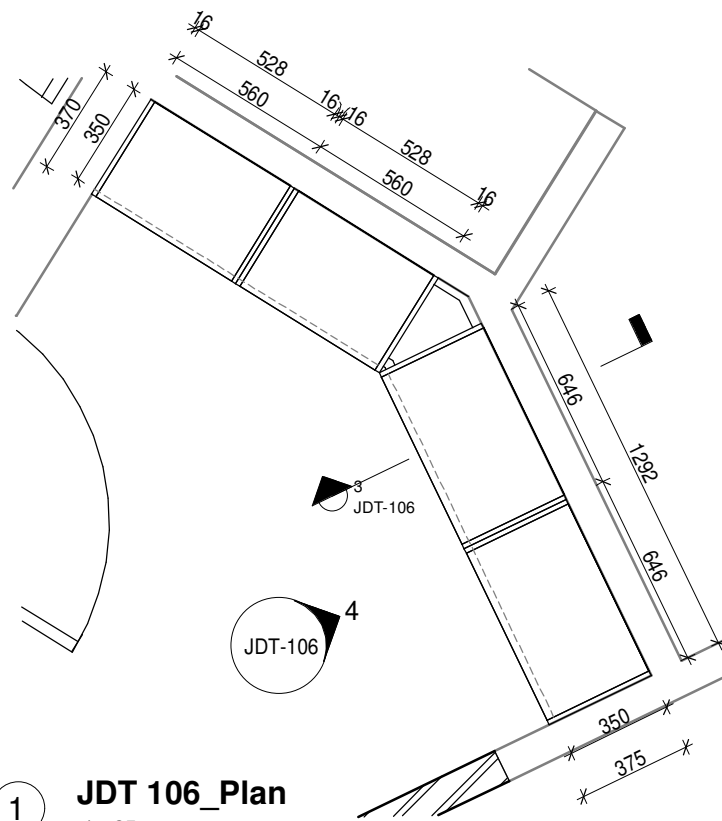
> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. **Colour: TBC** to be finished with POST FORMED END TRIM in colour to be confirmed.
+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

> All measurements to be confirmed on site prior to manufacture.



GENERAL JOINERY SPECIFICATION:

> All casework and drawer fronts to be 16mm melamine faced board (COLOUR TBC) with 2mm high impact edging to all exposed edges.

> All internal shelves to be 16mm melamine faced board (Colour TBC), fixed into position. All exposed edges to be finished with 2mm High Impact Edging (Colour: to match shelving)
All doors and casework to be 16mm thickness.

> Sink and WHB Units: All casework and shelving to be water resistant BISON BOARD V313 as a substrate.

> All doors to be 16mm melamine faced board (COLOUR TBC) edged on all sides with 2mm high impact edging. (Colour to match door face)

+ All doors to be hung on 32mm continuous piano hinge (yellow zinc passivated finish), full length of door.

> All cupboards to be lockable with UNION 452-25PL (brass) cylinder cupboard locks or similar approved.

> All drawers to be fitted with UTA 45mm full extension ball bearing slides (1.2mm thick steel; load capacity 35kg per on 450mm wide drawer), or similar approved.

> Backing board to units with open shelving to be 16mm melamine faced board to match shelving colour.

> Backing board to units with closable cupboards (ie: not visible when cupboard doors are closed) to be 3.5mm white faced hardboard.

> Where joinery is fixed against drywall, wall to be braced with suitable nog-ins.

> Handle specification:
Raiel Milano Grip Handle in Matt Chrome

> All bases to be solid SA Pine, treated for moisture resistance, prior to fixing, with intermediary studs at max 450 ccs.

+ Bases to be painted 1 coat Plascon pink wood primer (UC 2) prior to installation.

> Kickplates: 97x2mm Aluminium flat bar (raw finish) to be glued to timber base backing

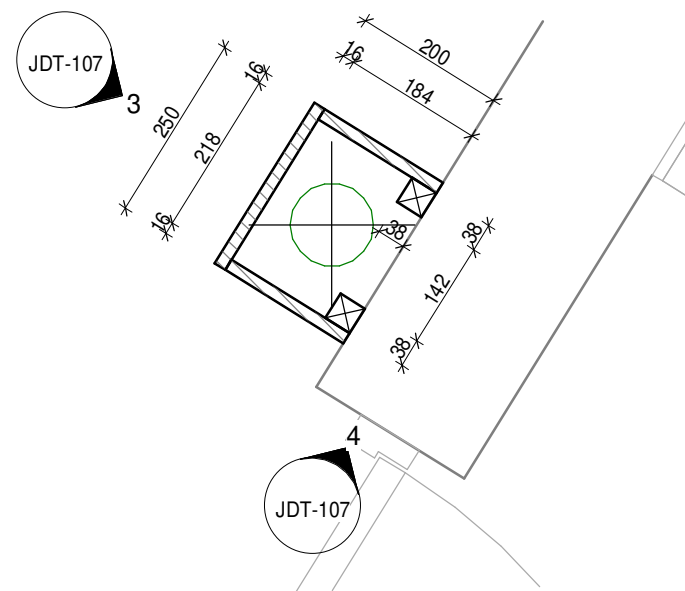
> All countertops to be 32mm FORMICA LIFESEAL WORKTOPS with 3mm radius edge. Colour: TBC to be finished with POST FORMED END TRIM in colour to be confirmed.

+ Any junctions in the tops to be flush jointed (no steel joiner strips to be used)

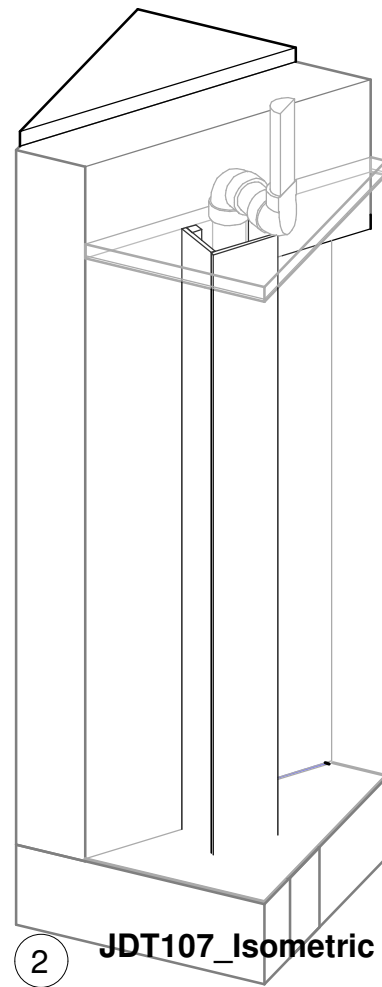
> All internal cutouts to accommodate plumbing and/or electrical or other services to be cut neat and square / rectangular / circular and to be closed up neatly with 4mm white faced masonite board cut to square around penetration.

> Seal between all worktops, sanitaryware, tiling and wall with SIKAFLEX FC-11 (for sanitaryware and/or wet areas) and SIKASIL-C everywhere else.

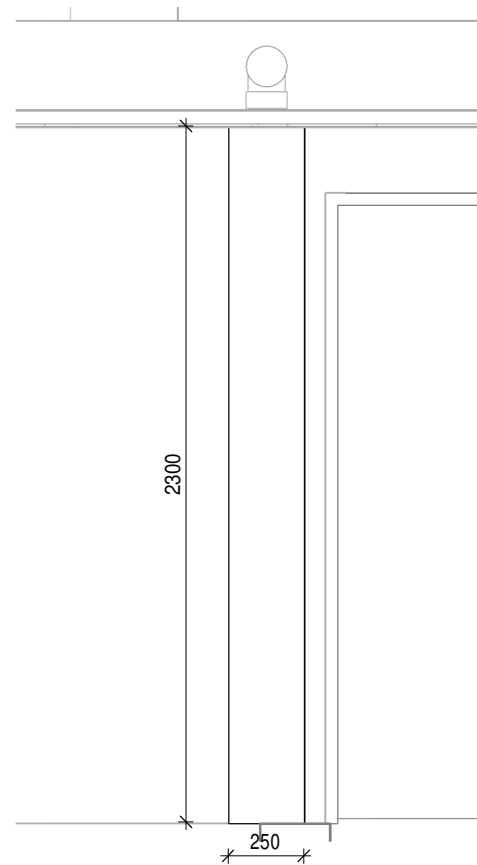
> All measurements to be confirmed on site prior to manufacture.



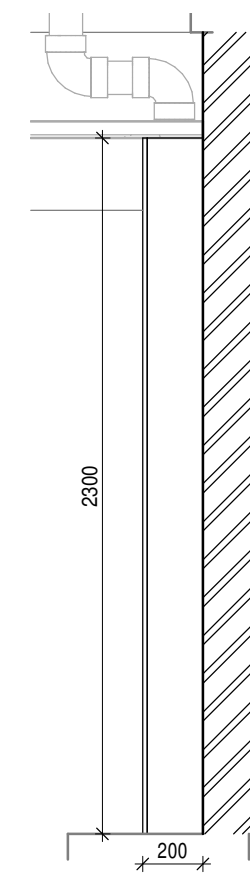
1 JDT 107_Plan
1 : 10



2 JDT107_Isometric



3 JDT107_Elevation 1
1 : 25



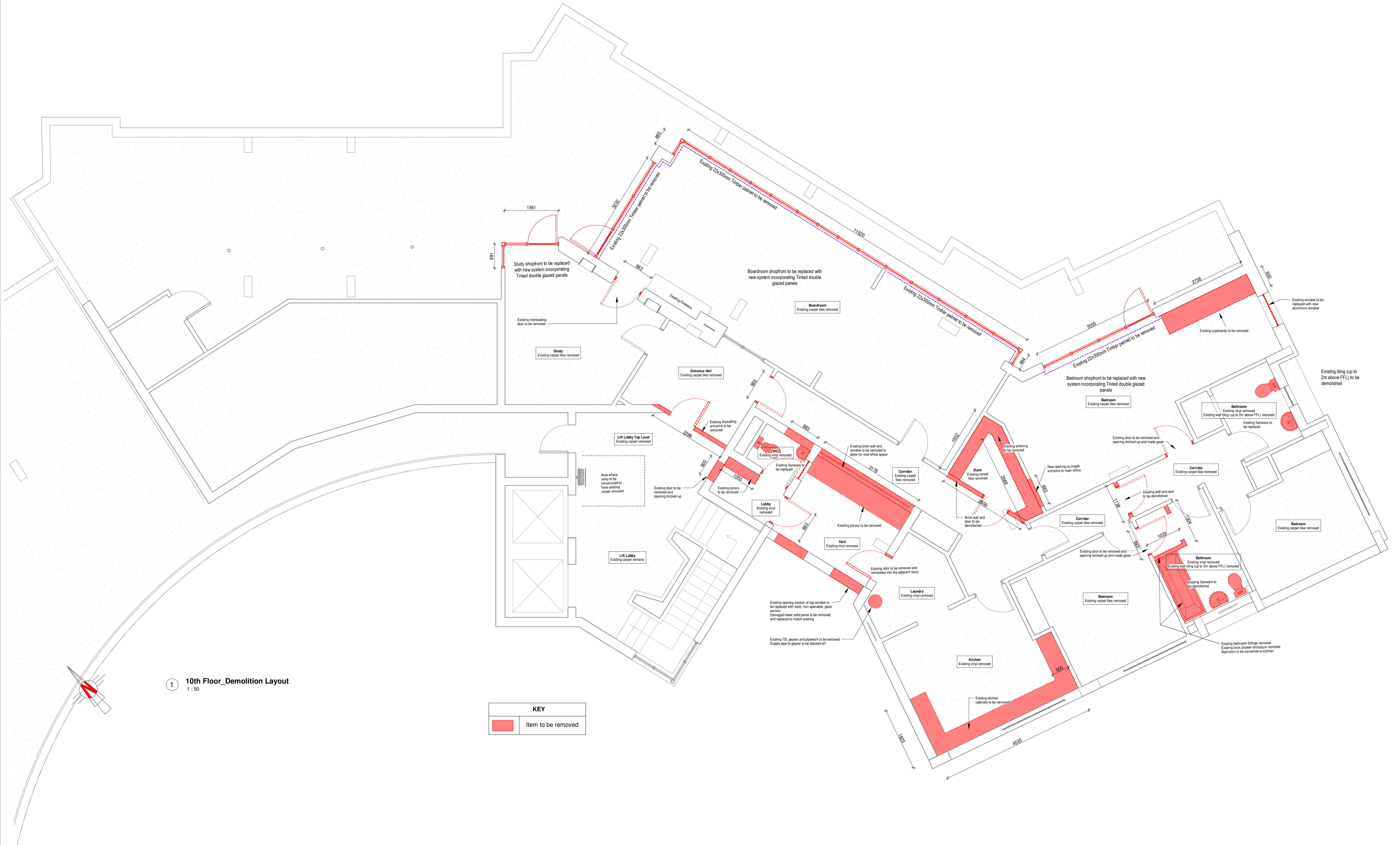
4 JDT107_Elevation 2
1 : 25

No.	Description	Date
1	Issued for pricing	2011/02/03
2	Update for Pricing	2011/02/03
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Joinery Unit 107
B4 Project Ref No.:	Architect DWG No:
305-019	JDT-107
FOR TENDER ONLY	
REV	3



1 10th Floor_Demolition Layout
1 : 50

KEY	
	Item to be removed

b4 Architects cc
Resuscitating Healthcare Design

Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za



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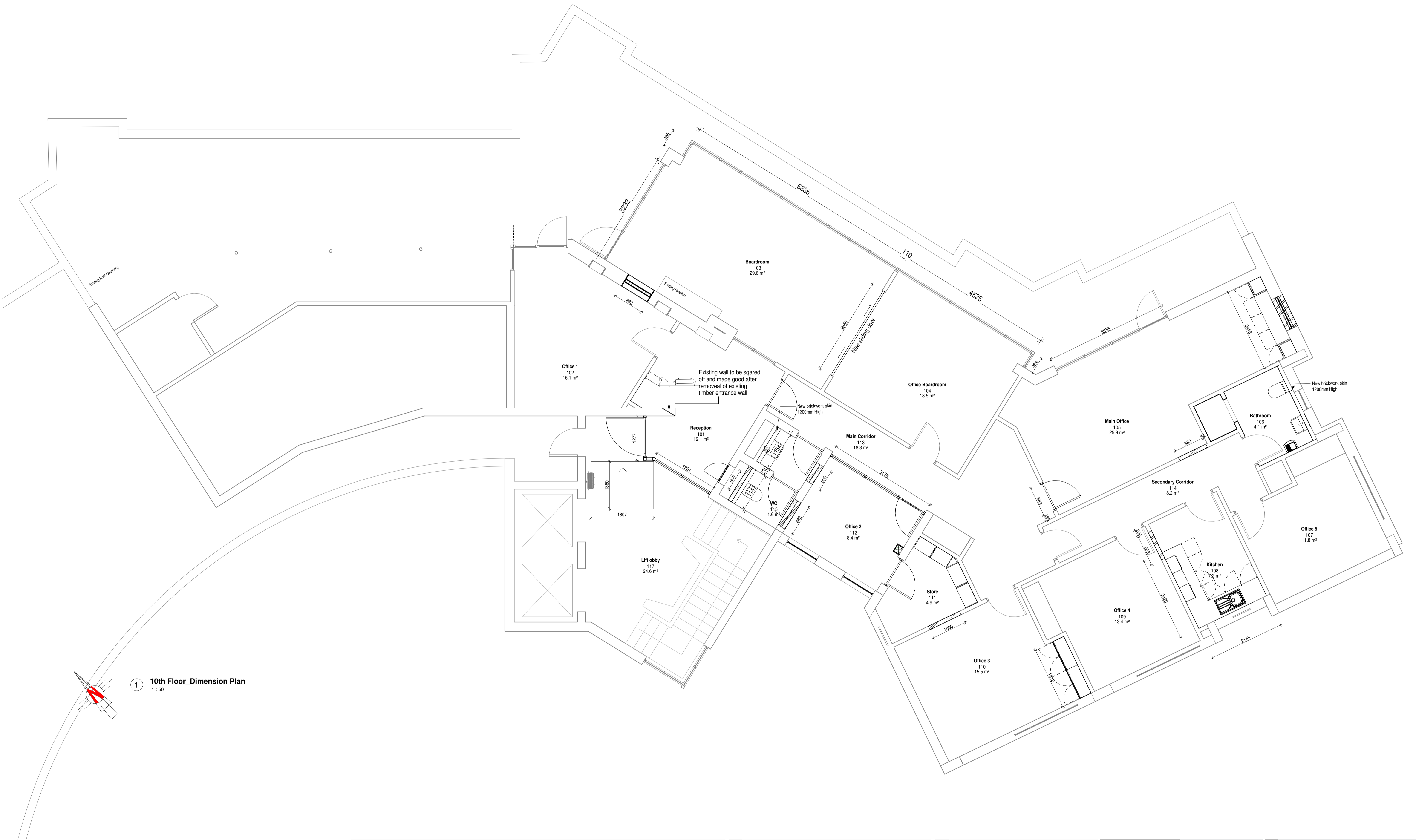
ACCURACY & DIMENSIONS

Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

No.	Description	Date
1	Issued for pricing	20/10/2023
2	Update for Pricing	14/11/2023
3	Issued for Tender	27/11/2023
REVISIONS:		

PROJECT:	ECDoh
	Protea Flats - New GSA Offices
Date:	24 November 2023

Scale:	1 : 50	TITLE:	Demolition Layout
Drawn by:	J Thomson		
Designer:	-	B4 Project Ref No.:	Architect DWG No.:
Professional Architect:	B Brinkman	305-019	ARC-002
Checked by:	Pieter Vorster	FOR TENDER ONLY	REV:
Sakhiwo Ref No:			3



1 10th Floor_Dimension Plan
1 : 50

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No.	Description	Date
1	Issued for pricing	20/10/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

PROJECT: ECDoH
Protea Flats - New GSA Offices

Date: 24 November 2023

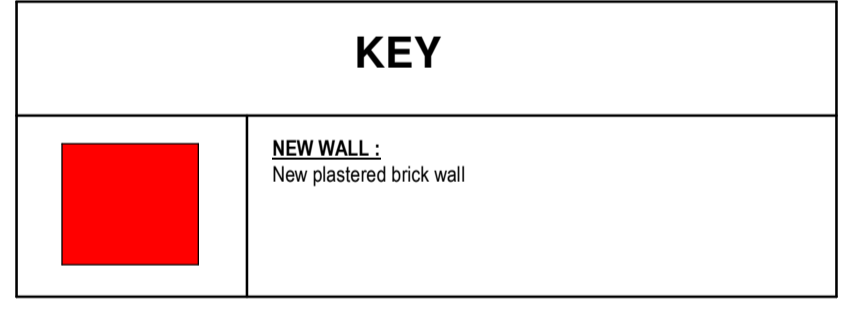
Scale:	1 : 50
Drawn by:	J Thomson
Designer:	b4 Architects
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE: Dimension Plan

B4 Project Ref No.: 305-019
Architect DWG No.: ARC-003

FOR TENDER ONLY

REV: 2



1 10th Floor_Key Plan
1 : 50

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No.	Description	Date
1	Issued for pricing	20/10/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

PROJECT: ECDDoH
Protea Flats - New GSA Offices
Date: 24 November 2023

Scale:	1 : 50
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE:	Key Plan
B4 Project Ref No.:	305-019
Architect DWG No.:	ARC-004
FOR TENDER ONLY	
REV:	2



b4 Architects cc
Resuscitating Healthcare Design

Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdale's Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za



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All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS

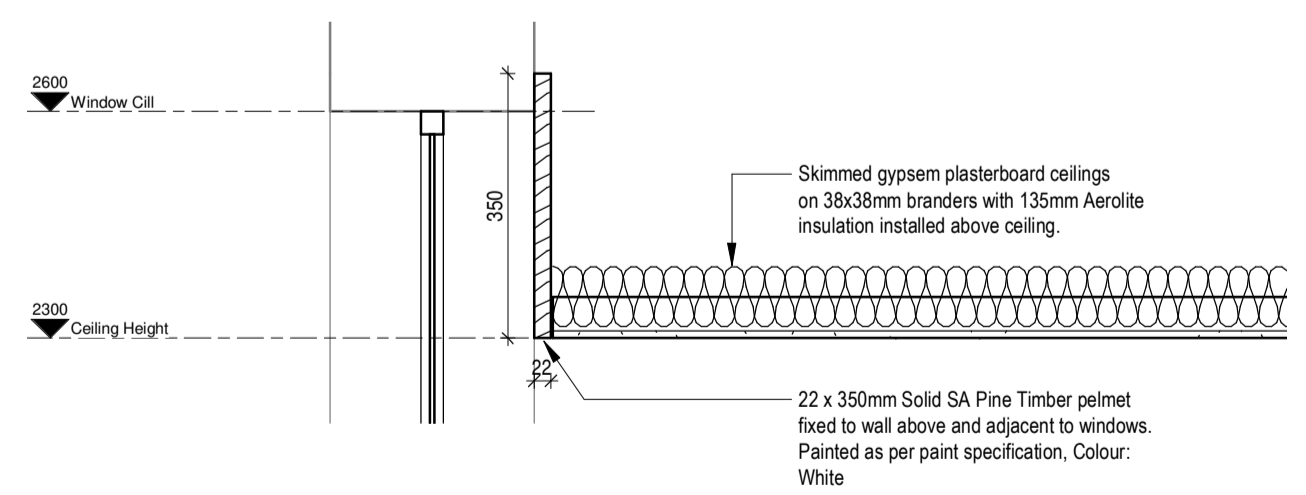
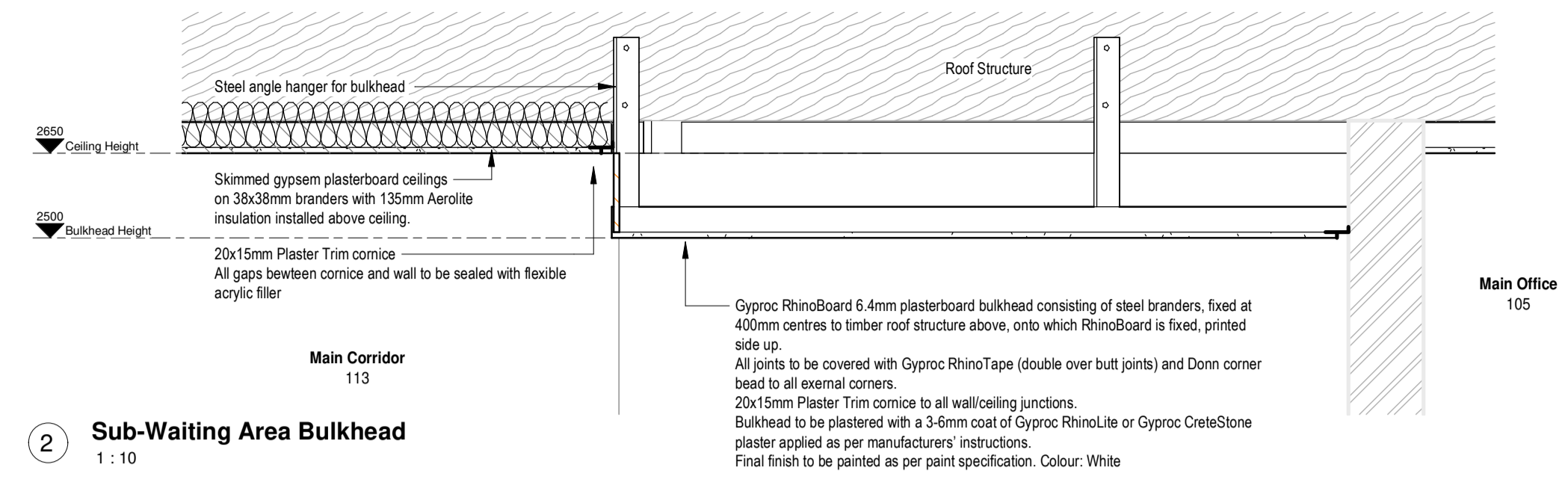
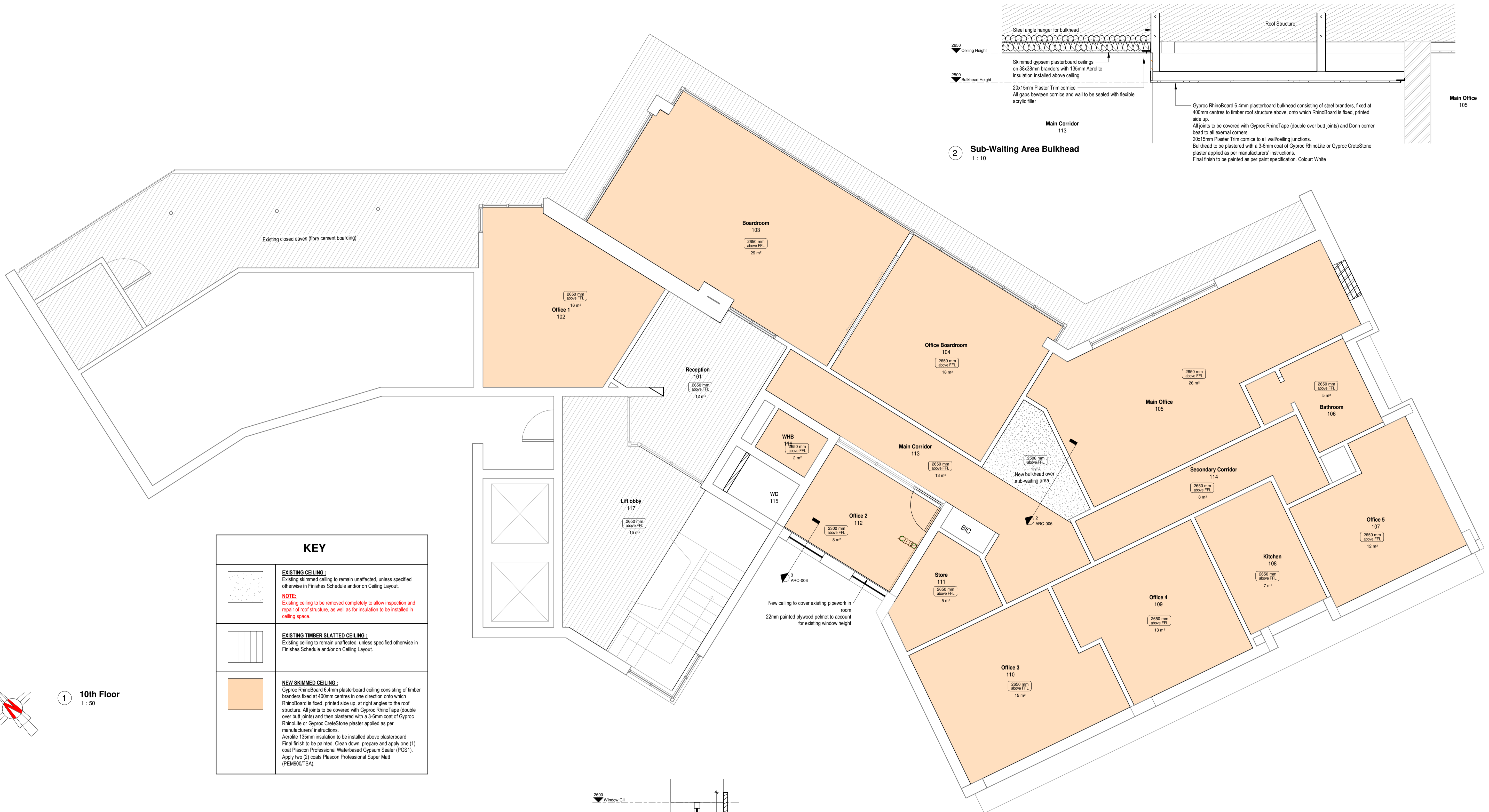
Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

No.	Description	Date
1	Issued for pricing	20/10/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

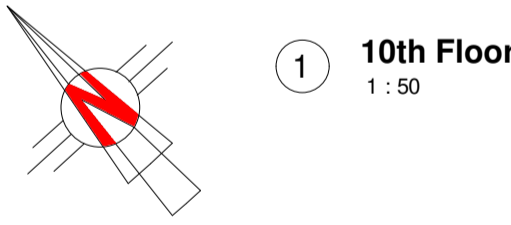
PROJECT:	ECDoh
	Protea Flats - New GSA Offices
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE:	Floor Finshes Plan
B4 Project Ref No.:	Architect DWG No:
305-019	ARC-005
FOR TENDER ONLY	
REV:	2



KEY	
	EXISTING SKIMMED CEILING: Existing skimmed ceiling to remain unaffected, unless specified otherwise in Finishes Schedule and/or on Ceiling Layout. NOTE: Existing ceiling to be removed completely to allow inspection and repair of roof structure, as well as for insulation to be installed in ceiling space.
	EXISTING TIMBER SLATTED CEILING: Existing ceiling to remain unaffected, unless specified otherwise in Finishes Schedule and/or on Ceiling Layout.
	NEW SKIMMED CEILING: Gyproc RhinoBoard 6.4mm plasterboard ceiling consisting of timber branders fixed at 400mm centres in one direction onto which RhinoBoard is fixed, printed side up, at right angles to the roof structure. All joints to be covered with Gyproc RhinoTape (double over butt joints) and then plastered with a 3.5mm coat of Gyproc RhinoLite or Gyproc CreteStone plaster applied as per manufacturers' instructions. Aerolite 135mm insulation to be installed above plasterboard. Final finish to be painted. Clean down, prepare and apply one (1) coat Plascon Professional Waterbased Gypsum Sealer (PGS1). Apply two (2) coats Plascon Professional Super Matt (PEM900TSA).



1 10th Floor
1 : 50

3 Office 2 Pelmet Detail
1 : 10

b4 Architects cc
Resuscitating Healthcare Design

Port Elizabeth
PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdale Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070
Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za

Province of the **EASTERN CAPE** HEALTH

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2	Update for Pricing	31/10/2023
3	Update for pricing	08/11/2023
4	Issued for Tender	27/11/2023

PROJECT: ECDoh
Protea Flats - New GSA Offices

Date: 24 November 2023

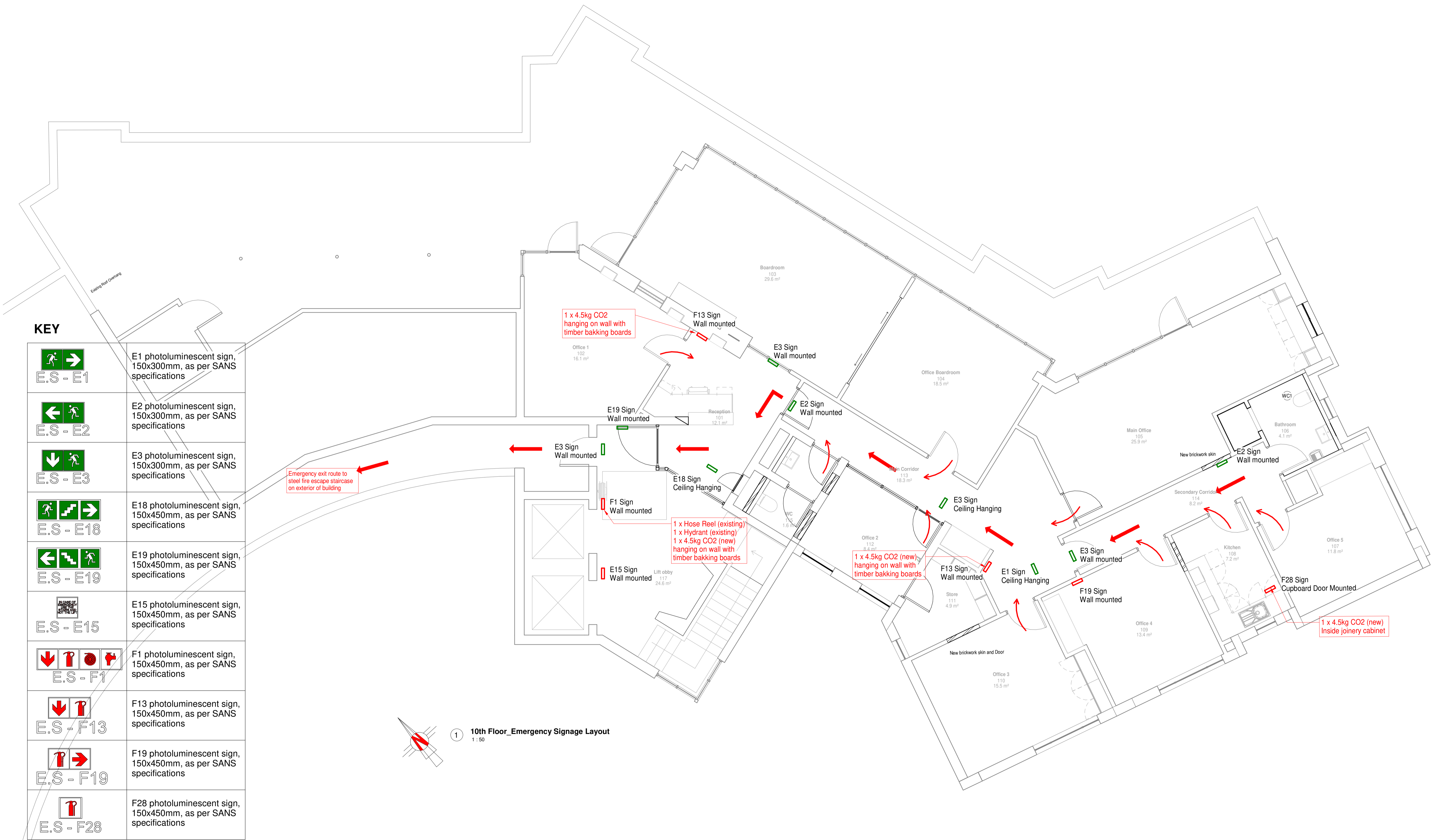
Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE: Ceiling Layout

B4 Project Ref No.: 305-019
Architect DWG No.: ARC-006

FOR TENDER ONLY

REV: 4



KEY

	E1 photoluminescent sign, 150x300mm, as per SANS specifications
	E2 photoluminescent sign, 150x300mm, as per SANS specifications
	E3 photoluminescent sign, 150x300mm, as per SANS specifications
	E18 photoluminescent sign, 150x450mm, as per SANS specifications
	E19 photoluminescent sign, 150x450mm, as per SANS specifications
	E15 photoluminescent sign, 150x450mm, as per SANS specifications
	F1 photoluminescent sign, 150x450mm, as per SANS specifications
	F13 photoluminescent sign, 150x450mm, as per SANS specifications
	F19 photoluminescent sign, 150x450mm, as per SANS specifications
	F28 photoluminescent sign, 150x450mm, as per SANS specifications

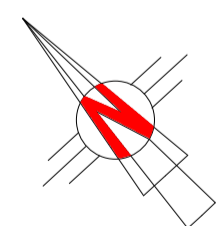
Emergency exit route to steel fire escape staircase on exterior of building

1 x 4.5kg CO2 hanging on wall with timber backing boards

1 x Hose Reel (existing)
1 x Hydrant (existing)
1 x 4.5kg CO2 (new) hanging on wall with timber backing boards

1 x 4.5kg CO2 (new) hanging on wall with timber backing boards

1 x 4.5kg CO2 (new) Inside joinery cabinet



1 10th Floor_Emergency Signage Layout
1:50

b4 Architects cc
Resuscitating Healthcare Design

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No.	Description	Date
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2	Update for pricing	08/11/2023
3	Issued for Tender	27/11/2023

PROJECT: **ECDoH**
Protea Flats - New GSA Offices

Date: 24 November 2023

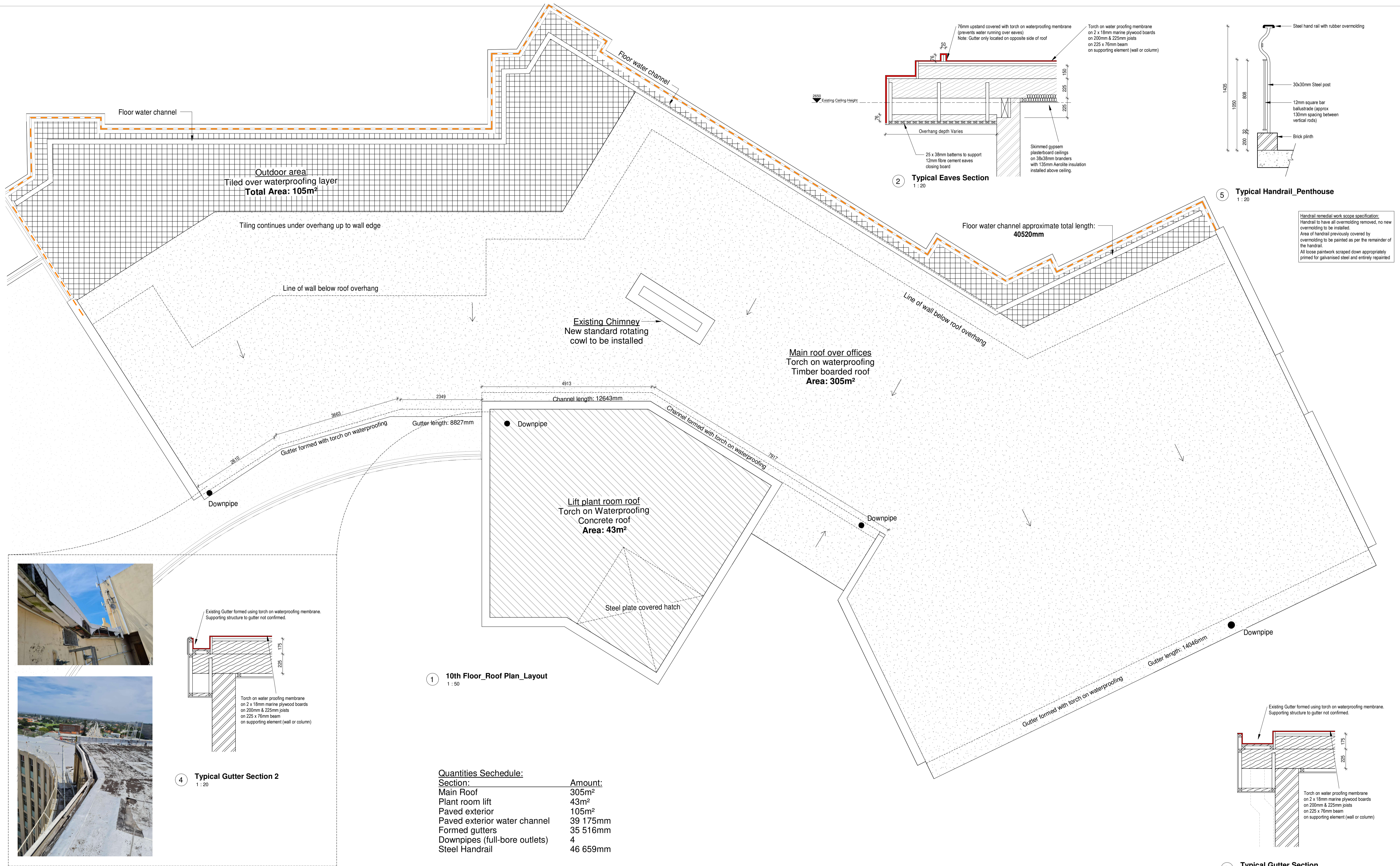
Scale:	1 : 50
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE: **Emergency Signage Layout**

B4 Project Ref No.: **305-019** Architect DWG No.: **ARC-007**

FOR TENDER ONLY

REV: **3**



Quantities Schedule:

Section:	Amount:
Main Roof	305m ²
Plant room lift	43m ²
Paved exterior	105m ²
Paved exterior water channel	39 175mm
Formed gutters	35 516mm
Downpipes (full-bore outlets)	4
Steel Handrail	46 659mm

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Resuscitating Healthcare Design

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No.	Description	Date
1	Issued for pricing	20/10/2023
2	Issued for Pricing	24/10/2023
3	Issued for Tender	27/11/2023

PROJECT: ECDoh
 Protea Flats - New GSA Offices

Date: 24 November 2023

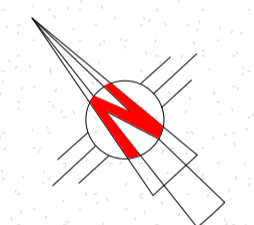
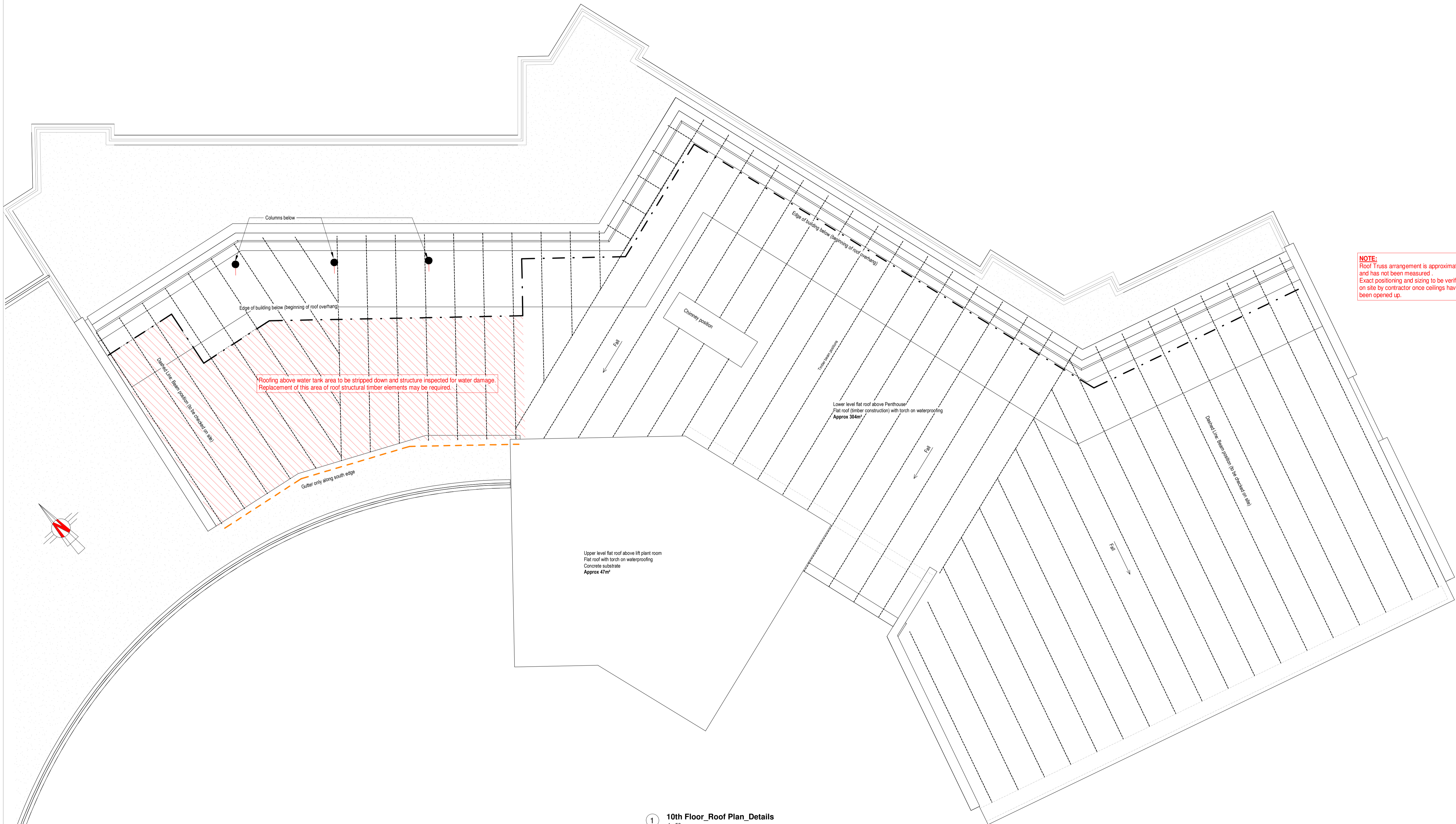
Scale:	As indicated
Drawn by:	Author
Designer:	Designer
Professional Architect:	Approver
Checked by:	Checker
Sakhiwo Ref No:	

TITLE: Penthouse Roof Layout

B4 Project Ref No.: 305-019
 Architect DWG No.: ARC-008

FOR TENDER ONLY

REV: 3



1 10th Floor_Roof Plan_Details
1 : 50

No.	Description	Date
1	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Date:	24 November 2023

Scale:	1 : 50
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE:	Existing Roof Truss Layout	
B4 Project Ref No.:	Architect DWG No.:	
305-019	ARC-008a	
FOR TENDER ONLY		
REV:	1	



1 10th Floor_Drainage Layout
1 : 50

No.	Description	Date
1	Issued for pricing	20/10/2023
2	Issued for Tender	27/11/2023

PROJECT: ECDoh
Protea Flats - New GSA Offices
Date: 24 November 2023

Scale:	1 : 50
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

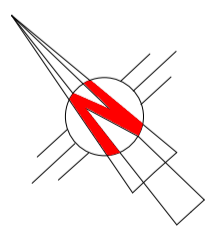
TITLE: Drainage Layout
B4 Project Ref No.: 305-019
Architect DWG No.: ARC-009
FOR TENDER ONLY



Note:
No layout changes to water reticulation
New sanitary fittings to replace old fittings in same positions
New pipework only required to connect new fittings.

Note:
Existing shower and bath drainage to be:
> Removed if surface mounted, and
> Blanked off at wall if chased into the wall.
> All existing drainage points no longer required in new layout to be sealed, blanked off flush with wall.
> Wall plastering to be made good and finished as per finishes schedule.

Note:
Existing geysers location.
Existing geysers feeds existing kitchen only
Geysers to be removed as kitchen location moved to old bathroom (fed from different geysers)



1 10th Floor_Water Reticulation Layout
1 : 50

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2	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
Date:	24 November 2023

Scale:	1 : 50
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE:	Water Reticulation Layout
	B4 Project Ref No.: Architect DWG No:
	305-019 ARC-010
FOR TENDER ONLY	
REV:	2

2023/11/27 2:23:24 PM

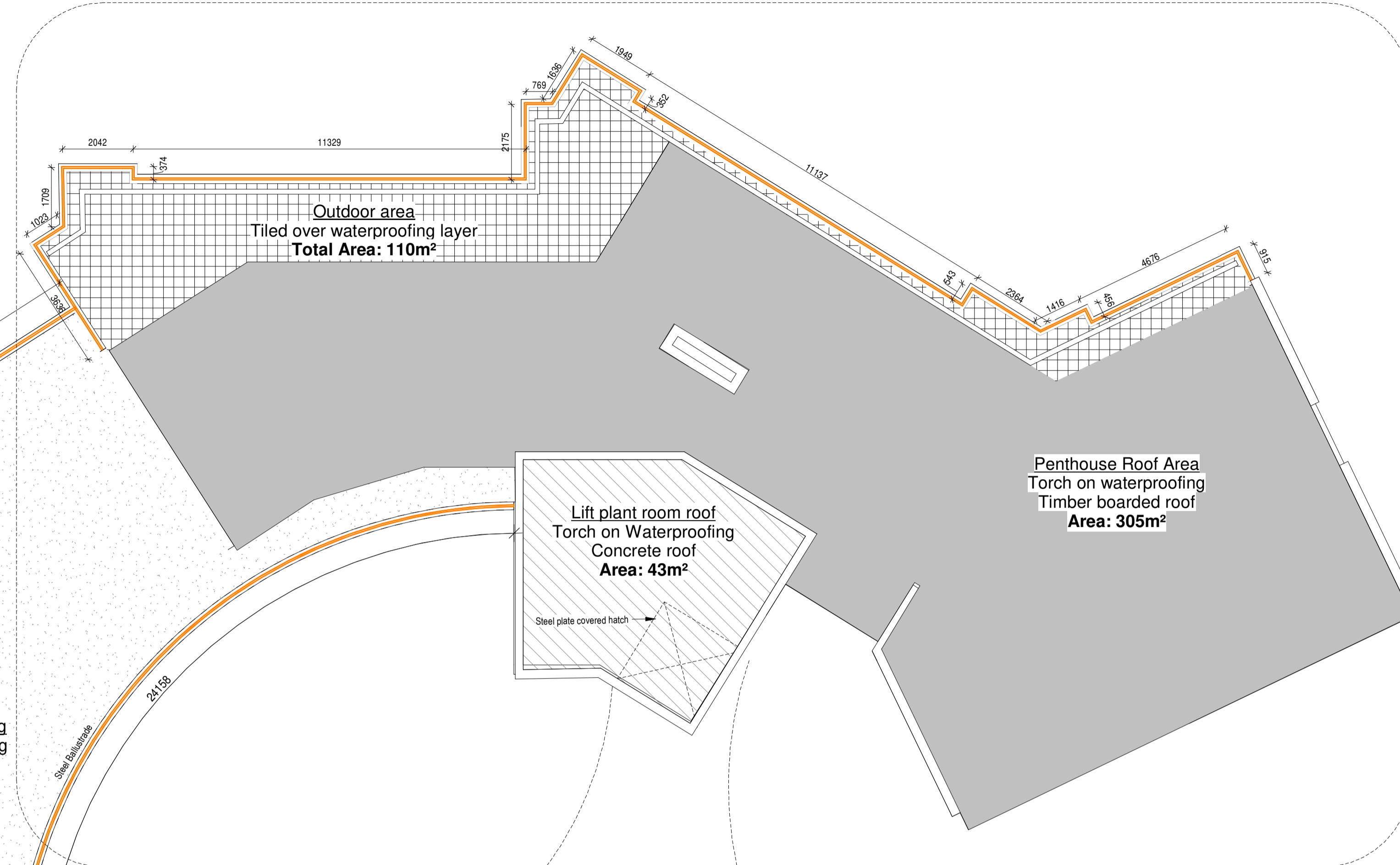
Outdoor Area (Currently Tiled)

- Allow for removal of all vegetation
- Allow for removal of all existing tiles and screed to concrete slab
- Allow for removal of existing waterproofing to all formed rainwater channels
- Allow for cleaning out of water inlet pipes
- Allow for relining of existing waterproofing channels with new Derbigum SP4 waterproofing as above specification
- Allow for 3 off new Fullbore inlets and covers to be set into boarded roof and connect into existing rainwater downpipe
- Allow for removal of damaged and perished rubber coating to handrail that runs the perimeter of the roof
- Allow for preparation and repainting of existing steel balustrade as per paint specification
- Allow small allowance for localised repairs to balustrade
- Allow new One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch-fusion', taken up and lapped over, across and down 150mm of parapet walls and upstands and 150mm up against walls. Allow new 30mm screed to fall to channels with Flowcrete Rustik 10mm decorative stone carpet in resin all as per Manufacturer's Specifications.
- Allow new Sikaflex PRO-3 Joint Sealing Compound for all existing roof expansion joints
- Allow PC sum for replacement of access panel to water tanks

Penthouse roof detailed: Sheet ARC-008

Penthouse Roof Area (Boarded Torch-on):

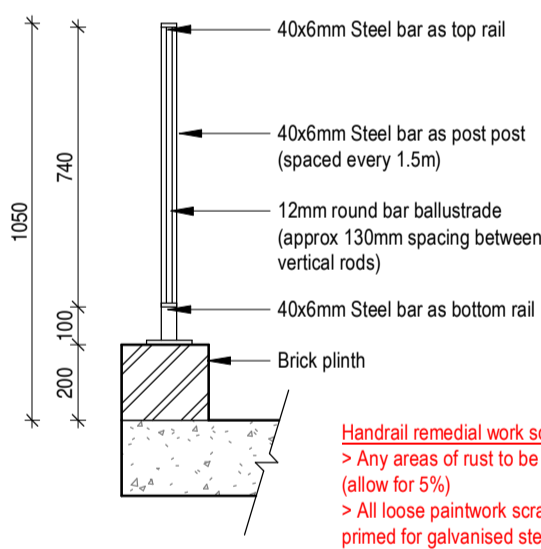
- Refer Structural Engineers details for replacement and remedial work to roof structure
- Refer to drawing ARC-008 for replacement of eaves, box gutters and fascias
- Allow for removal of dead pigeons and pigeon faeces within the roof and ceiling
- Allow for removal of existing torch on waterproofing membrane and timber boarded roof
- Allow for new One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch-fusion' finished with two coats bituminous aluminium paint, taken up and lapped over, across and down 150mm of parapet walls and upstands and 150mm up against the walls of the Plantroom, all on new boarded roof.
- Note allow for manipulation of existing cabling etc on the roof that needs to remain in order for new waterproofing and boarded roof to be installed
- Allow for removal of existing waterproofing to all formed rainwater channels
- Allow for cleaning out of water inlet pipes
- Allow for relining of existing waterproofing channels with new Derbigum SP4 waterproofing as above specification
- Allow for 3 off new Fullbore inlets and covers to be set into boarded roof and connect into existing rainwater downpipe
- Allow for repairs to damaged plaster capping to chimney brickwork and replacement of existing waterproofing with new Derbigum SP4 waterproof as above specification
- Allow for cosmetic renewal of plaster and painted chimney as per Plascon Specification for external paintwork



Main Building Roof Area:

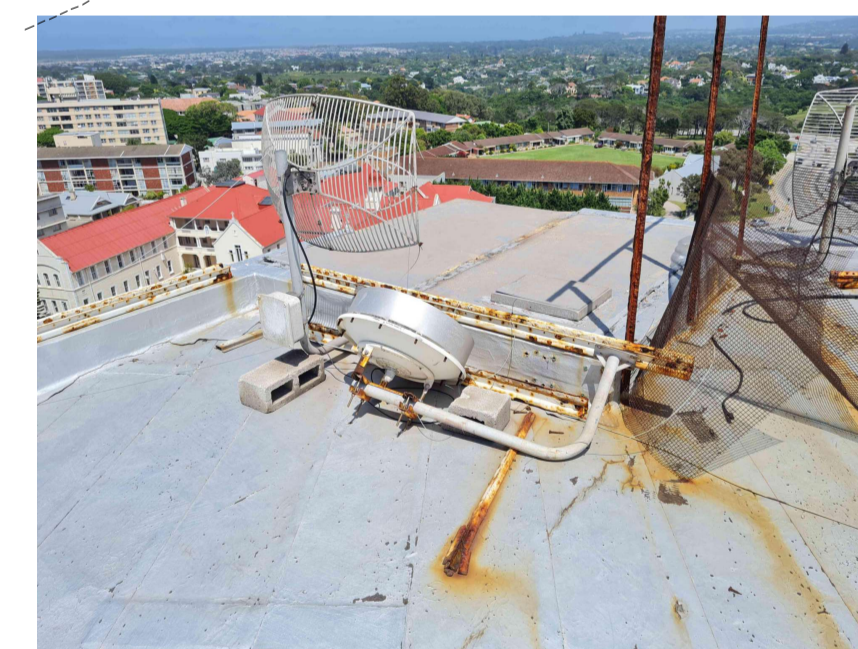
- Note: Generally this waterproofing is not in a bad condition - however there are numerous points of damage to the existing waterproofing.
- Allow for 15% patch repairs and localised replacement of damaged waterproofing
- Allow for removal of debris.
- Allow for temporary manipulation of services to enable waterproofing repairs and repainting
- Allow for cleaning down and preparing the existing waterproofing new for two coats bituminous aluminium paint
- Allow for 3 off new Fullbore inlets and covers to be set into existing concrete
- Allow for preparation and repainting of existing steel balustrade to detail as shown on drawing as per paint specification.
- Allow for minor localised repairs to balustrade
- Allow new Sikaflex PRO-3 Joint Sealing Compound for all existing roof expansion joints

**Main roof over building
Torch on waterproofing
Concrete
Area: 300m²**



Handrail remedial work scope specification:
 > Any areas of rust to be cut out and replaced (allow for 5%)
 > All loose paintwork scraped down appropriately primed for galvanised steel and entirely repainted

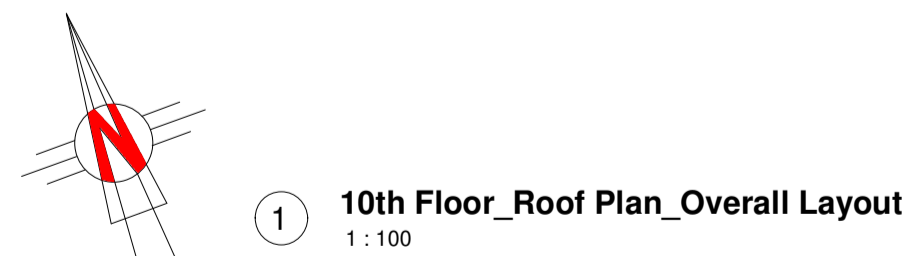
2 Typical Handrail Overall Building
1 : 20



Steel plate on plant room lift:
 This is the existing access panel for the penthouse watertank. It is in poor condition and should not be walked on. It covers a space which houses a small watertank feeding only the penthouse. Sheeting will likely need replacing.

Lift Plant Roof Area:

- Existing waterproofing to be removed and screed prepared for new waterproofing
- Waterproofing specification:
- One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch-fusion' finished with two coats bituminous aluminium paint, taken up and lapped over, across and down 150mm of parapet walls and upstands
- All waste on the roof to be removed (for example see photos 20221027_111819 and 20221027_111830)
- All surplus equipment feed to be removed (this will require specific identification and is an ongoing process)
- Allow for waterproofing around fixing arms and plugs
- Allow for removal of any old fixing arms and plugs
- Allow for removal of rusted and broken mesh screen
- Allow for 1 off new Fullbore inlets and covers to be set into existing concrete
- Allow for cleaning down and repainting of existing grms catladder as per paint specification



1 10th Floor_Roof Plan_Overall Layout
1 : 100

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2	Update for pricing	08/11/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoh
	Protea Flats - New GSA Offices
Date:	24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	b4 Architects
Professional Architect:	B Brinkman
Checked by:	B Brinkman
Sakhiwo Ref No:	

TITLE:	Overall Building Roof	
B4 Project Ref No.:	Architect DWG No.:	
305-019	ARC-011	
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1	Update for pricing	08/11/2023
2	Update for Pricing	20/11/2023
3	Issued for Pricing	24/11/2023
4	Issued for Tender	27/11/2023

PROJECT: ECDoH
Protea Flats - New GSA Offices

TITLE: Site Plan

Scale: 1 : 200

Date: 24 November 2023

Drawn by: R Groenewald

Designer: -

Professional Architect: B Brinkman

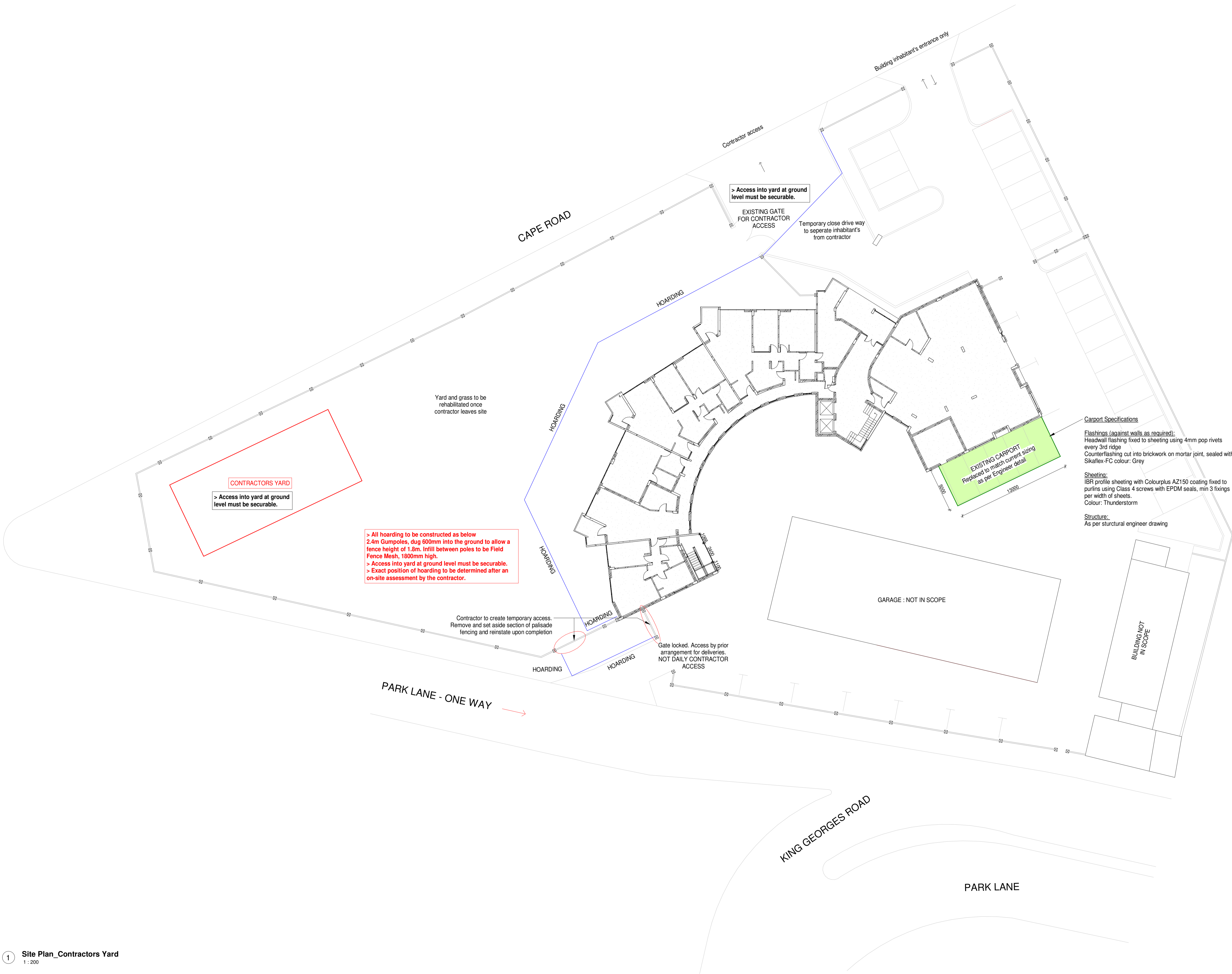
Checked by: B Brinkman

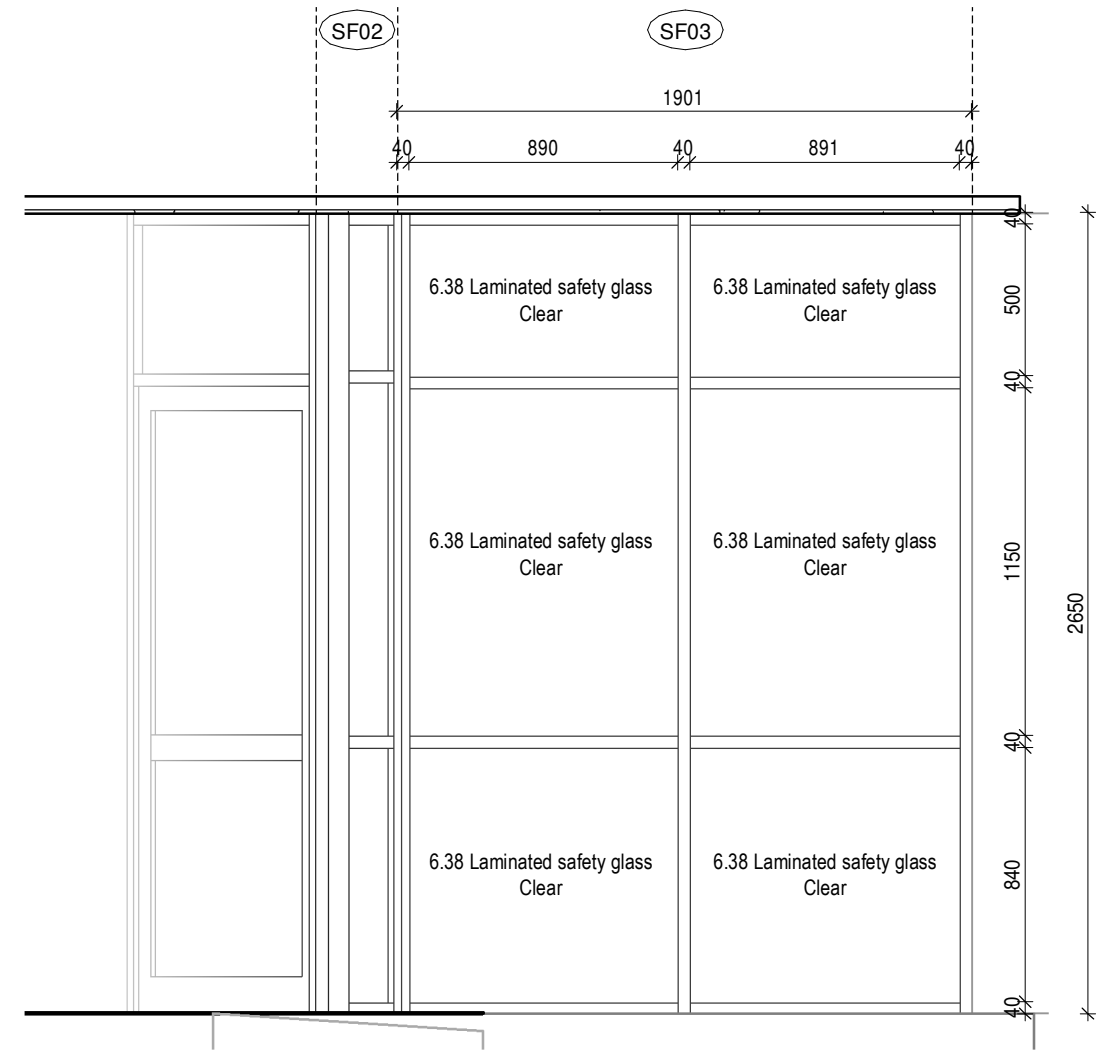
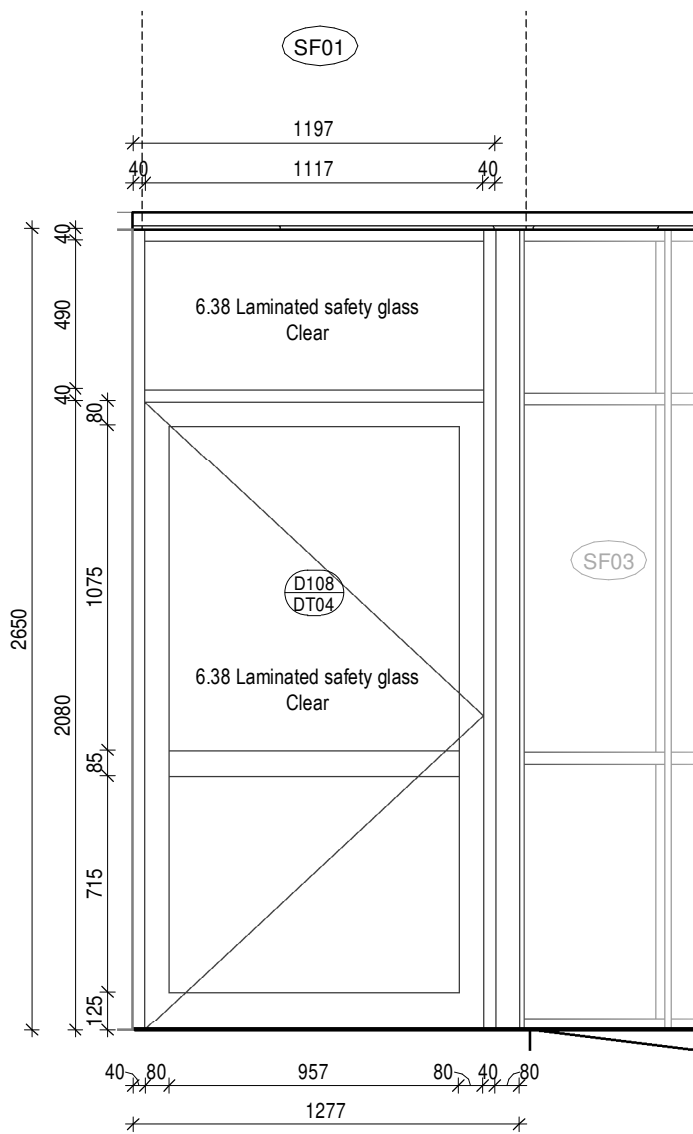
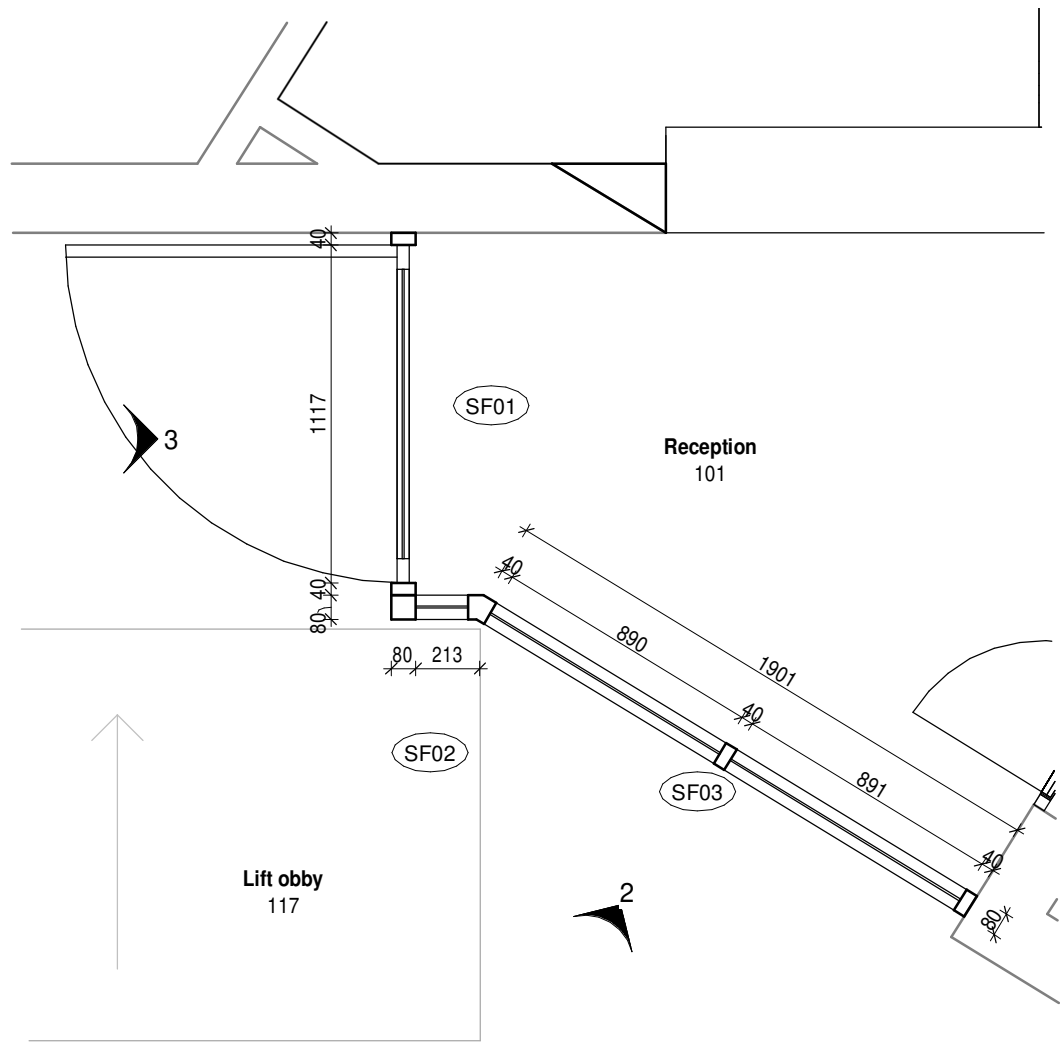
Sakhiwo Ref No:

B4 Project Ref No.: Architect DWG No:

305-019 SIT-001

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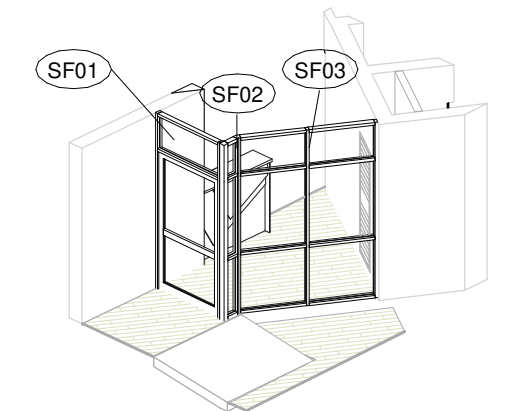




1 Shopfront SF01, SF02, SF03_Plan
1 : 25

3 Shopfront SF01_Elevation
1 : 25

2 Shopfront SF02, SF03_Elevation
1 : 25



4 Shopfront SF01_Isometric

Shopfront Schedule SF01, SF02, SF03

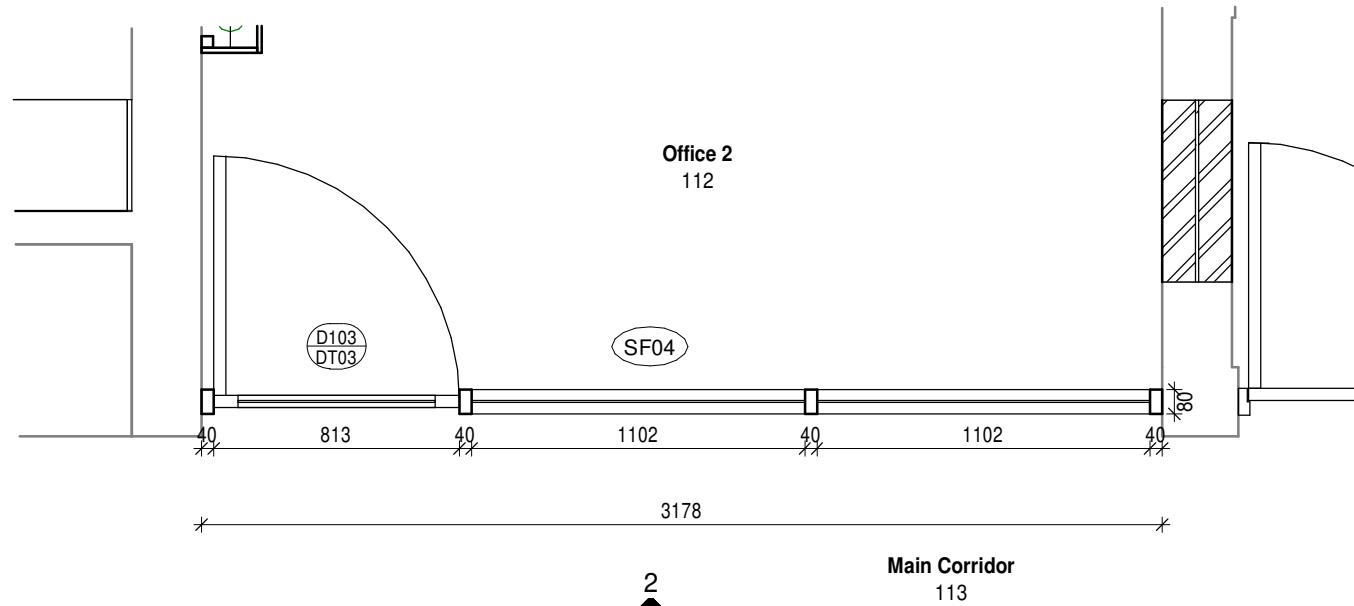
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02	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings
03	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings

No.	Description	Date
1	Issued for pricing	2019/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

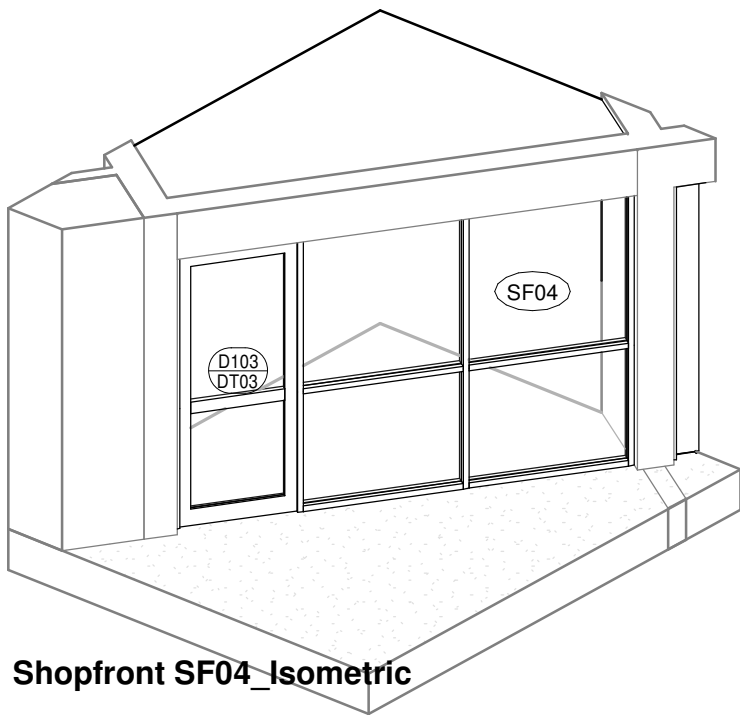
PROJECT:	ECDoH Protea Flats - New GSA Offices
Sakhiwo Ref No:	
Date:	24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

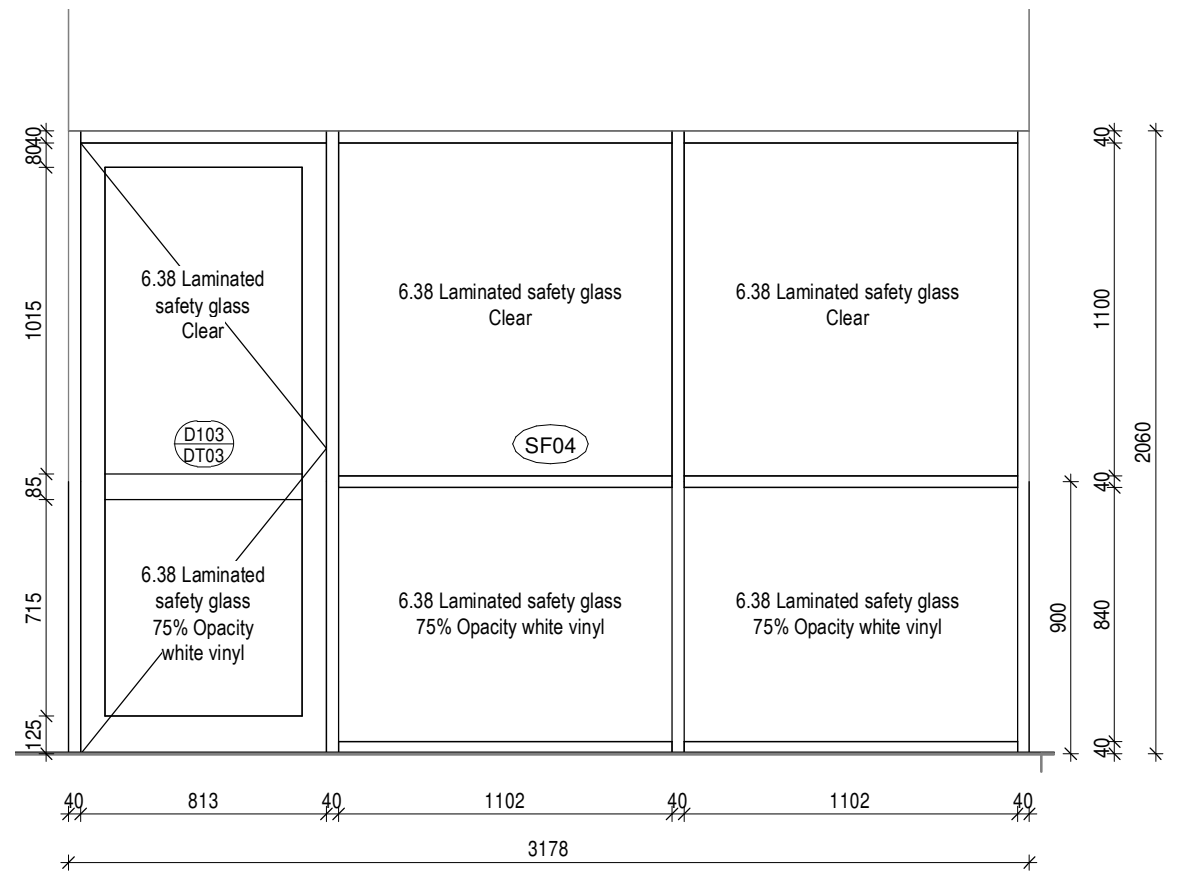
TITLE:	Shopfront Schedule SF01, SF02, SF03
B4 Project Ref No.:	Architect DWG No.:
305-019	SHF-001
FOR TENDER ONLY	
REV	3



1 Shopfront SF04
1 : 25

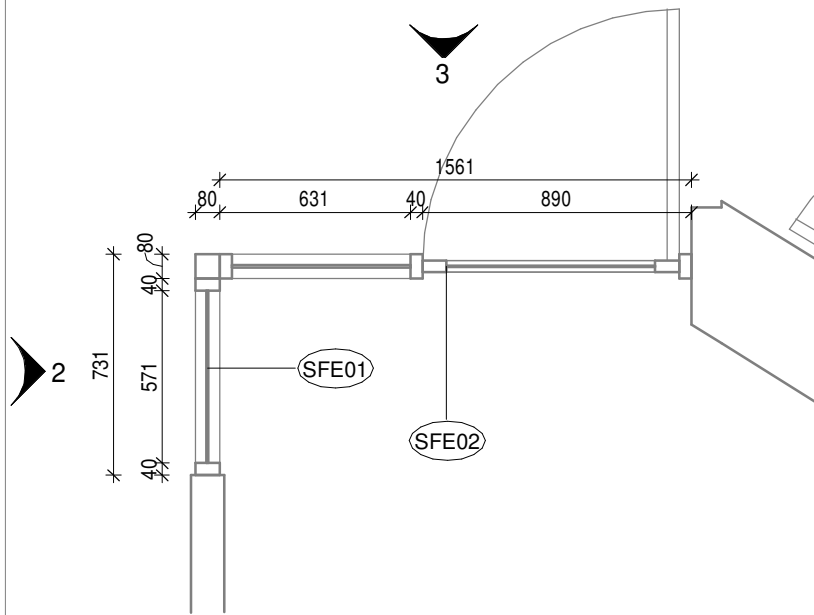


3 Shopfront SF04_Isometric

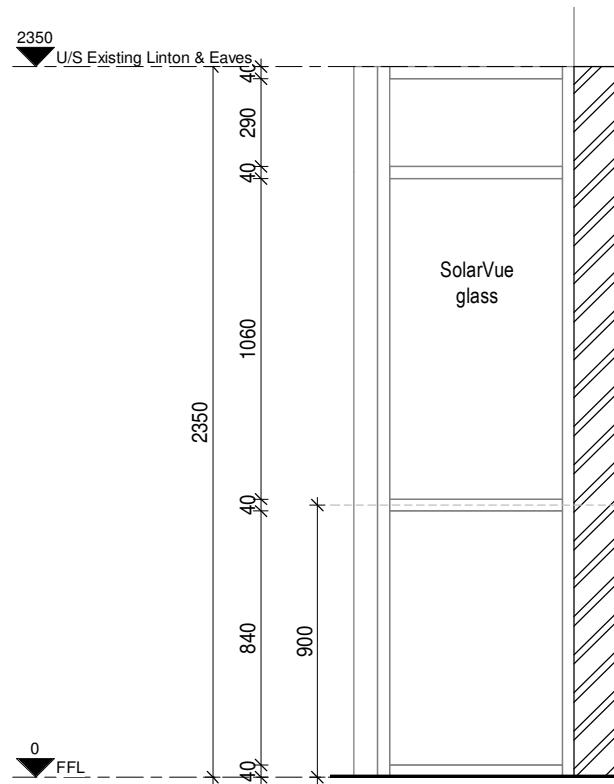


2 Shopfront SF04_Elevation
1 : 25

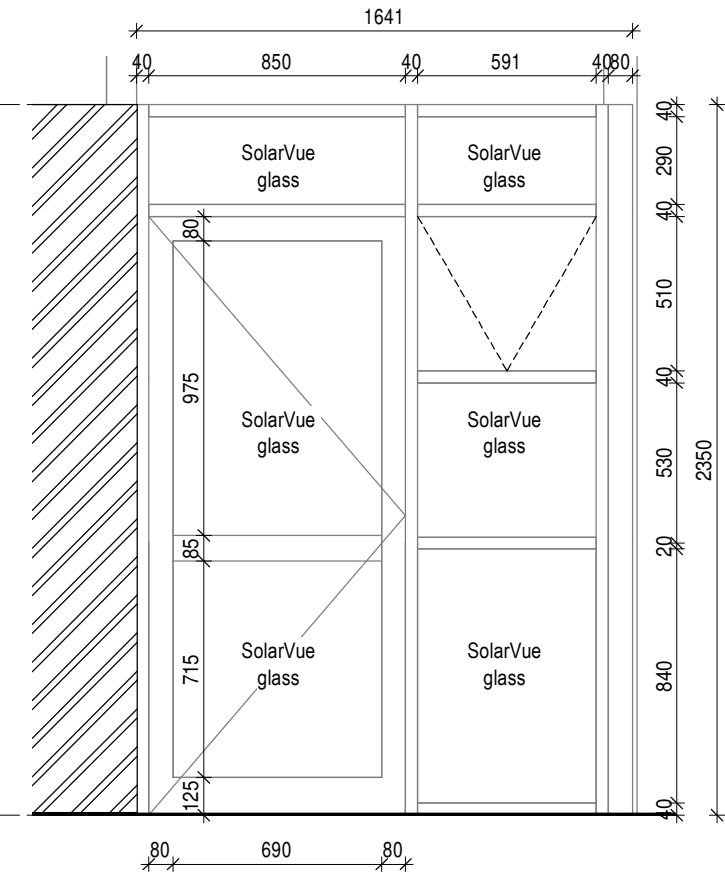
Shopfront Schedule SF04			
Mark	Comments	Family and Type	Vinyl Decal
04	Typical aluminium frame structure, 80x30mm Mullions, 6.38mm Clear laminated safety glass	Curtain Wall: Curtain Wall_Generic	As per detail drawings



1 Shopfront SFE01, SFE02_Plan
1 : 25



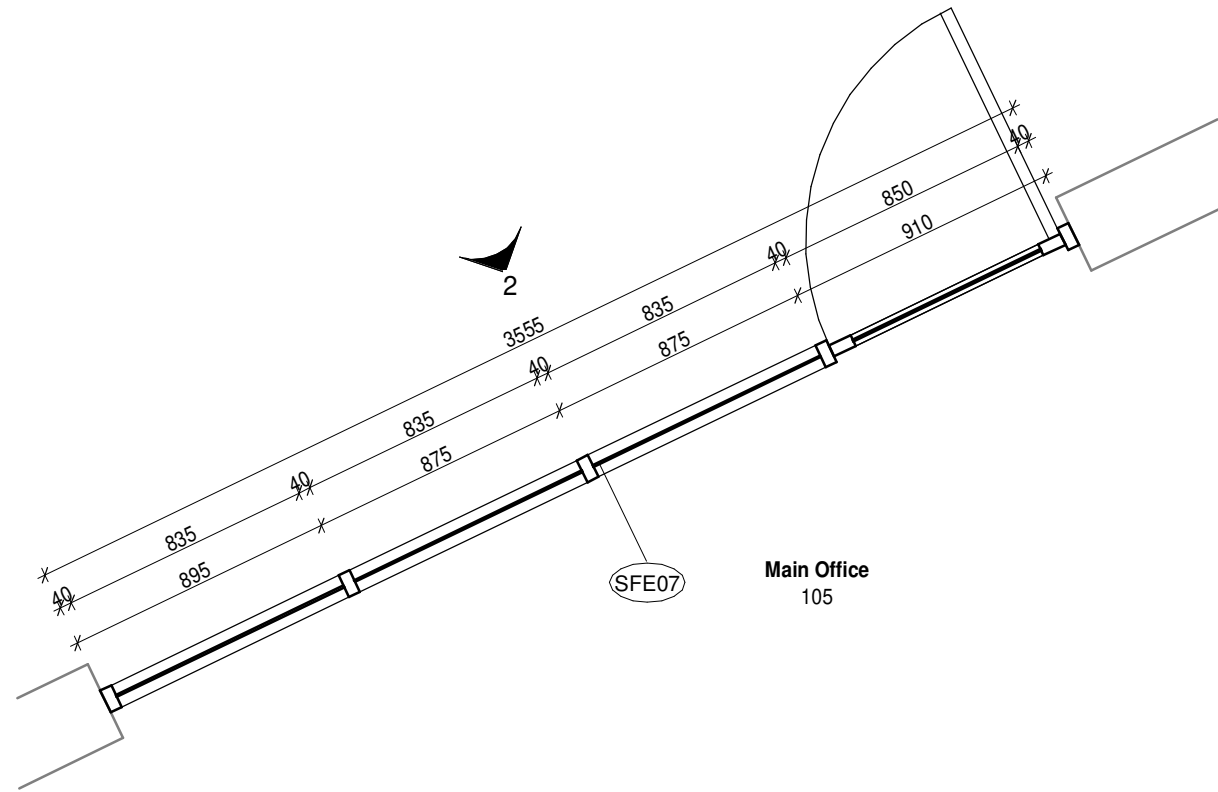
2 Shopfront SFE01_Elevation
1 : 25



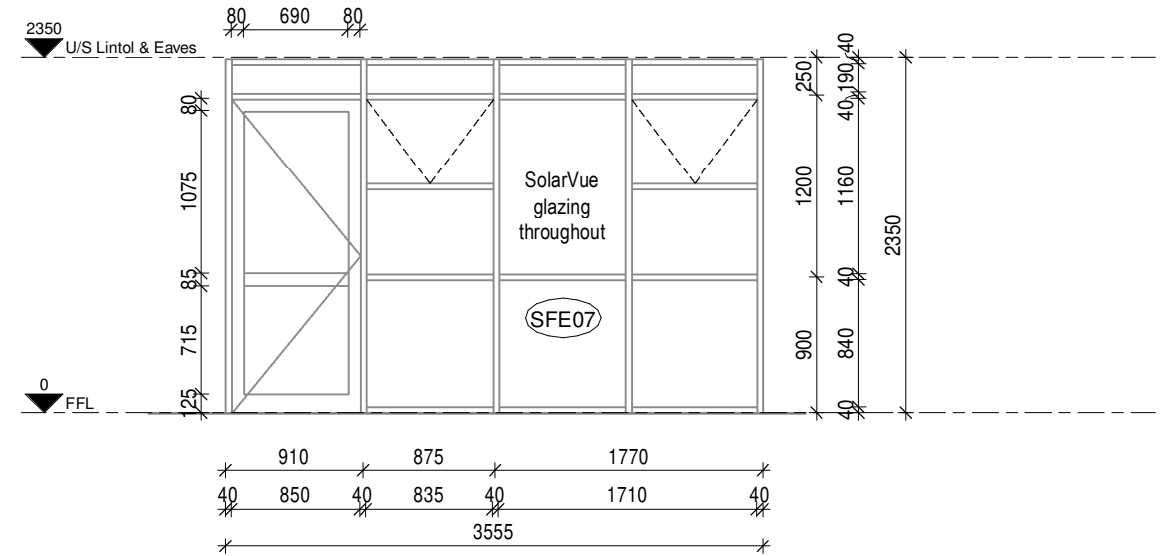
3 Shopfront SFE02_Elevation
1 : 25

Shopfront Schedule SFE01, SHE02

Mark	Comments	Vinyl Decal	Glazing
E01	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E02	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E03	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E04	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E05	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E06	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
E07	Typical aluminium frame structure, 80x40mm Mullions	Glass tinting specification to follow	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)



1 Shopfront SFE07 - Plan
1 : 25



2 Shopfront SFE07 - External Elevation
1 : 50

Shopfront Schedule SFE07, SFE08

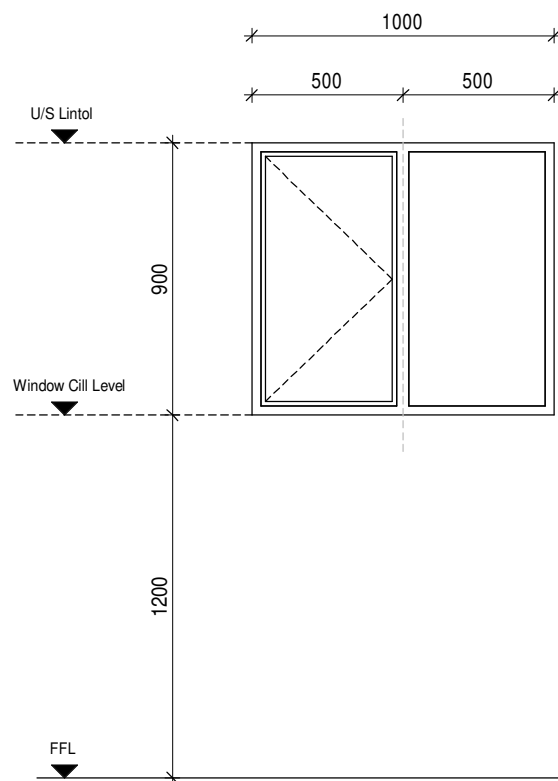
Mark	Comments	Glazing	Vinyl Decal
E01	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E02	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E03	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E04	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E05	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E06	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow
E07	Typical aluminium frame structure, 80x40mm Mullions	6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)	Glass tinting specification to follow

No.	Description	Date
1	Issued for pricing	2010/02/03
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023

PROJECT:	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Shopfront Schedule SFE07
B4 Project Ref No.:	Architect DWG No:
305-019	SHF-E03
FOR TENDER ONLY	
REV	3



Standard aluminium window to specialist detail.
 Colour: Charcoal
 Glazing: 6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)
 Note: Window to replace existing steel window

○ **WT01**
1 : 25

No.	Description	Date
1	Issued for pricing	2010/2023
2	Update for pricing	15/11/2023
3	Issued for Tender	27/11/2023
REVISIONS		

PROJECT	ECDoH
	Protea Flats - New GSA Offices
	Sakhiwo Ref No:
	Date: 24 November 2023

Scale:	1 : 25
Drawn by:	J Thomson
Designer:	b4 Architects
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE:	Window Type WT01	
B4 Project Ref No.:	Architect DWG No.:	
305-019	WIN-001	
FOR TENDER ONLY		
	REV	3

EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: NEW GSA OFFICES
ALUMINIUM SPECIFICATION

EASTERN CAPE
DEPARTMENT OF HEALTH

PROTEA FLATS
New GSA Offices

ALUMINIUM
WINDOWS & SHOPFRONTS
SPECIFICATION

Rev 1

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: NEW GSA OFFICES
ALUMINIUM SPECIFICATION**

DOCUMENT NUMBER: 305-019/ALU-001
DOCUMENT NAME: Aluminium Specifcation
REVISION: -

ISSUED FOR TENDER PURPOSES

NOTES:

1. Items indicated in **red** shows revised specifications.
2. Items indicated in **blue** show specifications under review.
3. Items indicated in **green** show new/additional specifications.
4. All descriptions should be read in conjunction with detail drawings

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: NEW GSA OFFICES
ALUMINIUM SPECIFICATION**

GENERAL NOTES

1. All manufacturing should only take place once shop drawings are received and approved by architect
2. Manufacturer and installer must be registered with AAMSA
3. All installations must comply with SANS

EXTERNAL SHOPFRONTS

Description / Notes	Replacement of existing Boardroom shopfront
Room	103, 104, 105

External shopfront may need to be designed by a Façade engineer due to high wind loads.

Specialist subcontractor should assess site conditions and design system capable of withstanding expected wind loads of the building location.

Mullion Sizing recommendation is:

Member sizing should be a minimum of 40x80mm for vertical and horizontal mullions

Layout of shopfront and opening sections should be as per attached drawings.

Glass should be of a thermally rated construction, designed to limit glare and heat ingress.

Consideration should be given to the reflectivity of the glass as the building is on a major route and glare to public may be an issue.

Glazing recommendation is:

6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)

Or

8,38mm Solarvue Neutral HL/12AG/8,38mm Clear Low E Inner. (4,2 sqm max)

INTERNAL SHOPFRONTS

Description / Notes	New internal shopfront
Room	101, 112

Subcontractor should assess site conditions and design system using thinnest mullion structure suitable.

Mullion Sizing recommendation is:

Member sizing should be a maximum of 30x80mm for vertical and horizontal mullions

Layout of shopfront and opening sections should be as per attached drawings.

Glass should be standard clear laminated safety glass, with a vinyl decal applied for privacy as detailed on attached drawings.

Glazing recommendation is:

6,38mm Lmainated safety glass

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: NEW GSA OFFICES
ALUMINIUM SPECIFICATION**

EXTERNAL WINDOW REPLACEMENTS

Description / Notes	Replacement of existing window
Room	105

Windows need to be manufactured to fit existing openings
Framework used should take into account the existing steel windows which are been replaced.

The glazing used should be of a thermally rated construction, designed to limit glare and heat ingress.
Consideration should be given to the reflectivity of the glass as the building is on a major route and glare to public may be an issue.

Glazing recommendation is:

6,38mm Solarvue Neutral HL/12AG/6,38mm Clear Low E Inner. (2,9 sqm max)

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ACTS OF PARLIAMENT

All Contractors shall ensure that, before any work is put in hand, they comply with all the necessary Acts of Parliament of the Republic of South Africa.

All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS

Contractor must verify and check all dimensions on site prior to commencing any works, shop drawings or fabrications. Do not scale this drawing. Any discrepancies should be immediately referred to the Architect.

IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for Information	22/11/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

ECDoH

PROJECT: Protea Flats - New GSA Offices

TITLE: Fire Escape Stair Ballustrade & Screen Details

Scale: As indicated

Date: 24 November 2023

Drawn by: J Thomson

Designer: J Thomson

Professional Architect: B Brinkman

Checked by: B Brinkman

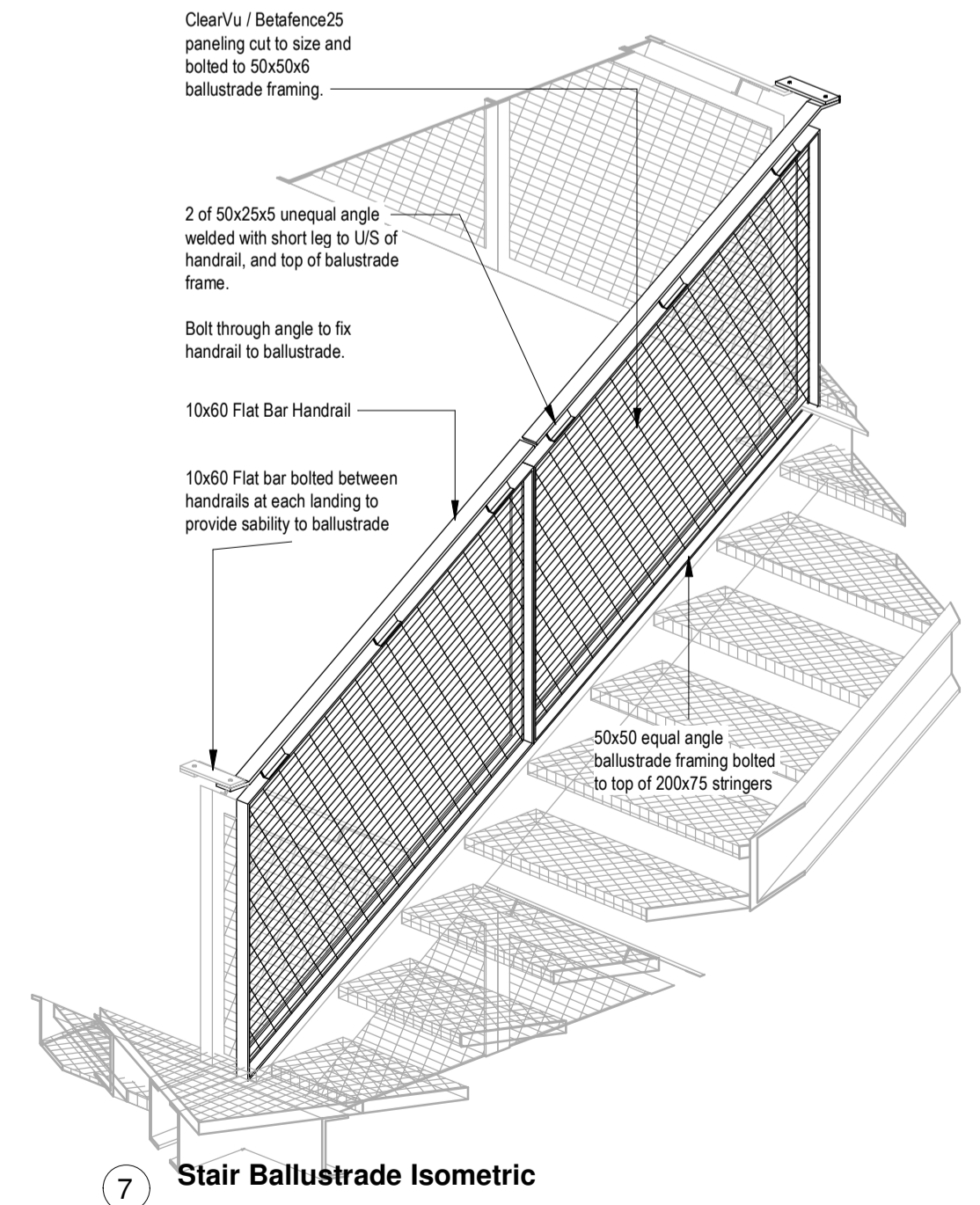
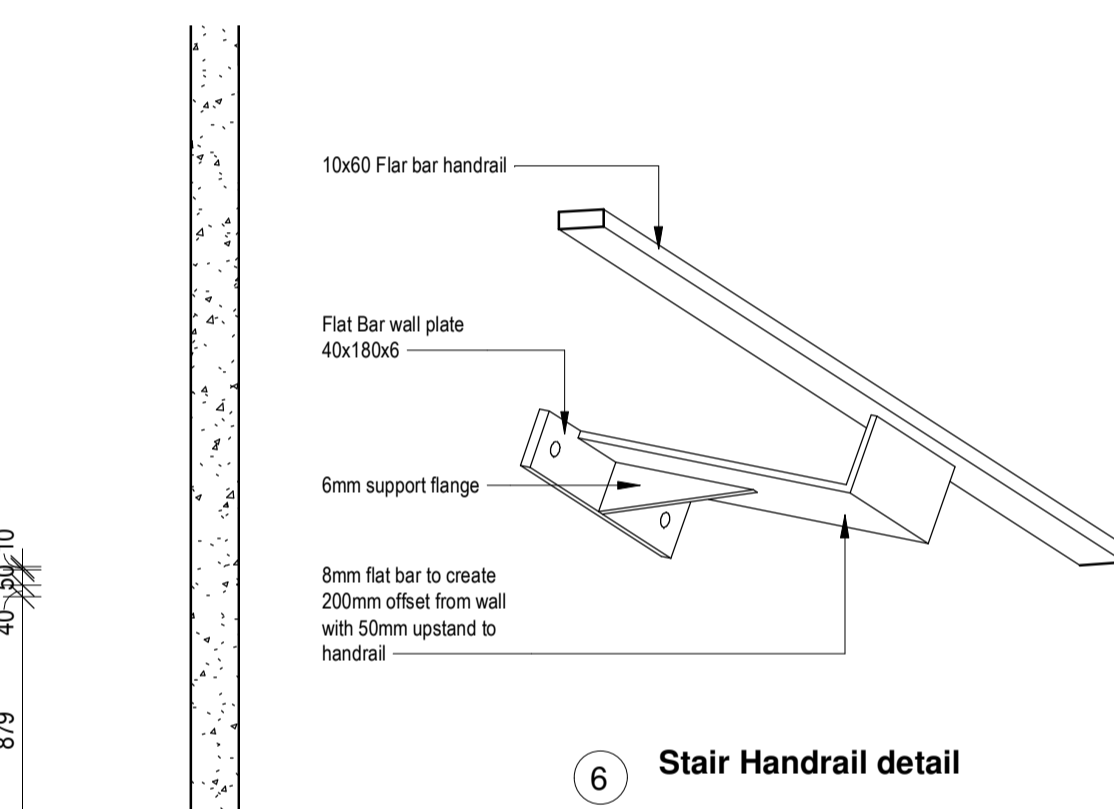
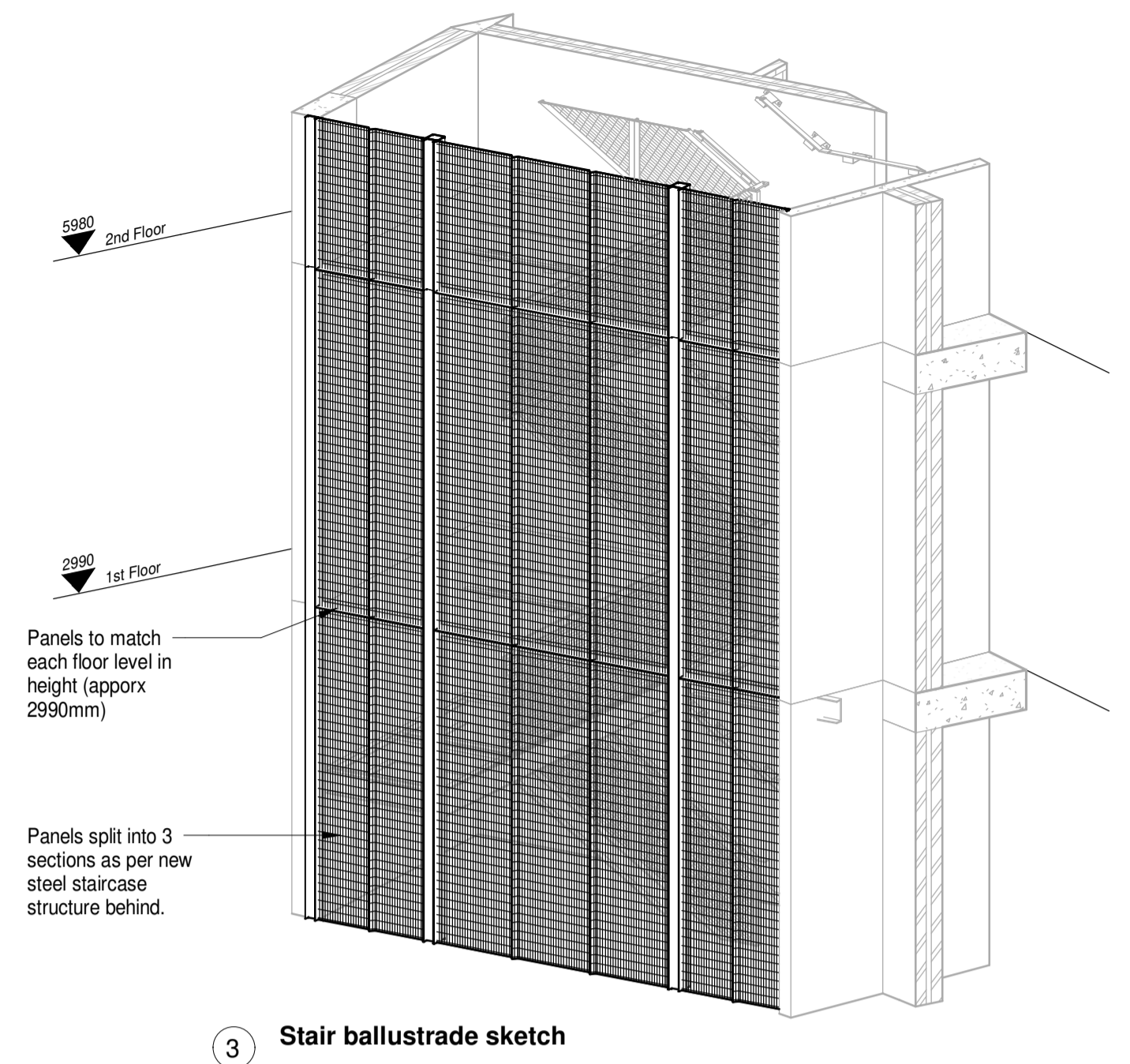
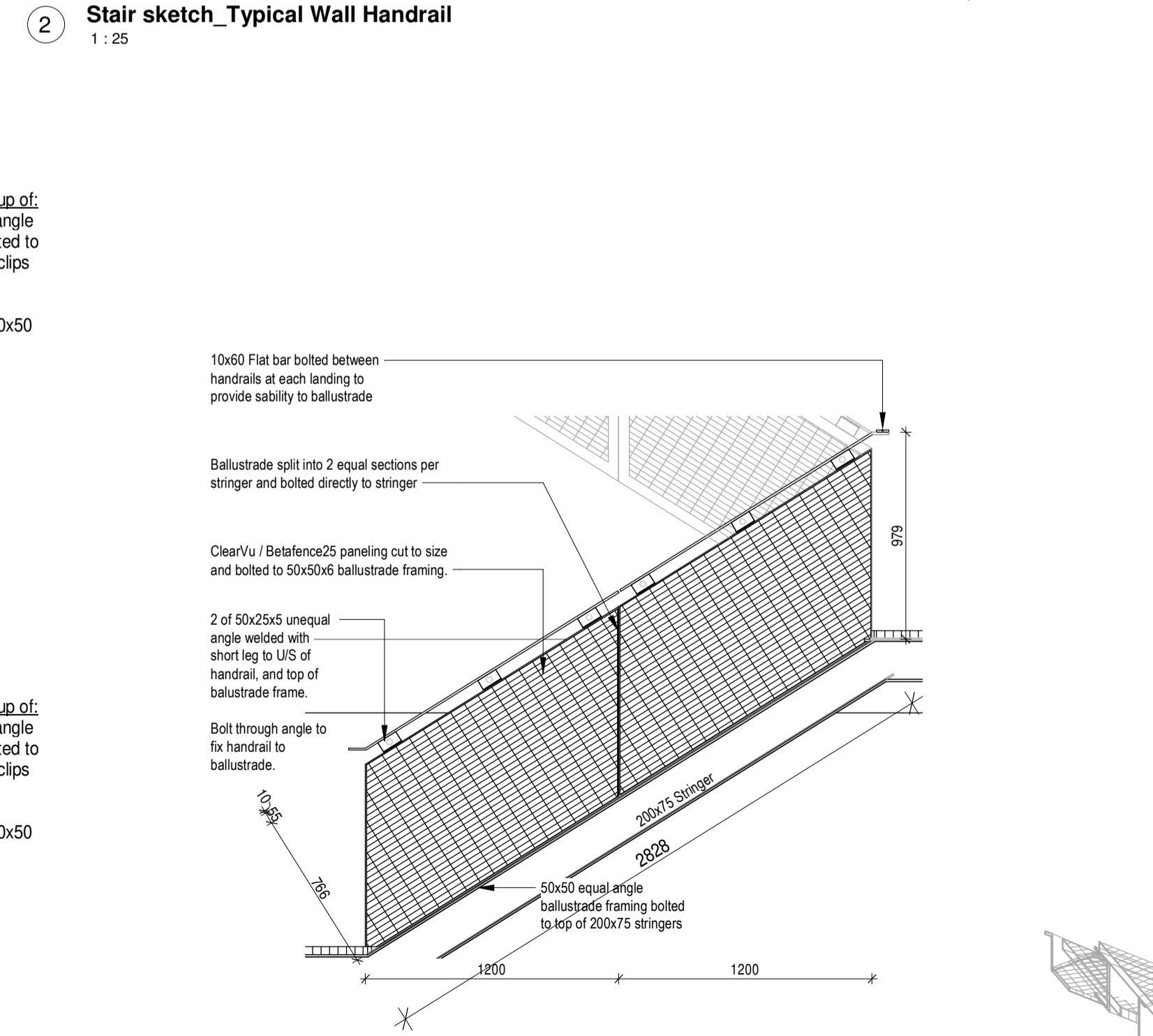
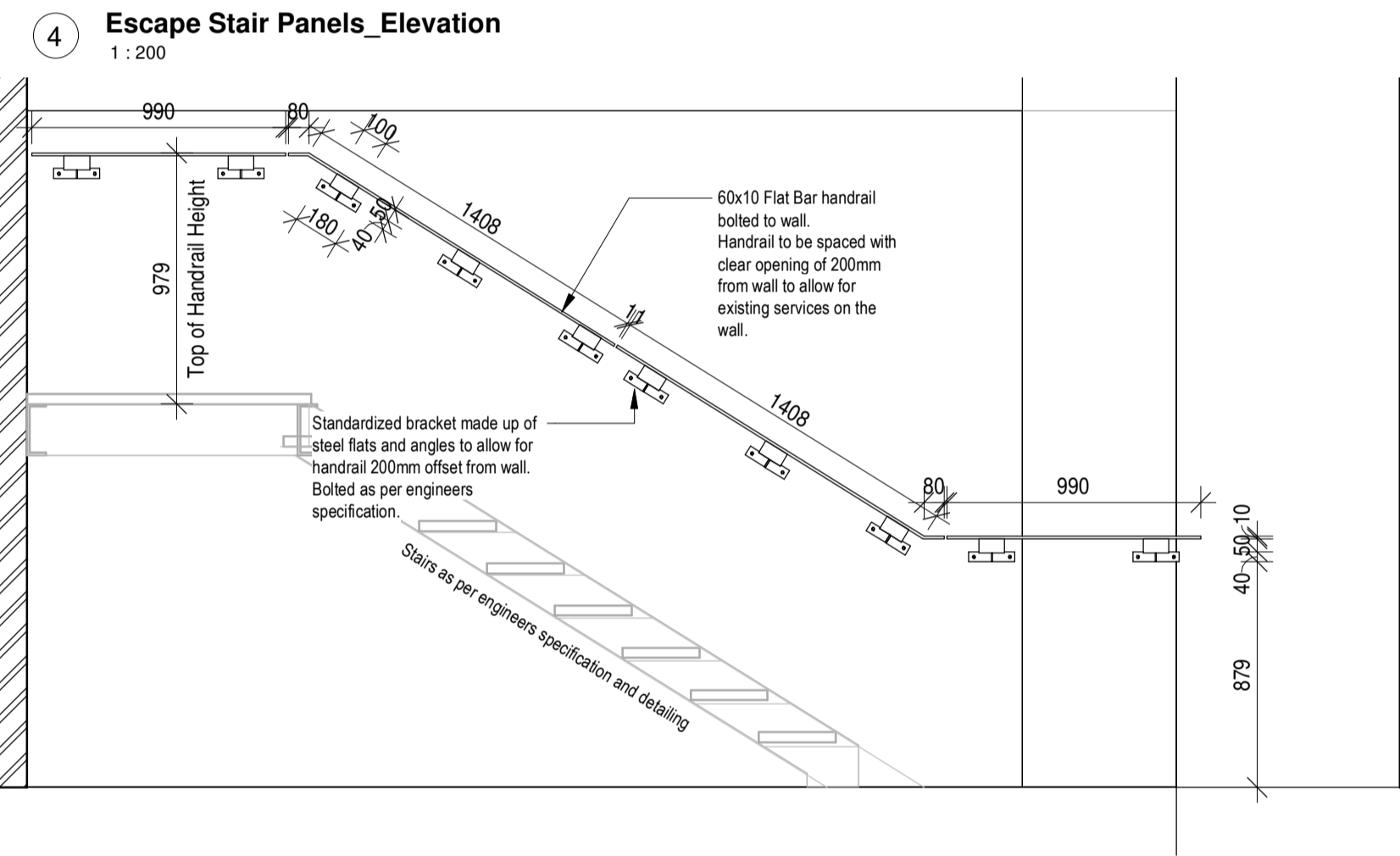
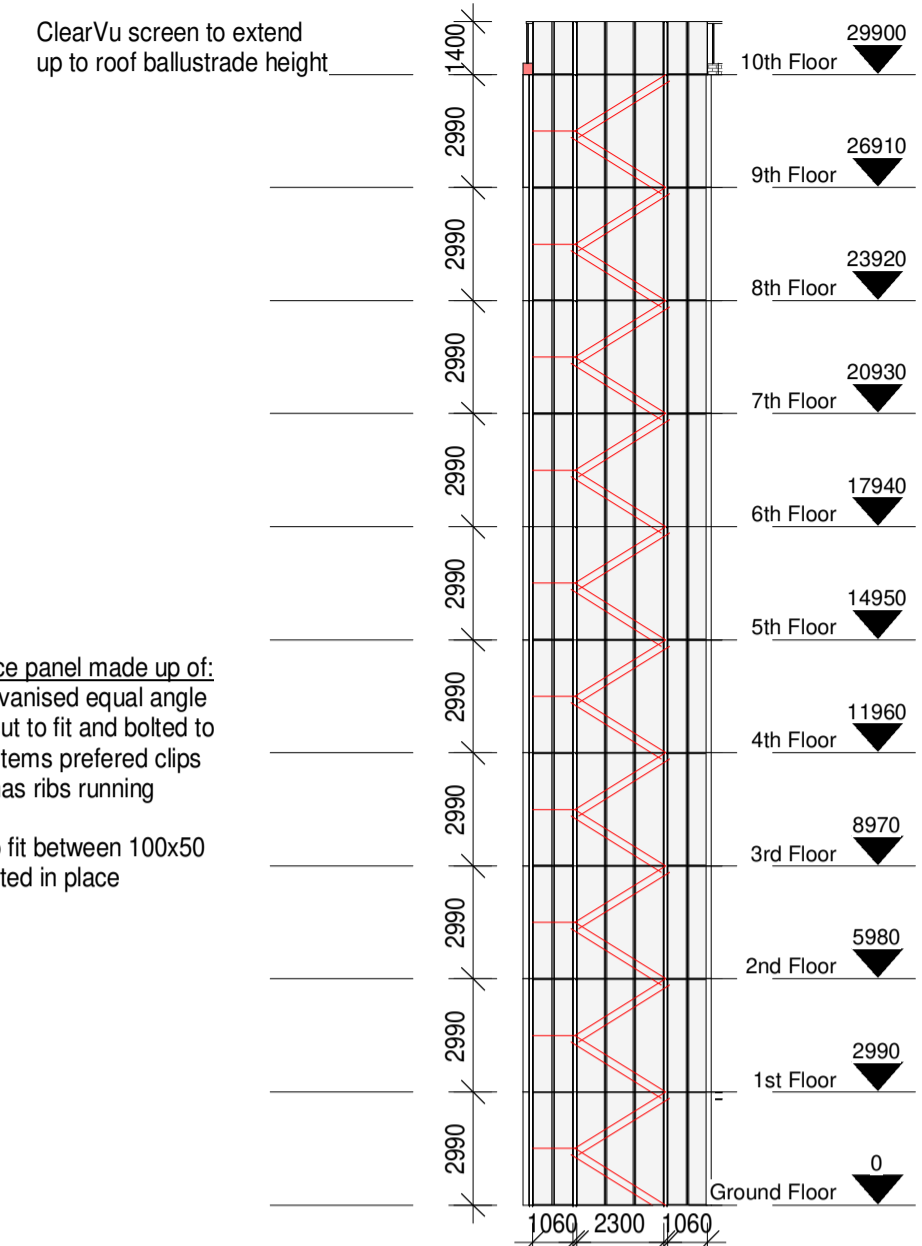
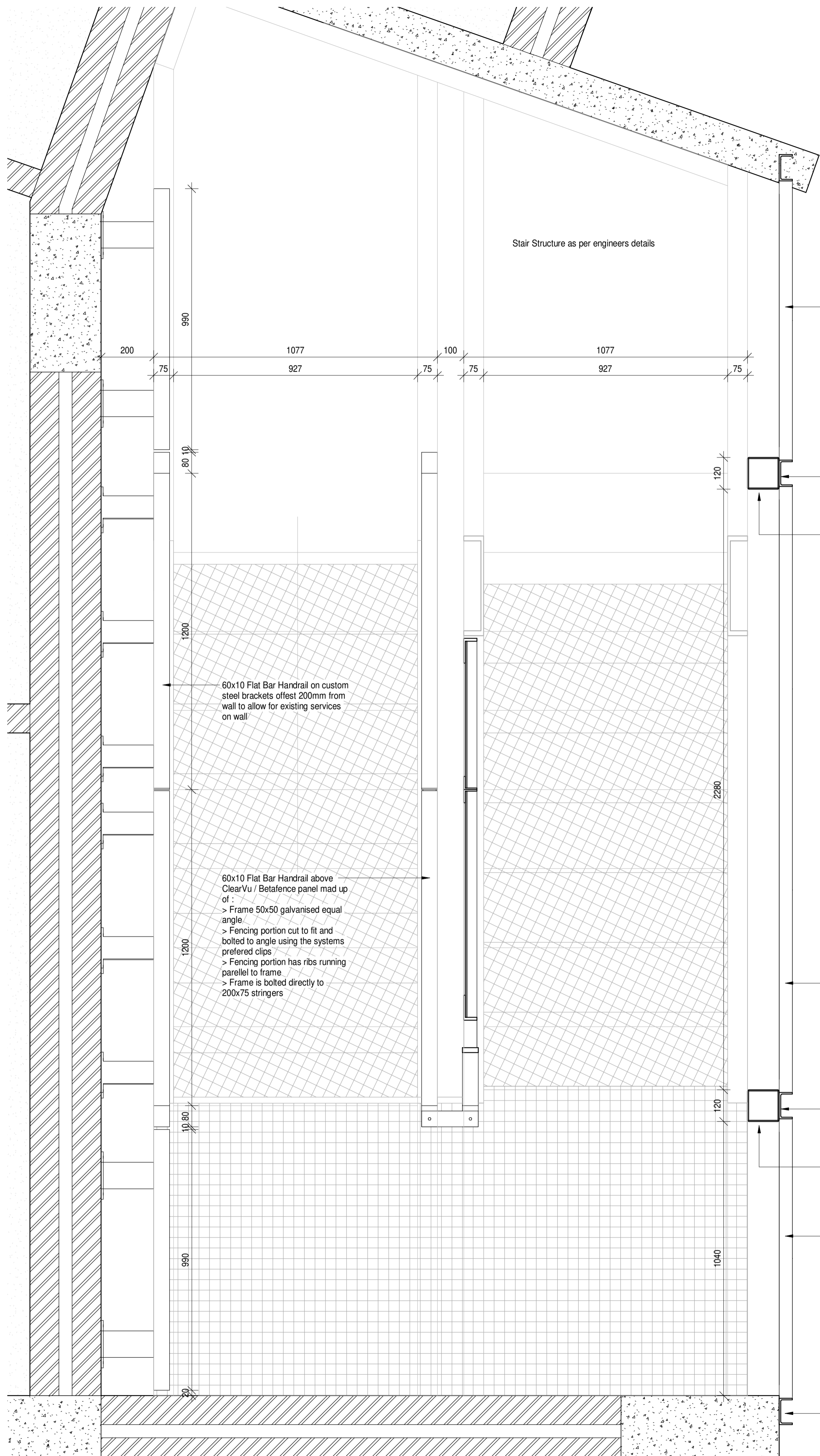
Sakhiwo Ref No:

B4 Project Ref No.: Architect DWG No:

305-019 DET-002

FOR TENDER ONLY

REV: 2





PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

PROFESSIONAL: B4 Architects

CONSULTANT: Shaun Harvey

REVISION: v 1

REPORT DATE: 14/11/2023

dormakaba 

Project Information

All aspects of this Door Hardware Schedule should be checked and confirmed with all the current documentation available for this project by the hardware distributor prior to the ordering of any hardware.

- For pricing of this door hardware schedule, please contact your regular architectural hardware distributor or contact **dormakaba** for a list of distributors in your area. Alternatively, product and pricing assistance can be obtained via info.za@dormakaba.com
- Door and frame details (including sizes) shown in this door hardware schedule are indicative only and only used as a guide to hardware requirements. All door and frame details should be confirmed from the Architect's most recent documentation.
- If **dormakaba** Automatic doors have been noted in this specification, the full specification, pricing and installation details should be confirmed and priced by **dormakaba**. Please contact your preferred dormakaba consultant for further information.
- All non **dormakaba** hardware specified in this door hardware schedule must be checked with the relevant manufacturer for suitability and availability by the hardware distributor prior to ordering of the hardware.
- The hardware distributor will need to confirm all handing of all products from the latest floor plans prior to the ordering of any hardware. This includes, but is not limited to, all handed locks, furniture, offset pivots, lift-off hinges, etc.
- Where the **dormakaba** ED Series are specified, the provision / installation of fire stopping products or material to penetrations is not allowed for under the **dormakaba** scope of works. This to be carried out by others.
- Panic Bars (where specified) will need to have final sizes confirmed with actual door widths and heights by the hardware distributor prior to ordering.
- Where surface mounted door closers have been scheduled, they should generally be installed to the less visible side of the door. The door closers scheduled require minimum nib room of 60mm when mounted to the pull side of the door.
- Where surface mounted door closers have been scheduled to aluminium or timber glazed doors, a larger top rail (nominal 110mm) should be specified to allow for secure mounting of the door closer. The hardware distributor is to confirm with the door supplier the need for a drop or trim plate.
- Where kickplates have been specified, the builder should organize and allow for the cost of providing final kickplate measurements to the hardware distributor prior to ordering.
- Where door seals have been specified, the hardware distributor will need to confirm the seal sizes and types are compatible with the actual door type, door widths and heights prior to ordering.
- Where seals have been specified to match acoustic requirements, the acoustic consultant is to confirm these seals are suitable to achieve the acoustic ratings required. The door hardware specified may need to be altered if different seals are used.
- Where seals have been specified to smoke doors, the fire / smoke door contractor is to confirm these seals are suitable to comply with the SABS requirements for this project. The door hardware specified may need to be altered if different seals are used.

Project Information

- Where access control and security products have been scheduled, they are only indicatively specified in this door hardware schedule. For full details and specifications refer to the separate Access Control Quotation. The electronic products included in this door hardware schedule should be checked and coordinated with the information shown on the separate Access Control Quotation to ensure adequate power and cabling has been allowed for. The builder is to confirm that the electronic products included in this door hardware schedule are to be part of the hardware distributor's package.
- Refer to individual doors, hardware sets and products for notes that will need to be addressed.

Abbreviations used, finishes and descriptions

CYL	Cylinder
MK	Master Keyed
GMK	Grand Master Keyed
KA	Keyed Alike
KD	Keyed to Differ
BT	Bolt Through
BTB	Back to Back
LH	Left Hand
RH	Right Hand
N/S	Narrow Stile
H/O	Hold Open
D/A	Delayed Action
DD	Double Door
SLD	Sliding Door
EAC	Electronic Access Control
PSS	Polished Stainless Steel
SSS	Satin Stainless Steel
SS	Stainless Steel
GAL	Galvanized
ZP	Zinc Plated
PB	Polished Brass
SB	Satin Brass
PCP	Polished and Chrome Plated
SCP	Satin Chrome Plated
PNP	Polished Nickel Plated
SNP	Satin Nickel Plated
PC	Powder Coated
EP	Electro-plating
PVD	Physical Vapor Disposition

Colouring Legend

	Door / Product has been added to this revision.
	Door / Product has changed since the last revision.
	Door / Product has been removed from this revision.

Control List

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Door Number	Hardware Set	Area	Location	Door Type	Handing	MK	Door Material	Fire Rating
D109	01	10TH FLOOR	BOARDROOM	S01	SGD	MK1	ALUMINIUM	
D106	02	10TH FLOOR	PASSAGE	DT02	SA	MK1	ALUMINIUM	
D107	03	10TH FLOOR	DUCT	DT05	SA	MK1	TIMBER	
D103	04	10TH FLOOR	OFFICE	DT03	SA	MK1	ALUMINIUM	
D104	11	10TH FLOOR	BATHROOM	DT01	SA		TIMBER	
D105	05	10TH FLOOR	WC	DT01	SA		TIMBER	
D102	07	10TH FLOOR	MAIN OFFICE	DT02	SA	MK1	ALUMINIUM	
D101	06	10TH FLOOR	STORE	DT01	SA	MK1	TIMBER	
D108	08	10TH FLOOR	RECEPTION	DT04	SA	MK1	ALUMINIUM	
D!	09	9TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	10TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	10	10TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	09	8TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	7TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	6TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	5TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	4TH FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	3RD FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	2ND FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	1ST FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	09	GROUND FLOOR	FIRE ESCAPE	FD01	SA		FD MATERIAL	Y
D!	10	9TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	8TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	7TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	6TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	5TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	4TH FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	3RD FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y
D!	10	2ND FLOOR	LIFT LOBBY	FD02	SA 1,5 LEAF		FD MATERIAL	Y

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		01		
Hardware Set Quantity :	1			
Notes				
Doors (1)	D109			
Product Code	Description	Finish	Qty	Units
SDABO	Sliding door accessories, track, hangers guides and stops by other to architects approval		1	Each
DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	4	Each
D02935 SS	dormakaba Narrow Stile Hook Lock Operating with European Profile Cylinder. Case dimensions (mm) 174H x 45D. Forend dimensions (mm) 290H x 22W. Backset 35mm. 18mm Throw	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-105 S.S	dormakaba Narrow Stile Cylinder escutcheon	Stainless Steel	1	Pair

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		02		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Prepare Doorstyle With "Timber Insert" Ensuring Stable Fixing Of Specified Pull Handles. Aluninium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth.			
Doors (1)	D106			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TS91B HO - SL	dormakaba MECHANICAL HOLD OPEN Cam action slide channel door closer. Max door width 950mm. Closing Force EN 3. Hydraulic speed control. Pull-side door leaf fixing (Standard), Push-side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001. NOTE: Door closer to be installed on pull side	Silver	1	Each
DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	1	Pair
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	1	Pair
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		03		
Hardware Set Quantity :	1			
Notes	Half Cylinder Fitted To Outside Frame Prepared To Accept Roller Catch.			
Doors (1)	D107			
Product Code	Description	Finish	Qty	Units
HBSFM	Other Hinges by steel frame manufacturer.		0	Each
DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	1	Each
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DSC204101 MK	dormakaba 40.5 - Europrofile Nickel Plated E-SP 5 Pin Single Cylinder - Master Keyed	Satin Nickel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	0.5	Pair
DBC-SS-022	dormakaba Adjustable Roller Bolt	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		04		
Hardware Set Quantity :	1			
Notes	Male/Female Screws To Be Used to Fix Lever Furniture To Door. Through Fix Through The Lockcase. Grub Screw On Underside Of Lever Furniture Tightened Into Groove Of Spindle. Spindle Orientation To Be Correct. Wood Screws (4) Top And Bottom Of Rose To Be Utilised As Additional Securing. Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth.			
Doors (1)	D103			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDH-SS-020	dormakaba Wall Buffer NOTE: Buffer positioned to prevent pull handle hitting wall. Wall mounted accordingly	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		05		
Hardware Set Quantity :	1			
Notes	Handing Of Lever Furniture To Be Confirmed Prior To Ordering.			
Doors (1)	D105			
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1	Set
D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	1	Each
DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	2	Each

HARDWARE PER SET



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		06		
Hardware Set Quantity :	1			
Notes				
Doors (1)	D101			
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP Cyl S.S	dormakaba Lever handle on 170x170 plate with Cylinder cutout	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		07		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth. Male/Female Screws To Be Used To Fix Lever Furniture To Door. Through Fix Through The Lockcase. Grub Screw On Underside Of Lever Furniture Tightened Into Groove Of Spindle. Spindle Orientation To Be Correct. Wood Screws (4) Top And Bottom Of Rose To Be Utilised As Additional Securing.			
Doors (1)	D102			
Product Code	Description	Finish	Qty	Units
1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		1.5	Pair
TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	1	Set
D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	1	Each
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Hardware for Set:		08		
Hardware Set Quantity :	1			
Notes	Aluminium Fabricator To Prepare Doorstyle With "Timber Insert" Ensuring Stable Fixing Of Specified Pull Handles. Aluminium Fabricator To Utilise R4 - 85mm Upright Styles. This Needed To Suit Lockcase Depth. Doorcloser Fitted To Inside, Parallel Arm Fixing.			
Doors (1)	D108			
Product Code	Description	Finish	Qty	Units
2040	Alufab 2040 200mm Aluminium Sinkless Hinges, Centre Pin, Anodised		3	Each
TS83 PA HO	dormakaba EN 3-6 Parallel Arm HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part1 Fire Resistant Doors. Certified manufacturer to ISO 9001 NOTE: Parallel Arm Bracket (Rack & Pinion) to be used for push-side fixing. Please note fixing instructions supplied with the product	Silver	1	Set
TS73v or TS83 Drop Plate	dormakaba Drop Plate Only For installation on frame when direct fixing of closer is not possible.	-	1	Each
DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	1	Pair
D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	1	Each
DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	1	Pair
DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	1	Each
DDH-SS-020	dormakaba Wall Buffer NOTE: Buffer positioned to prevent pull handle hitting wall. Wall mounted accordingly	Stainless Steel	1	Each

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		09		
Hardware Set Quantity :	1			
Notes	Signage Denoting Escape Route To Be Promintly Displayed. Requirement States Door Must Be Self Closing. Doorcloser Utilised Needs To Be Fire Rated. Panic Hardware fitted to door using male/female type fixing screws Doorcloser Fitted To Inside, Parallel Arm Fixing.			
Doors (11)	D!, D!, D!, D!, D!, D!, D!, D!, D!, D!, D!			
Product Code	Description	Finish	Qty	Units
HBFMF	Hinges by fire door manufacturer		1	Each
TS83 PA	dormakaba EN 3-6 Parallel Arm NON HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant Doors. Certified manufacturer to ISO 9001 NOTE: Parallel Arm Bracket (Rack & Pinion) to be used for push-side fixing. Please note fixing instructions supplied with the product	Silver	1	Set
TS83-SS-FP	60X245X1,6mm Thick Grade 304 Stainless Steel Fixing Plate With Pre Drilled Holes To Suit Doorcloser Fixing Holes.Plate To Be Installed On Opposite Side Of Door Using dormakaba M5 Male/FemaleFixing Screws.		1	eACH
Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	4	Each
PHA2 S SD	dormakaba Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201. 2104. PHX02. PHX04)	-	1	Set

HARDWARE PER SET

PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		10		
Hardware Set Quantity :	1			
Notes	Requirement States Door Must Be Self Closing. Doorcloser Utilised Needs To Be Fire Rated.			
Doors (9)	D!, D!, D!, D!, D!, D!, D!, D!, D!			
Product Code	Description	Finish	Qty	Units
HBFMF	Hinges by fire door manufacturer		1	Each
TS91B G-SR EMF 1 VK	dormakaba ELECTRO MECHANICAL HOLD OPEN Co-ordinated door closer system for rebated doors between 1220-1350mm. Closing Force EN 3. Hydraulic speed control. Max door width 950mm per leaf. Pull-side fixing. Door closer compliant with EN 1154. Door co-ordinators tested to EN 1158. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001. NOTE: dormakaba recommends that in addition to the connection to a fire alarm system; the G-SR EMF HO also should include a "push to release" button. This needs to be integrated into the circuit in close vicinity to the door, allowing for a controlled release of the door leaves for cleaning and maintenance.	Silver	1	Set
TS91 EN3 FP	Plate to be fabricated from 1.2mm thick stainless steel with 8mm diameter predrilled holes positioned according to the relevant drawings. All corners to receive 5mm radius fillet.	Stainless Steel	2	Each
DHP-430-CL-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout left. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	1	Each
DHP-430-CR-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout right. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	1	Each
Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	8	Each
Fixing Screws	dormakaba M4 Patent Male / Female fixing screw pack (2 pairs per pack)	Stainless Steel	1	Pack
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

HARDWARE PER SET



PROJECT NAME: SRH11.14.2023. - ECDoh. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

HARDWARE FOR SET:		11		
Hardware Set Quantity :		1		
Notes		Handing Of Lever Furniture To Be Confirmed Prior To Ordering.		
Doors (1)		D104		
Product Code	Description	Finish	Qty	Units
DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	1.5	Pair
TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1	Set
D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	1	Each
DSS-132 MF	dormakaba 150x150mm MALE/FEMALE sign	Stainless Steel	1	Each
DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	1	Each
DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	1	Each

BILL OF MATERIALS

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.

REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	1040	a 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment		Pair	4.5		
	2040	Alufab 2040 200mm Aluminium Sinkless Hinges, Centre Pin, Anodised		Each	3.0		
	DBB-SS-009	dormakaba 102x75x3mm, EN1935 Grade 13, Two ball bearing butt hinge. Fire rated. 120kg Carrying capacity per pair. Finish: Stainless steel.	Stainless Steel	Pair	4.5		
	HBFMF	Hinges by fire door manufacturer		Each	20.0		
	HBSFM	Other Hinges by steel frame manufacturer.		Each	0.0		
	SDABO	Sliding door accessories, track, hangers guides and stops by other to architects approval		Each	1.0		
	DFP-SS-025	dormakaba 120x40mm Rectangular Flush Pull Handle	Stainless Steel	Each	5.0		
	TH120 BP Cyl S.S	dormakaba Lever handle on 170x170 plate with Cylinder cutout	Stainless Steel	Set	1.0		
	TH120 BP WC RH S.S	dormakaba Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	Set	2.0		
	TH120 Cyl S.S	dormakaba Lever handle on rose with Cylinder escutcheons	Stainless Steel	Set	2.0		
	TS83 PA	dormakaba EN 3-6 Parallel Arm NON HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant Doors. Certified manufacturer to ISO 9001	Silver	Set	11.0		
	TS83 PA HO	dormakaba EN 3-6 Parallel Arm HOLD OPEN Door Closer - Adjustable Strength, Hydraulic Speed Control. Push Side Fixing (Parallel Arm Bracket Included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door Closer tested to EN 1154. Approved to AS1905 Part1 Fire Resistant Doors. Certified manufacturer to ISO 9001	Silver	Set	1.0		

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.






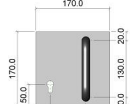

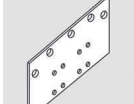




REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	TS91B G-SR EMF 1 VK	dormakaba ELECTRO MECHANICAL HOLD OPEN Co-ordinated door closer system for rebated doors between 1220-1350mm. Closing Force EN 3. Hydraulic speed control. Max door width 950mm per leaf. Pull-side fixing. Door closer compliant with EN 1154. Door co-ordinators tested to EN 1158. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001.	Silver	Set	9.0		
	TS91B HO - SL	dormakaba MECHANICAL HOLD OPEN Cam action slide channel door closer. Max door width 950mm. Closing Force EN 3. Hydraulic speed control. Pull-side door leaf fixing (Standard), Push-side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001.	Silver	Each	1.0		
	D02935 SS	dormakaba Narrow Stile Hook Lock Operating with European Profile Cylinder. Case dimensions (mm) 174H x 45D. Forend dimensions (mm) 290H x 22W. Backset 35mm. 18mm Throw	Stainless Steel	Each	1.0		
	D035S SS	dormakaba Bathroom Sash Lock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm. Centres 57mm.	Stainless Steel	Each	2.0		
	D036S SS	dormakaba Cylinder Sash Lock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm. Centres 61mm.	Stainless Steel	Each	3.0		
	DHP-430-CL-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout left. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	Each	9.0		
	DPH206 BTB	dormakaba 400x30mm Offset Tubular Pull Handle BTB (BTB Fixing Sets included) (Pull Handle complies with BS 8424. Grade 3 - Heavy Duty)	Stainless Steel	Pair	2.0		
	TS73v or TS83 Drop Plate	dormakaba Drop Plate Only For installation on frame when direct fixing of closer is not possible.	-	Each	1.0		
	TS83-SS-FP	60X245X1,6mm Thick Grade 304 Stainless Steel Fixing Plate With Pre Drilled Holes To Suit Doorcloser Fixing Holes. Plate To Be Installed On Opposite Side Of Door Using dormakaba M5 Male/Female Fixing Screws.		eACH	11.0		
	TS91 EN3 FP	Plate to be fabricated from 1.2mm thick stainless steel with 8mm diameter predrilled holes positioned according to the relevant drawings. All corners to receive 5mm radius fillet.	Stainless Steel	Each	18.0		
	D037D SS	dormakaba Cylinder Deadlock. Case dimensions (mm) 116.5H x 78D. Forend dimensions (mm) 168H x 22W. Backset 57mm.	Stainless Steel	Each	3.0		
	DDC206301 MK	dormakaba 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	Satin Nickel	Each	6.0		

BILL OF MATERIALS

PROJECT NAME: SRH11.14.2023. - ECDoH. New GSA Offices.













REPORT DATE: 14/11/2023

PROFESSIONAL: B4 Architects

REVISION DATE: 14/11/2023

CONSULTANT: Shaun Harvey

REVISION: v 1

Product Image	Product Code	Description	Finish	Units	Qty	Price (ZAR)	Total (ZAR)
	DHC-SS-030A	dormakaba Hat and Coat Hook	Stainless Steel	Each	2.0		
	DHP-430-CR-SF 170X170	dormakaba DPH301C Pull Handle BT fixed on a 170x170x1.2mm thick Grade 430 stainless steel plate with cylinder cutout right. Stainless Steel Plate to have 4 countersunk holes for screw fixing. (Special Order)	430 Brushed Stainless Steel	Each	9.0		
	Door closer M5 fixing screws	dormakaba Patent fixing screws for door closers	Satin Nickel	Each	116.0		
	DSC204101 MK	dormakaba 40.5 - Europrofile Nickel Plated E-SP 5 Pin Single Cylinder - Master Keyed	Satin Nickel	Each	1.0		
	DSS-132 MF	dormakaba 150x150mm MALE/FEMALE sign	Stainless Steel	Each	1.0		
	DCE-105 S.S	dormakaba Narrow Stile Cylinder escutcheon	Stainless Steel	Pair	1.0		
	DCE-002 S.S	dormakaba Round Cylinder escutcheon	Stainless Steel	Pair	2.5		
	Fixing Screws	dormakaba M4 Patent Male / Female fixing screw pack (2 pairs per pack)	Stainless Steel	Pack	9.0		
	PHA2 S SD	dormakaba Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201. 2104. PHX02. PHX04)	-	Set	11.0		
	DBC-SS-022	dormakaba Adjustable Roller Bolt	Stainless Steel	Each	1.0		
	DDH-SS-020	dormakaba Wall Buffer	Stainless Steel	Each	2.0		
	DDS-SS-017	dormakaba Floor Mounted Door Stop	Stainless Steel	Each	15.0		
Total (ZAR)							

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EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES

EASTERN CAPE
DEPARTMENT OF HEALTH

PROTEA FLATS
GSA OFFICES RESTORATION

SCHEDULE OF FINISHES

Rev 3

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

DOCUMENT NUMBER: 305-019/FIN-001
DOCUMENT NAME: Schedule of Finishes
REVISION: 3

ISSUED FOR TENDER PURPOSES

NOTES:

1. Items indicated in **red** shows revised specifications.
2. Items indicated in **blue** shows specifications under review.
3. Items indicated in **green** are new specifications.

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	101	ROOM NAME:	Reception
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Forest fx PUR Heterogeneous heavy commercial vinyl floor sheeting, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for demolition of existing entrance door and wall as per demolition drawing.</p> <p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	<p>Allow for existing door frame to be removed</p> <p>New aluminium shopfront frame as per shopfront schedule</p>
Door:	<p>Allow for existing door to be removed</p> <p>New aluminium door as per shopfront schedule</p>
Cornice:	Existing beaded cornice to be sanded to remove loose material, spot primed with Plascon Woodcare Ultravarnish (thinned with mineral turpentine as per manufacturer specifications), and then overcoated with 2 undiluted coats, allowing 6 hours drying time between coats.
Ceiling:	Existing ceiling to be sanded to remove loose material, spot primed with Plascon Woodcare Ultravarnish (thinned with mineral turpentine as per manufacturer specifications), and then overcoated with 2 undiluted coats, allowing 6 hours drying time between coats.
Fittings:	Refer to Joinery Schedule.
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Refer to Mechanical Engineer.
Notes:	Refer to Demolition Notes.

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	102	ROOM NAME:	Office 1
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: White)
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Existing aluminium shopfront to be inspected and any damaged windows to be replaced with 6.38 laminated safety glass with vinyl tinting to match.
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil.
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Refer to Mechanical Engineer.
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	103	ROOM NAME:	Boardroom
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Forest fx PUR Heterogeneous heavy commercial vinyl floor sheeting, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil.
Window:	Existing aluminium shopfront to be inspected and any damaged windows to be replaced with 6.38 laminated safety glass with vinyl tinting to match.
Pelmet:	Existing Pelmet to be sanded to remove loose material, spot primed with wood primer as needed, and overcoated with two coats Plascon Tradepro Bright Matt (colour: White)
Door Frame:	Nil
Door:	Nil
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Refer to Joinery Schedule.
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Refer Mechanical Engineer.
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	104	ROOM NAME:	Office (Boardroom)
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Forest fx PUR Heterogeneous heavy commercial vinyl floor sheeting, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Existing aluminium shopfront to be inspected and any damaged windows to be replaced with 6.38 laminated safety glass with vinyl tinting to match.
Pelmet:	Existing Pelmet to be sanded to remove loose material, spot primed with wood primer as needed, and overcoated with two coats Plascon Tradepro Bright Matt (colour: White)
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Refer to Mechanical Engineer.
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	105	ROOM NAME:	Main Office
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Existing timber window cill to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Window:	Nil
Pelmet:	Nil
Door Frame:	Allow for existing door to be removed
Door:	New aluminium door as per door schedule
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	New mechanical ventilation to Mechanical Engineer's specifications.
Notes:	Refer to Demolition Notes.

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	106	ROOM NAME:	Bathroom
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Vinyl Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed.</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Polysafe Quattro PUR vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Polyflor Inset skirting MC210C installed as per manufacturer's instructions, butt weld jointed to vinyl sheeting
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p> <p><u>SPLASHBACK (TILING)</u> GWC-4-1 Essence White Matt tile, 300x600mm rectified ceramic wall tiles with 2mm joints between tiles in TAL White Grouting in suitable tiling adhesive throughout bathroom, up to 1.2m above FFL, and throughout shower to 2m above FFL, as per room data sheets. Aluminium square edge tile trim to all exposed edges.</p>
Protection:	Nil
Window Sill:	Tiled as per wall tile specification
Window:	Existing aluminium window to be cleaned.
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Refer to Sanitaryware Schedule
Accessories:	Refer to Sanitaryware Schedule
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	New mechanical ventilation to Mechanical Engineer's specifications.
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	107	ROOM NAME:	Office 5
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish. <u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Existing timber window cill to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Window:	Existing aluminium window to be cleaned.
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	<p>Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.</p>
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	108	ROOM NAME:	Kitchen
ITEM:	DESCRIPTION:		
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>		
Skirting:	Polyflor Inset skirting MC210C installed as per manufacturer's instructions, butt weld jointed to vinyl sheeting		
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p> <p><u>SPLASHBACK (TILING)</u> GWC 197 Gloss White, 200x200mm ceramic wall tiles throughout kitchen with 2mm joints between tiles in TAL White grouting, in suitable tiling adhesive, above countertops to 1.3m above FFL, as per room data sheets. Aluminium square edge tile trim to all exposed edges.</p>		
Protection:	Nil		
Window Sill:	Nil		
Window:	Existing aluminium window to be cleaned.		
Pelmet:	Nil		
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)		
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)		
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.		
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)		
Fittings:	Nil		
Sanitaryware:	As per sanitaryware schedule		
Accessories:	As per sanitaryware schedule		
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.		
Mechanical:	New ventilation as per mechanical engineer specification		
Notes:			

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	109	ROOM NAME:	Office 4
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Existing timber window cill to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Window:	Existing aluminium window to be cleaned.
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	110	ROOM NAME:	Office 3
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Existing timber window cill to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Window:	Existing aluminium window to be cleaned.
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Refer to Joinery Schedule
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	Nil

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	111	ROOM NAME:	Store
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Brickwork cill to be treated as per brickwork wall.
Window:	Existing aluminium window to be cleaned.
Pelmet:	Nil
Door Frame:	New Timber Door Frame. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Door:	New Timber Door as per door schedule. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Cornice:	<p>Existing cornice to be removed.</p> <p>New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.</p>
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Refer to Joinery Schedule
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	112	ROOM NAME:	Office 2
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Existing timber window cill to be sanded down and painted with one maintenance coat clear varnish.
Window:	Existing aluminium window to be cleaned. One broken window pane and opening mechanism to be repaired
Pelmet:	New Pine PAR 22x350mm Pelmet to accommodate lowered ceiling. Pelmet to be sanded smooth, primed with wood primer, and overcoated with two coats Plascon Tradepro Bright Matt (colour: White)
Door Frame:	New Aluminium shopfront as per shopfront schedule
Door:	New Aluminium shopfront as per shopfront schedule
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 9mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Joinery as per joinery schedule
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	113	ROOM NAME:	Main Corridor
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Forest fx PUR Heterogeneous heavy commercial vinyl floor sheeting, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	New Aluminium door and frame as per schedule
Door:	New Aluminium door and frame as per schedule
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	114	ROOM NAME:	Secondary Corridor
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Palettone PUR Homogeneous lifelong polish free vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	Existing door frame to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Door:	Existing door to be sanded down and painted with one coat universal undercoat, and two coats semi-gloss, chip resistant enamel. (Colour: TBC)
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	Nil
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	115	ROOM NAME:	WC
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Polysafe Quattro PUR vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Polyflor Inset skirting MC210C installed as per manufacturer's instructions, butt weld jointed to vinyl sheeting
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	New Timber Door Frame. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Door:	New Timber Door as per door schedule. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	As per sanitaryware schedule
Accessories:	As per sanitaryware schedule
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	New ventilation as per mechanical engineer specification
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	116	ROOM NAME:	WHB
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Polysafe Quattro PUR vinyl floor, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Polyflor Inset skirting MC210C installed as per manufacturer's instructions, butt weld jointed to vinyl sheeting
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	New Timber Door Frame. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Door:	New Timber Door as per door schedule. Clean down, prepare and apply one (1) coat Plascon Professional Wood Primer (PP800). Apply two (2 coats) Plascon Waterbased Velvagio (VLW/TVW). Refer to Plascon Specification Document.
Cornice:	Existing cornice to be removed. New 20x15mm shadow plaster trim cornice to all wall/ceiling junctions to be installed.
Ceiling:	New skimmed, screw up 6.4mm rhinoboard ceiling to be installed. Rhinoboard to be supported by 38x38mm Pine branders and maximum spacings of 450mm. All joints and screws to be covered with Rhinotape, prior to application of Cretestone as per manufacturers instructions. New ceiling to be painted finish as per Plascon paint specification document (colour: White)
Fittings:	Nil
Sanitaryware:	As per sanitaryware schedule
Accessories:	As per sanitaryware schedule
Electrical:	New lighting and electrical sockets to Electrical Engineer's specifications.
Mechanical:	New ventilation as per mechanical engineer specification
Notes:	

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS : OFFICES RESTORATION
SCHEDULE OF FINISHES**

ROOM NO:	117	ROOM NAME:	Lift Lobby
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ITEM:	DESCRIPTION:
Floor:	<p>Allow for removal of existing floor finishes (Carpet Tile). Existing floor slab and/or screed to be repaired, where damage is visible, once floor finishes have been removed</p> <p><u>TREATMENT OF EXISTING SCREED:</u> All holes in screed to be filled with PATCHiTe patching compound as manufactured by iTe Products, in strict accordance with their specifications. It is to be treated with BONDiTe keying agent, in strict accordance with the manufacturer's specifications.</p> <p><u>SELF-LEVELLING SCREED:</u> Apply LEVELiTe F30 self-levelling compound, as manufactured by iTe Products, in strict accordance with their specifications.</p> <p><u>VINYL SHEETING:</u> Polyflor 2mm thick Forest fx PUR Heterogeneous heavy commercial vinyl floor sheeting, laid in acrylic adhesive, with joints welded with a fully flexible coloured Polyflor welding rod in accordance with manufacturer's recommendations. Colour: TBC</p>
Skirting:	Standard 22x69mm Pine PAR skirting, primed with one coat wood primer, one coat universal undercoat, and two coats semi-gloss, chip resistant enamel.
Wall:	<p>Allow for minor remedial work to wall and plaster (crack filling and patching), in preparation for painting final finish.</p> <p><u>PAINTING:</u> <u>BRICKWORK (CEMENT PLASTER)</u> Clean down, prepare and apply paint finish as per Plascon paint specification document (Colour: TBC)</p>
Protection:	Nil
Window Sill:	Nil
Window:	Nil
Pelmet:	Nil
Door Frame:	Nil
Door:	Nil
Cornice:	Nil
Ceiling:	Nil
Fittings:	Nil
Sanitaryware:	Nil
Accessories:	Nil
Electrical:	Nil
Mechanical:	Nil
Notes:	

EASTERN CAPE DEPARTMENT OF HEALTH

PROTEA FLATS New GSA Offices

IRONMONGERY SPECIFICATION

REV 3

DOCUMENT NUMBER: 305-019/IRN-001
DOCUMENT NAME: Ironmongery Specification
REVISION: 3

ISSUED FOR TENDER PURPOSES

NOTES:

1. Items indicated in **red** shows revised specifications.
2. Items indicated in **blue** show specifications under review.
3. Items indicated in **green** are new specifications.

Refer to Dormakaba specification for detailed list of ironmongery required, including product codes, masterkeying, etc

CONTROL LIST

Door No.	Hardware Set	Location	Door Type	Handling	Door Material
D101	06	Store	DT01	RH	Timber
D102	07	Main Office	DT02	RH	Aluminium
D103	04	Office 2	DT03	LH	Aluminium
D104	11	WHB	DT01	LH	Timber
D105	05	WC	DT01	LH	Timber
D106	02	Main Corridor	DT02	RH	Aluminium
D107	03	Duct	DT05	LH	Timber/Steel
D108	08	Entrance/Reception	DT04	RH	Aluminium
D109	01	Office Boardroom	S01	N/A	Aluminium
-	09	Fire Escape Doors – All Floors	FD01	RH	FD Material
-	10	Fire Doors	FD02	RHA	FD Material

NOTE:

FD01 – 11 Units throughout Building

FD02 – 9 Units throughout building

1

Hardware Set	1
Description / Notes	Specialist sliding door system
Doors (Total)	D109 (1)

Note: Specialist ironmongery system installed by door manufacturer as part of door

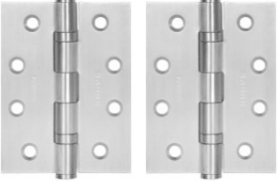





Image	Product	Finish	Quantity
	Lift & Slide hardware and ironmongery supplied by door manufacturer	As per door finish	1
	120 x 40mm Rectangular Flush pull handle	Stainless Steel	4
	Narrow Stile Cylinder Escutcheon	Stainless Steel	2
	66mm Euro-profile Double Cylinder	Satin Nickel	1
	Narrow Stile Hook Lock Operating with European Profile Cylinder	Stainless Steel	1

Hardware Set	02
Description / Notes	Manually lockable door, Lock access both sides, Aluminium door
Doors (Total)	D106 (1)

Image	Product	Finish	Quantity
	100x 44 sinkless aluminium hinge	Anodised or powder coated to match aluminium colour	1,5 Pair
	Cylinder Sash Lock (appropriately sized to fit within aluminium door mullion) – With appropriate strike plate	Stainless Steel	1
	66mm Euro-profile Double Cylinder	Satin Nickel	1
	Heavy Duty Slimline aluminium door handle set	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	1
	MECHANICAL HOLD OPEN Cam action slide channel door closer	Silver	1
	Round Cylinder Escutcheon	Stainless Steel	2

3

Hardware Set	03
Description / Notes	Duct service door
Doors (Total)	D107 (1)

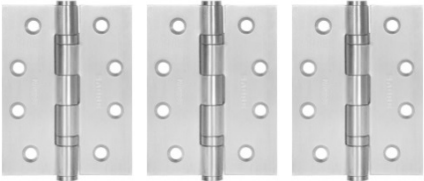


Image	Product	Finish	Quantity
	100x 75 Double Ball Bearing Butt Hinge	Stainless Steel	1 Pair
	Cylinder Dead Lock - With appropriate strike plate	Stainless Steel	1
	43mm Euro-profile Single Cylinder	Satin Nikel	1
	Round Cylinder Escutcheon	Stainless Steel	1
	120 x 40mm Rectangular Flush pull handle	Stainless Steel	1
	Adjustable roller bolt	Stainless Steel	1

4

Hardware Set	04
Description / Notes	Manually lockable door, Lock access both sides, Aluminium door
Doors (Total)	D103 (1)

Image	Product	Finish	Quantity
	100x 44 sinkless aluminium hinge	Anodised or powder coated to match aluminium colour	1,5 Pair
	Cylinder Sash Lock (appropriately sized to fit within aluminium door mullion) – With appropriate strike plate	Stainless Steel	1
	66mm Euro-profile Double Cylinder	Satin Nickel	1
	Lever handle on rose with cylindrical escutcheons	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	1

Hardware Set	11
Description / Notes	Manually lockable WC stall door, Timber Door
Doors (Total)	D105 (1)

Image	Product	Finish	Quantity
	100x 75 Double Ball Bearing Butt Hinge	Stainless Steel	1,5 Pair
	Bathroom Dead Lock – With appropriate strike plate	Stainless Steel	1
	Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1 Set
	Hat and Coat hook	Stainless Steel	1
	Floor Mounted Door Stop	Satin Chrome	1

Hardware Set	06
Description / Notes	Manually lockable door, Lock access both sides, Timber door
Doors (Total)	D101 (1)

Image	Product	Finish	Quantity
	100x 75 Double Ball Bearing Butt Hinge	Stainless Steel	1.5 Pairs
	Cylinder Mortice Lock - With appropriate strike plate	Stainless Steel	1
	66mm Euro-profile Double Cylinder	Satin Nickel	1
	Standard Tubular steel lever handle on rose	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	1

Hardware Set	07
Description / Notes	Manually lockable door, Lock access both sides, Aluminium door
Doors (Total)	D102 (1)

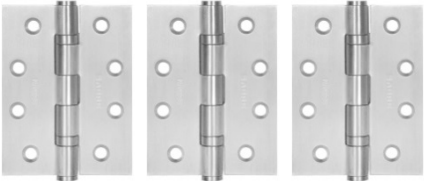

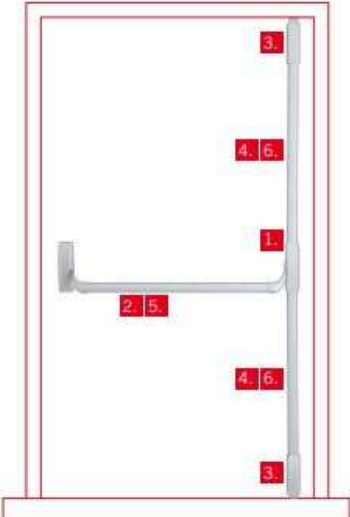
Image	Product	Finish	Quantity
	100x 44 sinkless aluminium hinge	Anodised or powder coated to match aluminium colour	1,5 Pair
	Cylinder Sash Lock (appropriately sized to fit within aluminium door mullion) – With appropriate strike plate	Stainless Steel	1
	66mm Euro-profile Double Cylinder	Satin Nickel	1
	Lever handle on rose with cylindrical escutcheons	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	1

Hardware Set	08
Description / Notes	Offices entrance door
Doors (Total)	D108 (1)

Image	Product	Finish	Quantity
	100x 75 Double Ball Bearing Butt Hinge	Stainless Steel	3 Pairs
	Parallel Arm HOLD OPEN Door Closer - Adjustable Strength	Silver	1
	325mm Straight tubular pull handle with flange	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	2
	Single magnetic lock with 600lb holding force	Anodized Aluminium	1
	L-Bracket for 600lbs maglock	Anodized Aluminium	1
	Access control by security specialist consisting of: 1x Biometric/Card Reader 1x 1-button intercom 1x Touch free door release 1x Emergency break glass unit 1x Wall mounted audio only handset	Stainless Steel and Plastic	1
	Cyclendar Deadlock	Stainless Steel	1
	Round Cylinder Escutcheon	Stainless Steel	2

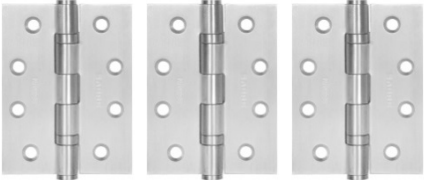




Note: Access Control to be coordinated with Electrical engineer for approval and must interface with existing fire detection system on-site

Hardware Set	10
Description / Notes	Manually lockable ablutions door, Timber Door
Doors (Total)	D104 (1)

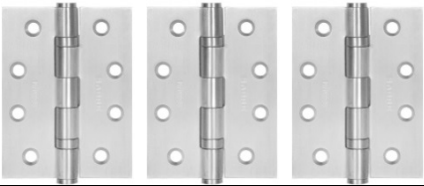





Image	Product	Finish	Quantity
	Hinges supplied by fire door manufacturer		
	Parallel Arm NON HOLD OPEN Door Closer - Adjustable Strength	Silver	1
	dormakaba Two point locking panic bar – Single door		1

10

Hardware Set	9
Description / Notes	Manually lockable ablutions door, Timber Door
Doors (Total)	D104 (1)

Image	Product	Finish	Quantity
	Hinges supplied by fire door manufacturer		
	ELECTRO MECHANICAL HOLD OPEN Co-ordinated door closer system for rebated doors between 1220-1350mm.	Silver	1 Set
	Cam action door closers to be used in conjunction with the hold open coordinator	Stainless Steel	2
	325mm Straight tubular pull handle with flange	Stainless Steel	1 Set
	Floor Mounted Door Stop	Satin Chrome	1

Hardware Set	11
Description / Notes	Manually lockable ablutions door, Timber Door
Doors (Total)	D104 (1)

Image	Product	Finish	Quantity
	100x 75 Double Ball Bearing Butt Hinge	Stainless Steel	1,5 Pair
	Bathroom Dead Lock – With appropriate strike plate	Stainless Steel	1
	Lever handle on 170x170 plate with Bathroom/WC Furniture RH	Stainless Steel	1 Set
	Hat and Coat hook	Stainless Steel	1
	Floor Mounted Door Stop	Satin Chrome	1
	150x150 Male/Female Sign	Stainless Steel	1

DOH PROTEA FLATS 10TH FLOOR REDECORATION B4 REF: 305-019



KP014446

**CENTRAL, PORT ELIZABETH, EASTERN CAPE
25 JANUARY 2023**

Date: 25 January 2023

DoH Protea Flats 10th Floor Redecoration B4 Ref: 305-019
52 Cape Rd
Central, Port Elizabeth, Eastern Cape

Attention: James Thomson

B4 Architects
Unit 12, Bloomingdales Office Park, Walmer, Port Elizabeth

Telephone Number: 0415811217
Cellular Number: 0832547410
E-mail Address: b4.jamest@b4arch.co.za

Dear James Thomson

RE: DOH PROTEA FLATS 10TH FLOOR REDECORATION B4 REF: 305-019

With reference to our visit and assessment of the abovementioned project, we would like to offer the following recommendations for your consideration.

GENERAL

- There is a possibility that clean, bright colours might not cover in two coats. Another one or in extreme cases two coats might be required to achieve opacity. Alternatively, a similar colour (in a medium or dark base) can be used as the base colour and then overcoated with the recommended topcoat colour.
- To achieve full obliteration when using colours falling within the bright, clean colour spectrum, multi-coats will be necessary to achieve full obliteration, after the application of the plaster primer and the appropriate base coat where necessary. This should be taken into consideration when specifying and pricing within this parameter.
- **PLEASE NOTE:** When **YELLOW** top coats are selected for **NEW and REDEC WORK Application**, it is imperative to use Plascon Professional Plaster Primer - PP950 (Alkali Burn Resistance Primer) in place of other plaster primers as pH levels may be exceptionally high on new or hairline cracked plaster.
- Kansai Plascon reserves the right to amend the specification once site establishment has taken place should it be deemed necessary e.g. plaster severely cracked but paint has not. It is not always possible to accurately determine the condition of the substrate underneath the existing coating
- Uneven, inconsistent surface profiles will result in varying reflectance levels which will present as a patchy finish, even when matt coatings are used. We are using high build coatings to mask this effect
- Only the areas mentioned in the scope of works must be coated
- All the products mentioned in these specifications must be applied strictly in accordance with the relevant Product Data Sheets
- A site inspection must be carried out by a Plascon consultant prior to painting of the substrates to ensure that the scope of work is correct
- Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.
- Please note that the attached specifications are valid for a **six month** period from date of issue.
- At the time of inspection there was no chalking evident, however should chalking be evident when painting commences a full coat of the specified primer is required.
- Should 50% or more of the surface area require patch priming, it is recommended for a full coat of the specified primer be applied.
- The waterproofing problems visible exceed the capabilities of our Plascon products and therefore we recommend that you contact a waterproofing specialist to assist you with your waterproofing issues.
- Once the waterproofing has been successfully carried out and the moisture levels of the substrates is below 8% when measured on a Doser Hygrometer BD2 scale (or equivalent), should painting commence.

PLEASE NOTE:

- a. The client/contractor must notify the Plascon Projects Department that the project has been awarded and when the project will start. Please fill in and fax the attached Project Action Sheet back to the Commercial Projects Division. Phone number: (011) 608 0790 and fax number: 086 688 0378.
- b. In order to facilitate the Plascon Guarantee, Plascon Preferred Applicators must be used on this project.

Please note that the attached specifications are valid for an six-month period from date of issue. Should the project not commence during this period it may be necessary to re-assess the project as further coating deterioration may have occurred and product upgrades may be necessary.

It is recommended that imported light fast colourants/pigments be used for the bright, clean colours. These colours will change uniformly and a difference in the finishing colour will be noted after +- 1 year. Pantone colours should not be used but rather choose colours from the RAL or BS colour standards.

Colour change is the perceived colour difference in magnitude between coated substrate and standard colour panel assessed by contrast value (excludes hue and depth) on Grey Scale ISO/SANS 105-A02:1993 (E). Colour change allowable, using the Grey Scale Standard ISO/SANS 105-A02:1993 (E) is 4-5 up to three years and 3-4 up to five years. Beyond 5 years is not considered.

Yours sincerely

KURT BRUINDERS
CONSULTANT

PLEASE NOTE

THE PROJECT ACTION SHEET TOGETHER WITH A COPY OF YOUR QUOTE (ITEMISING THE PRODUCTS AND SURFACE PREPARATION THAT WAS TENDERED ON - PLEASE DELETE YOUR PRICING) INCLUDED IN THIS DOCUMENT MUST BE RETURNED TO PLASCON COMMERCIAL SPECIFICATIONS DEPARTMENT FAX NO: 086 688 0378

PRIOR TO THE COMMENCEMENT OF THIS PROJECT TO FACILITATE PLASCON'S FORMALITIES AND TIMEOUS SITE ATTENDANCE

IF THIS IS NOT ADHERED TO NO PROJECT GUARANTEE WILL BE ISSUED

SPECIFICATIONS FOR

DOH PROTEA FLATS 10TH FLOOR REDECORATION B4 REF: 305-019 52 CAPE RD CENTRAL, PORT ELIZABETH, EASTERN CAPE

CONTENTS

- Index/Scope of Work
- Contractors Quotation Requirements
- Project Action Sheet
- Specifications

DISCLAIMER

The recommendations contained herein are given in good faith and are meant to guide the specifier or the user. They are based on results gained from our tests and experiences and are believed to be reliable. No guarantee is implied by the recommendations contained herein since conditions of use, method of application and cleanliness of the substrate prior to painting are beyond our control. No part of this work may in any form or by any means be reproduced without the prior written permission NB: The specification should be read in conjunction with the product data sheet. Technology may change with time necessitating changes to this Technical Data Sheet (TDS). It is the responsibility of the user to ensure that the latest TDS is being used.

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INDEX/SCOPE OF WORK

SPECNO	SUBSTRATE	SPECIFICATION TYPE	PRODUCT	FINISH	LIFE EXPECTANCY	LOCATIONS	BUILDING ELEMENTS
1	Cement Plaster	Previously Decorated	Professional Superior Low Sheen (PEM 1000/TLS) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 10 years	Interior	Walls
2	Cement Plaster	New Work	Professional Superior Low Sheen (PEM 1000/TLS) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 10 years	Interior	Walls
3	Cement Plaster	Previously Decorated	Kitchens & Bathrooms (KBM/TKM) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 8 years	Interior	Bathroom walls Kitchen walls
4	Gypsum Plaster Board	Previously Decorated	Super Acrylic Polvin (EPL/TAP) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 7 years	Interior	Bulkheads Ceilings
5	Gypsum Plaster Board	New Work	Super Acrylic Polvin (EPL/TAP) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 7 years	Interior	Bulkheads Ceilings
6	Gypsum Plaster Board	Previously Decorated	Kitchens & Bathrooms (KBM/TKM) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 13 years	Interior	Kitchen ceilings Bathroom ceilings
7	Gypsum Plaster Board	Previously Decorated	Professional Superior Low Sheen (PEM 1000/TLS) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 9 years	Interior	Drywalling
8	Gypsum Plaster Board	New Work	Professional Superior Low Sheen (PEM 1000/TLS) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 7 years	Interior	Drywalling
9	Wood	Previously Decorated	Velvaglo Water Based (VLW/TVW) / Wood Primer (UC2) / Universal Undercoat (UC1)	Smooth/Water Based	Moderate: 10 years	Interior	Doors
10	Wood	Previously Decorated	Woodcare Ultra Varnish (X33-38 range/X44) / Woodcare Ultra Varnish (X33-38 range/X44)	Smooth/Solvent Based	Moderate: 3 years	Interior	Tongue & groove ceilings
11	Wood	New Work	Velvaglo Water Based (VLW/TVW) / Wood Primer (UC2) / Plascon Universal Undercoat (UC1)	Smooth/Water Based	Moderate: 10 years	Interior	Door frames Doors
12	Galvanised Steel	Previously Decorated	Velvaglo Water Based (VLW/TVW) / Galvanised Iron Primer (GIP1) / Universal Undercoat (UC1)	Smooth/Water Based	C5: 6 years	Interior	Balustrades Door frames Galvanised elements
13	Galvanised Steel	New Work	Velvaglo Water Based (VLW/TVW) / Galvanised Iron Primer (GIP1) / Plascon Universal Undercoat (UC1)	Smooth/Water Based	C5: 6 years	Interior	Galvanised elements

AREAS TO BE EXCLUDED

All substrates not mentioned in this document

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Contractor quotation requirements for Guarantee Projects:

- Contractors to provide proof of registration with the Unemployment Insurance Fund (UIF) and Compensation for Occupational Injuries and Diseases Act (COID).
- Contractors must advise the client in writing, as to whether they will be using their own staff or sub-contractors on the project.
- The successful contractor will be required to supply a program of works prior to commencement.
- Allowance must be made for removal and replacement of screws on signage (excluding neon signs), where necessary.
- Please supply a total break down of the quotation price for the redecoration work as per Plascon's recommended specification numbers & substrate types (as per this document) for guarantee purposes.
- Quotations are to be valid for a three month period.

Project Action Sheet:

- To assist with prompt handover of projects we have partially prepared a "Project Action Sheet" for this project.
- Once a decision has been made to award the project to a painting contractor, we would appreciate you completing the items highlighted in red in sections 1-3 and attaching a copy of the successful contractor's quotation. This information can then be faxed to our offices:

To : Plascon South Africa (Pty) Ltd
Attention : Trade Projects Department
Facsimile Number: 086 688 0378
Email : trade.admin@kansaiplascon.co.za

- c. We will complete the outstanding information internally and ensure that the relevant Plascon people are advised to monitor the project and prepare the guarantee documentation.

Your assistance with the above is appreciated.

NB: PLEASE ATTACH COPY OF ACCEPTED QUOTATION!!!

SECTION 1			
Project Name	DoH Protea Flats 10th Floor Redecoration B4 Ref: 305-019		
Project Address	52 Cape Rd, Central, Port Elizabeth, Eastern Cape		
Architects	B4 Architects	Contact Person & Contact Number	James Thomson 041 581 1217
Client	B4 Architects	Contact Person & Contact Number	James Thomson 0832547410
Corporate Client		Contact Person & Contact Number	
Developer		Contact Person & Contact Number	
Quantity Surveyor		Contact Person & Contact Number	
Clients Consultant	Kurt A. Bruinders (Kansai Plascon)	Contact Person & Contact Number	082 800 8288
SECTION 2			
Applicator		Contact Person & Contact Number	
Contractor's Consultant	Niki HArrop (Kansai Plascon)	Contact Number	073 443 1960
Estimated Start Date		Estimated Completion Date	
Estimated Contract Value		Estimated Paint Value	
SECTION 3			
<u>SURFACE AREAS TO BE PAINTED AND INSPECTED:</u>			
Does the scope of work remain the same as per specification document?: NO/YES			
(If the answer is no, please supply changes or areas that are to be excluded or included)			
N/A			
SECTION 4 - SUBSTRATES GUARANTEED			
COATING SYSTEMS - As per Plascon Specification Document Dated		25 January 2023	
The following specifications will apply to the guarantee:			
SPEC NO:	SUBSTRATE	BUILDING ELEMENT	GUARANTEE PERIOD
SECTION 4 - SUBSTRATES GUARANTEED			
Quality Assurance (Contract value above R200 000,00)			No
Product Guarantee			Yes
Instructions/Paperwork:			
Contractors Rep			
Site Inspection Required			Yes
Reference Area Required			No
Colour Finishing Schedule Required			No

SPECIFICATION SHEET NO. 1**APPLICABLE LOCATIONS:**

INTERIOR :: WALLS

REPAINT: Interior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Professional Superior Low Sheen**
(Smooth Finish - Waterbased superior low sheen acrylic, durable, washable)PRODUCT CODE: **PEM 1000****COLOUR :** White plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 10 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 μm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Professional Superior Low Sheen (PEM 1000/TLS)	brush, roller or airless spray	@ 30 μm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT: 25/35 microns	Water	2	1 hour	5850	< 5 white & pastel tinted <16 deep & transparent bases tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats:

- Apply two coats of Plascon Professional Superior Low Sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 2**APPLICABLE LOCATIONS:**

INTERIOR :: WALLS

NEW WORK: Interior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Professional Superior Low Sheen**
(Smooth Finish - Waterbased superior low sheen acrylic, durable, washable)PRODUCT CODE: **PEM 1000****COLOUR :** White plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system**As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3:** Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings
- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 10 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Professional Superior Low Sheen (PEM 1000/TLS)	brush, roller or airless spray	@ 30 µm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT:25/35 microns	Water	2	1 hour	5850	< 5 white & pastel tinted <16 deep & transparent bases tinted

SURFACE PREPARATION:

- Ensure that surfaces are dry, sound and clean.
- Concrete must cure for minimum 28 days and cement plaster 14 days before painting.
- Remove any hollow and soft/underbound plaster and replaster.
- Remove dirt and loose particles.
- Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR 1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR 1), using high pressure water jet or scrubbing with brush or broom. Allow to dry completely.
- Remove fungi and algae by scrubbing with a solution of household bleach (3,5 % sodium hypochlorite) - 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry.
- Fill cracks and other surface defects with the appropriate Polycell filler - refer Surface Preparation, Crack Repair.
- Moisture content measured with a Doser Hygrometer (or equivalent) must not exceed the following limits before painting:
 - concrete, off-shutter, pre-cast : B4 scale - 5 %
 - cement plaster, brickwork, fibre-cement : B2 scale - 8 %
- Caution: please check cement plaster integrity. Any friable or hollow disbanded plaster must be removed.

APPLICATION:**Primer Coat**

- Apply one coat of Professional Gypsum and Plaster Primer (PP 700) to achieve a continuous film. Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two full coats of Professional Superior Low Sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 3**APPLICABLE LOCATIONS:**

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS

REPAINT: Interior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Kitchens & Bathrooms**
(Microshield inhibits microbial growth Stain and steam resistant 10 times more washable than conventional paint)PRODUCT CODE:
KBM/TKM**COLOUR :** White and standard colours as per colour card, plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 8 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Kitchens & Bathrooms (KBM/TKM)	brush, roller or airless spray	@ 35 µm Theo: 10.60m ² /litre Prac: 6.00m ² /litre	WFT: 81/108 microns DFT: 30/40 microns	Water	2	2 hours	5806	< 5 white and pastel tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats:

- Apply two coats of Plascon Kitchens & Bathrooms (KBM/TKM) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 4**APPLICABLE LOCATIONS:**

INTERIOR :: BULKHEADS , CEILINGS

REPAINT:	Interior
SUBSTRATE:	Gypsum Plaster Board
PAINT FINISH :	Super Acrylic Polvin (Smooth Finish - Waterbased, superior matt acrylic, durable) PRODUCT CODE: EPL
COLOUR :	White plus Plascon Pastel colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 7 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 109/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Super Acrylic Polvin (EPL/TAP)	brush, roller or airless spray	@ 30 µm Theo: 11.30m ² /litre Prac: 6.30m ² /litre	WFT: 74/103 microns DFT: 25/35 microns	Water	2	1 hour	7085	< 16 white, pastel, deep and transparent tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Prime

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two coats of Plascon Super Acrylic Polvin (EPL/TAP) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 5**APPLICABLE LOCATIONS:**

INTERIOR :: BULKHEADS , CEILINGS

NEW WORK:	Interior
SUBSTRATE:	Gypsum Plaster Board
PAINT FINISH :	Super Acrylic Polvin (Smooth Finish - Waterbased, superior matt acrylic, durable) PRODUCT CODE: EPL
COLOUR :	White plus Plascon colour system and other fan decks
ENVIRONMENT:	The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate <ul style="list-style-type: none"> • Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings • Possibly more frequent moderate condensation • Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 7 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 109/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Super Acrylic Polvin (EPL/TAP)	brush, roller or airless spray	@ 30 µm Theo: 11.30m ² /litre Prac: 6.30m ² /litre	WFT: 74/103 microns DFT:25/35 microns	Water	2	1 hour	7085	< 16 white, pastel, deep and transparent tinted

SURFACE PREPARATION:

- Ensure that surfaces are clean, dry and sound.
- Remove dirt and loose particles.
- Remove any oil, grease and surface contaminates using a mutton cloth in-conjunction with Plascon Mineral Turps (AZH 1).
- Fill holes, gaps and other surface defects with Polycell Polyfilla Interior (101002). Allow 4 hours to dry. Sand smooth with 220 grit sandpaper. Dust off. Spot prime filled areas with Plaster Primer. Allow 16 hours to dry.

APPLICATION:**Primer Coat**

- Apply one coat of Professional Gypsum and Plaster Primer (PP 700) to achieve a continuous film. Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two full coats of Plascon Polvin Super Acrylic (EPL/TAP) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 6**APPLICABLE LOCATIONS:**

INTERIOR :: KITCHEN CEILINGS, BATHROOM CEILINGS

REPAINT:	Interior
SUBSTRATE:	Gypsum Plaster Board
PAINT FINISH :	Kitchens & Bathrooms (Microshield inhibits microbial growth Stain and steam resistant 10 times more washable than conventional paint)
COLOUR :	White and standard colours as per colour card, plus Plascon colour system and other fan decks

 PRODUCT CODE:
KBM

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings
- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

ENVIRONMENT:

Maintenance Cycle: 13 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 μm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Kitchens & Bathrooms (KBM/TKM)	brush, roller or airless spray	@ 35 μm Theo: 10.60m ² /litre Prac: 6.00m ² /litre	WFT: 81/108 microns DFT: 30/40 microns	Water	2	2 hours	7088	< 5 white and pastel tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Prime

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two coats of Plascon Kitchens & Bathrooms (KBM/TKM) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 7**APPLICABLE LOCATIONS:**

INTERIOR :: DRY WALLING

REPAINT: Interior**SUBSTRATE:** Gypsum Plaster Board**PAINT FINISH :** **Professional Superior Low Sheen**
(Smooth Finish - Waterbased superior low sheen acrylic, durable, washable)PRODUCT CODE: **PEM 1000****COLOUR :** White plus Plascon Pastel colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 9 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μ m (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 μ m Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 109/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Professional Superior Low Sheen (PEM 1000/TLS)	brush, roller or airless spray	@ 30 μ m Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT: 25/35 microns	Water	2	1 hour	7096	< 5 white & pastel tinted <16 deep & transparent bases tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Prime

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two coats of Plascon Professional Superior Low Sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 8**APPLICABLE LOCATIONS:**

INTERIOR :: DRY WALLING

NEW WORK: Interior**SUBSTRATE:** Gypsum Plaster Board**PAINT FINISH :** **Professional Superior Low Sheen**
(Smooth Finish - Waterbased superior low sheen acrylic, durable, washable)PRODUCT CODE: **PEM 1000****COLOUR :** White plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system**As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3:** Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings
- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 7 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 109/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Professional Superior Low Sheen (PEM 1000/TLS)	brush, roller or airless spray	@ 30 µm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT:25/35 microns	Water	2	1 hour	7096	< 5 white & pastel tinted <16 deep & transparent bases tinted

SURFACE PREPARATION:

- Ensure that surfaces are clean, dry and sound.
- Remove dirt and loose particles.
- Remove any oil, grease and surface contaminants using a mutton cloth in-conjunction with Plascon Mineral Turps (AZH 1).
- Fill holes, gaps and other surface defects with Polycell Polyfilla Interior (101002). Allow 4 hours to dry. Sand smooth with 220 grit sandpaper. Dust off. Spot prime filled areas with Plaster Primer. Allow 16 hours to dry.

APPLICATION:**Primer Coat**

- Apply one coat of Professional Gypsum and Plaster Primer (PP 700) to achieve a continuous film. Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two full coats of Professional Superior Low Sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 9**APPLICABLE LOCATIONS:**

INTERIOR :: DOORS

REPAINT: Interior**SUBSTRATE:** Wood**PAINT FINISH :** **Velvagio Water Based**
(Premium Quality Satin Finish Non Drip Waterbased Enamel)PRODUCT CODE: **VLW****COLOUR :** White plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 10 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Wood Primer (UC2)	brush, roller or airless spray	@ 30 µm Theo: 15.00m ² /litre Prac: 8.30m ² /litre	WFT: 56/78 microns DFT: 25/35 microns	Mineral Turpentine	1	16 hours		422
Undercoat: Universal Undercoat (UC1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 microns DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvagio Water Based (VLW/TVW)	brush, roller or airless spray	@ 30 µm Theo: 9.70m ² /litre Prac: 5.50m ² /litre	WFT: 88/118 microns DFT:30/40 microns	Water	2	4 hours	8166	46-50 white, pastel tinted < 53-60 deep & transparent bases tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer

- Spot prime bare and repaired areas with Plascon Wood Primer (UC2). Allow 16 hours to dry. (water based topcoat)

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Waterbased Velvagio (VLW/TVW) to achieve complete obliteration, allowing 4 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 10**APPLICABLE LOCATIONS:**

INTERIOR :: TONGUE & GROOVE CEILINGS

REPAINT: Interior**SUBSTRATE:** Wood**PAINT FINISH :** **Woodcare Ultra Varnish**
(Smooth, solvent based, mar and stain resistant gloss or suede varnish) **PRODUCT CODE: X33-38 range/X44****COLOUR :** Clear and standard colours: GLOSS: X33 - Clear, X34 - Light Oak, X35 - Teak, X36 - Oregon Pine, X37 - Imbuia, X38 - Mahogany SUEDE: X44 - Clear

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 3 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Prime: Woodcare Ultra Varnish (X33-38 range/X44)	brush or airless spray	@ 12 µm Prac: 9.50m ² /litre		Mineral Turpentine	1	6 hours		443
Topcoat: Woodcare Ultra Varnish (X33-38 range/X44)	brush or airless spray	@ 25 µm Theo: 18.00m ² /litre Prac: 9.50m ² /litre	WFT: 33/67 microns DFT:15/30 microns	Mineral Turpentine	2	6 hours	8117	443

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION:Brush Application Spot Prime

- Spot prime bare and repaired areas with Plascon Woodcare Ultra Varnish (X33-38 range/X44) thinned 3 parts Plascon Woodcare Ultra Varnish (X33-38 range/X44) to 1 part Mineral Turpentine (AZH 1) by volume. Allow 6 hours to dry. Sand lightly with fine paper (600 or 800 grit) to denib. Remove dust.

Finish Coats

- Apply two further coats of Plascon Woodcare Ultra Varnish (X33-38 range/X44) unthinned allowing 6 hours drying between coats. Also sand lightly between coats to denib and dust off.

Spray Application

- Thin approximately 10 parts Ultra Varnish to 1 part Spraying Thinner (TH3) or Mineral Turpentine (AZH 1) by volume.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 11**APPLICABLE LOCATIONS:**

INTERIOR :: DOOR FRAMES, DOORS

NEW WORK: Interior**SUBSTRATE:** Wood**PAINT FINISH :** **Velvagio Water Based**
(Premium Quality Satin Finish Non Drip Waterbased Enamel)PRODUCT CODE: **VLW****COLOUR :** White plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system**As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3:** Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings
- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 10 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μ m (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Wood Primer (UC2)	brush, roller or airless spray	@ 30 μ m Theo: 15.00m ² /litre Prac: 8.30m ² /litre	WFT: 56/78 microns DFT: 25/35 microns	Mineral Turpentine (AZH 1)	1	16 hours		422
Undercoat: Plascon Universal Undercoat (UC1)	brush, roller or airless spray	@ 30 μ m Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvagio Water Based (VLW/TVW)	brush, roller or airless spray	@ 30 μ m Theo: 9.70m ² /litre Prac: 5.50m ² /litre	WFT: 88/118 microns DFT:30/40 microns	Water	2	4 hours	8166	46-50 white, pastel tinted < 53-60 deep & transparent bases tinted

SURFACE PREPARATION:

- Ensure that surfaces are clean, dry and sound.
- Moisture content measured with a Doser Hygrometer B 2 scale A1-A5 (or equivalent), depending on the wood type, must be <14 % before painting.
- Sand wood to a smooth finish with 150 - 220 grit paper in the direction of the grain (depending on the smoothness required). Sharp edges must be rounded off. Dust off.
- Fill holes and other surface defects with Plascon Polyfilla Mendall 90 (801601) working off smoothly while wet. Allow 6- 8 hours to dry, then sand to a smooth finish. Dust off.
- Wash knots and resinous areas with Plascon Lacquer Thinner (ILS 1). Apply Plascon Woodcare Knot Seal (PK 2) to all knots and resinous areas. Allow 1 hour to dry.

APPLICATION:**Primer Coat**

- Apply one coat of Plascon Wood Primer (UC 2) to achieve a continuous film. Allow 16 hours to dry. (water based topcoat)

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC 1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Waterbased Velvagio (VLW/TVW) to achieve complete obliteration, allowing 4 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 12**APPLICABLE LOCATIONS:**

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

REPAINT: Interior**SUBSTRATE:** Galvanised Steel**PAINT FINISH :** **Velvagio Water Based**
(Premium Quality Satin Finish Non Drip Waterbased Enamel)PRODUCT CODE: **VLW****COLOUR :** White plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system**As per ISO 12944:1998** C5 - coastal/marine**Maintenance Cycle:** 6 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Galvanised Iron Primer (GIP1)	brush, roller or airless spray	@ 30 µm Theo: 13.00m ² /litre Prac: 7.00m ² /litre	WFT: 64/102 microns DFT: 25/40 microns	Water	1	4 hours		20
Undercoat: Universal Undercoat (UC 1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvagio Water Based (VLW/TVW)	brush, roller or airless spray	@ 30 µm Theo: 9.70m ² /litre Prac: 5.50m ² /litre	WFT: 88/118 microns DFT: 30/40 microns	Water	2	4 hours	6932	46-50 white, pastel tinted < 53-60 deep & transparent bases tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Galvanised Iron Primer (GIP1) . Allow 4 hours to dry. (water based topcoat)

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC 1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Velvagio Water Based (VLW/TVW) to achieve complete obliteration, allowing 4 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.**Please Note:**

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 13**APPLICABLE LOCATIONS:**

INTERIOR :: GALVANISED ELEMENTS

NEW WORK: Interior**SUBSTRATE:** Galvanised Steel**PAINT FINISH :** **Velvagio Water Based**
(Premium Quality Satin Finish Non Drip Waterbased Enamel)PRODUCT CODE: **VLW****COLOUR :** White plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system
As per ISO 12944-2: 1998 C5 - coastal/marine**Maintenance Cycle:** 6 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Galvanised Iron Primer (GIP1)	brush, roller or airless spray	@ 30 µm Theo: 13.00m ² /litre Prac: 7.00m ² /litre	WFT: 64/102 microns DFT: 25/40 microns	Water	1	6 hours		20
Undercoat: Plascon Universal Undercoat (UC1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvagio Water Based (VLW/TVW)	brush, roller or airless spray	@ 30 µm Theo: 9.70m ² /litre Prac: 5.50m ² /litre	WFT: 88/118 microns DFT:30/40 microns	Water	2	4 hours	6932	46-50 white, pastel tinted < 53-60 deep & transparent bases tinted

SURFACE PREPARATION:**Galvanized iron in good condition:**

- Apply Plascon Galvanized Iron Cleaner (GIC 1) to all bare Galvanized areas by brush, broom or spray.
- Allow to react for 1 minute. Rinse off with tap water using bristle brooms or brushes or Scotch Brite pads to remove all surface contaminants.
- Check if surface is water break-free. If not, repeat process. Allow to dry completely.

APPLICATION:**Primer Coat**

- Apply one coat of Plascon Galvanised Iron Primer (GIP 1) to achieve a continuous film. Allow 4-6 hours drying time (water based topcoat) or 24 hours drying time (solvent based topcoat).

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Velvaglo Water Based (VLW/TVW) to achieve complete obliteration, allowing 4 hours drying between coats.
- **NB:** if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SURFACE PREPARATION: CEMENT PLASTER

SP1 SUGAR SOAP CLEANING - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP6 FUNGAL AND ALGAE GROWTH: SODIUM HYPOCHLORITE TREATMENT - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP9 SAPONIFICATION (OIL BASED PAINT) OR HYDROLISING OF BINDER (WATERBASED PAINT) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP10 HOLLOW PLASTER/HAMMER TESTING/ROD TESTING - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP11 LOOSE AND FLAKING/PEELING PAINT - DRY PREPARATION - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP12 PROVIDING A 'KEY' TO OLD PAINT - SUGAR SOAP AND SAND - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP13 REPLASTERING - PLASTER KEY (LARGE AREAS) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP14T BROKEN/DAMAGED CEMENT PLASTER & CONCRETE AREAS (SMALL AREAS) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP15DT FINE CRACK REPAIRS (0.08-3MM): PROFESSIONAL BRIDGING COMPOUND (PWC520)

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP15FT RIDGE PLASTER CRACKS (<4MM): MENDALL 90

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP15HT PLASTER CRACKS (<4MM): MENDALL 90

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP15JT CORNER TO CORNER FINE CRACK REPAIR

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP15LT DORMANT LARGE PLASTER CRACKS (4-10MM) - MASONRY PATCHING PLASTER

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP16 EXISTING EXPANSION JOINTS: SIKAFLEX PRO 3WF

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP19 DEFECTS (HOLES AND VOIDS): POLYCELL POLYFILLA MENDALL 90 (801601) (<4MM)

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP21 SELLOTAPE TEST FOR CLEANLINESS (CHALKY AND CONTAMINATED SUBSTRATES)

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP25AAT APPLICATION OF PLASCON DAMPSEAL (WDS1) TO BARE PLASTER AND CONCRETE

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP28A ALKALI BURN: PLASCON PROFESSIONAL HIGH ALKALI PRIMER (PP950) AS A BLOCKER

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP29 SUBSTRATE CONDITION AND MOISTURE CONTENT

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP36R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT OR SOLVENT BASED ENAMEL

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP39 SELLOTAPE TEST FOR ADHESION AND INTERCOAT ADHESION SUITABILITY

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SP41 UNBOUND SURFACES

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM WALLS, KITCHEN WALLS, WALLS

SURFACE PREPARATION: GYPSUM PLASTER BOARD

SP90 GENERAL - COMPOSITE BOARDS

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM CEILINGS, BULKHEADS , CEILINGS, DRY WALLING, KITCHEN CEILINGS

SP92 DEFECTS - INTERIOR BOARDS - COMPOSITE BOARDS

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM CEILINGS, BULKHEADS , CEILINGS, DRY WALLING, KITCHEN CEILINGS

SP20R RUSTED NAIL HEADS IN CEILING BOARDS

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM CEILINGS, BULKHEADS , CEILINGS, DRY WALLING, KITCHEN CEILINGS

SP94R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT

APPLICABLE LOCATIONS:

INTERIOR :: BATHROOM CEILINGS, BULKHEADS , CEILINGS, DRY WALLING, KITCHEN CEILINGS

SURFACE PREPARATION: WOOD

SP200 MACHINE SANDING - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP201 KNOTS AND RESINOUS AREAS - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP202 HOLES AND DEFECTS - INTERIOR AND EXTERIOR - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP203 REMOVING PAINT (DRY METHOD) - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP204 REMOVING PAINT (PAINT STRIPPER METHOD) - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP205 PROVIDING A 'KEY' TO OLD PAINT: POLYCELL SUGAR SOAP AND SANDING - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP207 GENERAL - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: DOORS , TONGUE & GROOVE CEILINGS

SP210R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT

APPLICABLE LOCATIONS:

INTERIOR :: DOORS

SP206 PREPARING OILED TIMBER FOR VARNISHING/RE-OILING - WOOD

APPLICABLE LOCATIONS:

INTERIOR :: TONGUE & GROOVE CEILINGS

SURFACE PREPARATION: GALVANISED IRON

SP120 GALVANISED IRON IN GOOD CONDITION

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SP125 UNPASSIVATED GALVANISING - GALVANISED IRON

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SP126 ZINC SALTS (WHITE RUST) - GALVANISED IRON

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SP123 SOUND PREVIOUSLY PAINTED SURFACES - GALVANISED IRON

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SP124 ISOLATED PEELING PAINT (CROSS HATCH TEST AND REMOVAL) - GALVANISED IRON

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SP131R OVERCOATING SOLVENT BASED ENAMEL WITH SOLVENT BASED ENAMEL

APPLICABLE LOCATIONS:

INTERIOR :: BALUSTRADES, DOOR FRAMES, GALVANISED ELEMENTS

SURFACE PREPARATION GLOSSARY:

SP1 SUGAR SOAP CLEANING - MASONRY, PLASTER, ETC.

Remove surface contaminants using Polycell Sugar Soap solution - 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix (Sugar Soap Powder) and a medium bristle broom or bristle scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying.

SUBSTRATE: cement plaster

SP6 FUNGAL AND ALGAE GROWTH: SODIUM HYPOCHLORITE TREATMENT - MASONRY, PLASTER, ETC.

Scrub the affected areas using a solution of household bleach (3, 5% sodium hypochlorite solution) mixed 1 part bleach to 2 parts water, brush onto surface and allow 30 minutes to react. After 30 minutes or a marked colour change (lighter), brush clean using a hard bristle brush. Then rinse thoroughly with fresh water to remove all traces of bleach and allow drying.

SUBSTRATE: cement plaster

SP9 SAPONIFICATION (OIL BASED PAINT) OR HYDROLISING OF BINDER (WATERBASED PAINT) - MASONRY, PLASTER, ETC.

The faulty paint is to be removed completely by suitable means to bare substrate. Remove surface contaminants using Polycell Sugar Soap solution - 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix and a bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Feather edges with 100 grit sandpaper and ensure surface is dust free.

SUBSTRATE: cement plaster

SP10 HOLLOW PLASTER/HAMMER TESTING/ROD TESTING - MASONRY, PLASTER, ETC.

Hammer test suspect areas for cohesive failure. Hollow sounding plaster must be removed. The surface must be clean and sound. Repair areas using Polyfilla Masonry Patching Plaster (102003) in layers up 10mm per layer and allow 24 hours to dry.

SUBSTRATE: cement plaster

SP11 LOOSE AND FLAKING/PEELING PAINT - DRY PREPARATION - MASONRY, PLASTER, ETC.

Remove loose and peeling paint back to a firm edge by scraping, sanding or other suitable means. Feather the edges with 100 grit sandpaper and ensure surface is dust free.

SUBSTRATE: cement plaster

SP12 PROVIDING A 'KEY' TO OLD PAINT - SUGAR SOAP AND SAND - MASONRY, PLASTER, ETC.

Wash surface with Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water to remove surface contaminants. Rinse thoroughly with fresh water and allow drying. Sand paint to a matt finish using 100 grit paper. Dust off.

SUBSTRATE: cement plaster

SP13 REPLASTERING - PLASTER KEY (LARGE AREAS) - MASONRY, PLASTER, ETC.

Where areas of underbound/friable cement plaster have been removed, the existing sound plaster or brickwork needs to be wetted using a 'Plaster Key' type product to create a bond between new and old. Replaster.

SUBSTRATE: cement plaster

SP14T BROKEN/DAMAGED CEMENT PLASTER & CONCRETE AREAS (SMALL AREAS) - MASONRY, PLASTER, ETC.

Open damaged area sufficiently to allow repair material to be adequately filled in order to achieve a mechanical bond. Clean away dust, grease and grime from surface. Fill areas with Polycell Polyfilla Masonry Patching Plaster (102003), by using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer (PP 700) and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

SUBSTRATE: cement plaster

SP15DT FINE CRACK REPAIRS (0.08-3MM): PROFESSIONAL BRIDGING COMPOUND (PWC520)

Ensure any debonded or hollow sounding plaster is removed and repaired (refer SP 13). Cracks exhibiting algae or fungal growth should be scrubbed with sodium hypochlorite solution (Bleach mixed 1 part bleach two parts water, brush onto surface and allow 30 minutes to react). Rinse well with clean water and allow drying. Before bridging the crack, apply one coat of Professional Gypsum & Plaster Primer (PP 700) to fine cracks and allow 16 hours drying at 23 °C before overcoating. Brush Professional Bridging Compound (PWC 520) thinned 5-10 % with water over the entire fine cracked area to a wet film thickness of 400 µm (a medium pile or short pile roller maybe used with thinned material to avoid texturing the coating. Stipples should be smoothed out while still wet using a water wet brush). CRAZED CRACKING: A second diluted coat will be required after a drying time of two hours in order to fill and bridge these cracks.

SUBSTRATE: cement plaster

SP15FT RIDGE PLASTER CRACKS (<4MM): MENDALL 90

Rake out cracks using an angle grinder to a minimum of 3mm wide and deep. Remove dust and prime repaired areas with Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. Fill with Polycell Polyfilla Mendall 90 (801601) and smooth off to match existing plaster. After 8 hours sand smooth and prime repaired areas with Professional Gypsum & Plaster Primer (PP700). After 16 hours make the repaired areas invisible by rolling (using a medium pile roller), a coat of thinned (5% with water) Professional Bridging Compound (PWC 520), applied at a wet

film thickness of 400 µm; whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15HT PLASTER CRACKS (<4MM): MENDALL 90

Rake out cracks using an angle grinder to a minimum of 3mm wide and deep. Remove dust and prime repair areas with Professional Gypsum & Plaster Primer (PP 700). Allow 16 hours to dry. Fill with Polycell Polyfilla Mendall 90 (801601) and smooth off to match existing plaster. After 8 hours sand smooth and prime repaired areas with Professional Gypsum & Plaster Primer (PP 700). Optional: After 16 hours make the repaired areas invisible by rolling (using a medium pile roller), a coat of thinned (5% with water) Professional Bridging Compound (PWC 520), applied at a wet film thickness of 400 µm; whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15JT CORNER TO CORNER FINE CRACK REPAIR

Where extensive fine cracking is present, treat for fungal growth and sand flat to provide a key. The entire wall (from corner to corner) must be coated with two coats of Professional Bridging Compound (PWC 520) thinned up to 5 % with water to avoid a structured finish, applied at a wet film thickness of 400 µm per coat. Allow 4 hours drying at 23 °C between coats.

SUBSTRATE: cement plaster

SP15LT DORMANT LARGE PLASTER CRACKS (4-10MM) - MASONRY PATCHING PLASTER

Open large plaster cracks using an angle grinder in an inverted V-shape to > 4mm wide and deep. Remove dust and debris. If the depth is greater than 10mm a backing rod/cord should be inserted. Using a spatula, tool in the Polycell Polyfilla Masonry Patching Plaster (102003) firmly into the crack, imitating the existing plaster finish as closely as possible. Allow to dry for 24 hours. Patch prime with Professional Gypsum & Plaster Primer (PP700) and allow 16 hours to dry. Bridge repaired areas with one coat of Professional Bridging Compound (PWC 520) applied at a WFT thickness of 400 µm. Whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP16 EXISTING EXPANSION JOINTS: SIKAFLEX PRO 3WF

Remove all old sealant and clean the sides of the joints back to a sound concrete or plaster. Insert relevant size backing rod/cord if the depth is greater than 10mm. Apply Sikaflex Pro 3WF by cartridge sealant gun into the void and tool firmly against the joint side to promote adhesion. Smooth off while still wet. Allow a minimum of one week to cure before painting.

SUBSTRATE: cement plaster

SP19 DEFECTS (HOLES AND VOIDS): POLYCELL POLYFILLA MENDALL 90 (801601) (<4MM)

Make good defects using Polycell Polyfilla Mendall 90 (801601). Smooth off while wet. Allow 8 hours to dry before sanding smooth with 120-220 grit sandpaper depending on finish required.

SUBSTRATE: cement plaster

SP21 SELLOTAPE TEST FOR CLEANLINESS (CHALKY AND CONTAMINATED SUBSTRATES)

Cut a 10-15cm strip of broad Sellotape (~ 50mm) and using your thumb, press it down firmly onto the dry surface. Rip the tape off the surface and immediately stick it down on a sheet of clean, white paper. Check the tape for any discolouration/chalky deposit and if found to be present, the entire cleaning procedure must be repeated. Contaminant free tape must be evident prior to the application of the coating system.

SUBSTRATE: cement plaster

SP25AAT APPLICATION OF PLASCON DAMPSEAL (WDS1) TO BARE PLASTER AND CONCRETE

Sealer Coat: Apply a first coat, by brush, thinned three parts Plascon Dampseal (WDS 1) to one part mineral turpentine (AZH 1) allowing 24hours drying. Finishing Coat: Apply a second coat unthinned by brush or roller at a spreading rate of 3.5 m²/litre. (The coating may be smoothed over with a trowel wetted with mineral turpentine to match smooth wall surfaces). On exceptionally porous surfaces, a third coat may be necessary. On exceptionally damp walls: Apply the first coat in three stages: To the bottom section of the wall and allow 24 hours to dry. To the middle section of the wall and allow 24 hours to dry. To the top section of the wall and allow 24 hours to dry. The second coat may be applied unthinned. NOTE: Plascon Dampseal (WDS 1) may be overcoated with a Waterbased or Alkyd system. If overcoating with Alkyd, first prime the Plascon Dampseal (WDS 1) with Plascon Professional Gypsum and Plaster Primer (PP 700).

SUBSTRATE: cement plaster

SP28A ALKALI BURN: PLASCON PROFESSIONAL HIGH ALKALI PRIMER (PP950) AS A BLOCKER

The root cause of moisture ingress which has resulted in the appearance of alkali burn must be addressed prior to painting. Cracks need to be repaired using the appropriate Plascon Crack Repair System prior to painting. Remove loose and peeling paint back to a firm surface by scraping, sanding or other suitable means and feather the edges. Ensure surfaces are clean, dry and sound. Moisture content not more than 8 % measured on a Doser Hygrometer B2 scale (or equivalent) before painting. Spot prime the defective area showing alkali burn with Plascon Professional High Alkali Plaster Primer (PP 950) to a minimum DFT of 45 µm (WFT 132 µm) and maximum DFT 65 µm (WFT 191 µm). Allow 16 hours to dry. Apply one coat of Plascon Professional High Alkali Plaster Primer (PP 950) over the entire area corner to corner to a minimum DFT of 45 µm (WFT 132 µm) and maximum DFT 65 µm (WFT 191 µm). Allow 16 hours to dry.

SUBSTRATE: cement plaster

SP29 SUBSTRATE CONDITION AND MOISTURE CONTENT

Ensure surfaces are clean, dry and sound. Moisture content on cement plaster must not be more than 8 % when measured on a Doser

Hygrometer B2 scale (or equivalent) and on concrete, not more than 5 % using a B4 scale.

SUBSTRATE: cement plaster

SP36R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT OR SOLVENT BASED ENAMEL

Remove surface contaminants using Polycell Sugar Soap solution – 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix and a bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Sand paint to provide a key for painting. Dust off. Apply a coat of Plascon Universal Undercoat (UC 1) to entire area. Allow 16 hours to dry.

SUBSTRATE: cement plaster

SP39 SELLOTAPE TEST FOR ADHESION AND INTERCOAT ADHESION SUITABILITY

Apply a strip of broad Sellotape to the surface pressing down firmly and leaving for 20 seconds. Remove the Sellotape slowly, pulling it off at a 60° angle to the surface and gauge the resistance compared to applying a similar broad strip of Sellotape to a recently painted surface and gauging the resistance (same topcoat being used for test). The resistance should be estimated as a guide on a scale of 1-10 where 10 provides excellent resistance. Coating should only be conducted if excellent resistance was achieved (estimated between 8 and 10).

SUBSTRATE: cement plaster

SP41 UNBOUND SURFACES

Limewash: Surfaces must be thoroughly wire-brushed, bristle brushed, scraped and sanded to remove all limewash i.e. until the underlying plaster or brickwork is visible. Distemper: Remove distemper with hot water and scraping. Wash surfaces thoroughly with Polycell Sugar Soap (Powder) solution. Soft underbound surfaces may be restored to a sound surface by brushing off all excess underbound, powdery residue. Allow surface to dry. Once surface is sound, apply a coat of Plascon Bonding Liquid (CVI 14) thinned 20 % by volume with Mineral Turpentine (AZH 1). Allow 16 hours to dry before overcoating. Underbound surface: Scrub entire area with a Sugar Soap (Powder) solution to remove dirt, chalked material and any other contaminants. Rinse thoroughly with fresh water and allow to dry.

SUBSTRATE: cement plaster

SP90 GENERAL - COMPOSITE BOARDS

Ensure surfaces are dry, sound and free from surface contaminants, e.g. loose particles, dust, oil, etc. Remove loose and peeling paint with scraper or hand sanding, taking care not to damage the board substrate. Feather edges and dust off. Clean previously painted areas in good condition with Polycell Sugar Soap Solution to remove surface contaminants. Rinse carefully with tap water to remove all traces of Sugar Soap and allow to dry. Sand old glossy enamel surfaces to a matt finish and dust off.

SUBSTRATE: gypsum plaster board

SP92 DEFECTS - INTERIOR BOARDS - COMPOSITE BOARDS

Fill defects on MDF Board and hardboard using Polycell Mendall 90 (501601); use Polyfilla Interior (101002) on Gypsum Plaster Board. Allow to dry. Sand smooth with 220 grit sandpaper.

SUBSTRATE: gypsum plaster board

SP20R RUSTED NAIL HEADS IN CEILING BOARDS

Sand rusted nail heads to bright metal. Patch prime using Plascon Plascopeprime 182 (UC 182) allow drying time of 6 hours. Fill recessed nail heads with Polycell Polyfilla Mendall 90 (801601) smooth off while wet. Sand smooth after 6 hours. Patch prime using Plascon Plaster Primer (UC 56) allowing 16 hours to dry.

SUBSTRATE: gypsum plaster board

SP94R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT

Remove surface contaminants using Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litre of water. For stubborn contaminants use hot water in the above mix and a medium bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Ensure surfaces are clean, dry and sound. Moisture content not more than 8% measured on a Doser Hygrometer A5 scale for hardboard (or equivalent) before painting. Apply a coat of Plascon Universal Undercoat (UC 1) to the entire area. Allow 16 hours drying; or Apply a coat of Plascon Multisurface Primer (WUP 1) to entire area. Allow 2 hours drying.

SUBSTRATE: gypsum plaster board

SP200 MACHINE SANDING - WOOD

Machine sand deck or floor timber to remove all existing coating, dead cells and stained timber providing a fresh new timber finish. Hand sand areas where the machine sanding cannot reach removing existing coating and all surface contaminants. Dust off. Using mutton cloth to remove wood dust, wipe the entire area with Plascon Universal Reducer (PUR 1).

SUBSTRATE: wood

SP201 KNOTS AND RESINOUS AREAS - WOOD

Wash area thoroughly with Plascon Lacquer Thinner (ILS 1) to remove all traces of resin. Treat knots with Plascon Woodcare Knot Seal (PK 2). Allow 1 hour to dry. (Apply two coats if resin is excessive).

SUBSTRATE: wood

SP202 HOLES AND DEFECTS - INTERIOR AND EXTERIOR - WOOD

Fill holes and defects using Polycell Polyfilla Mendall 90 (801601) working off smoothly while wet. Allow 8 hours to dry. Sand to a smooth finish. (Solid Colour Finish). For a clear varnish finish, mix sawdust from sanded wood and varnish to a stiff paste for filling. Allow at least 16 hours drying.

SUBSTRATE: wood

SP203 REMOVING PAINT (DRY METHOD) - WOOD

Remove paint with a scraper, machine or hand sand paint to bare wood in the direction of the grain, using 120 grit paper. Dust off.

SUBSTRATE: wood

SP204 REMOVING PAINT (PAINT STRIPPER METHOD) - WOOD

Remove paint using Removall All Purpose Paint Remover - Brush/Gel Grade (RRA 220). Stir thoroughly until product is uniform in colour. Apply a thick, even layer of stripper onto the coating being removed (1,5-2 times the thickness of the coating to be removed i.e. 70 µm of coating requires 105-150 µm of stripper to be removed effectively. The reaction time required might vary according to the coating type, temperature and weather conditions (2-36 hours). Remove lifted, loose paint using a scraper or high pressure water wash (170-250 bar); pressure wash from bottom up on vertical surfaces to prevent rinse water from de-activating stripper in sections below. The stripped surface must be rinsed with water to remove all chemical residues before painting. Repeat process depending on film build of existing paint.

SUBSTRATE: wood

SP205 PROVIDING A 'KEY' TO OLD PAINT: POLYCELL SUGAR SOAP AND SANDING - WOOD

Wash surface with Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water to remove surface contaminants. Rinse thoroughly with fresh water and allow drying. Sand paint to a matt finish using 120 grit paper, finishing with 220 grit paper. Dust off.

SUBSTRATE: wood

SP207 GENERAL - WOOD

Ensure surfaces are clean, sound and dry. To determine the moisture content, use a Doser Hygrometer scale A1-A5 (or equivalent) depending on generic wood type. Measurements should be <14 % before painting. Sand wood with 120 grit paper and finish off with 220 grit paper in the direction of the grain. Dust off.

SUBSTRATE: wood

SP210R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT

Remove surface contaminants using Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litre of water. For stubborn contaminants use hot water in the above mix and a bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Ensure surfaces are clean, dry and sound. To determine the moisture content, use a Doser Hygrometer scale A1-A5 (or equivalent) depending on generic wood type. Measurements should be <14 % before painting. Sand paint to matt finish with 120 grit paper finishing with 220 grit paper in direction of grain. Dust off. Apply a coat of Plascon Universal Undercoat (UC 1) to the entire area. Allow 16 hours drying.

SUBSTRATE: wood

SP206 PREPARING OILED TIMBER FOR VARNISHING/RE-OILING - WOOD

Scrub the surface with Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litres of hot water to remove surface contaminants and oils. Rinse thoroughly with fresh water and allow drying. Sand surface to an even finish using 120 grit paper, finishing with 220 grit paper.

SUBSTRATE: wood

SP120 GALVANISED IRON IN GOOD CONDITION

Apply Plascon Galvanized Iron Cleaner (GIC 1) to all bare galvanized areas by brush, broom or spray. Allow to react for 10 minutes. Agitate the surface using bristle brooms or brushes or Scotch Brite pads to remove all surface contaminants. Followed by rinsing the surface with potable water. Check if surface is water-break free. If not, repeat the cleaning process. Allow to dry completely.

SUBSTRATE: galvanised iron

SP125 UNPASSIVATED GALVANISING - GALVANISED IRON

Scrub entire area with Plascon Metalcare Aquasolv Degreaser (GR 1). Allow to react for 20 minutes. Remove Plascon Metalcare Aquasolv Degreaser (GR 1) and surface contaminants by hydro blasting or with bristle scrubbing brushes and brooms or Scotch Brite pads in conjunction with tap water. Check if the surface is water-break free. If not, repeat the cleaning process.

SUBSTRATE: galvanised iron

SP126 ZINC SALTS (WHITE RUST) - GALVANISED IRON

Scour entire area with Plascon Metalcare Aquasolv Degreaser (GR 1) in conjunction with Scotch Brite pads. Allow to react for 20 minutes. Remove Plascon Metalcare Aquasolv Degreaser (GR1) and surface contaminants by hydro blasting or with medium hard bristle scrubbing brushes or brooms in conjunction with tap water. Check if the surface is water break-free. If not, repeat process. Allow surface to dry.

SUBSTRATE: galvanised iron

SP123 SOUND PREVIOUSLY PAINTED SURFACES - GALVANISED IRON

Scrub entire area with Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litres of water to remove chalkiness and surface contaminants. Rinse thoroughly with tap water and allow drying. Sand glossy material to provide a key. Remove dust.

SUBSTRATE: galvanised iron

SP124 ISOLATED PEELING PAINT (CROSS HATCH TEST AND REMOVAL) - GALVANISED IRON

Conduct random 1mm Cross Hatch Testing. Areas below 90 % pass rate must be stripped completely using Removall All Purpose Paint Remover, Brush/Gel Grade (RRA 220). Stir thoroughly until product is uniform in colour. Apply a thick, even layer of stripper onto the coating being removed (1,5-2 times the thickness of the coating to be removed i.e. 70 µm of coating requires 100-150 µm of stripper to be removed effectively). The reaction time required might vary according to the coating type, temperature and weather conditions (2-36 hours). Remove lifted, loose paint using a scraper or high pressure water wash (170-250 bar); pressure wash from bottom up on vertical surfaces to prevent rinse water from de-activating stripper in sections below. The stripped surface must be rinsed with water to remove all chemical residues before painting.

SUBSTRATE: galvanised iron

SP131R OVERCOATING SOLVENT BASED ENAMEL WITH SOLVENT BASED ENAMEL

Remove surface contaminants using Polycell Sugar Soap solution - 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water or Polycell Sugar Soap Liquid (501801). For stubborn contaminants use hot water in the above mix and a medium hard bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Sand paint to matt finish with 120 grit paper finishing with 220 grit paper. Dust off. Ensure surfaces are clean, dry and sound. Apply a coat of Plascon Universal Undercoat (UC 1) to entire area. Allow 16 hours to dry.

SUBSTRATE: galvanised iron

TABLE OF REFERENCES:

- Technical Data Sheet (TDS) : User must always ensure that latest issue is used.
- B = Brush (ready for use), R = Roller (synthetic, min. 10mm pile) (ready for use), S = Airless spray (ready for use).
- Theoretical spreading rate quoted is for smooth non-porous substrates and does not include allowance for surface profile, porosity, wastage and uneven film application. Suitable allowance should be made according to type of work, method and skill of applicator. Practical spreading rate quoted is an average guide only - actual must be determined by user - see Preamble for formulation how to calculate.
- Overcoating times are at 23°C and 75% relative humidity. Longer times must be allowed under cooler and moist conditions. DO NOT paint during inclement weather and when temperature is below 10°C.
- Fading and chalking will occur to a greater or lesser degree depending on pigmentation and generic binder type.
- NB: Life expectancy may vary, depending on environmental conditions and stresses, within the macro/micro climate of the project.

PROTEA FLATS REDECORATION

REVISION 1

KP016158

CENTRAL, PORT ELIZABETH, EASTERN CAPE

08 NOVEMBER 2023

Date: 08 November 2023

Protea Flats Redecoration
52 Cape Road
Central, Port Elizabeth, Eastern Cape

Attention: Bryan Brinkman

B4 Architects
Unit 12, Bloomingdales Office Park, Walmer, Port Elizabeth

Telephone Number: 0415811217

Cellular Number: 0769811974

E-mail Address: b4.bryanb@b4arch.co.za

Dear Bryan Brinkman

RE: PROTEA FLATS REDECORATION

REVISIONS

- Revision 1: 2023.11.08: Spec #9 - Balustrades and cat ladder added; Spec #11 added for cast iron pipes; Spec #12 added for fibre cement fascia boards.

With reference to our visit and assessment of the abovementioned project, we would like to offer the following recommendations for your consideration.

GENERAL

- Please note the correct crack repair systems using Plascon Bridging Compound PWC 520 included in the surface preparations.
- There is a possibility that clean, bright colours might not cover in two coats. Another one or in extreme cases two coats might be required to achieve opacity. Alternatively, a similar colour (in a medium or dark base) can be used as the base colour and then overcoated with the recommended topcoat colour.
- To achieve full obliteration when using colours falling within the bright, clean colour spectrum, multi-coats will be necessary to achieve full obliteration, after the application of the plaster primer and the appropriate base coat where necessary. This should be taken into consideration when specifying and pricing within this parameter.
- **PLEASE NOTE:**When **YELLOW** top coats are selected for **NEW and REDEC WORK Application**, it is imperative to use Plascon Professional Plaster Primer - PP950 (Alkali Burn Resistance Primer) in place of other plaster primers as pH levels may be exceptionally high on new or hairline cracked plaster.
- Kansai Plascon reserves the right to amend the specification once site establishment has taken place should it be deemed necessary e.g. plaster severely cracked but paint has not. It is not always possible to accurately determine the condition of the substrate underneath the existing coating
- Uneven, inconsistent surface profiles will result in varying reflectance levels which will present as a patchy finish, even when matt coatings are used. We are using high build coatings to mask this effect
- Only the areas mentioned in the scope of works must be coated
- All the products mentioned in these specifications must be applied strictly in accordance with the relevant Product Data Sheets
- A site inspection must be carried out by a Plascon consultant prior to painting of the substrates to ensure that the scope of work is correct
- Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.
- Please note that the attached specifications are valid for a **six month** period from date of issue.
- At the time of inspection there was no chalking evident, however should chalking be evident when painting commences a full coat of the specified primer is required.
- Should 50% or more of the surface area require patch priming, it is recommended for a full coat of the specified primer be applied.
- The waterproofing problems visible exceed the capabilities of our Plascon products and therefore we recommend that you contact a waterproofing specialist to assist you with your waterproofing issues.
- Once the waterproofing has been successfully carried out and the moisture levels of the substrates is below 8% when measured on a Doser Hygrometer BD2 scale (or equivalent), should painting commence.

Exterior



Cleaning and prep of substrates to conform to surface preps as per specification document.



Structural failures to be addressed by structural engineer and spalling concrete to be treated as per surface preparations.



Waterproofing issues to be addressed and to conform to surface preparations as per specification document.



Hydroblast the substrate to remove loose or peeling paint, surface contaminants, or friable materials. If the paint surface is still powdery after Sellotape test, apply a full coat of plaster primer.



Cracks to be repaired as per surface preparations included in specification document.

PLEASE NOTE:

- a. The client/contractor must notify the Plascon Projects Department that the project has been awarded and when the project will start. Please fill in and fax the attached Project Action Sheet back to the Commercial Projects Division. Phone number: (011) 608 0790 and fax number: 086 688 0378.
- b. In order to facilitate the Plascon Guarantee, Plascon Preferred Applicators must be used on this project.

Please note that the attached specifications are valid for an six-month period from date of issue. Should the project not commence during this period it may be necessary to re-assess the project as further coating deterioration may have occurred and product upgrades may be necessary.

It is recommended that imported light fast colourants/pigments be used for the bright, clean colours. These colours will change uniformly and a difference in the finishing colour will be noted after +/- 1 year. Pantone colours should not be used but rather choose colours from the RAL or BS colour standards.

Colour change is the perceived colour difference in magnitude between coated substrate and standard colour panel assessed by contrast value (excludes hue and depth) on Grey Scale ISO/SANS 105-A02:1993 (E). Colour change allowable, using the Grey Scale Standard ISO/SANS 105-A02:1993 (E) is 4-5 up to three years and 3-4 up to five years. Beyond 5 years is not considered.

Yours sincerely

KURT BRUINDERS
CONSULTANT



PLEASE NOTE

THE PROJECT ACTION SHEET TOGETHER WITH A COPY OF YOUR QUOTE (ITEMISING THE PRODUCTS AND SURFACE PREPARATION THAT WAS TENDERED ON - PLEASE DELETE YOUR PRICING) INCLUDED IN THIS DOCUMENT MUST BE RETURNED TO PLASCON COMMERCIAL SPECIFICATIONS DEPARTMENT FAX NO: 086 688 0378

PRIOR TO THE COMMENCEMENT OF THIS PROJECT TO FACILITATE PLASCON'S FORMALITIES AND TIMEOUS SITE ATTENDANCE

IF THIS IS NOT ADHERED TO NO PROJECT GUARANTEE WILL BE ISSUED

SPECIFICATIONS FOR

PROTEA FLATS REDECORATION

52 CAPE ROAD

CENTRAL, PORT ELIZABETH, EASTERN CAPE

CONTENTS

- Index/Scope of Work
- Contractors Quotation Requirements
- Project Action Sheet
- Specifications

DISCLAIMER

The recommendations contained herein are given in good faith and are meant to guide the specifier or the user. They are based on results gained from our tests and experiences and are believed to be reliable. No guarantee is implied by the recommendations contained herein since conditions of use, method of application and cleanliness of the substrate prior to painting are beyond our control. No part of this work may in any form or by any means be reproduced without the prior written permission NB: The specification should be read in conjunction with the product data sheet. Technology may change with time necessitating changes to this Technical Data Sheet (TDS). It is the responsibility of the user to ensure that the latest TDS is being used.

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INDEX/SCOPE OF WORK

SPECNO	SUBSTRATE	SPECIFICATION TYPE	PRODUCT	FINISH	LIFE EXPECTANCY	LOCATIONS	BUILDING ELEMENTS
1	Cement Plaster	Previously Decorated	Professional Aquarista (PHB800/THB) / Professional High Alkali Plaster Primer (PP950) / Professional Bridging Compound (PWC520)	Smooth/Water Based	Severe: 6years	Exterior	Walls
2	Cement Plaster	Previously Decorated	Professional Superior Low Sheen (PEM 1000/TLS) / Professional High Alkali Plaster Primer (PP950)	Smooth/Water Based	Moderate: 10years	Interior.	Walls
3	Cement Plaster	Previously Decorated	SuperAcrylic Polvin (EPL/TAP) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 7years	Interior.	Soffits
4	Cement Plaster	Previously Decorated	Professional Aquarista (PHB800/THB) / Professional High Alkali Plaster Primer (PP950) / Professional Bridging Compound (PWC520)	Smooth/Water Based	Severe: 2years	Exterior	Boundary walls
5	Gypsum Plaster Board	Previously Decorated	SuperAcrylic Polvin (EPL/TAP) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Moderate: 7years	Interior.	Ceilings
6	Fibre Cement	Previously Decorated	Nuroof Cool Acrylic Roof Paint (TRP 200) / Bonding Liquid (CV114)	Smooth/Water Based	Severe: 8years	Exterior	Roofs
7	Wood	Previously Decorated	Woodcare Ultra Varnish (X33-38 range/X44) / Woodcare Ultra Varnish (X33-38 range/X44)	Smooth/Solvent Based	Moderate: 3years	Interior.	Doorframes Doors Skirting boards Window sills Architraves
8	Galvanised Steel	Previously Decorated	Velvaglo Satin (VLO/TVG) / Galvanised Iron Primer (GIP1) / Universal Undercoat (UC1)	Smooth/Solvent Based	C5: 3years	Interior.	Doorframes Gates
9	Galvanised Steel	Previously Decorated	Super Universal Enamel (NY1/G/TSE) / Galvanised Iron Primer (GIP1) / Universal Undercoat (UC1)	Smooth/Solvent Based	C5: 3years	Exterior	Window frames Balustrades Catladder
10	Mild Steel	Previously Decorated	Velvaglo Satin (VLO/TVG) / Metalcare Mild Steel Primer (UC501) / Universal Undercoat (UC1)	Smooth/Solvent Based	C5: 3years	Interior.	Doorframes
11	Cast Iron	New Work	Wall & All (WAA/TWA) / Plascope Prime PA-10 (BPA410) / Plascon Universal Undercoat (UC1)	Smooth/Water Based	Severe: 8years	Exterior	Pipes
12	Fibre Cement	New Work	Wall & All (WAA 1) / Professional Gypsum & Plaster Primer (PP700)	Smooth/Water Based	Severe: 8years	Exterior	Fascia boards

AREAS TO BE EXCLUDED

All substrates not mentioned in this document

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Contractor quotation requirements for Guarantee Projects:

- Contractors to provide proof of registration with the Unemployment Insurance Fund (UIF) and Compensation for Occupational Injuries and Diseases Act (COID).
- Contractors must advise the client in writing, as to whether they will be using their own staff or sub-contractors on the project.
- The successful contractor will be required to supply a program of works prior to commencement.
- Allowance must be made for removal and replacement of screws on signage (excluding neon signs), where necessary.
- Please supply a total break down of the quotation price for the redecoration work as per Plascon's recommended specification numbers & substrate types (as per this document) for guarantee purposes.
- Quotations are to be valid for a three month period.

Project Action Sheet:

- To assist with prompt handover of projects we have partially prepared a "Project Action Sheet" for this project.
- Once a decision has been made to award the project to a painting contractor, we would appreciate you completing the items highlighted in red in sections 1-3 and attaching a copy of the successful contractor's quotation. This information can then be faxed to our offices:

To : Plascon South Africa (Pty) Ltd
Attention : Trade Projects Department
Facsimile Number: 086 688 0378
Email : trade.admin@kansaiplascon.co.za

- c. We will complete the outstanding information internally and ensure that the relevant Plascon people are advised to monitor the project and prepare the guarantee documentation.

Your assistance with the above is appreciated.

NB: PLEASE ATTACH COPY OF ACCEPTED QUOTATION!!!

SECTION 1			
Project Name	Protea Flats Redecoration		
Project Address	52 Cape Road, Central, Port Elizabeth, Eastern Cape		
Architects		Contact Person & Contact Number	
Client	B4 Architects	Contact Person & Contact Number	Bryan Brinkman 0769811974
Corporate Client		Contact Person & Contact Number	
Developer		Contact Person & Contact Number	
Quantity Surveyor		Contact Person & Contact Number	
Clients Consultant	Kurt A. Bruinders (Kansai Plascon)	Contact Person & Contact Number	082 800 8288
SECTION 2			
Applicator		Contact Person & Contact Number	
Contractor's Consultant		Contact Number	
Estimated Start Date		Estimated Completion Date	
Estimated Contract Value		Estimated Paint Value	
SECTION 3			
<u>SURFACE AREAS TO BE PAINTED AND INSPECTED:</u>			
Does the scope of work remain the same as per specification document?: NO/YES			
(If the answer is no, please supply changes or areas that are to be excluded or included)			
N/A			
SECTION 4 - SUBSTRATES GUARANTEED			
COATING SYSTEMS - As per Plascon Specification Document Dated			08 November 2023
The following specifications will apply to the guarantee:			
SPEC NO:	SUBSTRATE	BUILDING ELEMENT	GUARANTEE PERIOD
SECTION 4 - SUBSTRATES GUARANTEED			
Quality Assurance (Contract value above R200 000,00)			No
Product Guarantee			Yes
Instructions/Paperwork:			
Contractors Rep			
Site Inspection Required			Yes
Reference Area Required			No
Colour Finishing Schedule Required			No

SPECIFICATION SHEET NO. 1**APPLICABLE LOCATIONS:**

EXTERIOR :: WALLS

REPAINT: Exterior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Professional Aquarista**
(Smooth Finish - Waterbased, superior high build acrylic with water proofing properties) **PRODUCT CODE: PHB 800****COLOUR :** White and pastel only

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Severe

ENVIRONMENT:

- Coastal areas subject to salt spray (up to 3KM Inland)
- Non-Industrial
- Average rainfall
- Inland Industrial Areas
- Significant atmospheric pollution
- Areas where driving rain occurs frequently

Maintenance Cycle: 6 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μ m (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer Coat: Professional High Alkali Plaster Primer (PP950)	brush or roller	@ 55 μ m Theo: 6.20m ² /litre Prac: 4.00m ² /litre	WFT: 132/191 microns DFT: 45/65 microns	Mineral Turpentine	1	16 hours		407
ONLY EXTERIOR: Window sills, ledges, parapets, plaster bands, protruding plaster detail, etc. Professional Bridging Compound (PWC520)	brush or roller	@ 250 μ m Theo: 2.00m ² /litre Prac: 1.50m ² /litre	WFT: 400-600 per coat DFT: 200-300 per coat	Water	3	4 hours		10
Topcoat: Professional Aquarista (PHB 800/THB)	brush, roller or airless spray	@ 90 μ m Theo: 4.40m ² /litre Prac: 3.10m ² /litre	WFT: 200/250 microns DFT: 80/100 microns	Water	2	2 hours	6012	<16g/litre White, <5g/litre tinted pastel

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Full Primer Coat:

- Apply one coat of Plascon Professional High Alkali Plaster Primer (PP950) over the entire area corner to corner to a minimum DFT of 45µm (WFT 132µm) and maximum DFT 65µm (WFT 191µm). Allow 16 hours to dry. (water based topcoat)

Intermediate Coats for Selected Substrates: 3 Coats only exterior Window sills, ledges, parapets, plaster bands, protruding plaster detail, etc.

- Apply three full coats of Plascon Professional Bridging Compound (PWC520) at a spreading rate of approximately 1.5m²/litre per coat. Allow 4 hours drying between coats. Stipples should be smoothed out while still wet using a water-wet brush.

Finishing Coats:

- Apply two coats of Plascon Professional Aquarista (PHB 800/THB) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 2**APPLICABLE LOCATIONS:**

INTERIOR. :: WALLS

REPAINT: Interior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Professional Superior Low Sheen**
(Smooth Finish - Waterbased superior low sheen acrylic, durable, washable)PRODUCT CODE: **PEM 1000****COLOUR :** White plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 10 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional High Alkali Plaster Primer (PP950)	brush or roller	@ 55 μm Theo: 6.20m ² /litre Prac: 4.00m ² /litre	WFT: 132/191 microns DFT: 45/65 microns	Mineral Turpentine	1	16 hours		407
Topcoat: Professional Superior Low Sheen (PEM 1000/TLS)	brush, roller or airless spray	@ 30 μm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT: 25/35 microns	Water	2	1 hour	5851	< 5 white & pastel tinted <16 deep & transparent bases tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Plascon Professional High Alkali Plaster Primer (PP950). Allow 16 hours to dry. (water based topcoat)

Finishing Coats:

- Apply two coats of Plascon Professional Superior Low Sheen (PEM 1000/TLS) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 3**APPLICABLE LOCATIONS:**

INTERIOR. :: SOFFITS

REPAINT: Interior**SUBSTRATE:** Cement Plaster**PAINT FINISH :** **Super Acrylic Polvin**
(Smooth Finish - Waterbased, superior matt acrylic, durable)PRODUCT CODE: **EPL****COLOUR :** White plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 7 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Super Acrylic Polvin (EPL/TAP)	brush, roller or airless spray	@ 30 µm Theo: 11.30m ² /litre Prac: 6.30m ² /litre	WFT: 74/103 microns DFT: 25/35 microns	Water	2	1 hour	5490	< 16 white, pastel, deep and transparent tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Prime:

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two coats of Plascon Super Acrylic Polvin (EPL/TAP), allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 4

APPLICABLE LOCATIONS:

EXTERIOR :: BOUNDARY WALLS

REPAINT: Exterior

SUBSTRATE: Cement Plaster

PAINT FINISH : **Professional Aquarista** (Smooth Finish - Waterbased, superior high build acrylic with water proofing properties) **PRODUCT CODE: PHB 800**

COLOUR : White and pastel only

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Severe

- Coastal areas subject to salt spray (up to 3KM Inland)
- Non-Industrial
- Average rainfall
- Inland Industrial Areas
- Significant atmospheric pollution
- Areas where driving rain occurs frequently

ENVIRONMENT:

Maintenance Cycle: 2 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Prime: Professional High Alkali Plaster Primer (PP950) Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.	brush or roller	@ 55 µm Theo: 6.20m ² /litre Prac: 4.00m ² /litre	WFT: 132/191 microns DFT: 45/65 microns	Mineral Turpentine	1	16 hours		407
TWO FULL COATS: Vertical Surfaces Professional Bridging Compound (PWC520)	brush or roller	@ 250 µm Theo: 2.00m ² /litre Prac: 1.50m ² /litre	WFT: 400-600 per coat DFT: 200-300 per coat	Water	2	4 hours		10
ONLY EXTERIOR: Window sills, ledges, parapets, plaster bands, protruding plaster detail, etc. Professional Bridging Compound (PWC520)	brush or roller	@ 250 µm Theo: 2.00m ² /litre Prac: 1.50m ² /litre	WFT: 400-600 per coat DFT: 200-300 per coat	Water	3	4 hours		10
Topcoat: Professional Aquarista (PHB 800/THB)	brush, roller or airless spray	@ 90 µm Theo: 4.40m ² /litre Prac: 3.10m ² /litre	WFT: 200/250 microns DFT: 80/100 microns	Water	2	2 hours	5449	<16g/litre White, <5g/litre tinted pastel

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer Coat:

- Spot prime bare and repaired areas with Plascon Professional High Alkali Plaster Primer (PP950) over the affected area to a minimum DFT of 45µm (WFT 132µm) and maximum DFT 65µm (WFT 191µm). Allow 16 hours to dry. (water based topcoat)

Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.

Intermediate Coats: Vertical Surfaces

- Apply two full coats of Plascon Professional Bridging Compound (PWC520) at a spreading rate of approximately 1.5m²/litre per coat. Allow 4 hours drying between coats. Stipples should be smoothed out while still wet using a water-wet brush.

Intermediate Coats for Selected Substrates: 3 Coats only exterior Window sills, ledges, parapets, plaster bands, protruding plaster detail, etc.

- Apply three full coats of Plascon Professional Bridging Compound (PWC520) at a spreading rate of approximately 1.5m²/litre per coat. Allow 4 hours drying between coats. Stipples should be smoothed out while still wet using a water-wet brush.

Finishing Coats:

- Apply two coats of Plascon Professional Aquarista (PHB 800/THB) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 5

APPLICABLE LOCATIONS:

INTERIOR. :: CEILINGS

REPAINT: Interior

SUBSTRATE: Gypsum Plaster Board

PAINT FINISH : **Super Acrylic Polvin**
(Smooth Finish - Waterbased, superior matt acrylic, durable)

PRODUCT CODE: **EPL**

COLOUR : White plus Plascon Pastel colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 7 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Professional Gypsum & Plaster Primer (PP700) Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.	brush, roller or airless spray	@ 40 µm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 109/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16 hours		423
Topcoat: Super Acrylic Polvin (EPL/TAP)	brush, roller or airless spray	@ 30 µm Theo: 11.30m ² /litre Prac: 6.30m ² /litre	WFT: 74/103 microns DFT: 25/35 microns	Water	2	1 hour	7085	< 16 white, pastel, deep and transparent tinted

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Prime

- Spot prime bare and repaired areas with Plascon Professional Gypsum & Plaster Primer (PP700). Allow 16 to dry. (water based topcoat)

Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.

Finishing Coats

- Apply two coats of Plascon Super Acrylic Polvin (EPL/TAP) to achieve complete obliteration, allowing 1 hour drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 6**APPLICABLE LOCATIONS:**

EXTERIOR :: ROOFS

REPAINT: Exterior**SUBSTRATE:** Fibre Cement**PAINT FINISH :** **Plascon Nuroof Cool Acrylic Roof Paint**
(Smooth finish - water based, premium quality acrylic roof paint)PRODUCT CODE: **TRP 200****COLOUR :** Standard colours as per colour card

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3 Severe

ENVIRONMENT:

- Coastal areas subject to salt spray (up to 3KM Inland)
- Non-Industrial
- Average rainfall
- Inland Industrial Areas
- Significant atmospheric pollution
- Areas where driving rain occurs frequently

Maintenance Cycle: 8 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Sealer Coat: Plascon Bonding Liquid	brush, roller or airless spray	@ 15 µm Theo: 8.00m ² /litre	WFT: 125/167 microns DFT: 15/20 microns	Mineral Turpentine	1	16 hours		690
Topcoat: Nuroof Cool Acrylic Roof Paint (TRP 200)	brush, roller or airless spray	@ 42.5 µm Theo: 8.50m ² /litre Prac: 5.00m ² /litre	WFT: 100/140 microns DFT: 35/50 microns	Water	2	2 hours	7881	40

SURFACE PREPARATION:

- *After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION:**Spot Sealer Coat:**

- Spot prime bare and repaired areas with Plascon Bonding Liquid (CVI14). Allow 16 hours to dry.

Finishing Coats

- Apply two coats of Plascon Nuroof Cool Acrylic Roof Paint (TRP 200) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 7**APPLICABLE LOCATIONS:**

INTERIOR. :: DOOR FRAMES, DOORS , SKIRTING BOARDS, WINDOW SILLS, ARCHITRAVES

REPAINT: Interior**SUBSTRATE:** Wood**PAINT FINISH :** **Woodcare Ultra Varnish**
(Smooth, solvent based, mar and stain resistant gloss or suede varnish) **PRODUCT CODE: X33-38 range/X44****COLOUR :** Clear and standard colours: GLOSS: X33 - Clear, X34 - Light Oak, X35 - Teak, X36 - Oregon Pine, X37 - Imbuia, X38 - Mahogany SUEDE: X44 - Clear

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Moderate

- Dry well-ventilated environments, i.e. Domestic, Commercial and Light Industrial buildings

ENVIRONMENT:

- Possibly more frequent moderate condensation
- Moderate soiling, abrasion or handling of surfaces

Maintenance Cycle: 3 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Prime: Woodcare Ultra Varnish (X33-38 range/X44)	brush or airless spray	@ 12 µm Prac: 9.50m ² /litre		Mineral Turpentine	1	6 hours		443
Topcoat: Woodcare Ultra Varnish (X33-38 range/X44)	brush or airless spray	@ 25 µm Theo: 18.00m ² /litre Prac: 9.50m ² /litre	WFT: 33/67 microns DFT:15/30 microns	Mineral Turpentine	2	6 hours	8117	443

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION:Brush Application Spot Prime

- Spot prime bare and repaired areas with Plascon Woodcare Ultra Varnish (X33-38 range/X44) thinned 3 parts Plascon Woodcare Ultra Varnish (X33-38 range/X44) to 1 part Mineral Turpentine (AZH 1) by volume. Allow 6 hours to dry. Sand lightly with fine paper (600 or 800 grit) to denib. Remove dust.

Finish Coats

- Apply two further coats of Plascon Woodcare Ultra Varnish (X33-38 range/X44) unthinned allowing 6 hours drying between coats. Also sand lightly between coats to denib and dust off.

Spray Application

- Thin approximately 10 parts Ultra Varnish to 1 part Spraying Thinner (TH3) or Mineral Turpentine (AZH 1) by volume.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

DISCLAIMER:

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SPECIFICATION SHEET NO. 8

APPLICABLE LOCATIONS:

INTERIOR. :: DOOR FRAMES, GATES

REPAINT: Interior

SUBSTRATE: Galvanised Steel

PAINT FINISH : **Velvaglio Satin**
(Smooth, premium non-drip satin polyurethane enamel)

PRODUCT CODE: **VLO**

COLOUR : White and standard colours as per colour card, plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

ENVIRONMENT: **As per ISO 12944:1998 C5** - coastal/marine

Maintenance Cycle: 3 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Galvanised Iron Primer (GIP1) Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.	brush, roller or airless spray	@ 30 μm Theo: 13.00m ² /litre Prac: 7.00m ² /litre	WFT: 64/102 microns DFT: 25/40 microns	Water	1	24 hours		20
Undercoat: Universal Undercoat (UC 1)	brush, roller or airless spray	@ 30 μm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvaglio Satin (VLO/TVG)	brush, roller or airless spray	@ 30 μm Theo: 15.00m ² /litre Prac: 8.30m ² /litre	WFT: 56/89 microns DFT: 25/40 microns	Mineral Turpentine	2	16 hours	6930	435 white, 403 pastel & transparent, 409 deep

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Galvanised Iron Primer (GIP1) . Allow 24 hours to dry. (solvent based topcoat)

Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC 1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Velvagio Satin (VLO/TVG) to achieve complete obliteration, allowing 16 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 9

APPLICABLE LOCATIONS:

EXTERIOR :: WINDOW FRAMES, BALUSTRADES, CAT LADDER

REPAINT: Exterior

SUBSTRATE: Galvanised Steel

PAINT FINISH : **Super Universal Enamel**
(Smooth Finish - Solvent Based, superior high gloss enamel)

PRODUCT CODE: **NY 1/G**

COLOUR : White plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

ENVIRONMENT: **As per ISO 12944:1998 C5 - coastal/marine**

Maintenance Cycle: 3 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Galvanised Iron Primer (GIP1) Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.	brush, roller or airless spray	@ 30 µm Theo: 13.00m ² /litre Prac: 7.00m ² /litre	WFT: 64/102 microns DFT: 25/40 microns	Water	1	24 hours		20
Undercoat: Universal Undercoat (UC 1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Super Universal Enamel (NY 1/G/TSE)	brush, roller or airless spray	@ 30 µm Theo: 16.30m ² /litre Prac: 9.00m ² /litre	WFT: 51/71 microns DFT: 25/35 microns	Mineral Turpentine	2	16 hours	6914	381 white, < 415 tint based

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Galvanised Iron Primer (GIP1) . Allow 24 hours to dry. (solvent based topcoat)

Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC 1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Super Universal Enamel (NY 1/G/TSE) to achieve complete obliteration, allowing 16 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 10**APPLICABLE LOCATIONS:**

INTERIOR. :: DOOR FRAMES

REPAINT: Interior**SUBSTRATE:** Mild Steel**PAINT FINISH :** **Velvagio Satin**
(Smooth, premium non-drip satin polyurethane enamel)PRODUCT CODE: **VLO****COLOUR :** White and standard colours as per colour card, plus Plascon colour system and other fan decks

The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system

ENVIRONMENT: **As per ISO 12944:1998 C5 - coastal/marine****Maintenance Cycle:** 3 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Spot Primer: Metalcare Mild Steel Primer (UC501) Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.	brush, roller or airless spray	@ 30 µm Theo: 15.00m ² /litre Prac: 8.30m ² /litre	WFT: 56/89 microns DFT: 25/40 microns	Mineral Turpentine	1	16 hours		481
Undercoat: Universal Undercoat (UC 1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Velvagio Satin (VLO/TVG)	brush, roller or airless spray	@ 30 µm Theo: 15.00m ² /litre Prac: 8.30m ² /litre	WFT: 56/89 microns DFT: 25/40 microns	Mineral Turpentine	2	16 hours	7416	435 white, 403 pastel & transparent, 409 deep

SURFACE PREPARATION:

- After a full site assessment has been conducted, select the appropriate surface preparation required from Surface Preparation clauses for remedial procedure.

APPLICATION: Spot Primer:

- Spot prime bare and repaired areas with Metalcare Mild Steel Primer (UC501) . Allow 16 hours to dry. (solvent based topcoat)

Projects within a 5km radius of the ocean must be overcoated with a full coat of the Kansai Plascon specified primer, where the coating system has substantially faded and chalked.

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC 1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Velvagio Satin (VLO/TVG) to achieve complete obliteration, allowing 16 hours drying between coats.

NB: if white is used, three coats might be necessary to achieve obliteration.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 11**APPLICABLE LOCATIONS:**

EXTERIOR :: PIPES

NEW WORK:	Exterior
SUBSTRATE:	Cast Iron
PAINT FINISH :	Wall & All (Smooth Finish - Waterbased, premium pure acrylic - sheen) PRODUCT CODE: WAA
COLOUR :	White and standard colours as per colour card, plus Plascon colour system and other fan decks
ENVIRONMENT:	The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3: Severe <ul style="list-style-type: none"> • Coastal areas subject to salt spray (up to 3KM Inland) • Non-Industrial • Average rainfall • Inland Industrial Areas • Significant atmospheric pollution • Areas where driving rain occurs frequently

Maintenance Cycle: 8 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT µm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Plascope Prime PA-10 (BPA410)	brush, roller or airless spray	@ 17.5 µm Theo: 7.40m ² /litre Prac: 3.60m ² /litre	WFT: 76/192 microns DFT: 10/25 microns	PA-10 Thinner (CTH5)	1	1 hour		645
Undercoat: Plascon Universal Undercoat (UC1)	brush, roller or airless spray	@ 30 µm Theo: 14.30m ² /litre Prac: 7.90m ² /litre	WFT: 58-93 DFT: 25-40	Mineral Turps (AZH1)	1	16 hours		300
Topcoat: Wall & All (WAA/TWA)	brush, roller or airless spray	@ 30 µm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT: 25/35 microns	Water	2	2 hours	5304	13 white & tint bases, 13-19 std colours

SURFACE PREPARATION:

- Surfaces must be clean, dry and rust free. Remove surface contaminants using Plascon Metalcare Aquasolv Degreaser (GR 1), scrubbing with bristle brush or broom, or using Scotch Brite pads. Rinse thoroughly with tap water while brushing or use hydroblast to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR 1) to achieve a water break-free surface. Dry surface rapidly to prevent flash rust formation. Cleaned surface must be painted within 4 hours.
- After degreasing sand off rust to bright metal with coarse emery paper or scrape and wire brush to ISO 8501 - 01 : 2007 - St 3. Remove dust.

APPLICATION:**Primer Coat**

- Apply one coat of Plascon Plascoprime PA-10 (BPA410) to entire substrate. For spray application thin with a minimum amount of Plascon Plascoprime PA-10 (BPA410), not to exceed 20% by volume. Allow 1 hour to dry. (water based topcoat)

Undercoat

- Apply one coat of Plascon Universal Undercoat (UC1) to achieve a continuous film. Allow 16 hours to dry.

Finishing Coats

- Apply two full coats of Plascon Wall & All (WAA/TWA) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SPECIFICATION SHEET NO. 12**APPLICABLE LOCATIONS:**

EXTERIOR :: FASCIA BOARDS

NEW WORK: Exterior**SUBSTRATE:** Fibre Cement**PAINT FINISH :** **Wall & All**
(Smooth Finish - Waterbased, premium pure acrylic - sheen)PRODUCT CODE: **WAA****COLOUR :** White and standard colours as per colour card, plus Plascon colour system and other fan decks**ENVIRONMENT:** The Maintenance Cycle is a Guide but can vary due to micro-climate changes identified on the site which will effect the longevity of the coating system**As per SANS 10305-1:2012 Edition 1.2, Section 4.1.3:** Severe

- Coastal areas subject to salt spray (up to 3KM Inland)
- Non-Industrial
- Average rainfall
- Inland Industrial Areas
- Significant atmospheric pollution
- Areas where driving rain occurs frequently

Maintenance Cycle: 8 years

Plascon Coating System	Application Method	Spreading Rate (m ²)	WFT/ DFT μm (min & max)	Reducer/Cleaner	No. of Coats	Overcoating time, h @23°C	Technical Data Sheet No	TVOC g/litre
Primer: Professional Gypsum & Plaster Primer (PP700)	brush, roller or airless spray	@ 40 μm Theo: 8.80m ² /litre Prac: 5.10m ² /litre	WFT: 100/129 microns DFT: 35/45 microns	Mineral Turpentine	1	16hour		423
Topcoat: Wall & All (WAA 1)	brush, roller or airless spray	@ 30 μm Theo: 12.70m ² /litre Prac: 7.00m ² /litre	WFT: 66/92 microns DFT:25/35 microns	Water	2	2 hour	6578	13 white & tint bases, 13-19 std colours

SURFACE PREPARATION:

- Ensure that surfaces are dry, sound and clean.
- Remove dirt and loose particles.
- Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv Degreaser (GR 1) working it well into affected areas with bristle broom or brush. Leave for 20 minutes to react, then rinse thoroughly with fresh water to remove all traces of Plascon Metalcare Aquasolv Degreaser (GR 1), using high pressure water jet or scrubbing with brush or broom. Allow to dry completely.
- Remove fungi and algae by scrubbing with a solution of household bleach (3,5 % sodium hypochlorite) - 1 part bleach to 2 parts water by volume. Leave for 1 hour, then brush off with a bristle brush. Rinse thoroughly with tap water to remove all traces of bleach and allow to dry.
- Fill cracks and other surface defects with the appropriate Polycell filler - refer Surface Preparation, Crack Repair.
- Moisture content measured with a Doser Hygrometer (or equivalent) must not exceed the following limits before painting:
 - Fibre-cement : B2 scale - 8 %

APPLICATION:**Primer Coat**

- Apply one coat of Professional Gypsum and Plaster Primer (PP 700) to achieve a continuous film. Allow 16 hours to dry. (water based topcoat)

Finishing Coats

- Apply two full coats of Plascon Wall & All (WAA/TWA) to achieve complete obliteration, allowing 2 hours drying between coats.

Please Note:

Always maintain a wet edge and avoid downing tools during the application process to prevent lap marks and variances in colour or texture. Work from corner to corner, or from a natural cut off point to another. Do not attempt touch ups, but redo complete panels.

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SURFACE PREPARATION: CEMENT PLASTER

SP1 SUGAR SOAP CLEANING - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP2 HEAVY DUTY CLEANING: PLASCON METALCARE AQUASOLV DEGREASER (GR 1) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP6 FUNGAL AND ALGAE GROWTH: SODIUM HYPOCHLORITE TREATMENT - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP8 HYDROBLASTING - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP9 SAPONIFICATION (OIL BASED PAINT) OR HYDROLISING OF BINDER (WATERBASED PAINT) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP10 HOLLOW PLASTER/HAMMER TESTING/ROD TESTING - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP11 LOOSE AND FLAKING/PEELING PAINT - DRY PREPARATION - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP12 PROVIDING A 'KEY' TO OLD PAINT - SUGAR SOAP AND SAND - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP13 REPLASTERING - PLASTER KEY (LARGE AREAS) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP14T BROKEN/DAMAGED CEMENT PLASTER & CONCRETE AREAS (SMALL AREAS) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP15DT FINE CRACK REPAIRS (0.08-3MM): PROFESSIONAL BRIDGING COMPOUND (PWC520)

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP15GT RIDGE PLASTER CRACKS (WATER DAMAGE) - MASONRY PATCHING PLASTER

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP15HT PLASTER CRACKS (<4MM): MENDALL 90

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP15IT SHINKAGE CRACKS: MENDALL 90

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP15JT CORNER TO CORNER FINE CRACK REPAIR

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP15K TO IDENTIFY ACTIVE OR DORMANT PLASTER CRACKS

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP15LT DORMANT LARGE PLASTER CRACKS (4-10MM) - MASONRY PATCHING PLASTER

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP15MT STRUCTURAL CRACKS (EXPANSION JOINT TO BE CUT): SIKAFLEX PRO 3WF - MASONRY PATCHING PLASTER

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP16 EXISTING EXPANSION JOINTS: SIKAFLEX PRO 3WF

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP19 DEFECTS (HOLES AND VOIDS): POLYCELL POLYFILLA MENDALL 90 (801601) (<4MM)

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR. :: SOFFITS, WALLS

SP21 SELLOTAPE TEST FOR CLEANLINESS (CHALKY AND CONTAMINATED SUBSTRATES)

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR :: SOFFITS, WALLS

SP23T PLASTER BANDS, WINDOW SILLS, LEDGES, PROTRUDING PLASTER DETAIL & PARAPET WALLS: PROFESSIONAL BRIDGING COMPOUND (PWC520) - EXTERIOR ONLY

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP28A ALKALI BURN: PLASCON PROFESSIONAL HIGH ALKALI PRIMER (PP950) AS A BLOCKER

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR :: SOFFITS, WALLS

SP29 SUBSTRATE CONDITION AND MOISTURE CONTENT

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

INTERIOR :: SOFFITS, WALLS

SP39 SELLOTAPE TEST FOR ADHESION AND INTERCOAT ADHESION SUITABILITY

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS, WALLS

SP4 GENERAL CLEANING - UNPAINTED SURFACE: PLASCON REMOVAL HIGH STRENGTH CLEANER AND DEGREASER (RCI 70) - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: SOFFITS, WALLS

SP5 EXPANSION JOINTS TO BE CUT: SIKAFLEX PRO 3WF - MASONRY, PLASTER, ETC.

APPLICABLE LOCATIONS:

INTERIOR :: SOFFITS, WALLS

SP15FT RIDGE PLASTER CRACKS (<4MM): MENDALL 90

APPLICABLE LOCATIONS:

INTERIOR :: SOFFITS, WALLS

SP25AAT APPLICATION OF PLASCON DAMPSEAL (WDS1) TO BARE PLASTER AND CONCRETE

APPLICABLE LOCATIONS:

INTERIOR :: SOFFITS, WALLS

SP36R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT OR SOLVENT BASED ENAMEL

APPLICABLE LOCATIONS:

INTERIOR :: SOFFITS, WALLS

SURFACE PREPARATION: CONCRETE

SP17 SPALLING CONCRETE (RE-BAR CORROSION): SIKA MONOTOP 615

APPLICABLE LOCATIONS:

EXTERIOR :: BEAMS, COLUMNS

SURFACE PREPARATION GLOSSARY:

SP1 SUGAR SOAP CLEANING - MASONRY, PLASTER, ETC.

Remove surface contaminants using Polycell Sugar Soap solution - 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix (Sugar Soap Powder) and a medium bristle broom or bristle scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying.

SUBSTRATE: cement plaster

SP2 HEAVY DUTY CLEANING: PLASCON METALCARE AQUASOLV DEGREASER (GR 1) - MASONRY, PLASTER, ETC.

For heavy duty cleaning of surface contaminants on unpainted surfaces or solvent based coatings (older than three months), such as oil, grease and chalkiness, use undiluted Plascon Metalcare Aquasolv Degreaser (GR 1) in conjunction with bristle brooms/brushes working well into affected areas. Allow 20 minutes to react then rinse using a high pressure water jet or with copious amounts of water, scrubbing clean with bristle brooms/brushes to obtain a water break-free surface. Allow to dry completely.

SUBSTRATE: cement plaster

SP6 FUNGAL AND ALGAE GROWTH: SODIUM HYPOCHLORITE TREATMENT - MASONRY, PLASTER, ETC.

Scrub the affected areas using a solution of household bleach (3, 5% sodium hypochlorite solution) mixed 1 part bleach to 2 parts water, brush onto surface and allow 30 minutes to react. After 30 minutes or a marked colour change (lighter), brush clean using a hard bristle brush. Then rinse thoroughly with fresh water to remove all traces of bleach and allow drying.

SUBSTRATE: cement plaster

SP8 HYDROBLASTING - MASONRY, PLASTER, ETC.

Hydroblast substrate to remove loose/peeling paint, surface contaminants, friable materials. A rotating nozzle at 200-350 bar pressure should be used (pressure selected depends on substrate condition and paint adhesion). Polycell Polyfilla Masonry Patching Plaster (102003) can be used to repair areas where plaster has been removed. Allow to dry for 24 hours. Feather the edges of tightly adherent paint films.

SUBSTRATE: cement plaster

SP9 SAPONIFICATION (OIL BASED PAINT) OR HYDROLISING OF BINDER (WATERBASED PAINT) - MASONRY, PLASTER, ETC.

The faulty paint is to be removed completely by suitable means to bare substrate. Remove surface contaminants using Polycell Sugar Soap solution - 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix and a bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Feather edges with 100 grit sandpaper and ensure surface is dust free.

SUBSTRATE: cement plaster

SP10 HOLLOW PLASTER/HAMMER TESTING/ROD TESTING - MASONRY, PLASTER, ETC.

Hammer test suspect areas for cohesive failure. Hollow sounding plaster must be removed. The surface must be clean and sound. Repair areas using Polyfilla Masonry Patching Plaster (102003) in layers up 10mm per layer and allow 24 hours to dry.

SUBSTRATE: cement plaster

SP11 LOOSE AND FLAKING/PEELING PAINT - DRY PREPARATION - MASONRY, PLASTER, ETC.

Remove loose and peeling paint back to a firm edge by scraping, sanding or other suitable means. Feather the edges with 100 grit sandpaper and ensure surface is dust free.

SUBSTRATE: cement plaster

SP12 PROVIDING A 'KEY' TO OLD PAINT - SUGAR SOAP AND SAND - MASONRY, PLASTER, ETC.

Wash surface with Polycell Sugar Soap solution - 500 g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water to remove surface contaminants. Rinse thoroughly with fresh water and allow drying. Sand paint to a matt finish using 100 grit paper. Dust off.

SUBSTRATE: cement plaster

SP13 REPLASTERING - PLASTER KEY (LARGE AREAS) - MASONRY, PLASTER, ETC.

Where areas of underbound/friable cement plaster have been removed, the existing sound plaster or brickwork needs to be wetted using a 'Plaster Key' type product to create a bond between new and old. Replaster.

SUBSTRATE: cement plaster

SP14T BROKEN/DAMAGED CEMENT PLASTER & CONCRETE AREAS (SMALL AREAS) - MASONRY, PLASTER, ETC.

Open damaged area sufficiently to allow repair material to be adequately filled in order to achieve a mechanical bond. Clean away dust, grease and grime from surface. Fill areas with Polycell Polyfilla Masonry Patching Plaster (102003), by using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer (PP 700) and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

SUBSTRATE: cement plaster

SP15DT FINE CRACK REPAIRS (0.08-3MM): PROFESSIONAL BRIDGING COMPOUND (PWC520)

Ensure any debonded or hollow sounding plaster is removed and repaired (refer SP 13). Cracks exhibiting algae or fungal growth should be

scrubbed with sodium hypochlorite solution (Bleach mixed 1 part bleach two parts water, brush onto surface and allow 30 minutes to react). Rinse well with clean water and allow drying. Before bridging the crack, apply one coat of Professional Gypsum & Plaster Primer (PP 700) to fine cracks and allow 16 hours drying at 23 °C before overcoating. Brush Professional Bridging Compound (PWC 520) thinned 5-10 % with water over the entire fine cracked area to a wet film thickness of 400 µm (a medium pile or short pile roller maybe used with thinned material to avoid texturing the coating. Stipples should be smoothed out while still wet using a water wet brush). CRAZED CRACKING: A second diluted coat will be required after a drying time of two hours in order to fill and bridge these cracks.

SUBSTRATE: cement plaster

SP15GT RIDGE PLASTER CRACKS (WATER DAMAGE) - MASONRY PATCHING PLASTER

Open large plaster cracks using an angle grinder in an inverted V-shape to > 4mm wide and deep. Remove dust and debris. If the depth is greater than 10mm a backing rod/cord should be inserted. Using a spatula, tool in the Polycell Polyfilla Masonry Patching Plaster (102003) firmly into the crack, imitating the existing plaster finish as closely as possible. Allow to dry for 24 hours. Patch prime with Professional Gypsum & Plaster Primer (PP700) and allow 16 hours to dry. Bridge repaired areas with one coat of Professional Bridging Compound (PWC 520) applied at a WFT thickness of 400 µm. Whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15HT PLASTER CRACKS (<4MM): MENDALL 90

Rake out cracks using an angle grinder to a minimum of 3mm wide and deep. Remove dust and prime repair areas with Professional Gypsum & Plaster Primer (PP 700). Allow 16 hours to dry. Fill with Polycell Polyfilla Mendall 90 (801601) and smooth off to match existing plaster. After 8 hours sand smooth and prime repaired areas with Professional Gypsum & Plaster Primer (PP 700). Optional: After 16 hours make the repaired areas invisible by rolling (using a medium pile roller), a coat of thinned (5% with water) Professional Bridging Compound (PWC 520), applied at a wet film thickness of 400 µm; whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15IT SHINKAGE CRACKS: MENDALL 90

Rake out cracks using an angle grinder to a minimum of 3mm wide and deep. Remove dust and prime repair areas with Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. Fill with Polycell Polyfilla Mendall 90 (801601) and smooth off to match existing plaster. After 8 hours sand smooth and prime repaired areas with Professional Gypsum & Plaster Primer (PP700). After 16 hours make the repaired areas invisible by rolling (using a medium pile roller), a coat of thinned (5% with water) Professional Bridging Compound (PWC 520), applied at a wet film thickness of 400 µm; whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15JT CORNER TO CORNER FINE CRACK REPAIR

Where extensive fine cracking is present, treat for fungal growth and sand flat to provide a key. The entire wall (from corner to corner) must be coated with two coats of Professional Bridging Compound (PWC 520) thinned up to 5 % with water to avoid a structured finish, applied at a wet film thickness of 400 µm per coat. Allow 4 hours drying at 23 °C between coats.

SUBSTRATE: cement plaster

SP15K TO IDENTIFY ACTIVE OR DORMANT PLASTER CRACKS

Rake open 2cm of current identified crack and fill with Polyfilla Mendall 90 (801601) smoothing off while still wet. Check for any crack forming parallel to, in the middle of or surrounding the Polyfilla Mendall 90 (801601). This should be inspected for a minimum of three months.

SUBSTRATE: cement plaster

SP15LT DORMANT LARGE PLASTER CRACKS (4-10MM) - MASONRY PATCHING PLASTER

Open large plaster cracks using an angle grinder in an inverted V-shape to > 4mm wide and deep. Remove dust and debris. If the depth is greater than 10mm a backing rod/cord should be inserted. Using a spatula, tool in the Polycell Polyfilla Masonry Patching Plaster (102003) firmly into the crack, imitating the existing plaster finish as closely as possible. Allow to dry for 24 hours. Patch prime with Professional Gypsum & Plaster Primer (PP700) and allow 16 hours to dry. Bridge repaired areas with one coat of Professional Bridging Compound (PWC 520) applied at a WFT thickness of 400 µm. Whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP15MT STRUCTURAL CRACKS (EXPANSION JOINT TO BE CUT): SIKAFLEX PRO 3WF - MASONRY PATCHING PLASTER

Structural cracks should be referred to an engineer for remedial procedure as there is a possibility that the building might require underpinning. Should there be a requirement for a remedial procedure to be implemented without an engineer's recommendation we would suggest the following and this will be excluded from any guarantee. Angle grind the structural crack and remove all faulty materials including where the crack is not straight but could be jagged. Fill the entire area with Polycell Polyfilla Masonry Patching Plaster (102003) and allow 48 hours to cure. Cut an expansion joint approximately 10mm but not more than 20mm deep with a width of a least 10mm but not more than 20mm. The width should always exceed the depth. If the depth is greater than 10mm a backing rod/cord should be inserted. Prime repaired area with Professional Gypsum and Plaster Primer (PP 700) and allow 16 hours to dry. Apply Sikaflex Pro 3WF by cartridge sealant gun into the void and tool firmly against the joint side to promote adhesion. Smooth off while still wet. Allow a minimum of one week to cure before painting. The joint sealant should be primed with Plascon Multi-Surface Primer (WUP 1) and must be allowed to dry for a further two hours before being painted with the specified finish.

SUBSTRATE: cement plaster

SP16 EXISTING EXPANSION JOINTS: SIKAFLEX PRO 3WF

Remove all old sealant and clean the sides of the joints back to a sound concrete or plaster. Insert relevant size backing rod/cord if the depth is greater than 10mm. Apply Sikaflex Pro 3WF by cartridge sealant gun into the void and tool firmly against the joint side to promote adhesion. Smooth off while still wet. Allow a minimum of one week to cure before painting.

SUBSTRATE: cement plaster

SP19 DEFECTS (HOLES AND VOIDS): POLYCELL POLYFILLA MENDALL 90 (801601) (<4MM)

Make good defects using Polycell Polyfilla Mendall 90 (801601). Smooth off while wet. Allow 8 hours to dry before sanding smooth with 120-220 grit sandpaper depending on finish required.

SUBSTRATE: cement plaster

SP21 SELLOTAPE TEST FOR CLEANLINESS (CHALKY AND CONTAMINATED SUBSTRATES)

Cut a 10-15cm strip of broad Sellotape (+/- 50mm) and using your thumb, press it down firmly onto the dry surface. Rip the tape off the surface and immediately stick it down on a sheet of clean, white paper. Check the tape for any discolouration/chalky deposit and if found to be present, the entire cleaning procedure must be repeated. Contaminant free tape must be evident prior to the application of the coating system.

SUBSTRATE: cement plaster

SP23T PLASTER BANDS, WINDOW SILLS, LEDGES, PROTRUDING PLASTER DETAIL & PARAPET WALLS: PROFESSIONAL BRIDGING COMPOUND (PWC520) - EXTERIOR ONLY

Must be sealed with Professional Bridging Compound (PWC 520). Three coats must be applied at a wet film thickness of 400 µm to achieve the recommended dry film thickness of 600 µm. Smooth off with a water wet brush whilst still wet. Allow 4 hours drying at 23 °C between coats. (THEO SPREADING RATE: 0.8 m²/litre for all three coats @ 600 µm dry film thickness)

SUBSTRATE: cement plaster

SP28A ALKALI BURN: PLASCON PROFESSIONAL HIGH ALKALI PRIMER (PP950) AS A BLOCKER

The root cause of moisture ingress which has resulted in the appearance of alkali burn must be addressed prior to painting. Cracks need to be repaired using the appropriate Plascon Crack Repair System prior to painting. Remove loose and peeling paint back to a firm surface by scraping, sanding or other suitable means and feather the edges. Ensure surfaces are clean, dry and sound. Moisture content not more than 8 % measured on a Doser Hygrometer B2 scale (or equivalent) before painting. Spot prime the defective area showing alkali burn with Plascon Professional High Alkali Plaster Primer (PP 950) to a minimum DFT of 45 µm (WFT 132 µm) and maximum DFT 65 µm (WFT 191 µm). Allow 16 hours to dry. Apply one coat of Plascon Professional High Alkali Plaster Primer (PP 950) over the entire area corner to corner to a minimum DFT of 45 µm (WFT 132 µm) and maximum DFT 65 µm (WFT 191 µm). Allow 16 hours to dry.

SUBSTRATE: cement plaster

SP29 SUBSTRATE CONDITION AND MOISTURE CONTENT

Ensure surfaces are clean, dry and sound. Moisture content on cement plaster must not be more than 8 % when measured on a Doser Hygrometer B2 scale (or equivalent) and on concrete, not more than 5 % using a B4 scale.

SUBSTRATE: cement plaster

SP39 SELLOTAPE TEST FOR ADHESION AND INTERCOAT ADHESION SUITABILITY

Apply a strip of broad Sellotape to the surface pressing down firmly and leaving for 20 seconds. Remove the Sellotape slowly, pulling it off at a 60° angle to the surface and gauge the resistance compared to applying a similar broad strip of Sellotape to a recently painted surface and gauging the resistance (same topcoat being used for test). The resistance should be estimated as a guide on a scale of 1-10 where 10 provides excellent resistance. Coating should only be conducted if excellent resistance was achieved (estimated between 8 and 10).

SUBSTRATE: cement plaster

SP4 GENERAL CLEANING - UNPAINTED SURFACE: PLASCON REMOVALL HIGH STRENGTH CLEANER AND DEGREASER (RCI 70) - MASONRY, PLASTER, ETC.

Remove surface contaminants using Plascon RemovAll High Strength Cleaner and Degreaser (RCI 70) in conjunction with bristle scrubbing brushes or brooms, alternatively Scotch Brite pads. Rinse thoroughly with tap water using brooms, brushes or hydroblast to remove all traces of Plascon Removall High Strength Cleaner and Degreaser (RCI 70) and achieve a water break-free surface. Dry surface rapidly to prevent flash rust formation.

SUBSTRATE: cement plaster

SP5 EXPANSION JOINTS TO BE CUT: SIKAFLEX PRO 3WF - MASONRY, PLASTER, ETC.

Cut an expansion joint approximately 10mm but not more than 20mm deep with a width of a least 10mm but not more than 20mm. The width should always exceed the depth. If the depth is greater than 10mm a backing rod/cord should be inserted. Prime repaired area with Plascon Plaster Primer (UC 56) and allow 16 hours to dry. Apply Sikaflex Pro 3WF by cartridge sealant gun into the void and tool firmly against the joint side to promote adhesion. Smooth off while still wet. Allow a minimum of one week to cure before painting. The joint sealant should be primed with Plascon Multi-Surface Primer (WUP 1) and must be allowed to dry for a further two hours before being painted with the specified finish.

SUBSTRATE: cement plaster

SP15FT RIDGE PLASTER CRACKS (<4MM): MENDALL 90

Rake out cracks using an angle grinder to a minimum of 3mm wide and deep. Remove dust and prime repaired areas with Professional Gypsum & Plaster Primer (PP700). Allow 16 hours to dry. Fill with Polycell Polyfilla Mendall 90 (801601) and smooth off to match existing plaster. After 8

hours sand smooth and prime repaired areas with Professional Gypsum & Plaster Primer (PP700). After 16 hours make the repaired areas invisible by rolling (using a medium pile roller), a coat of thinned (5% with water) Professional Bridging Compound (PWC 520), applied at a wet film thickness of 400 µm; whilst wet taper the edges to zero using a water wet brush.

SUBSTRATE: cement plaster

SP25AAT APPLICATION OF PLASCON DAMPSEAL (WDS1) TO BARE PLASTER AND CONCRETE

Sealer Coat: Apply a first coat, by brush, thinned three parts Plascon Dampseal (WDS 1) to one part mineral turpentine (AZH 1) allowing 24 hours drying. Finishing Coat: Apply a second coat unthinned by brush or roller at a spreading rate of 3.5 m²/litre. (The coating may be smoothed over with a trowel wetted with mineral turpentine to match smooth wall surfaces). On exceptionally porous surfaces, a third coat may be necessary. On exceptionally damp walls: Apply the first coat in three stages: To the bottom section of the wall and allow 24 hours to dry. To the middle section of the wall and allow 24 hours to dry. To the top section of the wall and allow 24 hours to dry. The second coat may be applied unthinned. NOTE: Plascon Dampseal (WDS 1) may be overcoated with a Waterbased or Alkyd system. If overcoating with Alkyd, first prime the Plascon Dampseal (WDS 1) with Plascon Professional Gypsum and Plaster Primer (PP 700).

SUBSTRATE: cement plaster

SP36R OVERCOATING SOLVENT BASED ENAMEL WITH WATER BASED PAINT OR SOLVENT BASED ENAMEL

Remove surface contaminants using Polycell Sugar Soap solution – 500g Polycell Sugar Soap Powder (501703) dissolved in 5 litres water. For stubborn contaminants use hot water in the above mix and a bristle broom or scrubbing brush. Rinse with tap water to remove all traces of sugar soap and allow drying. Sand paint to provide a key for painting. Dust off. Apply a coat of Plascon Universal Undercoat (UC 1) to entire area. Allow 16 hours to dry.

SUBSTRATE: cement plaster

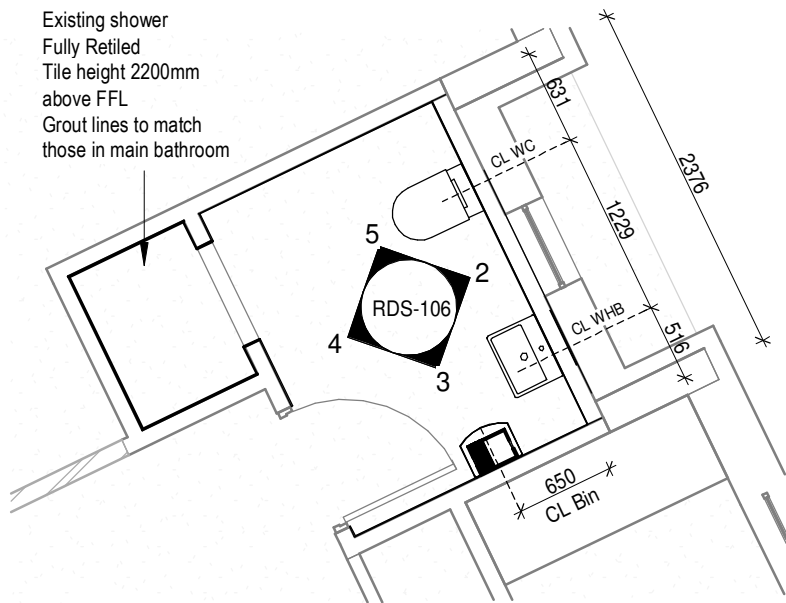
SP17 SPALLING CONCRETE (RE-BAR CORROSION): SIKA MONOTOP 615

Spalling concrete is caused by carbonated concrete and chlorides leading to rusted rebar. Concrete surrounding the rod must be chopped away to fully expose the bar. Wet or dry abrasive blasting or mechanical wire brushing may be used to remove rust, producing a bright metal finish. Investigate random areas to identify carbonated concrete and concrete spalling. Where rebar needs to be replaced please refer to an engineer for structural integrity. The bars may now be coated with a surface tolerant epoxy primer Plascon Plascotuff 3000 (PEX 3005 Base Aluminium/PEH 3 Hardener mixing ratio 4:1 by volume) to minimum DFT thickness of 120 µm. Repair concrete using SIKA Monotop 615 applied by trowel to a film thickness between 5-70mm to match existing concrete profile. Allow 5 days to cure.

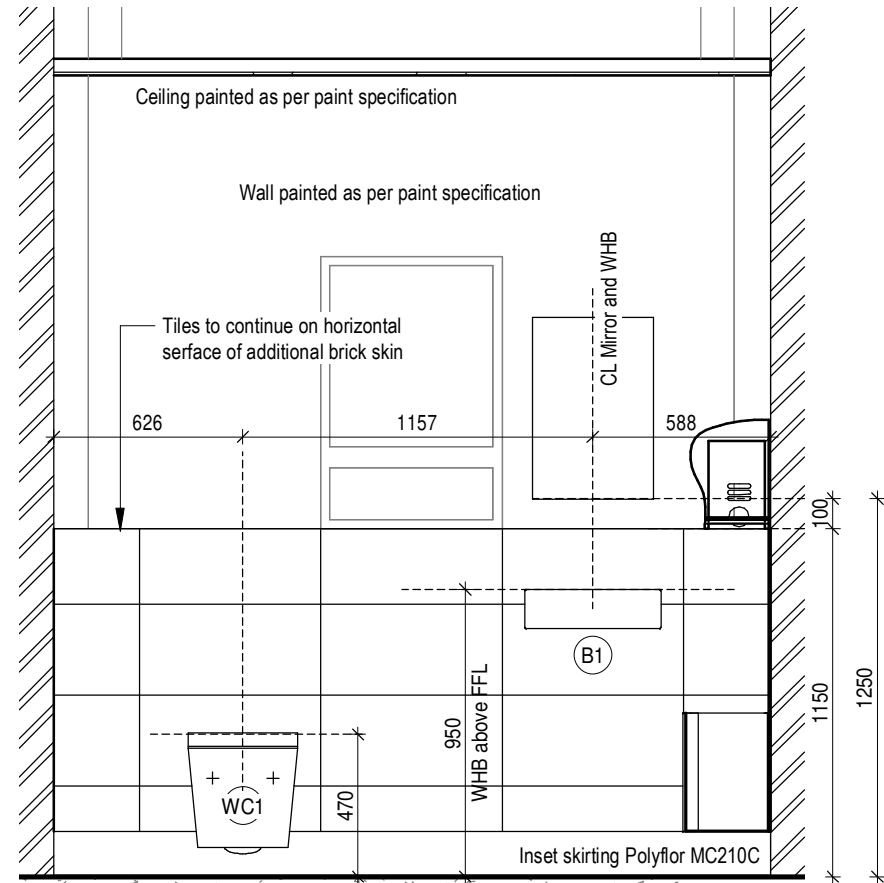
SUBSTRATE: concrete

TABLE OF REFERENCES:

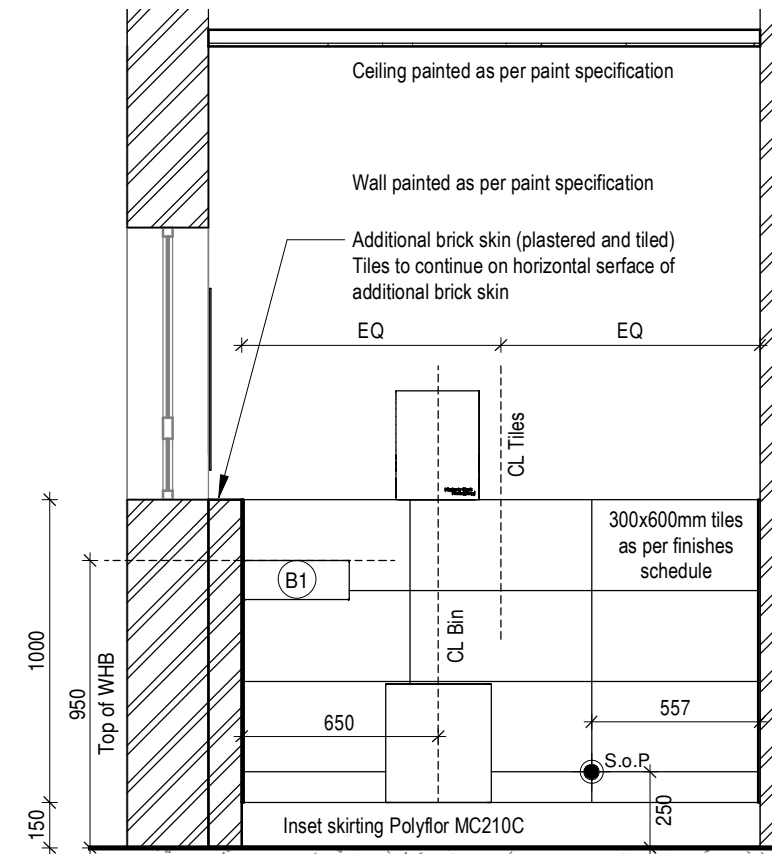
- Technical Data Sheet (TDS) : User must always ensure that latest issue is used.
- B = Brush (ready for use), R = Roller (synthetic, min. 10mm pile) (ready for use), S = Airless spray (ready for use).
- Theoretical spreading rate quoted is for smooth non-porous substrates and does not include allowance for surface profile, porosity, wastage and uneven film application. Suitable allowance should be made according to type of work, method and skill of applicator. Practical spreading rate quoted is an average guide only - actual must be determined by user - see Preamble for formulation how to calculate.
- Overcoating times are at 23°C and 75% relative humidity. Longer times must be allowed under cooler and moist conditions. DO NOT paint during inclement weather and when temperature is below 10°C.
- Fading and chalking will occur to a greater or lesser degree depending on pigmentation and generic binder type.
- NB: Life expectancy may vary, depending on environmental conditions and stresses, within the macro/micro climate of the project.



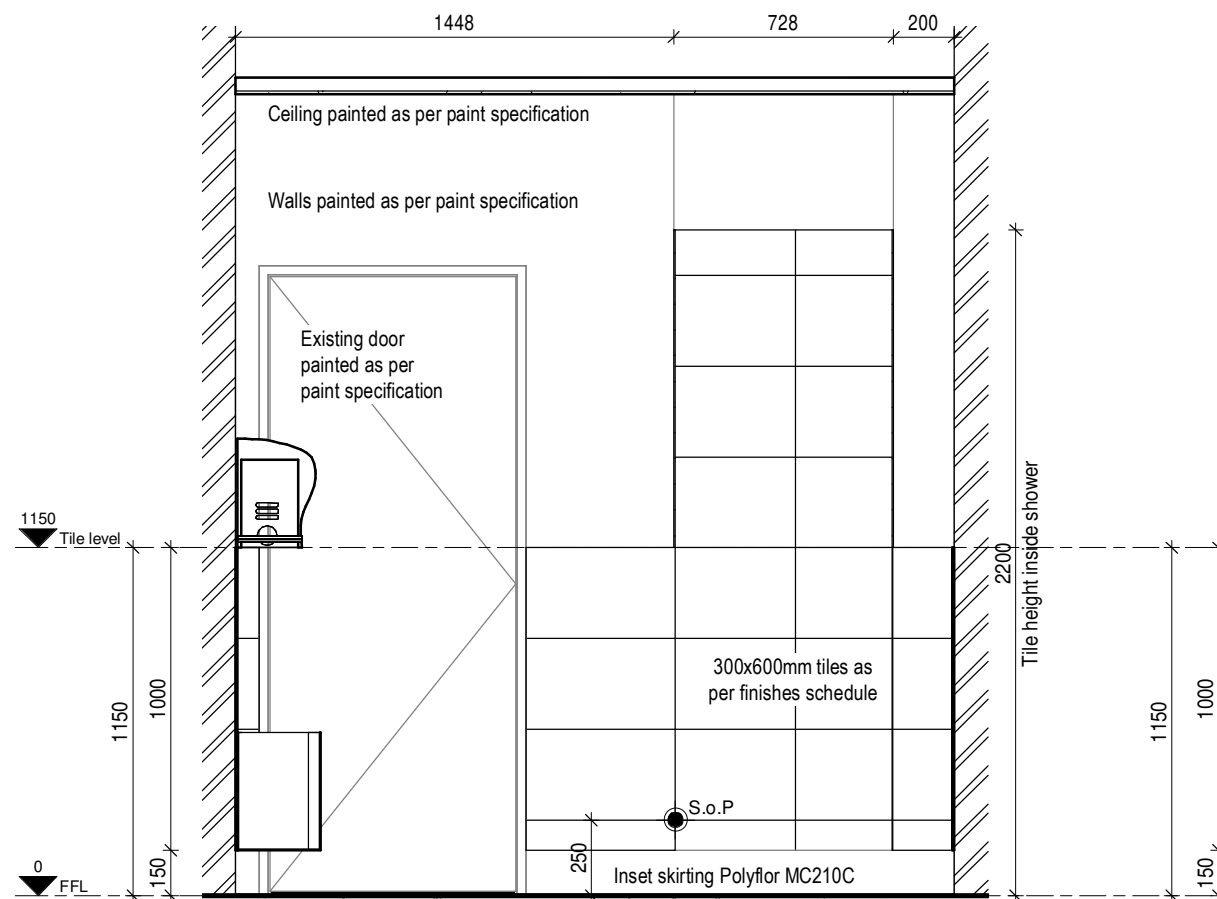
1 **106_Bathroom_Plan**
1 : 50



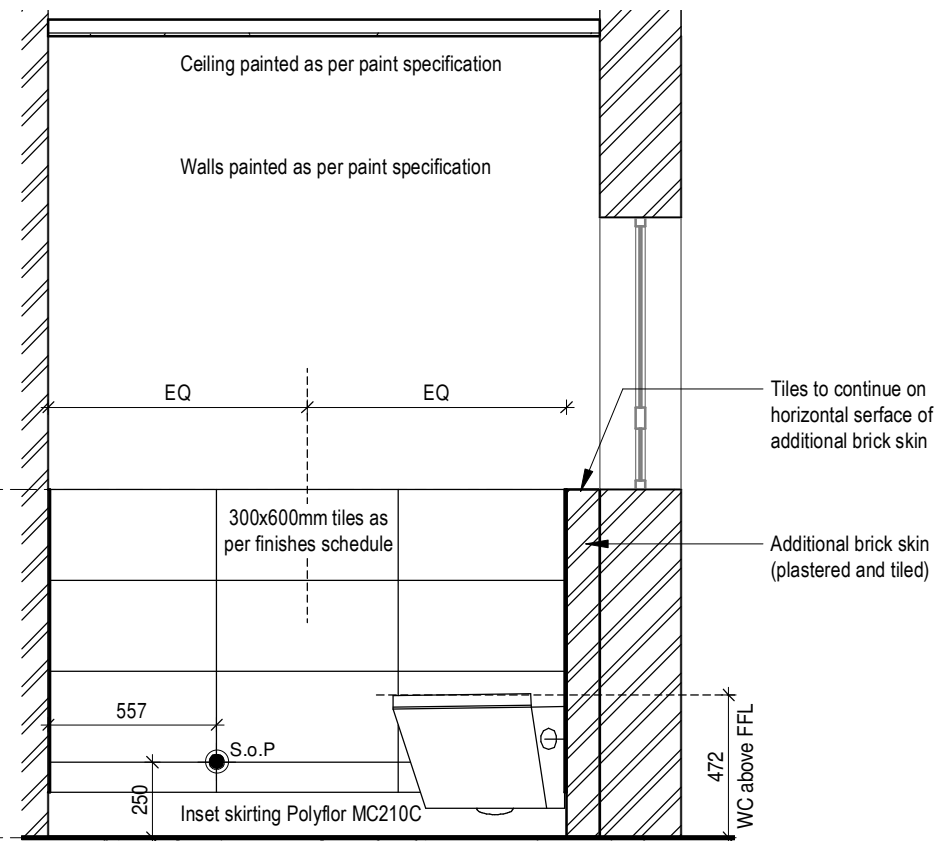
2 **106_Bathroom_Elevation 1**
1 : 25



3 **106_Bathroom_Elevation 2**
1 : 25



4 **106_Bathroom_Elevation 3**
1 : 25



5 **106_Bathroom_Elevation 4**
1 : 25

REVISIONS	No.	Description	Date
	1	Issued for Tender	27/11/2023

PROJECT: ECDoH
Protea Flats - New GSA Offices

TITLE: Room Data Sheet - Room 106 - Bathroom

Scale: As indicated

Date: 24 November 2023

Drawn by: J Thomson

Designer: J Thomson

Professional Architect: B Brinkman

Checked by: B Brinkman

Sakhiwo Ref No:

B4 Project Ref No.: Architect Dwg No:

305-019 RDS-106

FOR TENDER ONLY REV 1

EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE

EASTERN CAPE
DEPARTMENT OF HEALTH

PROTEA FLATS
New GSA Offices

SANITARYWARE SCHEDULE

Rev 2

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE**

DOCUMENT NUMBER: 305-019/SAN-001
DOCUMENT NAME: Sanitary Schedule
REVISION: 2

ISSUED FOR TENDER PURPOSES

NOTES:

1. Items indicated in **red** shows revised specifications.
2. Items indicated in **blue** show specifications under review.
3. Items indicated in **green** show new/additional specifications.

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE**

B1 WASH HAND BASIN: Bathroom, WHB

	<p><u>Basin (Wall Mounted):</u> Cobra Arrive Square wall hung basin. 645mm long X 473 mm wide. 1 X pre-punched tap hole in the centre of the basin. Overflow, wall fixing set & installation manual included. Compatible with Cobra Arrive square semi-pedestal [CARPESQ1-6DT01]. Compatible with Cobra standard-sized basin mixers.</p>
	<p><u>Mixer:</u> Cobra Karoo (code: KO-951) single-lever plain basin mixer with temperature control cartridge, ½" BSP female inlets. Mixer to be fitted with angle valves (code: 832-10).</p>
	<p><u>Waste/Trap:</u> Cobra unslotted basin waste with 63mm diameter flange and 80mm long shank, and 1 ¼" BSP male outlet connection, includes click type, integral plug (code: COB-309-32). Du Bois 50mm PVC trap.</p>
	<p><u>Paper Towel Dispenser:</u> Kimberly Clark Professional REFLEX rolled towel dispenser (code: 426125) in stainless steel, 395x330x270mm high.</p>
	<p><u>Waste Bin:</u> Wall-mounted Kimberly Clark Professional stainless-steel disposer (code: 426135), 390x350x285mm high.</p>

SPLASHBACK:

300x600mm Matt white rectified wall tiles to 1.2m above FFL, as per room data sheets.
1.2m wide (2 tile widths)
Aluminium square edge tile trim to all exposed edges.
2mm joints between tiles in TAL White grouting, in suitable tiling adhesive.

MIRROR:

600x400mm thick mirror to be fixed with adhesive to the wall, with a minimum 3mm gap between the back of the mirror and wall.




**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE**

WC1 TOILET: Bathroom, WC

	<p><u>Cistern:</u> 38643001 Uniset for WC flushing cistern GD2 with small maintenance access sound-insulating EPS module for masonry – in 830x470x130mm rail adaptors for modular fixing for single or rail installation. Wall rail with fixing accessories for a single installation. 2x WC fixing bolts, the distance of fixing bolts 180/230mm fixing device for ceramic outlet bend 90mm dia., depth adjustable 90/110mm dia. reducer inlet and outlet connecting set adjustment ex. Factory 6ℓ and 3ℓ pneumatic discharge valve offering 3 modes of operation:</p> <ul style="list-style-type: none"> - Dual flush - Start/stop - Single flush water supply <p>From left/right/back or top low noise DIN approved insulated against condensation ½” water supply connection including integrated angle valve and push-fit flexible hose union for vertical or horizontal use.</p>
	<p><u>Actuator Plate/Wall Plate</u> 3873200 Skate Cosmopolitan wall plate for dual flush for pneumatic discharge valve. AV1 vertical and horizontal installation, 156x197mm ABS GROHE StarLight® chrome finish and GROHE EcoJoy® technology for less water and perfect flow.</p>
	<p><u>Pan:</u> Grohe Bau Ceramic wall hung WC (39 427 000) for concealed cistern horizontal outlet wash down rimless flush volume 3/6 l sanitary ware Bau Ceramic WC seat (39 493 000) soft close quick release function detachable material: Duroplast including fixation set</p>
	<p><u>Toilet Roll Holder:</u> Kimberly Clark Professional MR2 bath tissue dispenser in stainless steel (code: 426130), 270x145x140mm high).</p>

**EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE**

S1 SINK: Kitchen


	<p><u>Sink:</u> Franke NVN611 Single End Bowl Sink Drop-on Sink (Code: 101.0167.171 / 811023), 800 x 460mm Single End Bowl S/S grade 304 18/10, 1,6 mm drop-in sink unit.</p>
	<p><u>Mixer:</u> Cobra Tucana (product code: TC-970) single lever sink mixer with swivel outlet with ½" BSP female inlet including sink mixer swivel outlet and 400mm long flexible inlets.</p>
	<p><u>Waste/Trap:</u> du Bois 40mm PVC trap inside the cupboard.</p>

SPLASHBACK:

- GW C-4 Gloss White, 200x200mm ceramic wall tiles with 2mm joints between tiles in TAL White grouting, in suitable tiling adhesive. Tiled splashback length of wall above fitting, (including 600mm returns to match fitting) to 2100mm above FFL (1200mm above countertop). All exposed edges to be finished with stainless steel straight trim to suit tile thickness.

EASTERN CAPE DEPARTMENT OF HEALTH:
PROTEA FLATS: PENTHOUSE RENOVATION
SANITARY SCHEDULE

Z1 Hydroboil: Kitchen

	<p><u>Hydroboil:</u> E-Boil BlueWave, Classic White Finish Hydroboil. 2.5 Litre wall mounted boiling water system, wall mounted above sink drip tray as per manufacturers specification.</p>
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305-019 New GSA Offices

19 October 2023

Protea Flats Office Restoration

Room Schedule Sanitaryware

Number	Name	Basin Code	Sink Code	Bath Code	Shower Code	WC Code	Other Fittings	Notes
101	Reception	-	-	-	-	-	-	
102	Office 1	-	-	-	-	-	-	
103	Boardroom	-	-	-	-	-	-	
104	Office Boardroom	-	-	-	-	-	-	
105	Main Office	-	-	-	-	-	-	
106	Bathroom	B1	-	-	-	WC1	-	
107	Office 5	-	-	-	-	-	-	
108	Kitchen	-	S1	-	-	-	Z1	Hydroboil
109	Office 4	-	-	-	-	-	-	
110	Office 3	-	-	-	-	-	-	
111	Store	-	-	-	-	-	-	
112	Office 2	-	-	-	-	-	-	
113	Main Corridor	-	-	-	-	-	-	
114	Secondary Corridor	-	-	-	-	-	-	
115	WC	-	-	-	-	WC1	-	
116	WHB	B1	-	-	-	-	-	
117	Lift Lobby	-	-	-	-	-	-	

Method Statement

For

B4 Architects

PREPARED BY:

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GENERAL:

With reference to our discussion regarding the quality control and application methods for the application of repairs and waterproofing solutions , we recommend the following for your approval

Waterproofing to roofs:

A durable bond must be achieved between the existing bitumen/asphalt and the **Waterproofing membrane**. This requires a dry, sound and clean surface without residues or other contaminants.

Substrate preparation

Any loose or friable material must be removed mechanically to ensure a suitable bond between the **Plastomeric modified bitumen torch on membrane** and the substrate.

If any **side or end laps** are found to be loose they must be re-torched, a patch may also be applied if required.

Bubbles will need to be cross cut and re-torched back into position after which a patch must be applied.

Counter Flashings

Brush on a coat of **Rubberised bituminous waterproofing coating**, embed the membrane into the wet coat, ensure the bitumen impregnates the membrane and the air is expelled. Two coats must be applied allowing adequate drying between.

Rejuvenation Coating

Apply a flood coat of **Rubberised bituminous waterproofing coating** by means of rollers/ brooms and allow to dry.

Protective layer

The **One-part, solvent-based Bitumen, Aluminium coating** is applied by brush or roller, ideally a minimum of two coats. Allow 3 to 4 hours between coats.

Movement joints: Expansion Joints & Windows

Application:

All existing joints to be completely removed and cleaned then primed with **Sika Primer 3** before sealing with the **Multipurpose elastic adhesive and joint sealant**, Cure rate is 3mm per day.

Note: care must be taken to remove all existing residue before priming.

Note: the sealant must not be overcoated with solvent based coatings.

THIS SPECIFICATION MUST BE READ IN CONJUNCTION WITH THE RELEVANT TECHNICAL DATA SHEETS, WHICH SUPPLY DETAILED INFORMATION REGARDING, MIXING, APPLICATION AND SAFETY PRECAUTIONS REGARDING THE PRODUCTS.

PRODUCT DATA SHEET

Sikaflex[®]-11 FC+

Multipurpose elastic adhesive and joint sealant

DESCRIPTION

Sikaflex[®]-11 FC+ is a 1-part, multipurpose elastic adhesive and joint sealant with very good application properties which bonds and seals most construction material substrates. Internal and external use.

USES

An adhesive to bond construction components and materials such as:

- Concrete
- Masonry
- Reconstituted or cast stone
- Ceramic
- Wood
- Metal
- Glass

A sealant to seal vertical and horizontal joints.

CHARACTERISTICS / ADVANTAGES

- Movement capability of $\pm 35\%$
- Bonds well to defined substrates without surface pre-treatment
- Good mechanical and weathering resistance
- Very low emissions
- Adhesive-sealant with CE marking

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- IBU Environmental Product Declaration (EPD) available
- VOC emission classification GEV-Eimcode EC1^{PLUS}, license number 2782/20.10.00
- Class A+ according to French Regulation on VOC emissions

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints in buildings - Facade elements - F EXT-INT CC 25HM
- CE Marking and Declaration of Performance to EN 15651-4 - Sealants for non-structural use in joints in buildings - Sealants for pedestrian walkways - PW EXT-INT CC 25HM
- ASTM C920-11 class 35, Sikaflex-11 FC+, MST, Report
- Certificate of Compliance Sikaflex-11 FC+, ISEGA, Certificate No 43792 U 16

PRODUCT INFORMATION

Chemical Base	<i>i</i> -Cure technology polyurethane	
Packaging	300 ml cartridge	12 cartridges per box
	600 ml cylindrical foil pack	20 foil packs per box
	Refer to current price list for packaging variations	
Shelf Life	15 months from the date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	
Colour	Colour range to be defined by local sales organisation	
Density	~1,35 kg/l	(ISO 1138-1)

TECHNICAL INFORMATION

Shore A Hardness	~37 (after 28 days)	(ISO 868)
Tensile Strength	~1,5 N/mm ²	(ISO 37)
Secant Tensile Modulus	~0,60 N/mm ² at 100 % elongation (+23 °C)	(ISO 8339)
Elongation at Break	~700 %	(ISO 37)
Movement Capability	±35 %	(ASTM C 719)
Elastic Recovery	~80 %	(ISO 7389)
Tear Propagation Resistance	~8,0 N/mm	(ISO 34)
Service Temperature	-40 °C min. / +80 °C max.	
Chemical Resistance	Resistant to many chemicals. Contact Sika® Technical Services for additional information.	

Joint Design

The joint dimensions must be designed to suit the movement capability of the sealant. The joint width must be ≥ 10 mm and ≤ 35 mm. A width to depth ratio of 2:1 for facade joints must be maintained (for exceptions, see table below).

Typical joint dimensions for joints between concrete elements:

Joint distance (m)	Minimum joint width (mm)	Minimum joint depth (mm)
2	10	10
4	15	10
6	20	10
8	30	15
10	35	17

Minimum joint width for perimeter joints around windows is 10 mm.

All joints must be correctly designed and dimensioned in accordance with the relevant standards and codes of practice before their construction. The basis for calculation of the necessary joint widths are the type of structure, dimensions, technical values of the adjacent building materials, joint sealing material and the specific exposure of the building and the joints.

Joints ≤ 10 mm in width are for crack control and therefore non-movement joints.

For larger joints contact Sika Technical Services for additional information.

APPLICATION INFORMATION

Yield	Bonding		Dimension	
	Yield			
	1 Cartridge (290 ml)			
	~100 spots		Diameter = 30 mm	
			Thickness = 4 mm	
	~15 m bead		Nozzle diameter = 5 mm (~20 ml per linear meter)	
	Sealing			
	Joint width	Joint depth	Joint length	Joint length
	mm	mm	m per Cartridge	m per foil pack
			(300 ml)	(600 ml)
	10	10	3,0	6,0
	15	12	1,6	3,2
	20	17	0,9	1,8
	25	20	0,6	1,2
	30	25	0,4	0,8
	Consumption depends on the roughness and absorbency of the substrate. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.			
Sag Flow	~1 mm (20 mm profile, +23 °C)		(ISO 7390)	
Ambient Air Temperature	+5 °C min. / +40 °C max.			
Substrate Temperature	+5 °C min. / +40 °C max. Minimum +3 °C above dew point temperature			
Backing Material	Use closed cell, polyethylene foam backing rod			
Curing Rate	~3,5 mm/24 hours (+23 °C / 50 % r.h.)		(CQP* 049-2)	
	*Sika Corporate Quality Procedure			
Skin Time	~70 min (+23 °C / 50 % r.h.)		(CQP 019-1)	

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTS

- Pre-treatment Sealing and Bonding Chart
- Method Statement: Joint Sealing
- Method Statement: Joint Maintenance, Cleaning and Renovation
- Technical Manual: Facade Sealing

LIMITATIONS

- For good workability, the adhesive temperature must be +20 °C.
- Application during high temperature changes is not recommended (movement during curing).
- Before bonding or sealing, check adhesion and compatibility of paints and coatings by carrying out preliminary trials.
- Sikaflex®-11 FC+ can be overpainted with most conventional water-based coating and paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials. The best

over-painting results are obtained when the adhesive is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the adhesive and lead to cracking of the paint film.

- Colour variations may occur due to the exposure in service to chemicals, high temperatures and/or UV-radiation (especially with white colour shade). This effect is aesthetic and does not adversely influence the technical performance or durability of the product.
- Always use Sikaflex®-11 FC+ in conjunction with mechanical fixings for overhead applications or heavy components.
- For very heavy components provide temporary support until Sikaflex®-11 FC+ has fully cured.
- Full surface applications / fixings are not recommended since the inner part of the adhesive layer may never cure.
- Before using on reconstituted, cast or natural stone, contact Sika Technical Services.
- Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticisers or solvents that could degrade the adhesive.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and certain plasticised synthetic materials. Preliminary trials are recommended or contact Sika® Technical Services.

- Do not use to seal joints in and around swimming pools.
- Do not use for joints under water pressure or for permanent water immersion.
- Do not use to seal glass or sanitary joints.
- Do not use for trafficked floor joints. Contact Sika® Technical Services for advice on alternative products.
- Do not use for bonding glass if the bond line is exposed to sunlight.
- Do not use for structural bonding.
- Do not expose uncured Sikaflex®-11 FC+ to alcohol containing products as this may interfere with the curing reaction.

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the adhesive / sealant. The substrate must be of sufficient strength to resist with the stresses induced by the sealant during movement. Removal techniques such as wire brushing, grinding, sanding or other suitable mechanical tools can be used.

All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or adhesive / sealant.

Sikaflex®-11 FC+ adheres without primers and/or activators.

However, for optimum adhesion, joint durability and critical, high performance applications the following priming and/or pre-treatment procedures must be followed:

Non-porous substrates

Aluminium, anodised aluminium, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles, slightly roughen surface with a fine abrasive pad. Clean and pre-treat using Sika® Cleaner P or Sika® Aktivator-205 applied with a clean cloth.

Before bonding / sealing, allow a waiting time of > 15 minutes (< 6 hours).

Other metals, such as copper, brass and titanium-zinc, clean and pre-treat using Sika® Cleaner P or Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-3 N by brush.

Allow a further waiting time of > 30 minutes (< 8 hours) before bonding / sealing, PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush.

Before bonding / sealing, allow a waiting time of > 15 minutes (< 8 hours).

Porous substrates

Concrete, aerated concrete and cement based

renders, mortars and bricks, prime surface using Sika® Primer-3 N applied by brush.

Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).

Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation / cleaning of the joint surface. Primers also improve the long term adhesion performance of the sealed joint. Contact Sika Technical Services for additional information.

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Bonding Procedure

Application

After the necessary substrate preparation, prepare the end of the cartridge / foil pack before or after inserting into the sealant gun then fit the nozzle.

Apply in triangular beads, strips or spots at intervals of a few centimetres each. Use hand pressure only to fix the components to be bonded into position before skinning of the adhesive occurs. Incorrectly positioned components can easily be unbonded and repositioned during the first few minutes after application. If necessary, use temporary adhesive tapes, wedges, or supports to hold the assembled components together during the initial curing time.

Fresh, uncured adhesive remaining on the surface must be removed immediately. Final strength will be reached after complete curing of Sikaflex®-11 FC+, i.e. after 24 to 48 hours at +23 °C, depending on the environmental conditions and adhesive layer thickness.

Sealing Procedure

Masking

It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skin time after finishing.

Joint Backing

After the required substrate preparation, insert a suitable backing rod to the required depth.

Priming

Prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.

Application

Prepare the end of the cartridge / foil pack before or after inserting into the sealant gun then fit the nozzle. Extrude Sikaflex®-11 FC+ into the joint ensuring that it comes into full contact with the sides of the joint and avoiding any air entrapment.

Finishing

As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish.

Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surface. Do not use tooling products containing solvents.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Remover-208 immediately after use. Once cured, hardened material can only be removed mechanically. For cleaning skin use Sika® Cleaning Wipes-100.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet

Sikaflex®-11 FC+
October 2022, Version 03.02
020513010000000019

Sikaflex-11FC+-en-ZA-(10-2022)-3-2.pdf

PRODUCT DATA SHEET

Sika BlackSeal® Lastic

Rubberised bituminous waterproofing coating

DESCRIPTION

Sika BlackSeal® Lastic is a rubberised bitumen emulsion coating, which is used as a stand alone coating or in conjunction with Sika BlackSeal membrane (polyprop fabric) to form a waterproofing system.

USES

Waterproofing for various applications such as:

- Flat roof waterproofing
- Waterproofing of water retaining structures
- Flashing of roofs
- Gutters
- Parapet walls
- Sealing of fixings, lap joints and roof screws

CHARACTERISTICS / ADVANTAGES

- Applied by with brush, roller or trowel
- Supplied ready to use
- No primer needed
- Easily applied
- Non-sag on vertical surfaces
- Remains flexible at low temperature
- Crack-bridging
- Non-toxic

PRODUCT INFORMATION

Chemical Base	Emulsion containing bitumen mastic
Packaging	5ltr and 20ltr containers
Colour	Pasty black
Shelf Life	12 months
Storage Conditions	Store in closed,sealed and undamaged packaging in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.
Density	~1.02kg/l



Service Temperature	-30°C to 70°C dry
Layer Thickness	2mm max.
Ambient Air Temperature	+10°C min. / +35°C max
Substrate Temperature	+10°C min. / +35°C max
Substrate Moisture Content	<3%
Curing Time	Surface - dry after 3 hours at 23°C Dependant on ambient temperature, substrate temperature, relative humidity and the thickness of the coating

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrate must be smooth, dry, free of dust, oil or grease and loose or friable particles. Surface defects including blowholes, voids, honeycombing, etc., in the concrete must be repaired with suitable Sika mortars before coating.

SUBSTRATE PREPARATION

Rinse concrete surfaces with clean water.
Clean contaminated substrates by suitable means including steam cleaning, high pressure water jetting, etc.

Concrete substrate:

Prime substrates with one part Sika® Blackseal Lastic diluted by one part water.

Metal surfaces:

After degreasing surface prime new galvanised surfaces with Sika® Blackseal Primer.

Old surfaces which have been effected by rust should be thoroughly cleaned and primed with a good metal etch primer.

APPLICATION METHOD / TOOLS

Manual application:

- Apply with a suitable brush or roller.

First coat:

Brush on a thick coat of Sika BlackSeal® Lastic onto the primed surface at a spread rate of 1,25m²/litre. Embed the membrane into the wet coat, ensuring that the bitumen impregnates the membrane and all air is expelled.

Second coat:

A second coat is applied once the first coat has dried sufficiently (approx. 3hours), at a spread rate of 2,0m²/litre . The membrane must be well saturated to ensure a good watertight barrier is formed.

Final coat:

A final coat should be applied once the second coat has dried. This coat should be applied at the rate of 1,25m²/litre to finish off the system.

The completed waterproofing system should be left for approximately 2 weeks before filling a water retaining structure with water. Ambient temperatures have an effect on the time period required for full cure. If unsure please contact the Technical Department of Sika, before doing so.

LIMITATIONS

Do not use this product for waterproofing against hydrostatic pressure.

Do not apply the product during rain.

Protect newly applied material from rain, etc. until hardened.

Warm the product before use in cold weather.

Before attempting to waterproof a Koi pond please contact the Technical Department of Sika for detailed instructions.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY HEALTH AND SAFETY

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet
Sika BlackSeal® Lastic
September 2020, Version 01.03
020706301000000108

SikaBlackSealLastic-en-ZA-(09-2020)-1-3.pdf



PRODUCT DATA SHEET

Sika BlackSeal® Silvercoat

One-part, solvent-based Bitumen, Aluminium coating

DESCRIPTION

Sika BlackSeal® Silvercoat is a one-part, solvent-based, aluminium pigmented bitumen protective coating for bitumen waterproofing systems exposed to UV

USES

- UV Resistant
- Excellent reflective properties
- Easy to apply
- Quick drying time

CHARACTERISTICS / ADVANTAGES

- Applied by brush, roller or airless spray
- Supplied ready to use
- Solvent based
- Resistant against UV light

PRODUCT INFORMATION

Chemical Base	Solvent-based Bitumen
Packaging	5ltr and 20ltr metal containers
Colour	Aluminium
Shelf Life	12 months from date of production
Storage Conditions	Store properly in unopened and undamaged original sealed packaging. Store in dry conditions between +5°C to +35°C.
Density	0.985 +0.02 kg/l
Solid content by volume	~ 33% by vol.
Viscosity	~ 1500 mPas
Service Temperature	-30°C to +70°C

SYSTEM INFORMATION

Dry film thickness	~55 microns
Ambient Air Temperature	+5°C min. / +50°C max
Substrate Temperature	+5°C min. / +50°C max
Substrate Moisture Content	<4%
Waiting Time / Overcoating	Before a second coat: 3 - 4 hours. Dependent on the ambient temperature, substrate temperature, relative humidity and the thickness of coating applied. Protect the freshly applied coating for minimum 24 hours from frost

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

Do not apply the product in direct sunlight.
Do not apply the product during rain.
Protect freshly applied material from rain, etc. until hardened.
Warm the product before use in cold weather.

ECOLOGY HEALTH AND SAFETY

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Repair damaged bituminous before application.
Clean contaminated substrates by appropriate means, including steam cleaning, high pressure water jetting, etc. to achieve a suitable substrate surface quality as outlined above.

MIXING

Prior to use, ensure that the product is thoroughly mixed, by mechanical mixer and that all solids are properly mixed into a homogenous mix.

APPLICATION

Spray Application:	Use airless spray equipment for high viscous liquids with a feed pressure of ~ 4 bar Pressure at gun ~ 2.5 bar Apply in one coat Do not mix the product with other materials
Manual Application	Apply by brush or roller
Application rate	~ 0.166 – 0.125 ltr/m ² for coating bitumen based systems

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardened Sika BlackSeal® Silvercoat can be removed mechanical means.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

Sika South Africa (Pty) Ltd

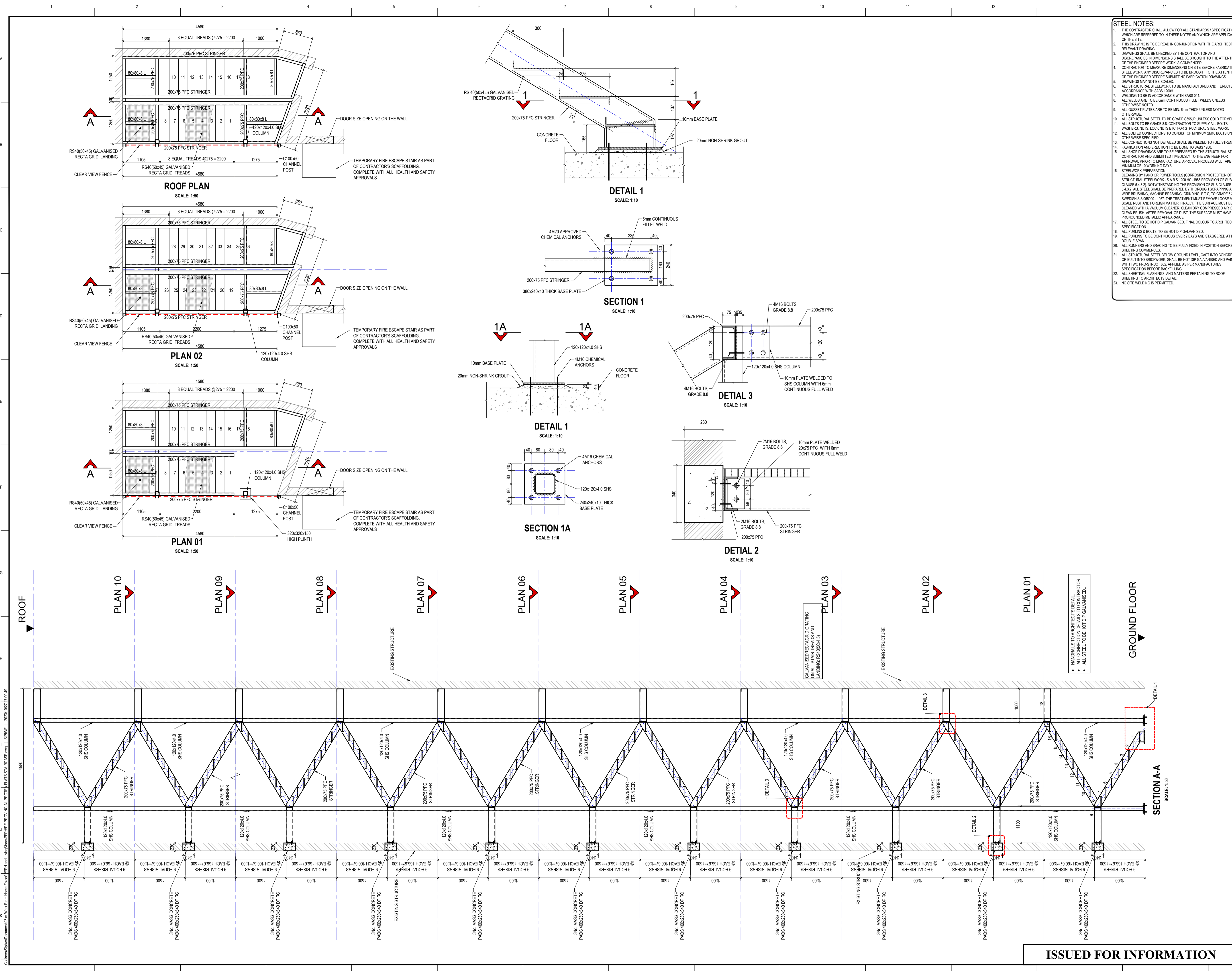
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Product Data Sheet

Sika BlackSeal® Silvercoat
May 2021, Version 03.01
020915791000000010

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STEEL NOTES:

1. THE CONTRACTOR SHALL ALLOW FOR ALL STANDARDS / SPECIFICATIONS WHICH ARE REFERRED TO IN THESE NOTES AND WHICH ARE APPLICABLE ON THE SITE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S RELEVANT DRAWING.
3. DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR AND DISCREPANCIES IN DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.
4. CONTRACTOR TO MEASURE DIMENSIONS ON SITE BEFORE FABRICATING STEEL WORK. ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING FABRICATION DRAWINGS.
5. DRAWINGS MAY NOT BE SCALED.
6. ALL STRUCTURAL STEELWORK TO BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH SABS 1200H.
7. WELDING TO BE IN ACCORDANCE WITH SABS 604.
8. ALL WELDS ARE TO BE 6mm CONTINUOUS FILLET WELDS UNLESS OTHERWISE NOTED.
9. ALL GUSSET PLATES ARE TO BE MIN 6mm THICK UNLESS NOTED OTHERWISE.
10. ALL STRUCTURAL STEEL TO BE GRADE S355JR UNLESS COLD FORMED.
11. ALL BOLTS TO BE GRADE 8.8. CONTRACTOR TO SUPPLY ALL BOLTS, WASHERS, NUTS, LOCK WASHERS ETC. FOR STRUCTURAL STEEL WORK.
12. ALL BOLTED CONNECTIONS TO BE CARBON STEEL IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND THE RELEVANT S.A.N.S SPECIFICATIONS. ALL CONCRETE WORK IS TO BE DONE IN ACCORDANCE WITH S.A.N.S 1200G AND EARTHWORKS IN ACCORDANCE WITH S.A.N.S 1200D.
13. ALL CONNECTIONS NOT DETAILED SHALL BE WELDED TO FULL STRENGTH. FABRICATION AND ERECTION TO BE DONE TO SABS 1200.
14. ALL SHOP DRAWINGS ARE TO BE PREPARED BY THE STRUCTURAL STEEL CONTRACTOR AND SUBMITTED TIMELY TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. APPROVAL PROCESS WILL TAKE A MINIMUM OF 10 WORKING DAYS.
15. STEELWORK PREPARATION: CLEANING BY HAND OR POWER TOOLS (CORROSION PROTECTION OF STRUCTURAL STEELWORK - S.A.S 8:18:188 PROVISION OF SUB CLAUSE 4.3.2). ALL STEEL SHALL BE PREPARED BY THOROUGH SCRAPING AND WIRE BRUSHING, MACHINE BRUSHING, GRINDING, E.T.C. TO GRADE S.1 OF SWEDISH SIS 05590:1987. THE TREATMENT MUST REMOVE LOOSE MILL SCALE RUST AND FOREIGN MATTER. FINALLY, THE SURFACE MUST BE CLEANED WITH A VACUUM CLEANER. CLEAR DRY COMPRESSED AIR OR CLEAN BRUSH AFTER REMOVAL OF DUST. THE SURFACE MUST HAVE A PROHIBITED METALLIC APPEARANCE.
16. ALL STEEL TO BE HOT DIP GALVANISED. FINAL COLOUR TO ARCHITECT'S SPECIFICATION.
17. ALL PURLINS & BOLTS TO BE HOT DIP GALVANISED.
18. ALL PURLINS TO BE CONTINUOUS OVER 2 BAYS AND STAGGERED AT LEAST DOUBLE SPAN.
19. ALL RUNNERS AND BRACING TO BE FULLY FIXED IN POSITION BEFORE SHEETING COMMENCES.
20. ALL STRUCTURAL STEEL BELOW GROUND LEVEL CAST INTO CONCRETE OR BUILT INTO BRICKWORK SHALL BE HOT DIP GALVANISED AND PAINTED WITH TWO PROTECTIVE COATS, APPLIED AS PER MANUFACTURER'S SPECIFICATION BEFORE BACKFILLING.
21. ALL SHEETING, FLASHINGS, AND MATTERS PERTAINING TO ROOF SHALL BE TO ARCHITECT'S DETAIL.
22. NO SITE WELDING IS PERMITTED.

CONCRETE NOTES:

- 1.0 SETTING OUT AND GENERAL
- 1.1 THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
- 1.2 ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK IS PUT IN HAND.
- 1.3 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.
- 1.4 THIS DRAWING MUST NOT BE USED TO SCALE. USE ONLY WRITTEN DIMENSIONS. CONTACT THE ENGINEER OR ARCHITECT WHERE CLARITY IS SOUGHT.
- 1.5 FOR SETTING OUT DATA, SETTING OUT POINTS AND DATUM LEVELS REFER TO SURVEY INFORMATION AND ARCHITECT'S DRAWINGS.
- 1.6 ALL STRUCTURAL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND THE RELEVANT S.A.N.S SPECIFICATIONS.
- 1.7 ALL CONCRETE WORK IS TO BE DONE IN ACCORDANCE WITH S.A.N.S 1200G AND EARTHWORKS IN ACCORDANCE WITH S.A.N.S 1200D.
- 1.8 CONSULT RELEVANT ARCHITECTS, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND DETAILS AS RELEVANT FOR DRAINAGE, STORMWATER OUTLETS, RWPS AND HOLES AND SLEEVES FOR THESE SERVICES. NO HOLES ARE TO BE CORED WITHOUT ENGINEERS WRITTEN APPROVAL.
- 2.0 FOUNDATIONS
- 2.1 ALL FOUNDATION EXCAVATIONS TO BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS CAST.
- 2.2 NO FOUNDATIONS ARE TO BE CAST IN FILL MATERIAL. A 50mm THICK LAYER OF 18% BLANKING CONCRETE IS TO BE CAST UNDER ALL REINFORCED BASES, REINFORCED STRIP FOOTINGS AND GROUND BEAMS.
- 2.3 ANY OVER EXCAVATIONS ARE TO BE MADE GOOD WITH 10MPa / 15mm CONCRETE AT THE CONTRACTOR'S EXPENSE.
- 2.4 BACKFILL OVER COLUMNS AND BASES SHALL BE DONE WITH AN APPROVED MATERIAL COMPACTED IN LAYERS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2.5 ALLOWABLE BEARING PRESSURE UNDER:
 - CONCRETE BASES = 150kPa
 - STRIP FOOTINGS = 250kPa / 15mm
 - SUSPENDED BEAMS = 300kPa / 15mm
 - SUSPENDED SLABS & BEAMS = 300kPa / 15mm
 - COLUMNS = 300kPa / 15mm
- 2.6 CONCRETE MIX DESIGNS FOR ALL GRADES OF CONCRETE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION.
- 2.7 CONCRETE MIX DESIGNS FOR ALL GRADES OF CONCRETE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION.
- 2.8 PERMISSIBLE DEVIATION DEGREE OF ACCURACY CLASS II UNLESS SPECIFIED OTHERWISE.
- 2.9 CONCRETE CURE TEST RESULTS TO BE SUBMITTED TIMELY TO THE ENGINEER FOR PERUSAL, RECORDS, COMMENT AND APPROVAL.
- 3.0 CHARACTERISTIC STRENGTH:
 - MILD STEEL = 250N/mm²
 - HIGH YIELD STEEL = 450N/mm²
- 3.1 ALL REINFORCEMENT TO BE CHECKED AND APPROVED BY ENGINEER BEFORE ANY CONCRETE IS CAST. 48 HOURS WRITTEN NOTICE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION.
- 3.2 LAP LENGTH TO REINFORCING TO BE MINIMUM SIX SMALLER BAR DIAMETER UNLESS OTHERWISE NOTED.
- 3.3 MINIMUM LAPS + 300mm UNLESS OTHERWISE NOTED.
- 3.4 THE CONTRACTOR MUST TAKE PARTICULAR CARE TO ENSURE THAT THE SPECIFIED COVER TO ALL REINFORCEMENT HAS BEEN ATTAINED THROUGHOUT BEFORE THE ENGINEER IS CALLED TO SITE FOR INSPECTION OF THE REINFORCEMENT.
- 3.5 REINFORCEMENT:
 - STRIP FOOTINGS = 50mm
 - BASES = 50mm
 - COLUMNS AND WALLS = 40mm
 - SUSPENDED BEAMS = 40mm
 - SUSPENDED SLABS = 40mm
- 3.6 CONTRACTOR IS TO CONDUCT HIS OWN INSPECTION OF REINFORCEMENT BEFORE CALLING THE ENGINEER FOR INSPECTION. FORMWORK AND PROPPING:
 - FORMWORK = 15 DAYS
 - STRIPPING TIMES FOR:
 - COLUMN AND WALL SHUTTERING = 15 DAYS
 - BEAM SHUTTERING = 7 DAYS IN HOT WEATHER, 12 DAYS IN COLD WEATHER, 4 DAYS IN HOT WEATHER, 7 DAYS IN COLD WEATHER.
 - SLABS = 4 DAYS IN HOT WEATHER, 7 DAYS IN COLD WEATHER.
 - PROPPING TIMES FOR:
 - SLABS & BEAMS (INCLUDING CANTILEVERS) = 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER.
- 3.7 (SUBJECT TO CUBE TEST RESULTS IN COLD WEATHER) TIMELY TO ENGINEER FOR APPROVAL.
- 3.8 NO IS PROPPING OF SUSPENDED ELEMENTS UNTIL INSTRUCTED BY ENGINEER.
- 3.9 CONCRETE FINISHES: UNLESS NOTED OTHERWISE:
 - COLUMNS AND WALLS = OFF SHUTTER
 - BEAMS AND SLAB SOFFIT = OFF SHUTTER
 - TOP OF SUSPENDED SLABS = SMOOTH
 - SIDES OF GROUND BEAMS TO BE SHUTTERED.

No	Date	Revisions	ES	OK	Chd	Appd
A	27-10-23	ISSUED FOR INFORMATION				

Client: **EASTERN CAPE HEALTH**

Implementing Agent: **HDG**

Architect: **b4 Architects**

Engineer: **KEON CONSULTING ENGINEERS**

Project: **PE PROVINCIAL HOSPITAL**

Description: **PROTEA FLATS FIRE ESCAPE STEEL STAIRCASE**

Engineer: **G. Kuchera Pr Eng (20110431)**

Drawn By: **S. Chithanga** | Designed By: **S. Chithanga** | Checked By: **G. Kuchera**

Size: **A1** | Scale: **As Shown** | Original Date: **October 2023**

Issued For: **INFORMATION**

Project No: **J117** | Drawing No: **S010** | Revision: **A**

ISSUED FOR INFORMATION

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ACTS OF PARLIAMENT

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All work is to comply with the various SANS-10400 Building Regulations and all other regulations referred to therein.

ACCURACY & DIMENSIONS
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IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Issued for Information	22/11/2023
2	Issued for Tender	27/11/2023
REVISIONS:		

ECDoH

PROJECT:
Protea Flats - New GSA Offices

TITLE:
Fire Escape Stair
Ballustrade & Screen
Details

Scale: As indicated

Date: 24 November 2023

Drawn by: J Thomson

Designer: J Thomson

Professional Architect: B Brinkman

Checked by: B Brinkman

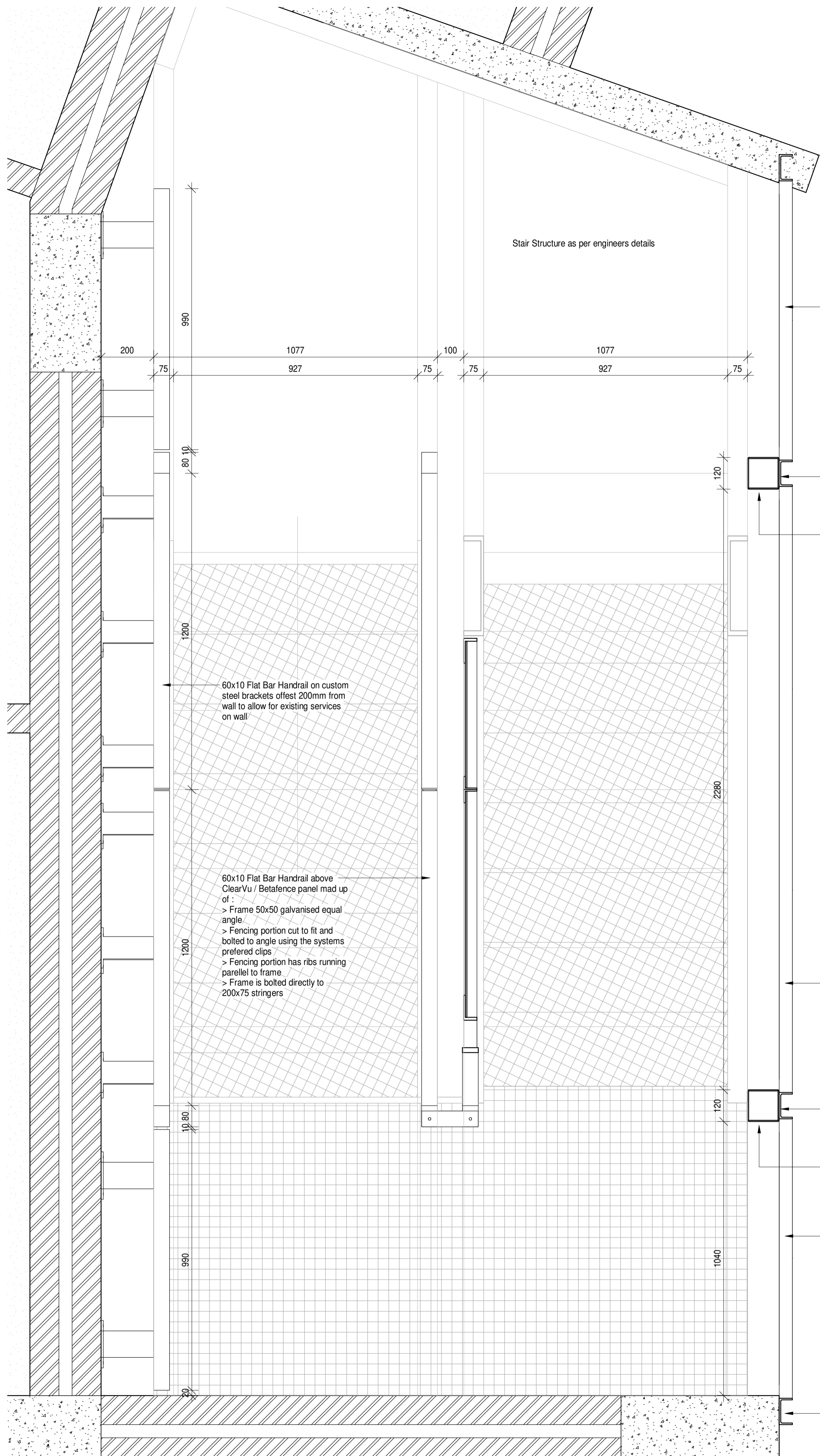
Sakhiwo Ref No:

B4 Project Ref No.: Architect DWG No:

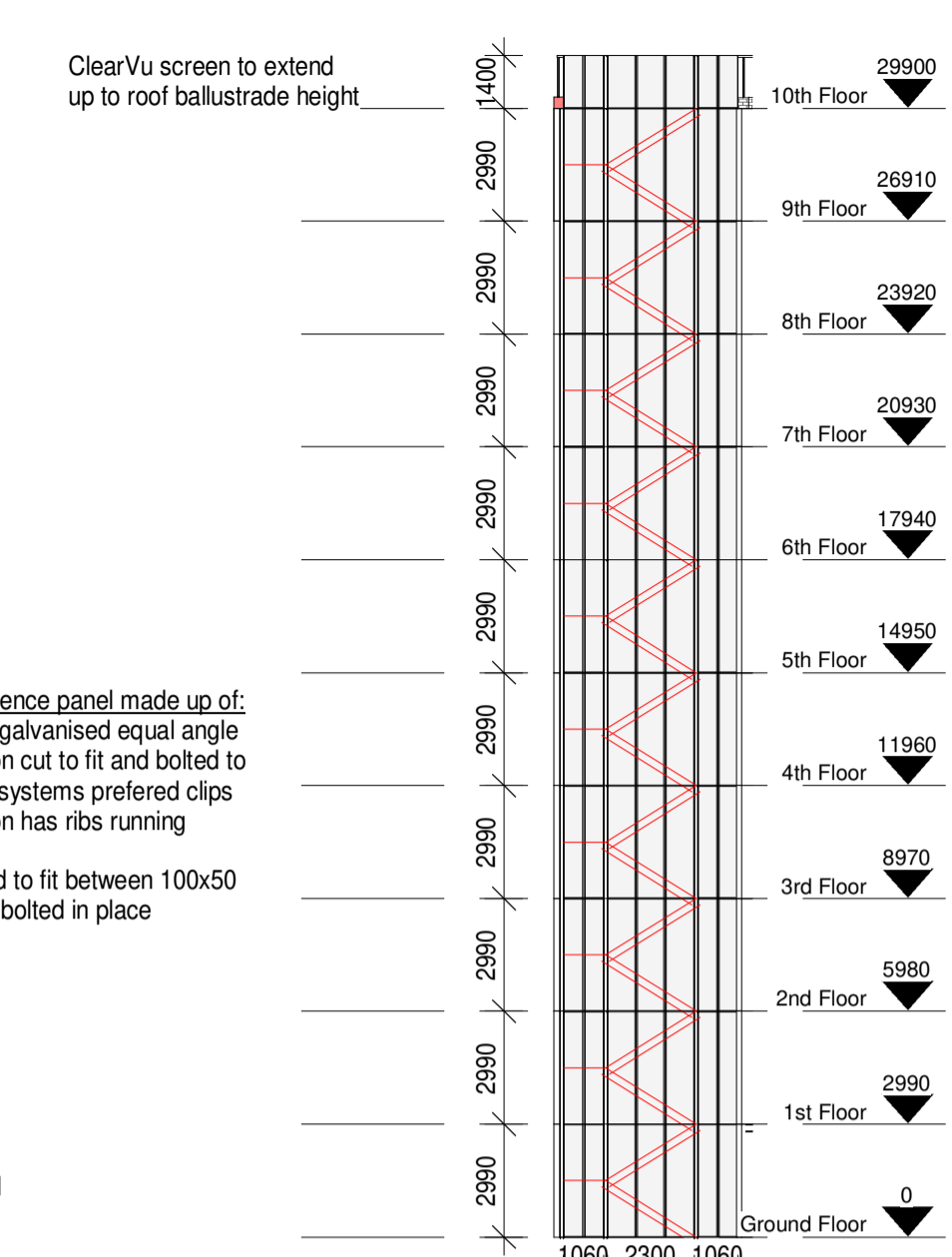
305-019 DET-002

FOR TENDER ONLY

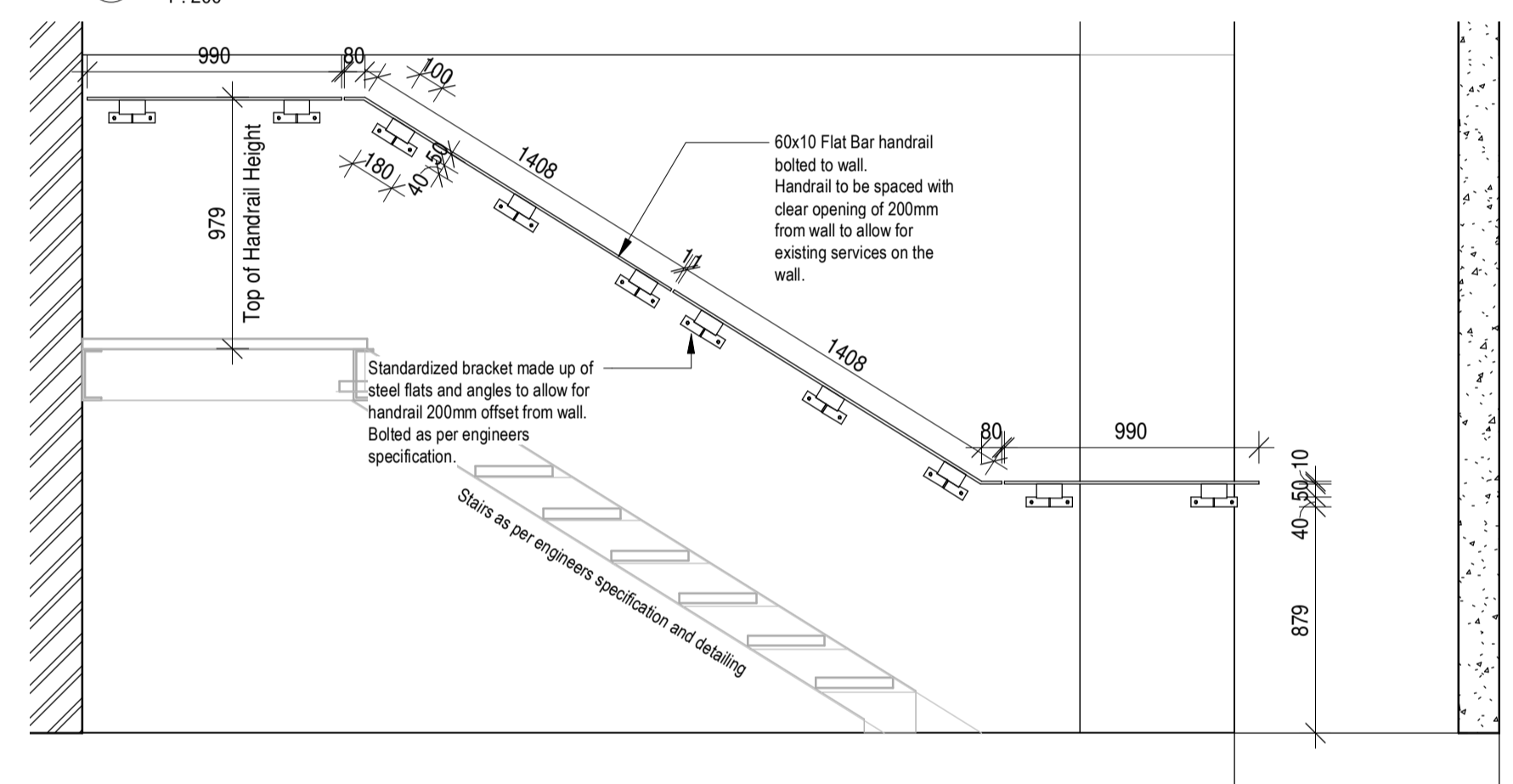
REV:
2



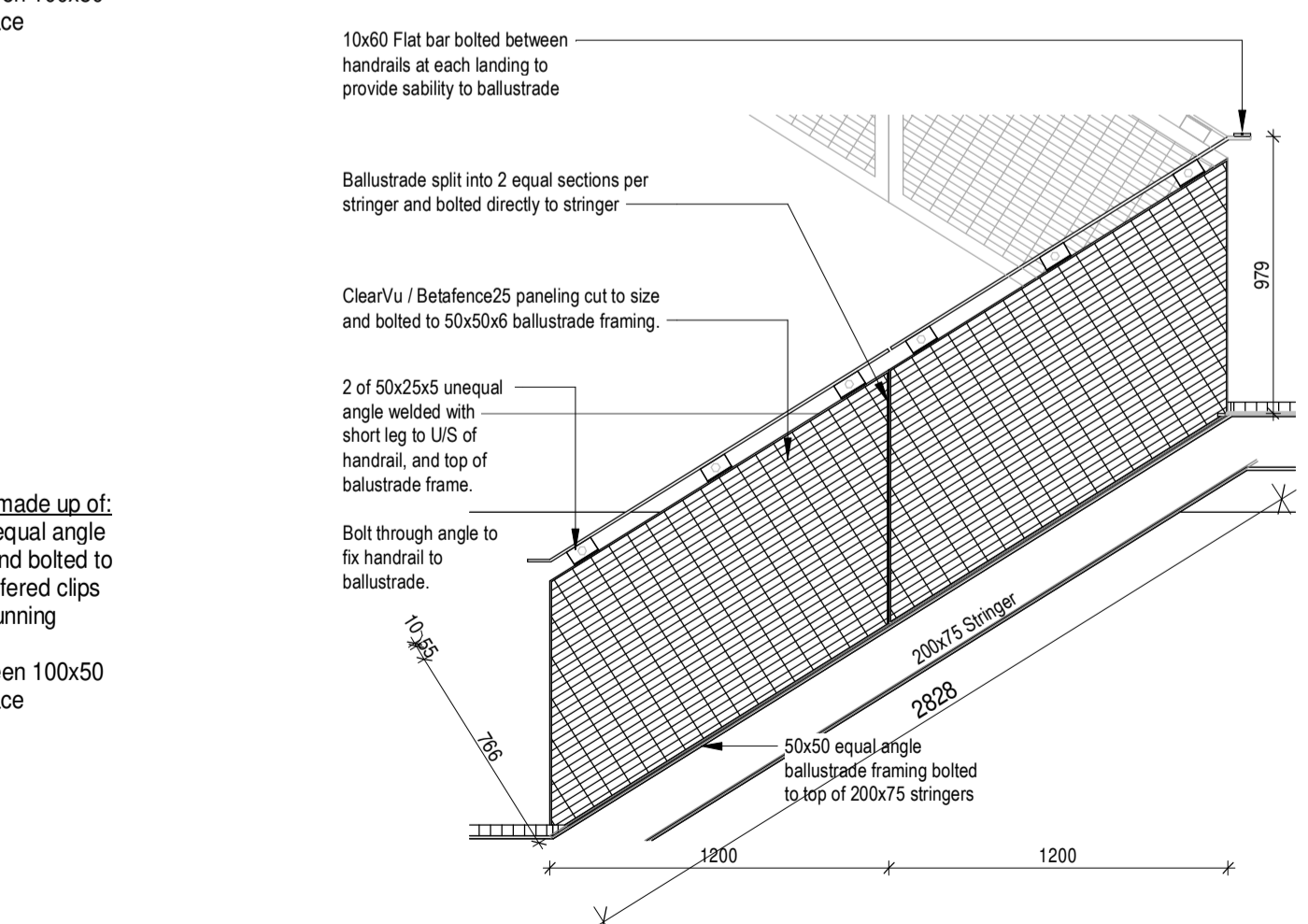
1 Ground Floor Stair Details Plan
1:10



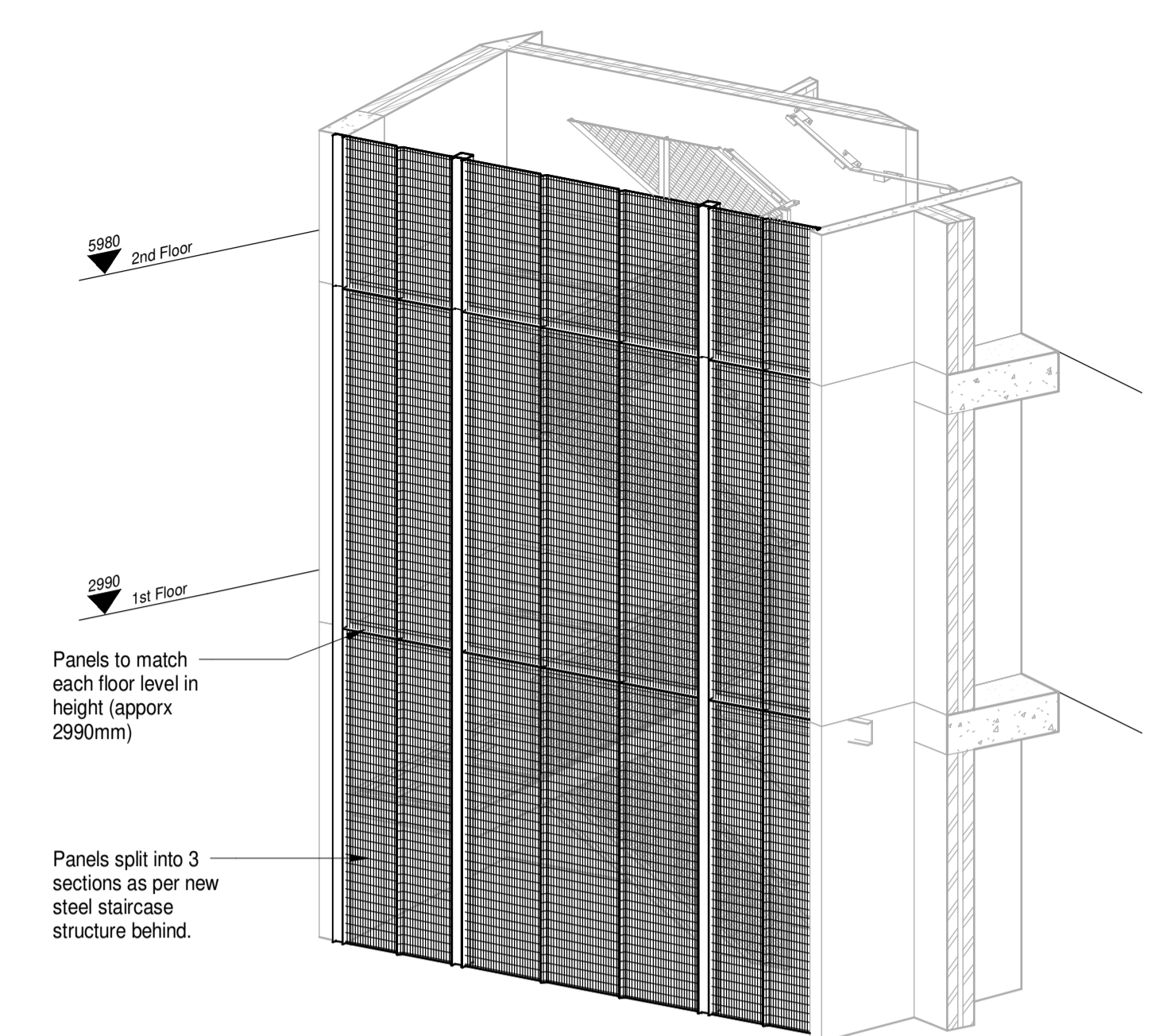
4 Escape Stair Panels Elevation
1:200



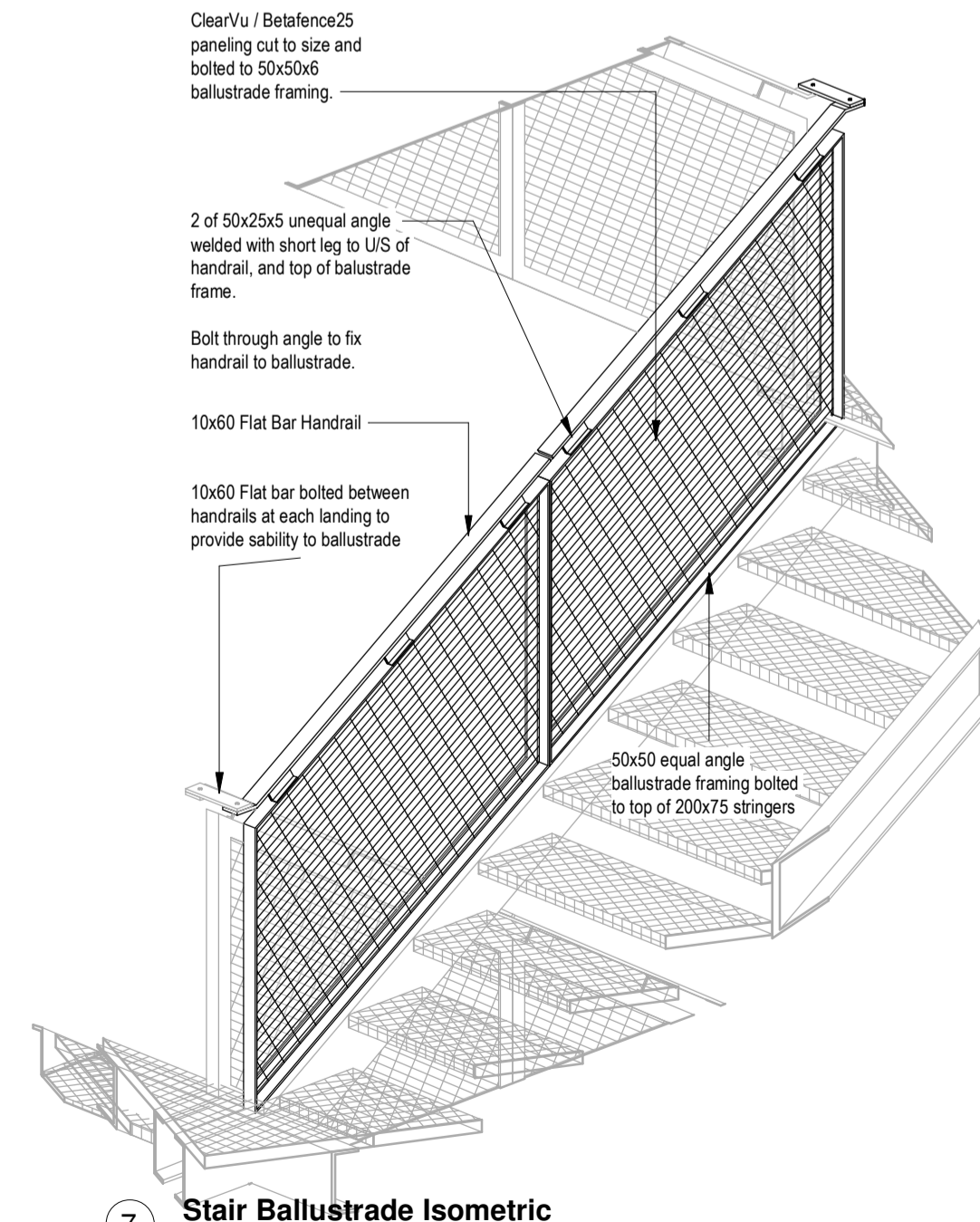
2 Stair sketch Typical Wall Handrail
1:25



5 Stair sketch Typical Internal Ballustrade
1:25



3 Stair ballustrade sketch



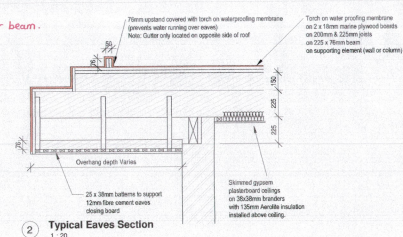
7 Stair Ballustrade Isometric

- Notes**
- Contractor to submit a construction methodology for the construction of the composite band deck slab.
 - Allowance to be made for a temporary water tank during construction of the band deck slab.

Allow for 2 110 Ø RWDP
 1) New gutter around.

New timber boards over.
 Thickness = 22mm
 Waterproofing to architect's detail.

- KEY**
- B1 — 100 X 400 DP Structural grade T timber beam.
 - B2 — 254 X 146 X 31 I Steel beam
 - B3 — PFC 200 X 75 Beam
 - (C1) — 114 X 4.0 CHS Column.



- Resurfacing of existing tar surface:**
- Existing tar surface to be removed. Base layer to be ripped and recompacted to 98% Mod.
- ASHTO**
- Add a new 40mm thick asphalt layer.
 - Area to be resurfaced = 200m².
- Concrete spalling repair**
- Remove all spalled concrete and rebar to expose sound concrete aggregate and reinforcement.
 - Clean exposed surfaces with compressed air to remove loose particles and dust.
 - Apply an approved bonding slurry and corrosion protection primer (sika mono top 610 or similar) in accordance with manufacturer's specifications.
 - Apply approved structural repair mortar (sika mono top 610 or similar) in accordance with the manufacturer's specifications.
 - Allow for repair areas to be 200mm thick x 1000mm long. Number = 850.

NOTE:
 Roof Truss arrangement is approximate and has not been measured!
 Exact positioning and sizing to be verified on site by contractor once ceilings have been opened up.

Existing timber beams 225x75mm Joists + 115x75mm Joists.

- Allow for a RC ring beam on this edge. Size of beam = 300 X 340 DP. Total length = 15m. Rebar estimate = 2.00kg/m² of concrete.
- Rebar minimal waterproofing in the tank.

- Allow for 2 M16 x 120mm long approved chemical anchors per fixing. Total number of fixing = 20.

- There is water ponding on this roof permen. Allow for:
- Opening up of full bases around this area and cleaning of full bases and RWDP.
 - 20% waterproofing replacement (100%).
 - New gutters, ceilings and fascia boards.

- Columns**
- Allow for:
- 2.50x2.50x10mm base plates with 4M16 bolts
 - 2.00x4.00x10mm cap plate with 4M16 bolts

Internal stainless steel access (access). Allow for 2m long ladder.

Allow for 2 New 12mm thick 10l + 150 X 340 DP concrete upstand around each manhole.

Allow for 100% replacement of waterproofing (torches) on concrete roof on top of the 1st shaft.

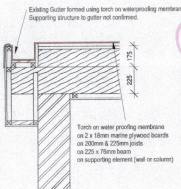
- On the existing roof:
- Remove timber boards (100%)
 - Replace timber boards (100%)
 - Replace joists on waterproofing (100%)
 - Replace fascia boards (100%)
 - Replace gutters (100%)

Provide 4 No. 35X230 X 350 DP concrete pads to receive I steel beams. Allow for 2 M20 x 120mm long approved chemical anchors per fixing. Total number of fixing = 4.

Close off all openings in the wall.

Allow for 19mm shear studs. Shear studs = 115mm long; 2 per rib. Total number of studs = 64.

Note: ALL structural steel to be hot dipped galvanized.



4 Typical Gutter Section 2 1:20

b4 Architects cc
 Resuscitating Healthcare Design

Port Elizabeth
 PO Box 5690, Walker, Port Elizabeth, 6005
 Unit 12, Bloemingdale Office Park, 34 North Avenue, Valhalla, Port Elizabeth, 6001
 Tel: 041 551 1217 E-mail: b4.pe@b4arch.co.za

Durban
 1 Tamboke Court, Sunningdale, Umhlanga, 4199
 Tel: 031 238 1441 E-mail: b4.dur@b4arch.co.za

PROVINCE OF THE EASTERN CAPE HEALTH

GREEN BUILDING COUNCIL MEMBER ORGANISATION 2018

KEON CONSULTING ENGINEERS

2 Fama Office Park, Con F Ave & Nelson Street, Port Elizabeth 6005
 Tel: 041 562 0950 Email: keon@keon.co.za
 1000 Main Road, P.O. Box 10533, The Bridge, Port Elizabeth 6002
 Tel: 041 562 2971

Marked by S.C. Chinganga
 23/10/2023
 02/11/2023 (Revision as Claudio)

ACTS OF PARLIAMENT

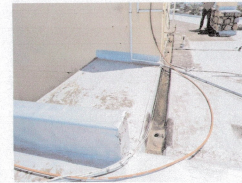
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1 Roof Plan 1:50

J117-S11 Rev A
ISSUED FOR INFORMATION

No.	Description	Date

PROJECT: ECDoh
 New GSA Offices

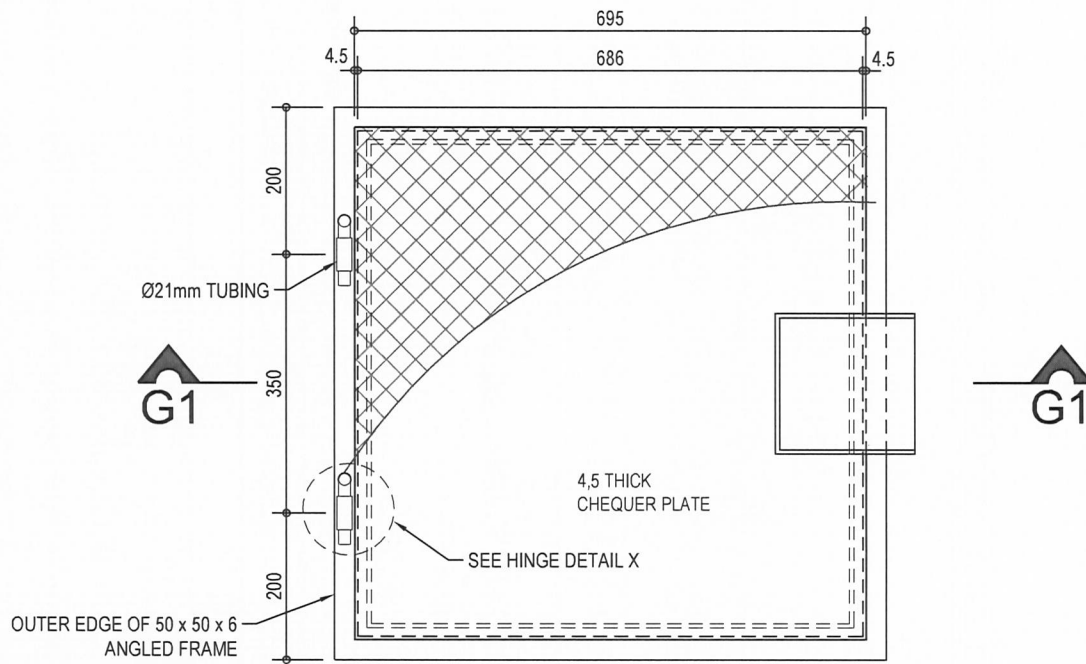
Date: 18 October 2023

Scale: As indicated
Drawn by: J Thomson
Designer: B Brinkman
Professional Architect: B Brinkman
Checked by: B Brinkman
Sakhiwo Ref No:

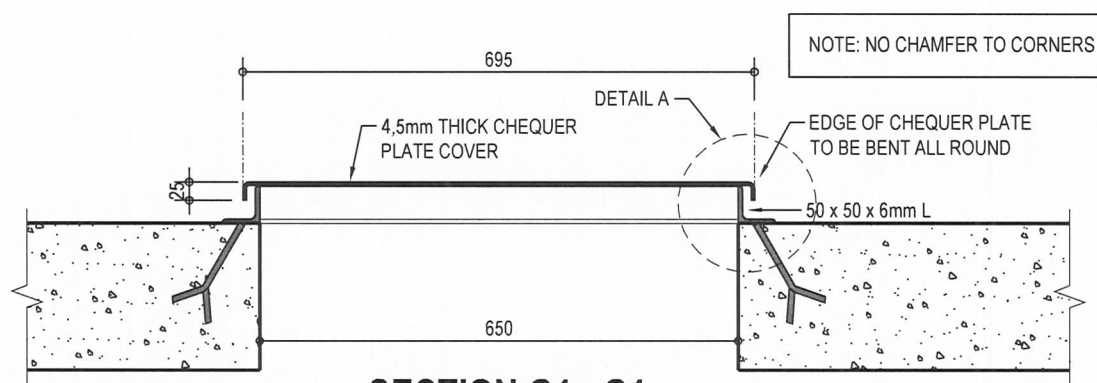
TITLE: Existing Roof Layout

B4 Project Ref No.: Architect DWG No:
 305-019 ARC-008

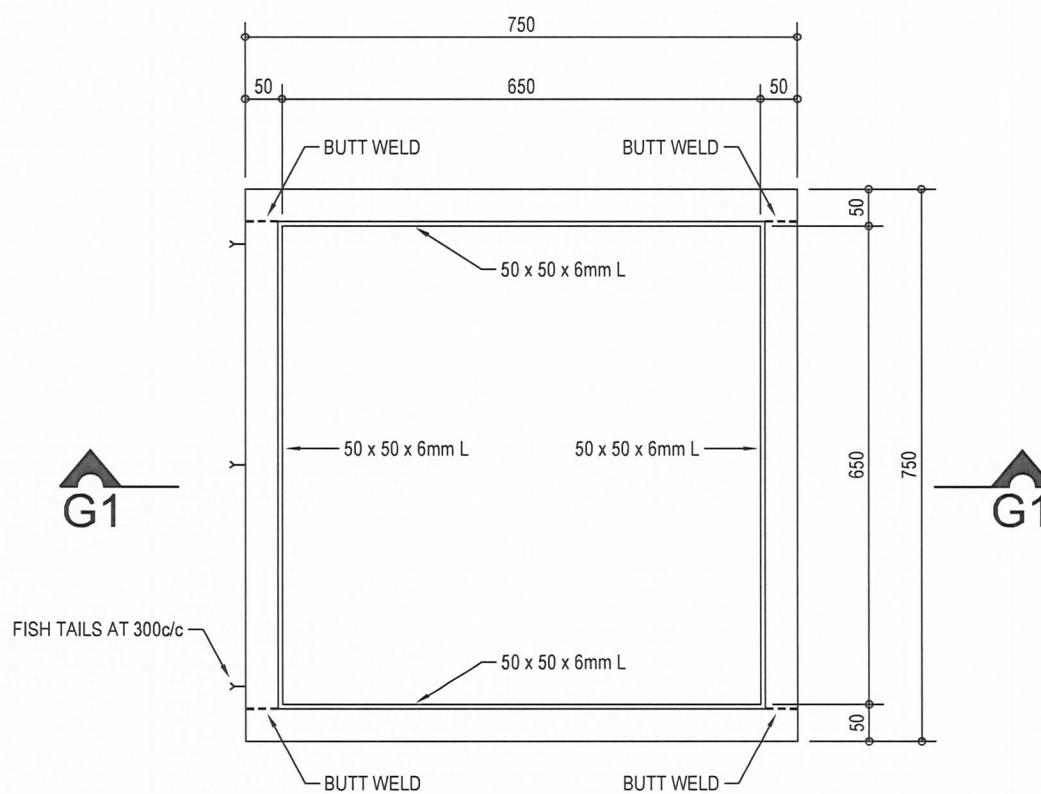
FOR INFORMATION ONLY



PLAN OF COVER
SCALE 1:10



SECTION G1 - G1
SCALE 1:10



PLAN OF FRAME
SCALE 1:10

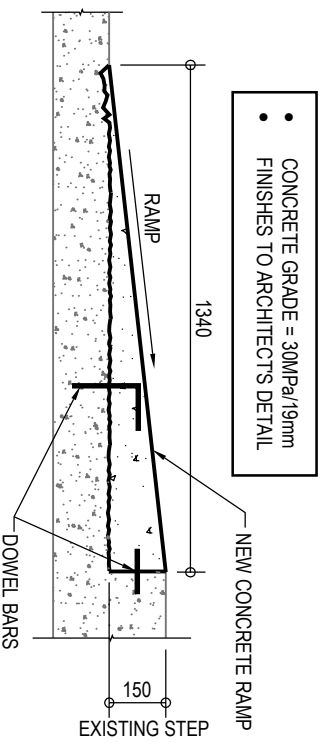
J117-S12 REV A
ROOF MANHOLE AND LADDER DETAILS

ISSUED FOR INFORMATION

KEON
CONSULTING ENGINEERS

5th Avenue Office Park
Cnr 5th Ave & Newton Street
Newton Park
Port Elizabeth 6055
@ 33° 9' 672.58" S
& 25° 56' 25.27" E

Tel: +27 41 363 0189
Email: admin@keon.co.za
www.keon.co.za
P.O. Box 70553
The Bridge
6032



NEW ACCESS RAMP DETAIL

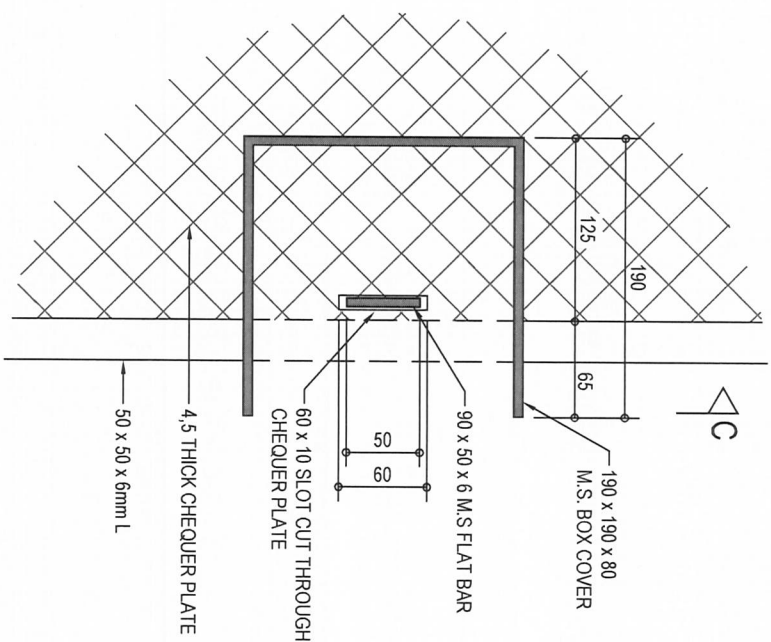
SCALE: 1:20

METHODOLOGY FOR CASTING ACCESS RAMP ON THE EXISTING SLAB

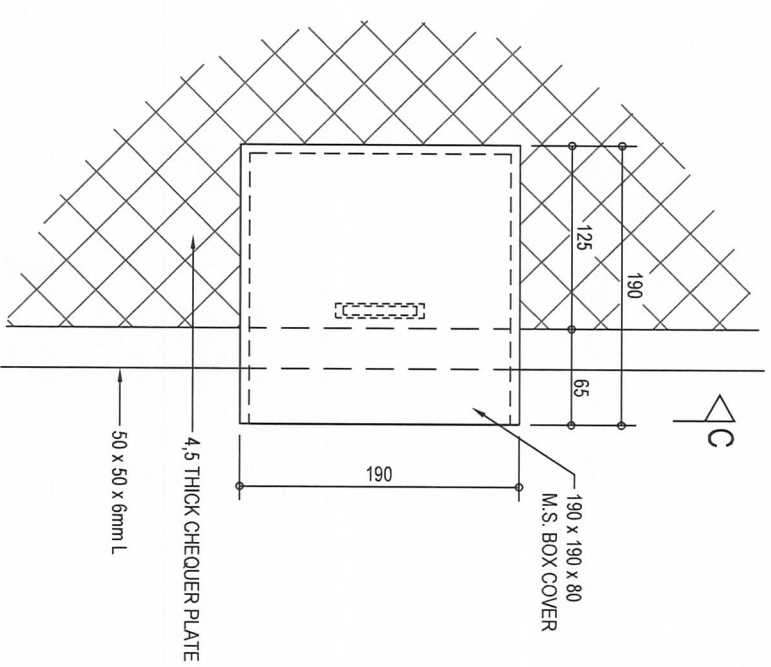
1. MARK THE POSITION OF THE RAMP ON THE EXISTING CONCRETE SLAB.
2. SCABBLE CONCRETE SURFACE TO EXPOSE AGGREGATE. CLEAN OFF ALL LOOSE AGGREGATE.
3. DRILL AND GROUT γ 10 BARS INTO THE EXISTING CONCRETE SLAB. REBAR ESTIMATE =60kg/m³ OF CONCRETE.
4. APPLY WET TO DRY EPOXY OR SIMILAR APPROVED BONDING AGENT ONTO THE EXPOSED CONCRETE SURFACE PRIOR TO CASTING THE NEW CONCRETE RAMP.
5. CAST THE NEW CONCRETE RAMP.

J117-S13 Rev A

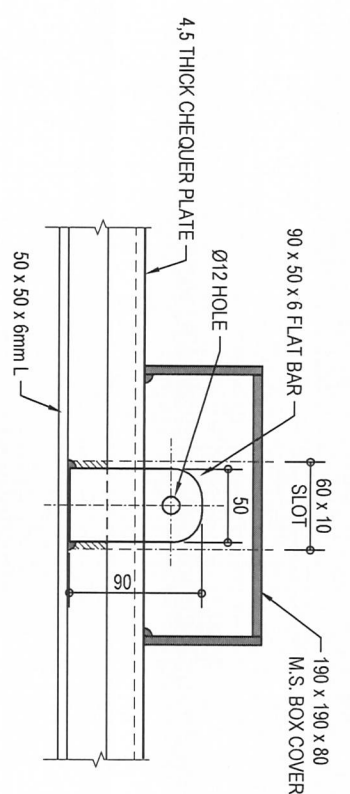
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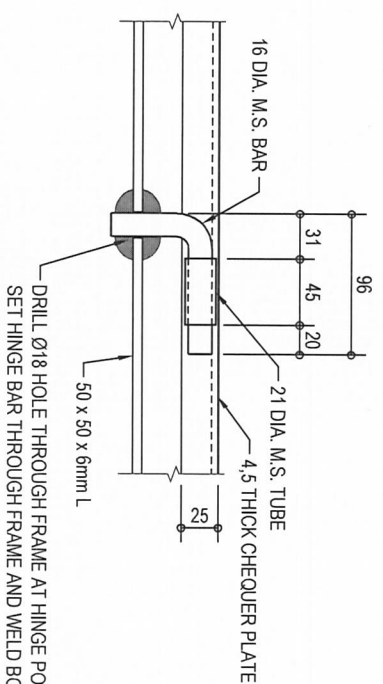
SECTION 1
(PLAN)
SCALE 1:5



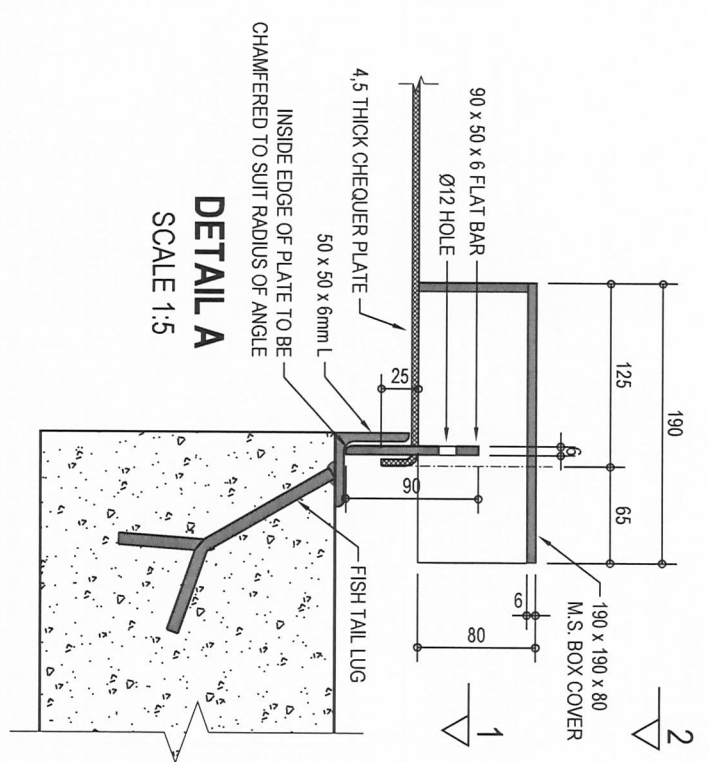
SECTION 2
(PLAN)
SCALE 1:5



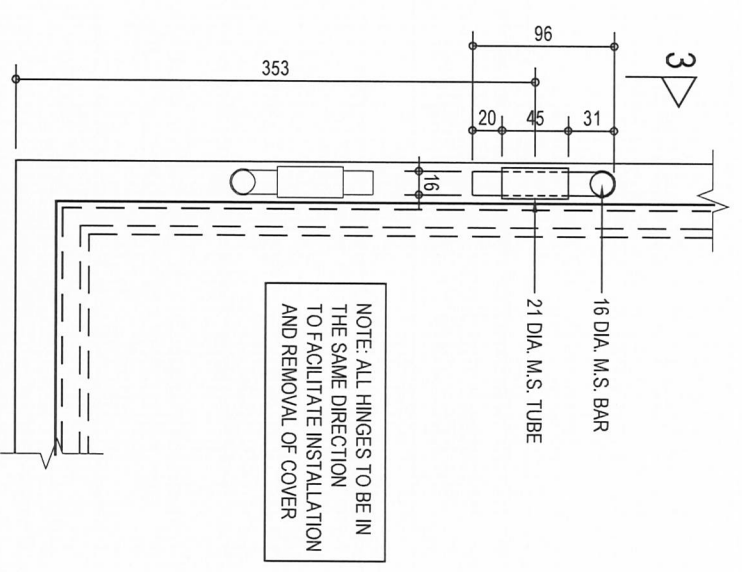
SECTION C
(ELEVATION)
SCALE 1:5



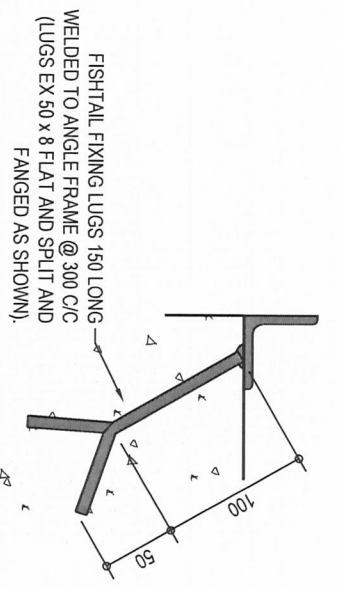
SECTION 3
(HINGE ELEVATION)
SCALE 1:5



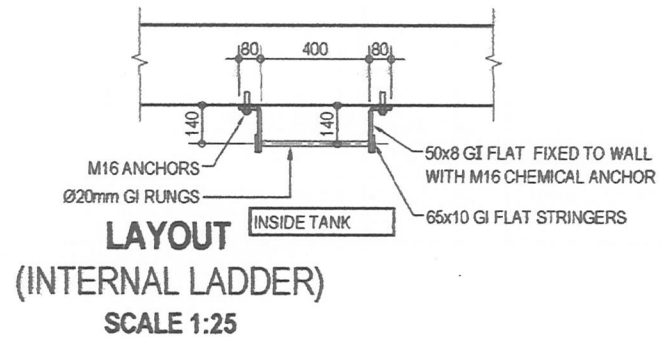
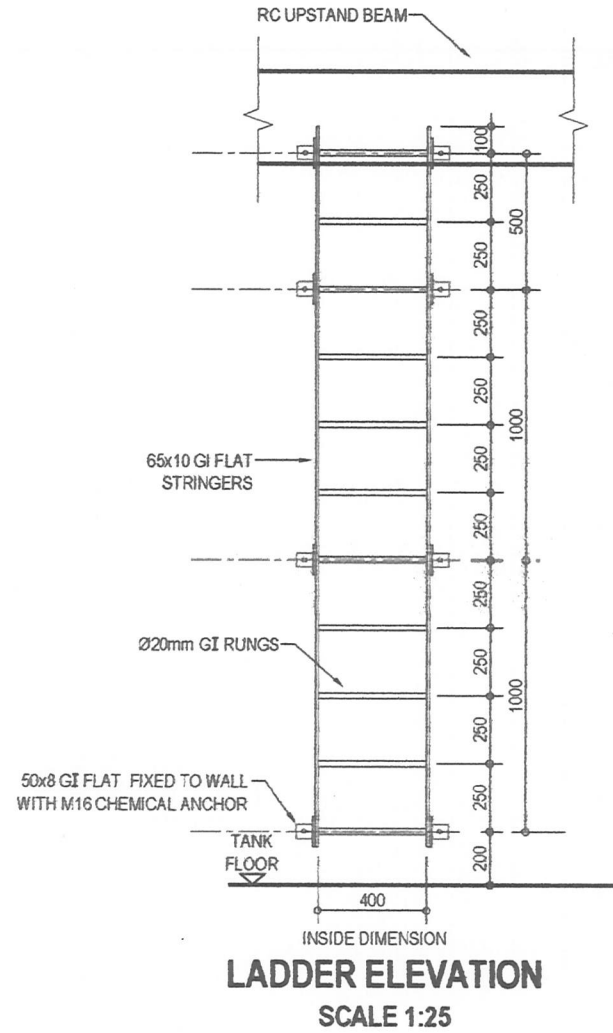
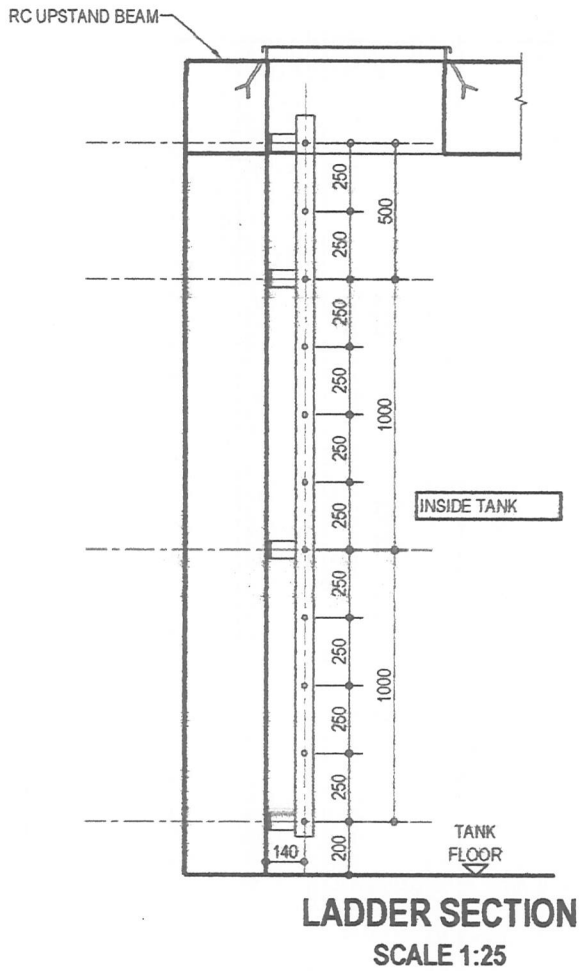
DETAIL A
SCALE 1:5



HINGE DETAIL X
SCALE 1:5



FISH TAIL DETAIL
SCALE 1:5



KEON

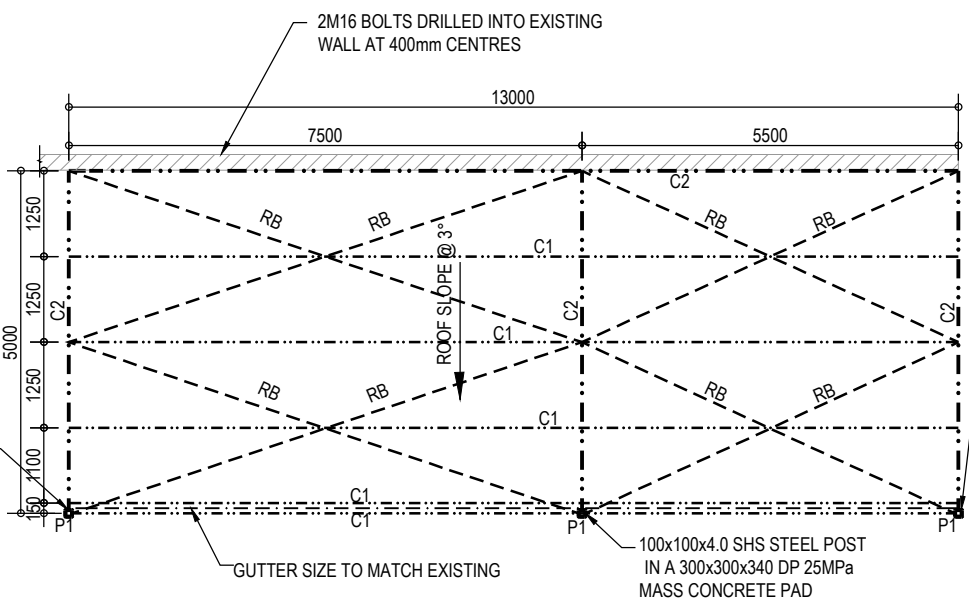
CONSULTING ENGINEERS

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Port Elizabeth 6055
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Email: admin@keon.co.za
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P.O. Box 70553
The Bridge
6032

STEEL MEMBER SIZES		
TYPE	MEMBER SIZE	DESCRIPTION
C1	PURLIN	175x75x20x2.5 CFLC
C2	STEEL BEAM	225x75x20x2.5 CFLC
P1	STEEL POST 1	100x100x4.0 SHS
RB	ROOF BRACING	60x60x5L

- NOTE:
- ALL STEEL TO BE HOT DIP GALVANISED
 - ROOF SHEETING AS PER ARCHITECT'S DETAIL
 - CONNECTION DETAILS TO CONTRACTOR

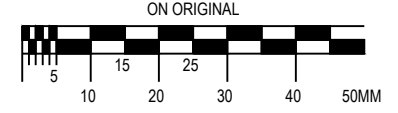


ROOF LAYOUT
SCALE: 1:100

STEEL NOTES:

1. THE CONTRACTOR SHALL ALLOW FOR ALL STANDARDS / SPECIFICATIONS WHICH ARE REFERRED TO IN THESE NOTES AND WHICH ARE APPLICABLE ON THE SITE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S RELEVANT DRAWING
3. DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR AND DISCREPANCIES IN DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.
4. CONTRACTOR TO MEASURE DIMENSIONS ON SITE BEFORE FABRICATING STEEL WORK. ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING FABRICATION DRAWINGS.
5. DRAWINGS MAY NOT BE SCALED.
6. ALL STRUCTURAL STEELWORK TO BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH SABS 1200H.
7. WELDING TO BE IN ACCORDANCE WITH SABS 044.
8. ALL WELDS ARE TO BE 6mm CONTINUOUS FILLET WELDS UNLESS OTHERWISE NOTED.
9. ALL GUSSET PLATES ARE TO BE MIN. 6mm THICK UNLESS NOTED OTHERWISE.
10. ALL STRUCTURAL STEEL TO BE GRADE S355JR UNLESS COLD FORMED.
11. ALL BOLTS TO BE GRADE 8.8. CONTRACTOR TO SUPPLY ALL BOLTS, WASHERS, NUTS, LOCK NUTS ETC. FOR STRUCTURAL STEEL WORK.
12. ALL BOLTED CONNECTIONS TO CONSIST OF MINIMUM 2M16 BOLTS UNLESS OTHERWISE SPECIFIED.
13. ALL CONNECTIONS NOT DETAILED SHALL BE WELDED TO FULL STRENGTH.
14. FABRICATION AND ERECTION TO BE DONE TO SABS 1200.
15. ALL SHOP DRAWINGS ARE TO BE PREPARED BY THE STRUCTURAL STEEL CONTRACTOR AND SUBMITTED TIMEOUSLY TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. APPROVAL PROCESS WILL TAKE A MINIMUM OF 10 WORKING DAYS.
16. STEELWORK PREPARATION:
CLEANING BY HAND OR POWER TOOLS (CORROSION PROTECTION OF STRUCTURAL STEELWORK - S.A.B.S 1200 HC -1988 PROVISION OF SUB CLAUSE 5.4.3.2). NOTWITHSTANDING THE PROVISION OF SUB CLAUSE 5.4.3.2, ALL STEEL SHALL BE PREPARED BY THOROUGH SCRAPPING AND WIRE BRUSHING, MACHINE BRASHING, GRINDING, E.T.C. TO GRADE 5.3 OF SWEDISH SIS 055900 - 1967. THE TREATMENT MUST REMOVE LOOSE MILL SCALE RUST AND FOREIGN MATTER. FINALLY, THE SURFACE MUST BE CLEANED WITH A VACUUM CLEANER, CLEAN DRY COMPRESSED AIR OR CLEAN BRUSH. AFTER REMOVAL OF DUST, THE SURFACE MUST HAVE A PRONOUNCED METALLIC APPEARANCE.
17. ALL STRUCTURAL STEEL BEAMS AND CONNECTIONS TO BE PAINTED WITH INTUMESCENT PAINT PROTECTION TO ACHIEVE A 2 HOUR FIRE RATING. CONTRACTOR TO PROVIDE PAINT SPECIFICATION DETAILS TO THE ENGINEER FOR APPROVAL.
18. ALL PURLINS & BOLTS TO BE HOT DIP GALVANISED.
19. ALL PURLINS TO BE CONTINUOUS OVER 2 BAYS AND STAGGERED AT LEAST DOUBLE SPAN.
20. ALL RUNNERS AND BRACING TO BE FULLY FIXED IN POSITION BEFORE SHEETING COMMENCES.
21. ALL STRUCTURAL STEEL BELOW GROUND LEVEL, CAST INTO CONCRETE OR BUILT INTO BRICKWORK, SHALL BE PAINTED WITH TWO PRO-STRUCT 632, APPLIED AS PER MANUFACTURES SPECIFICATION BEFORE BACKFILLING.
22. ALL SHEETING, FLASHINGS, AND MATTERS PERTAINING TO ROOF SHEETING TO ARCHITECTS DETAIL.
23. NO SITE WELDING IS PERMITTED.

THESE NOTES SERVE AS AN ADDENDUM TO THE SPECIFICATION IN THE BILL OF QUANTITIES (BOQ). IN THOSE CASES WHERE THE BOQ SPECIFICATIONS DIFFER FROM THESE NOTES, THESE NOTES SHALL TAKE PREFERENCE



No	Date	Details	Chd	Appd
0	28-11-23	ISSUED FOR INFORMATION	ES	GK
Revisions				

Client:

Architect:

Architecture | Interior Design | Project Management

b4 Architects

Engineer:

KEON CONSULTING ENGINEERS

Project:

PE PROVINCIAL HOSPITAL
PROTEA FLATS STEEL
CARPORT

Description:

STEEL CARPORT ROOF LAYOUT
AND DETAILS

Engineer:

G. Kucherera Pr Eng (20110431)

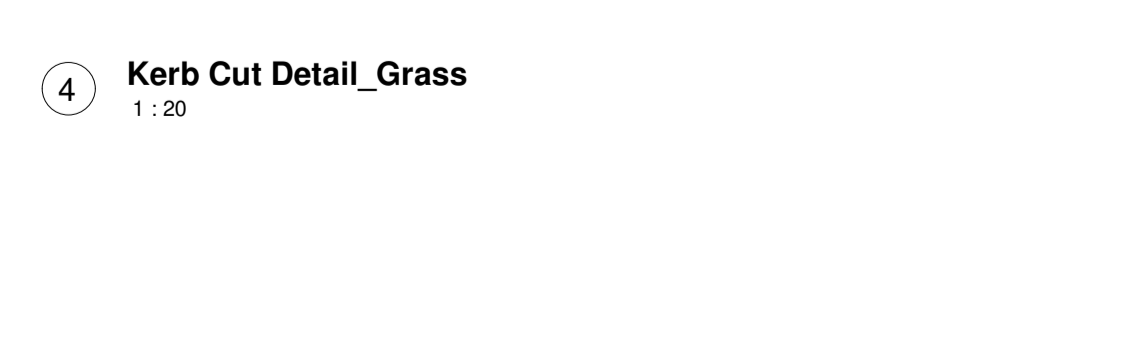
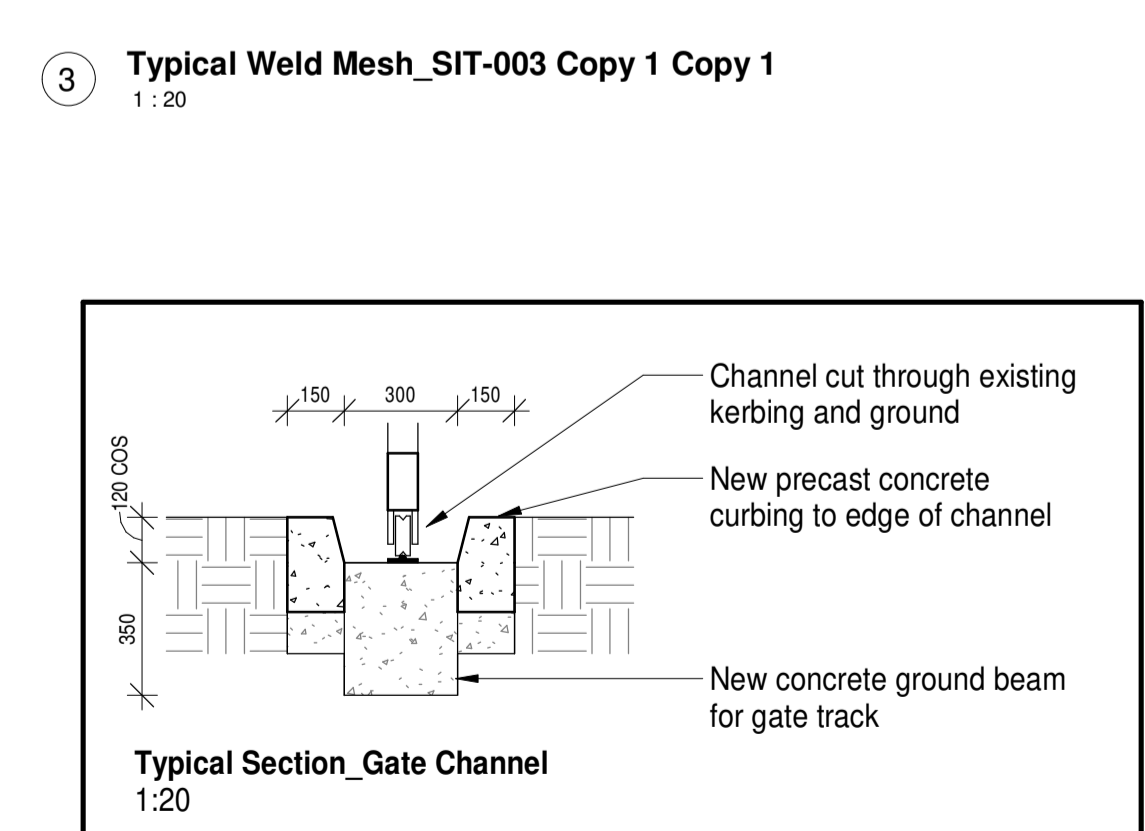
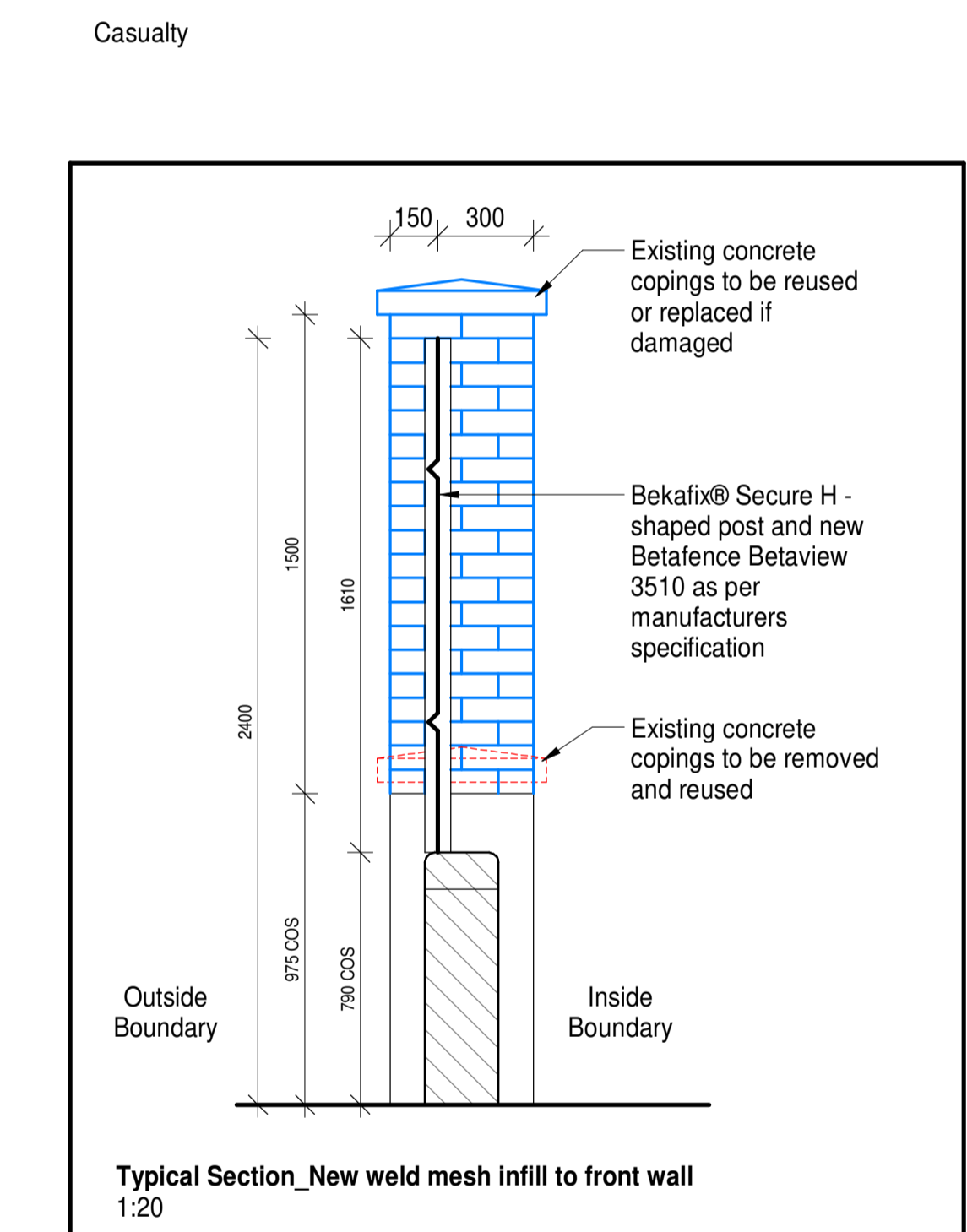
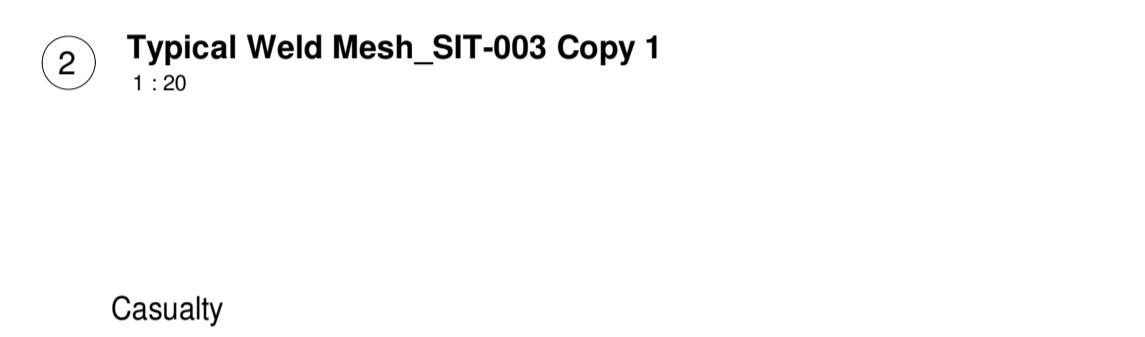
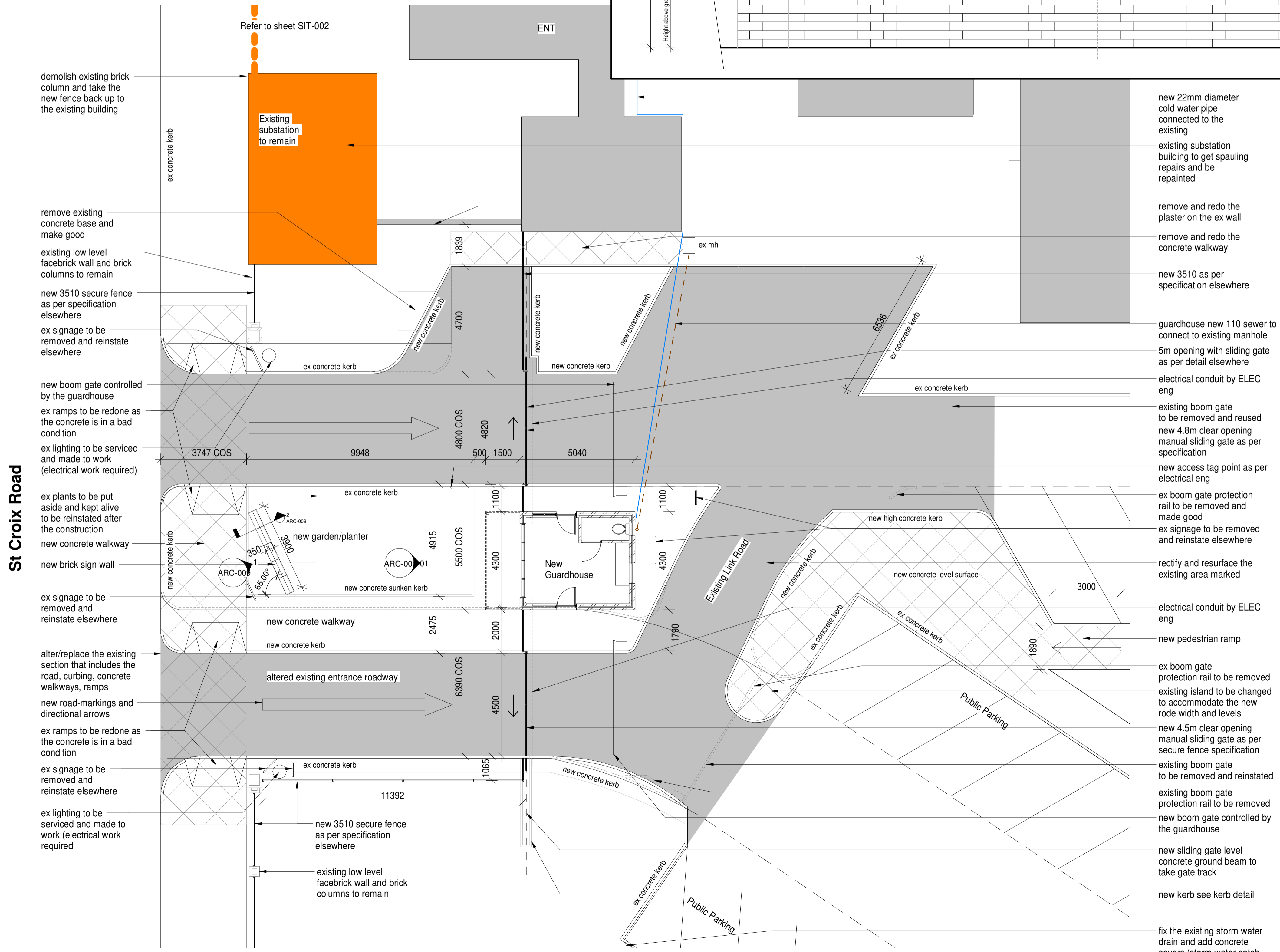
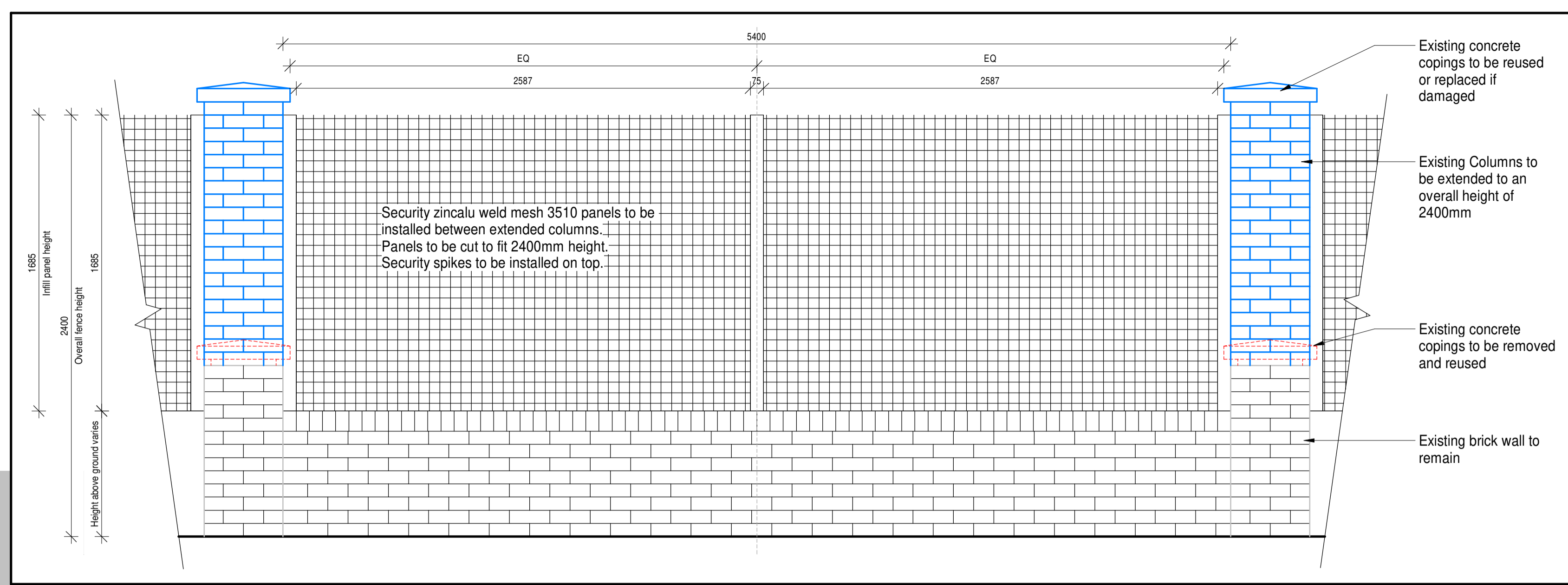
Drawn By:	Designed By:	Checked By:
S. Chinhanga	S. Chinhanga	G. Kucherera

Size: A3 Scale: As Shown Original Date: NOVEMBER 2023

Issued For: **INFORMATION**

Project No:	Drawing No:	Revision:
J117	S14	A

New Fence Specification:
Rigid Mesh Security Fencing
 Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanizing
 Bekafix® Secure Posts: H - shaped profile post 70mmx 44mm. The panel is to fit securely behind the lip of the post. Height: (to be altered top suit the wall infill panel heights) or 3000mm hot dipped galvanized mild steel posts.
 Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
 Secured using tamper-proof shear-off nuts. (no self drilling screws).
 All fixator components to be stainless steel Grade 304 per ISO 9223.
 All Foundations to be 600mm (d) x 400mm (h) x 400mm (w) concrete. (were applicable)
 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations.



1 Ground Floor Entrance Guard House Layout
1:100

2 Typical Weld Mesh SIT-003 Copy 1
1:20

3 Typical Weld Mesh SIT-003 Copy 1 Copy 1
1:20

4 Kerb Cut Detail Grass
1:20

Province of the
EASTERN CAPE
 HEALTH

Sakhiwo
 health solutions

GREEN BUILDING COUNCIL
 SOUTH AFRICA
 MEMBER ORGANISATION 2018

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Resuscitating Healthcare Design

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No.	Description	Date
1	Remove Trade Names	27-10-2023

PROJECT:
 PORT ELIZABETH
 PROVINCIAL HOSPITAL

TITLE:
 Boundary Wall
 Replacement

**Entrance Guardhouse -
 Layout**

Scale	As indicated
Date:	02 November 2023
Drawn by:	PV
Designer:	PV
Professional Architect:	BB
Checked by:	BB

DWG No: **ARC-001**

FOR TENDER ONLY

REV: **1**

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No.	Description	Date

PROJECT: **PEPH**

PROJECT: **Boundary Wall Replacement**

TITLE: **Guardhouse 1**

Scale: **1 - 50**

Date: **16 October, 2023**

Drawn by: **PHV**

Designer: **ET**

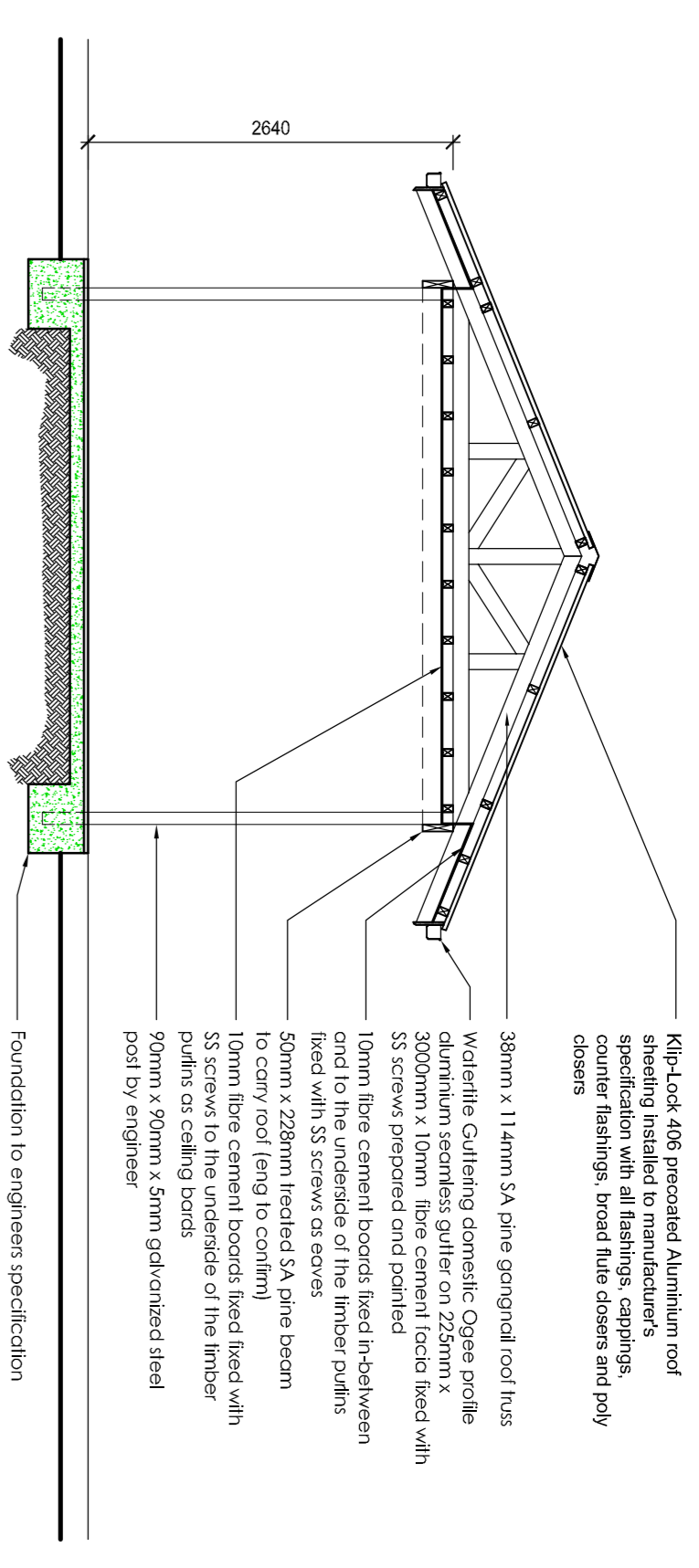
Professional Architect: **BB**

Checked by: **BB**

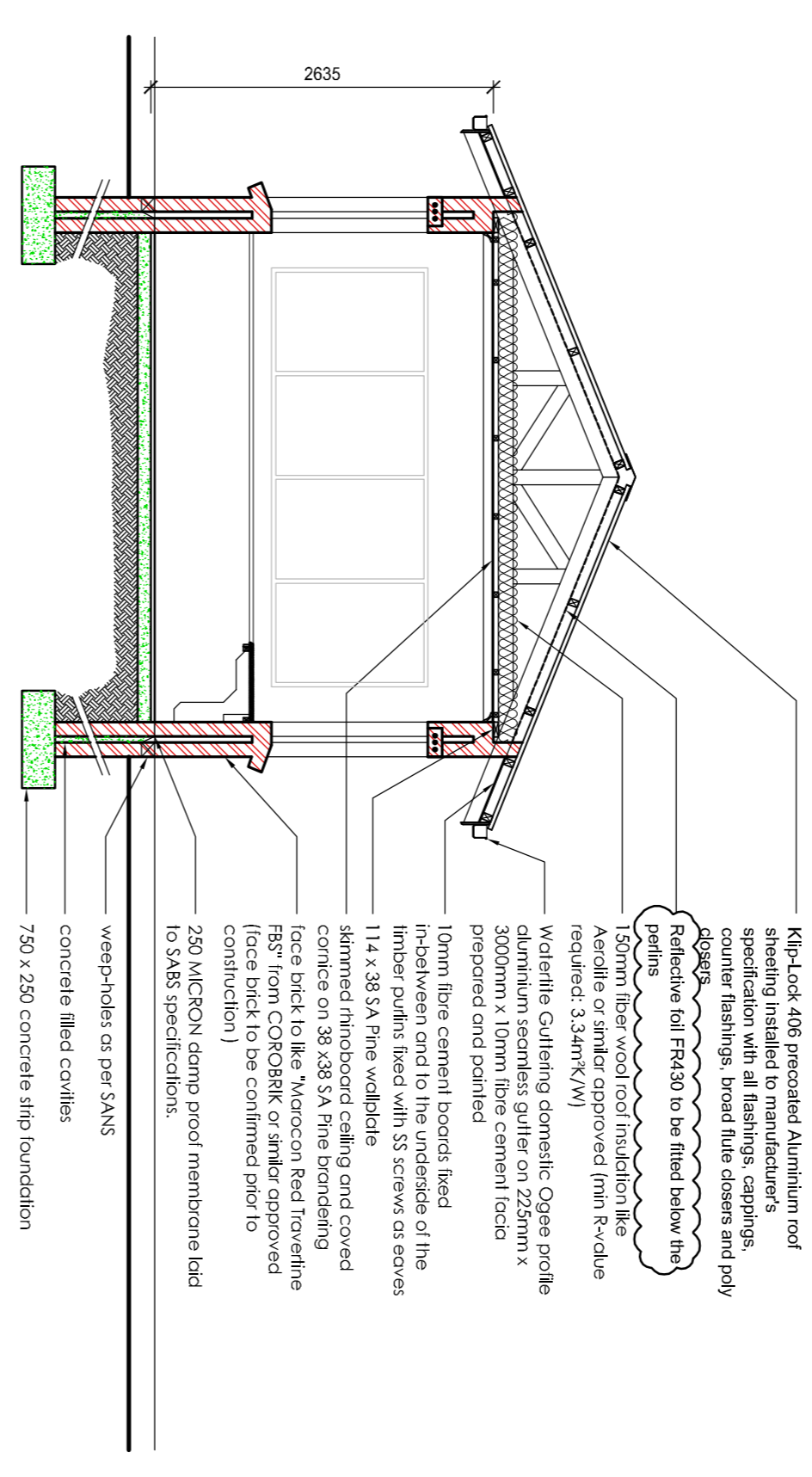
DWG No: **305-026 ARC-002**

FOR TENDER ONLY

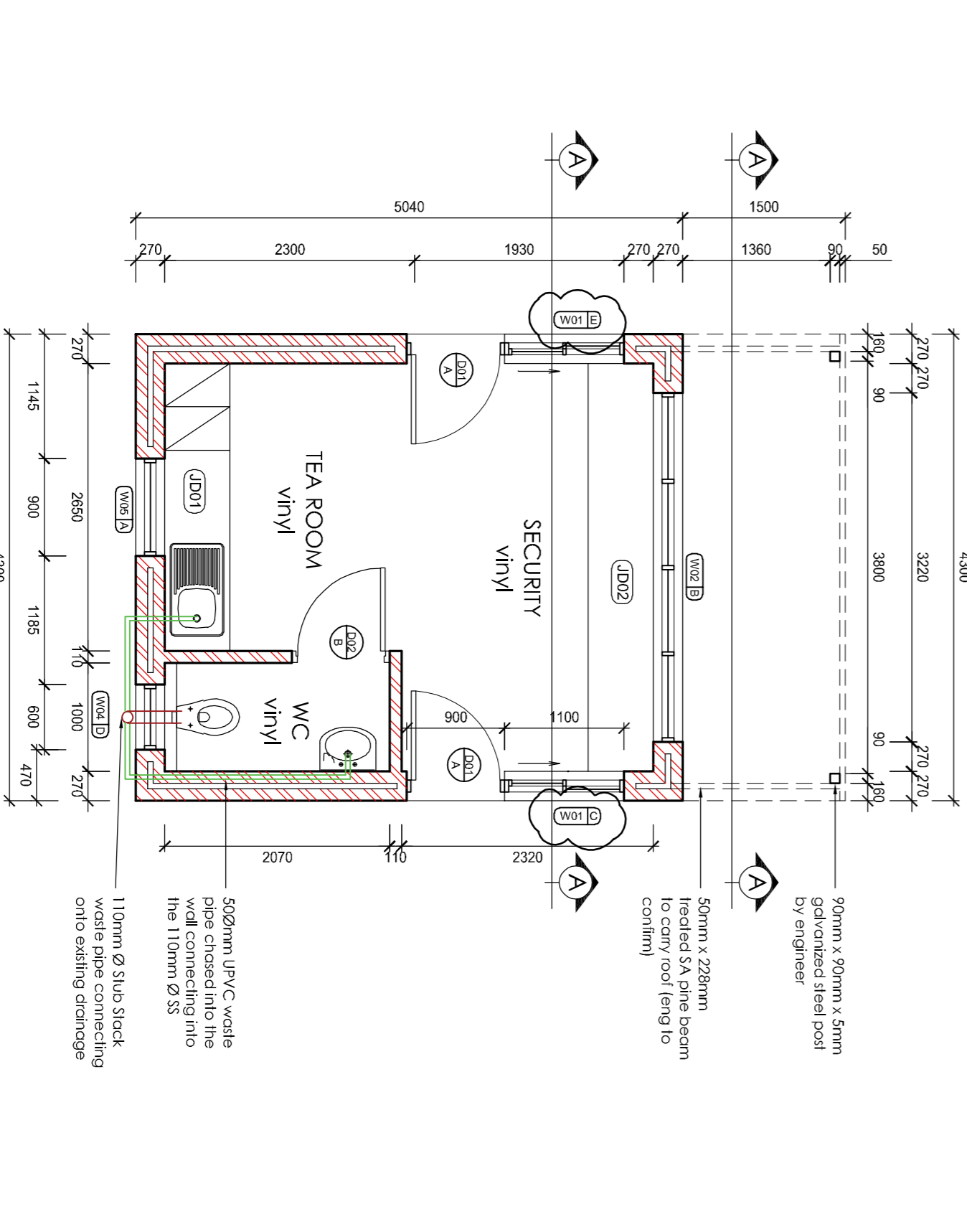
REV: **2**



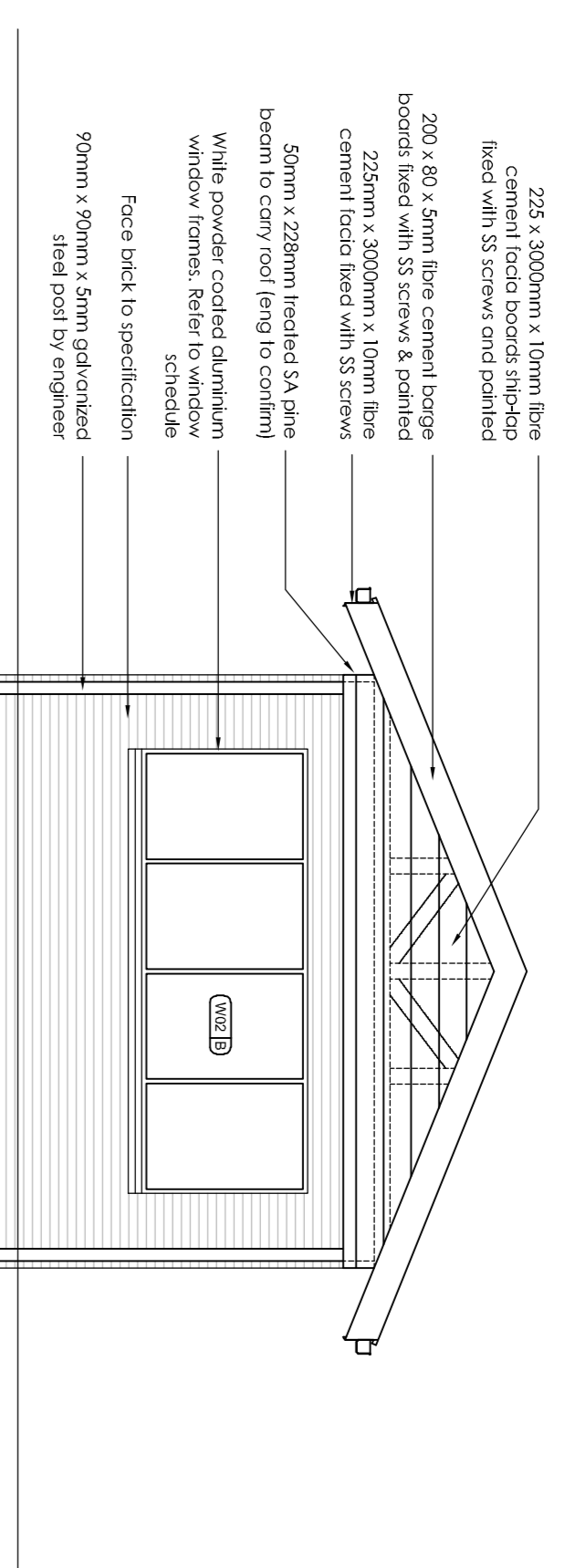
SECTION A
SCALE 1:50



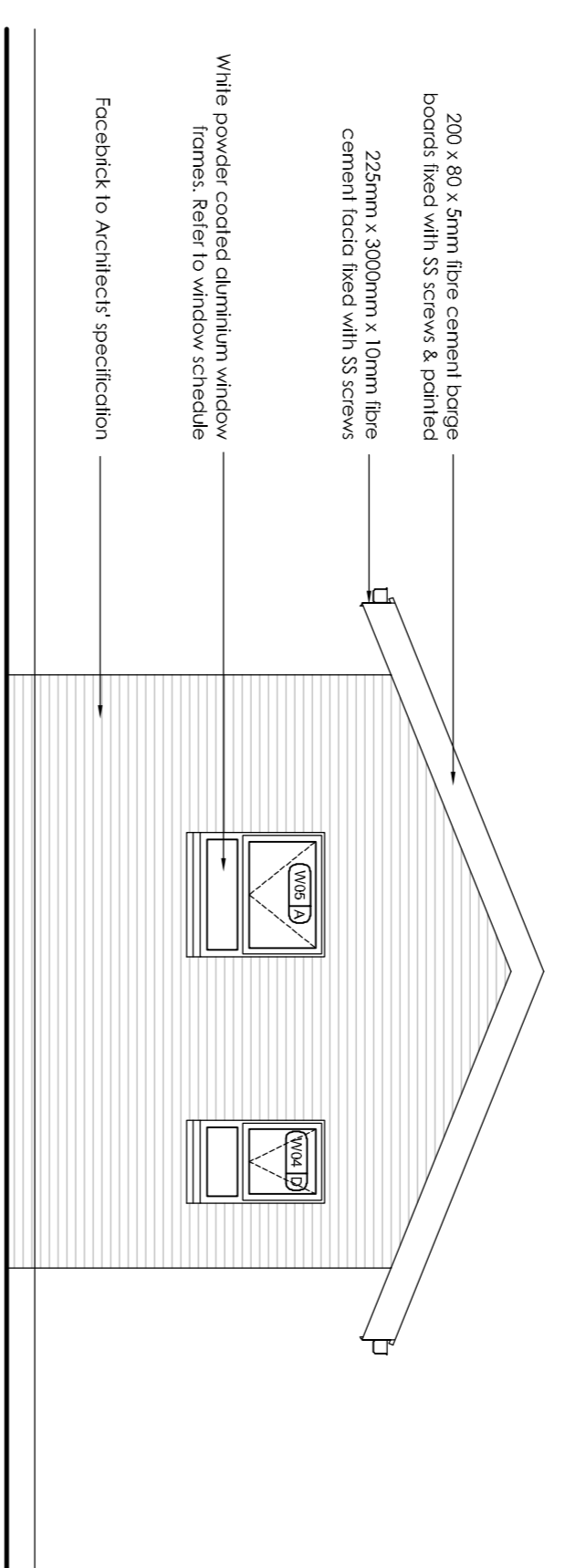
SECTION A
SCALE 1:50



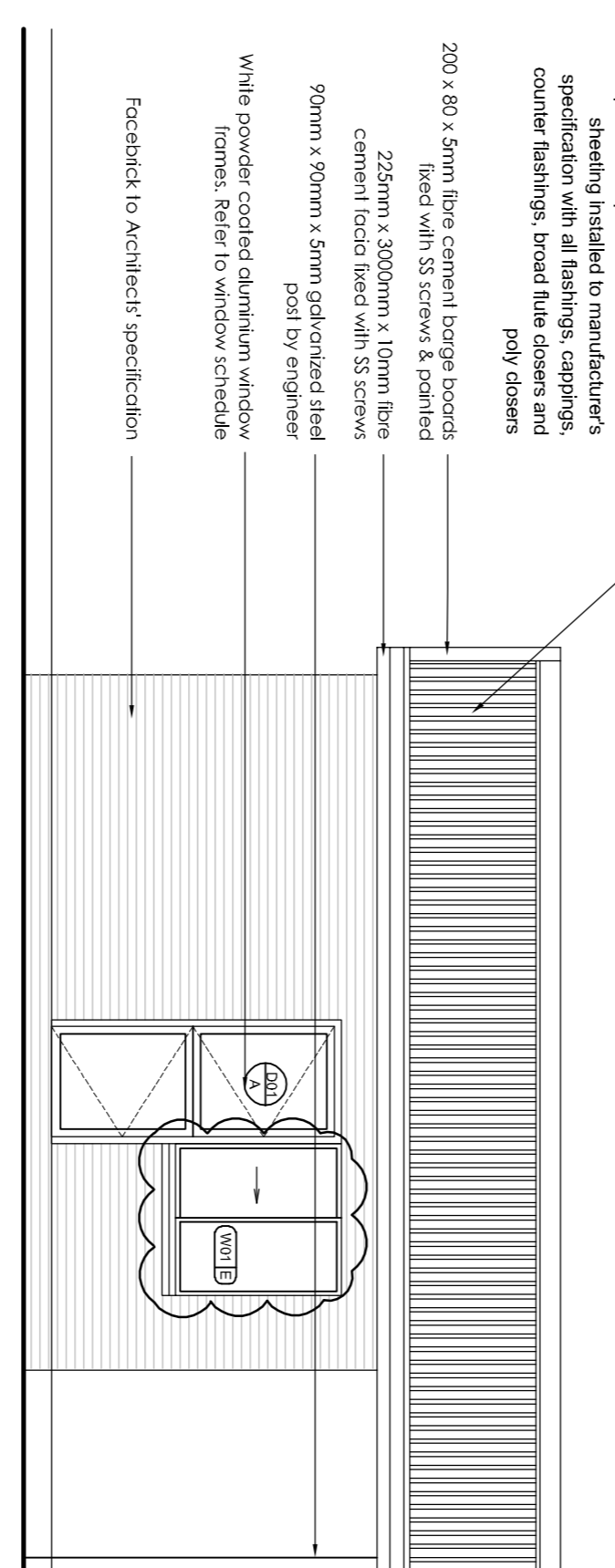
GUARDHOUSE FLOOR PLAN 1
SCALE 1:50



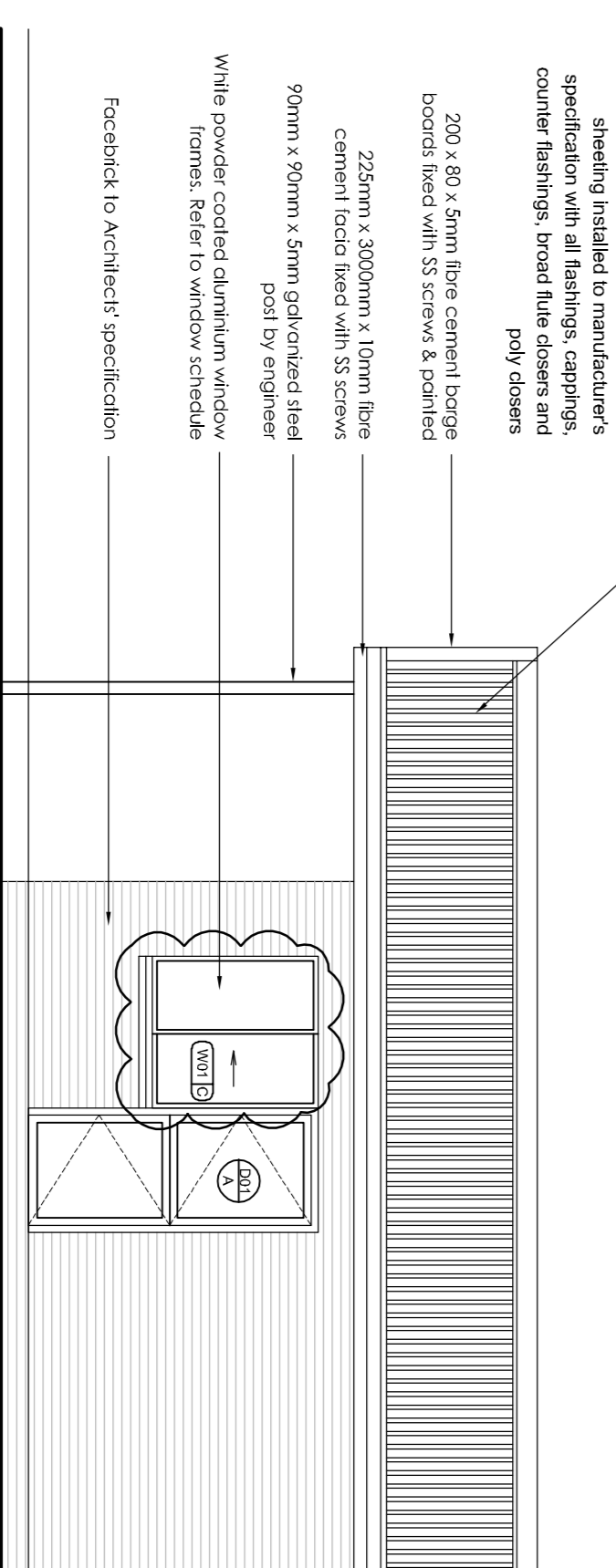
NORTH ELEVATION
SCALE 1:50



SOUTH ELEVATION
SCALE 1:50

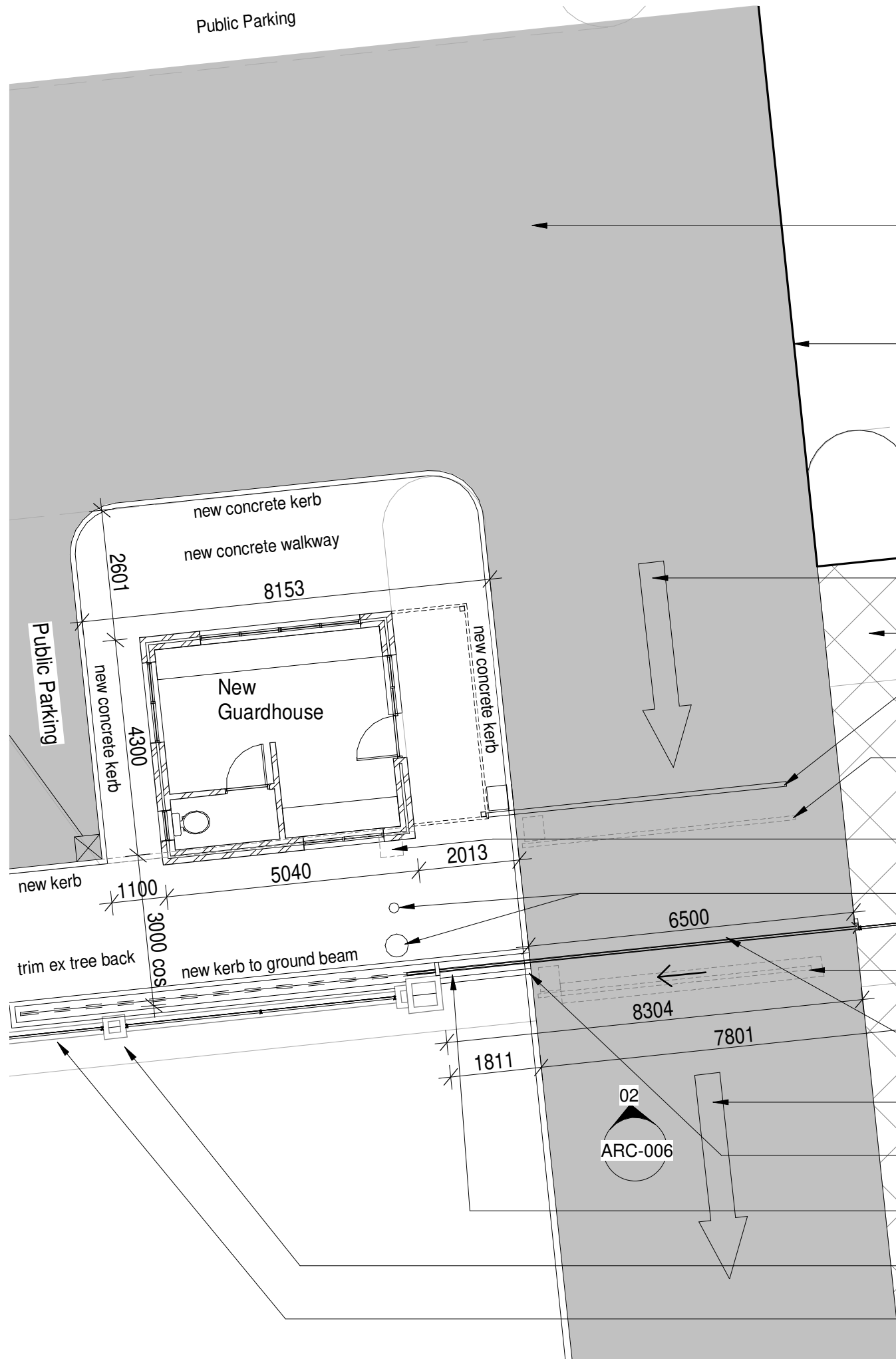


EAST ELEVATION
SCALE 1:50



WEST ELEVATION
SCALE 1:50

Public Parking



rectify and resurface the existing area marked

keep existing fence

new road-markings and directional arrows

remove and replace the ex concrete walkway

new boom gate controlled by the guardhouse

remove the existing broken boom

ex storm water catch pit to be made redundant and reinstated elswere

remove and cut down the tree and shrub remove there roots/stump and make good

remove existying boom, road spikes, overflow and make good to the road

new 8.3m opening with sliding gate as per detail elsewhere

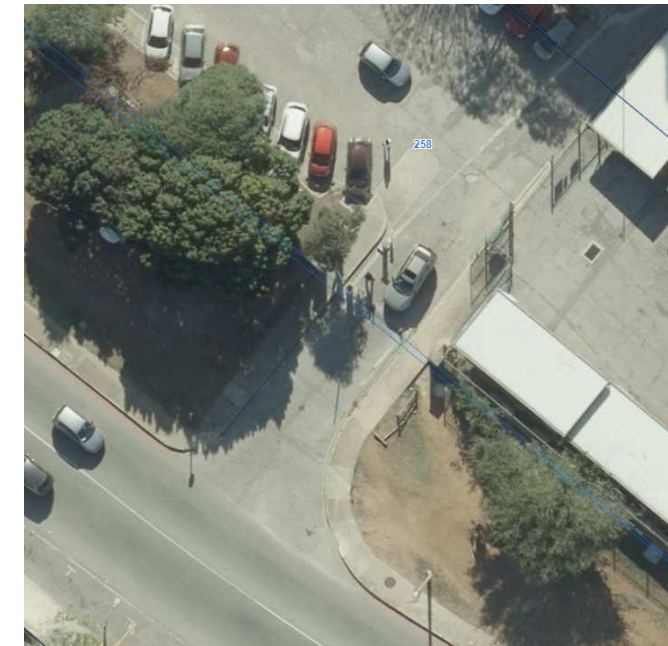
existing road to be repaired and to be redone

existing kerb to be alterd to take the sliding gate ground beam

new sliding gate level concrete ground beam to take gate track

existing low level facebrick wall and brick columns to remain

existing low level facebrick wall and brick columns to remain



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REVISIONS	No.	Description	Date
	1	Remove Trade Names	27-10-2023

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement

TITLE: Exit Guardhouse - Layout

Scale: 1 : 100

Date: 02 November 2023

Drawn by: Author

Designer: Designer

Professional Architect: Approver

Checked by: Checker

DWG No: **ARC-003**

FOR TENDER ONLY

REV 1

1 **Ground Floor_Exit Guard House Layout**
1 : 100

2023/11/08 16:02:01

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IF IN DOUBT PLEASE ASK!

No.	Description	Date
1	Window numbers	2023-10-27
2	Window sizes	2023-10-31

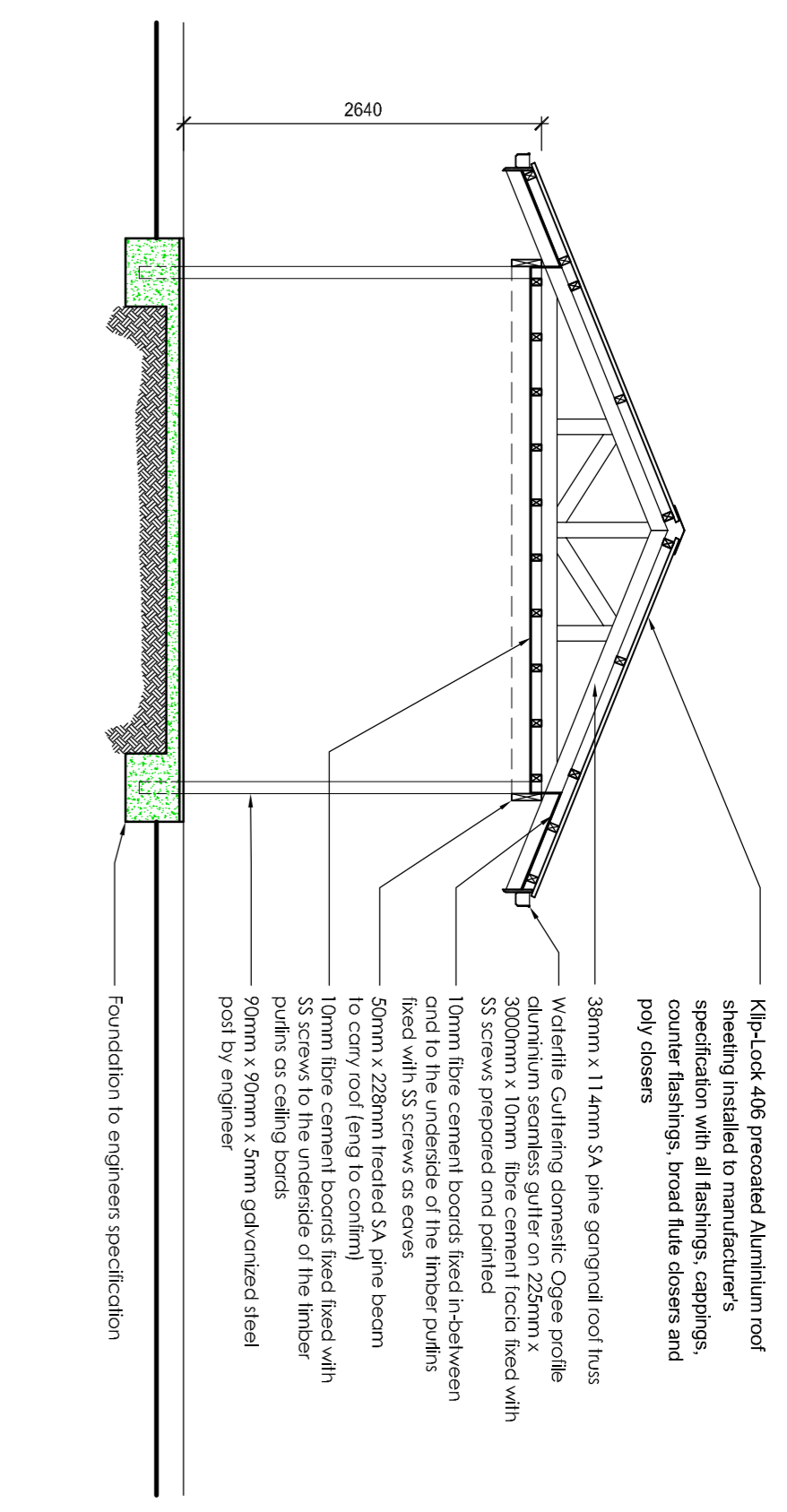
PROJECT: **PEPH Boundary Wall Replacement**

TITLE: **Guardhouse 2**

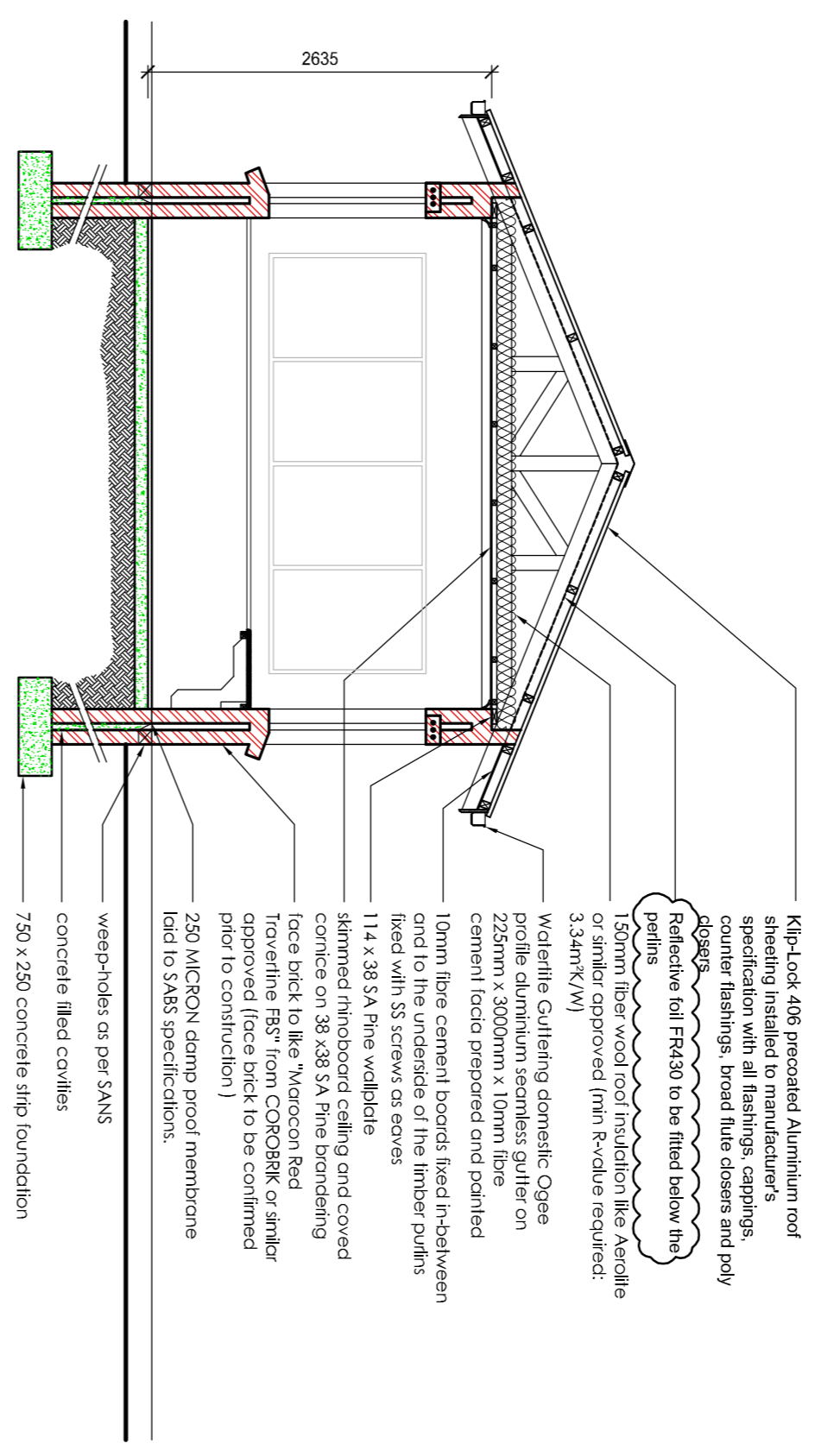
Scale: 1 : 50
Date: 16 October, 2023
Drawn By: PHV
Designer: ET
Professional Architect: BB
Checked by: BB

DWG No: 305-026 ARC-004
FOR TENDER ONLY

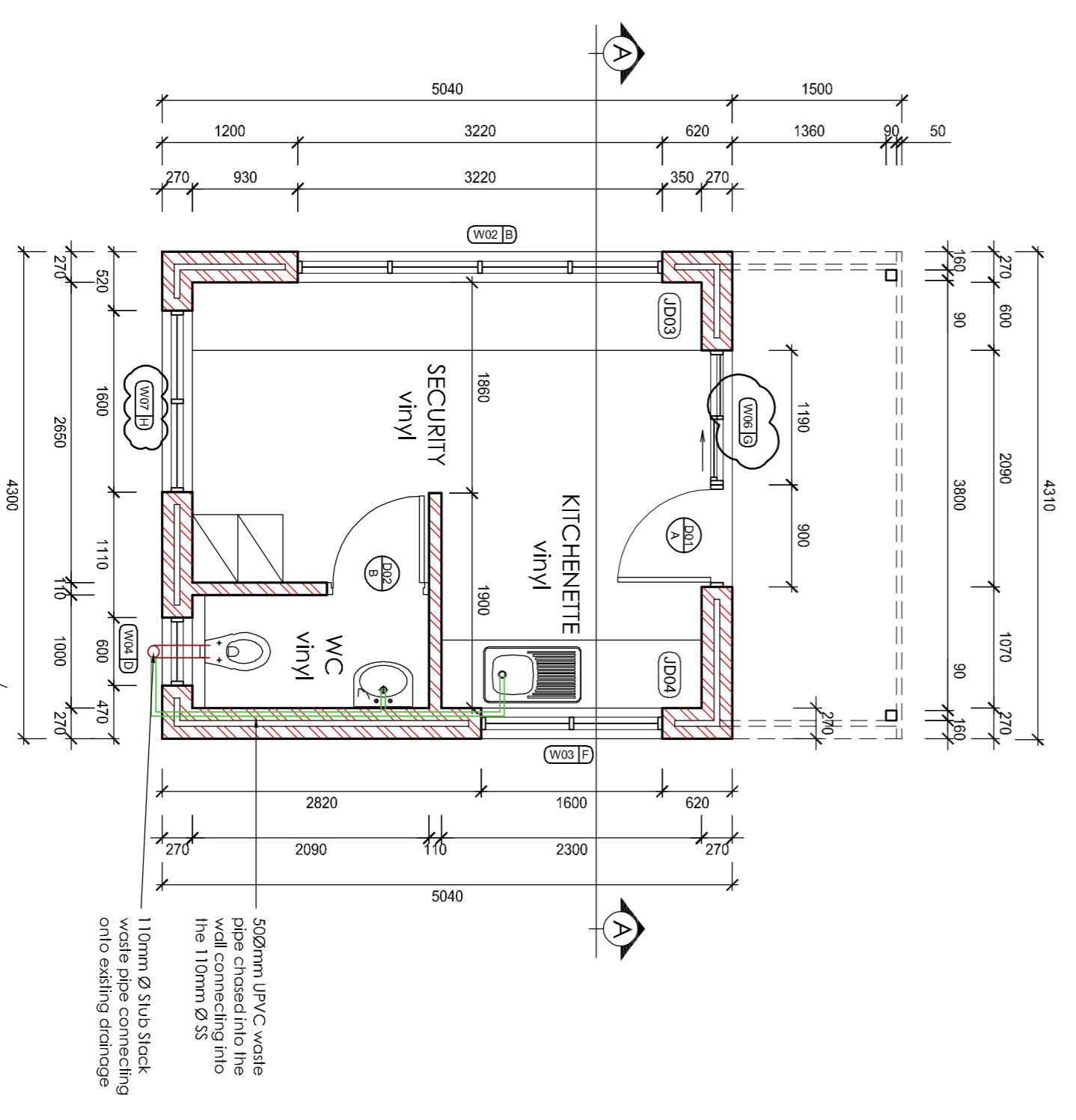
REV: 2



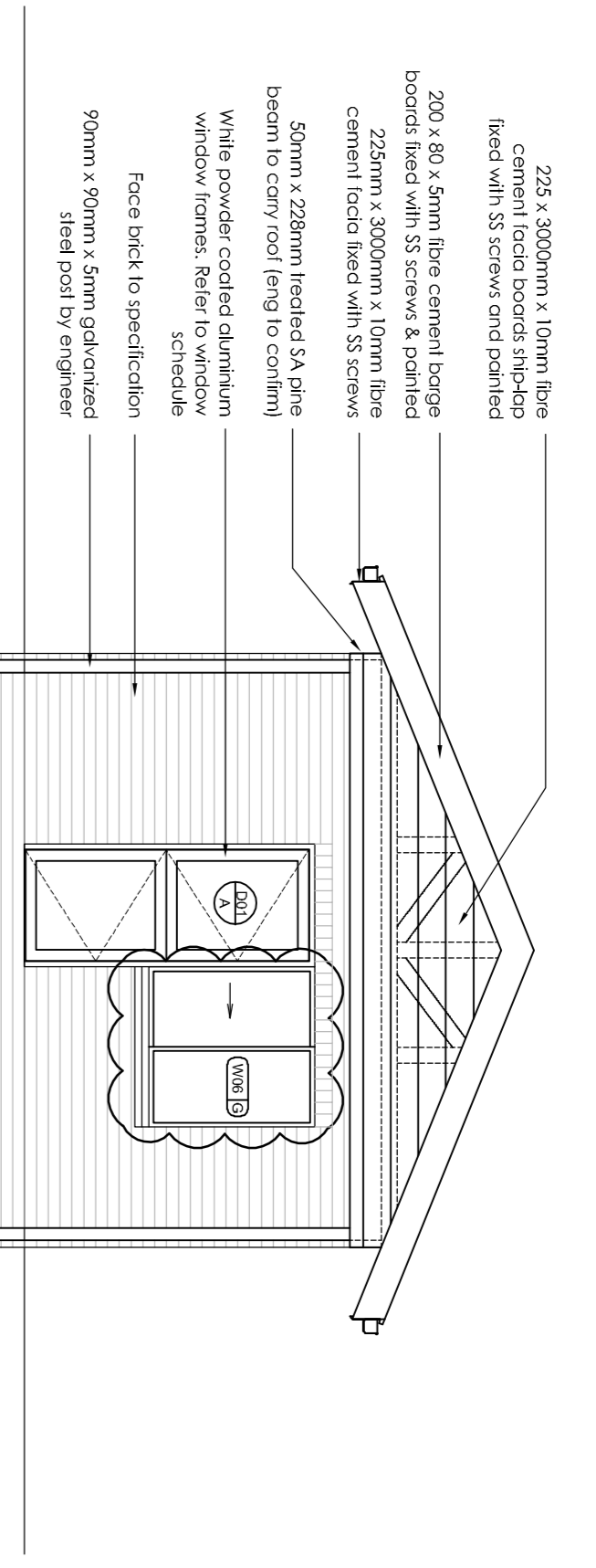
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SCALE 1:50



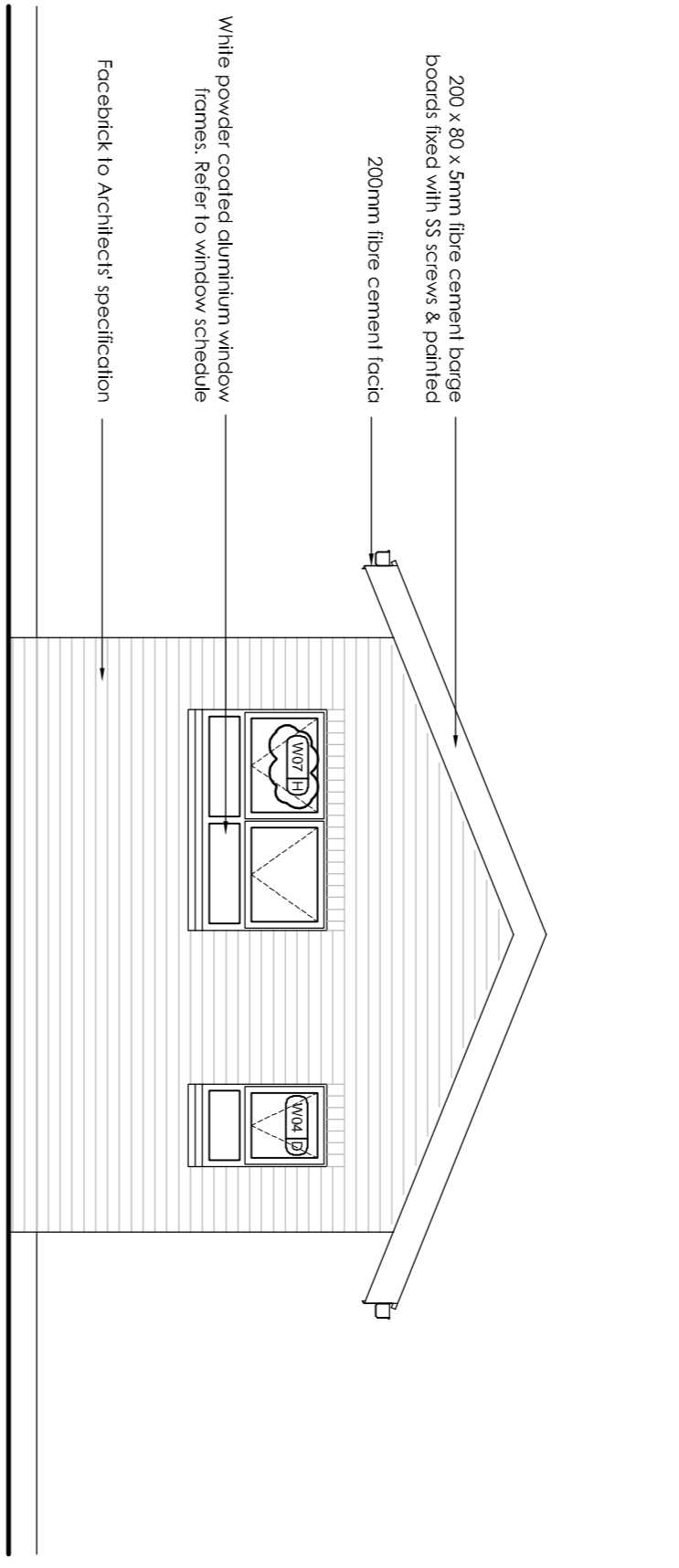
SECTION A
SCALE 1:50



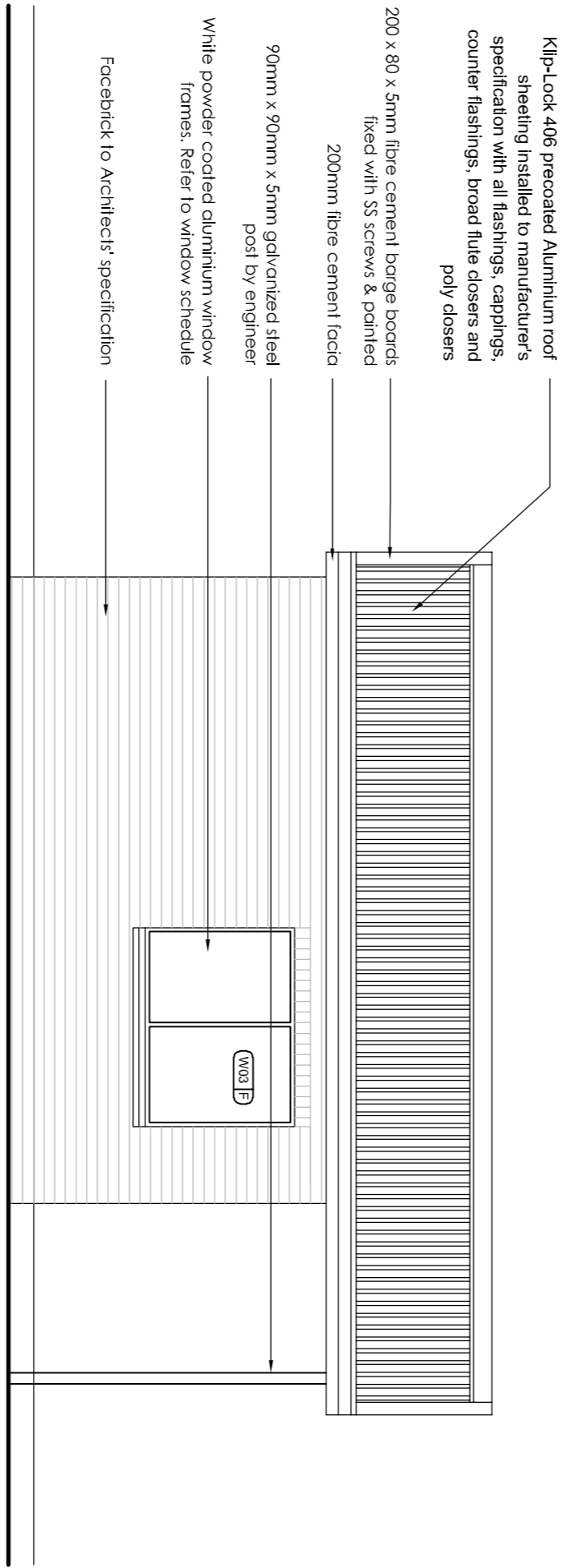
GUARDHOUSE FLOOR PLAN 2
SCALE 1:50



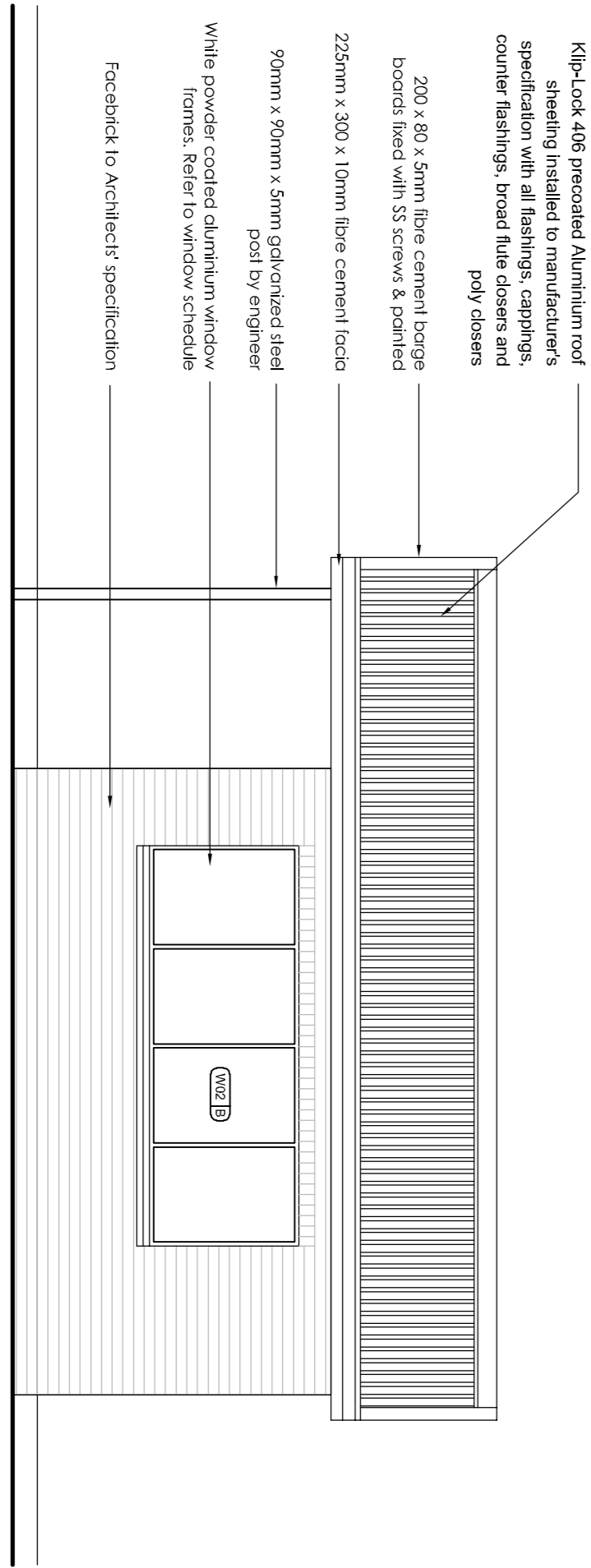
NORTH ELEVATION
SCALE 1:50



SOUTH ELEVATION
SCALE 1:50



EAST ELEVATION
SCALE 1:50



WEST ELEVATION
SCALE 1:50

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No.	Description	Date
1	Remove Trade Names	27-10-2023

PROJECT:
PORT ELIZABETH
PROVINCIAL
HOSPITAL
Boundary Wall
Replacement

TITLE:
Pedestrian Entrance -
Layout

Scale: 1 : 100

Date: 02 November 2023

Drawn by: Author

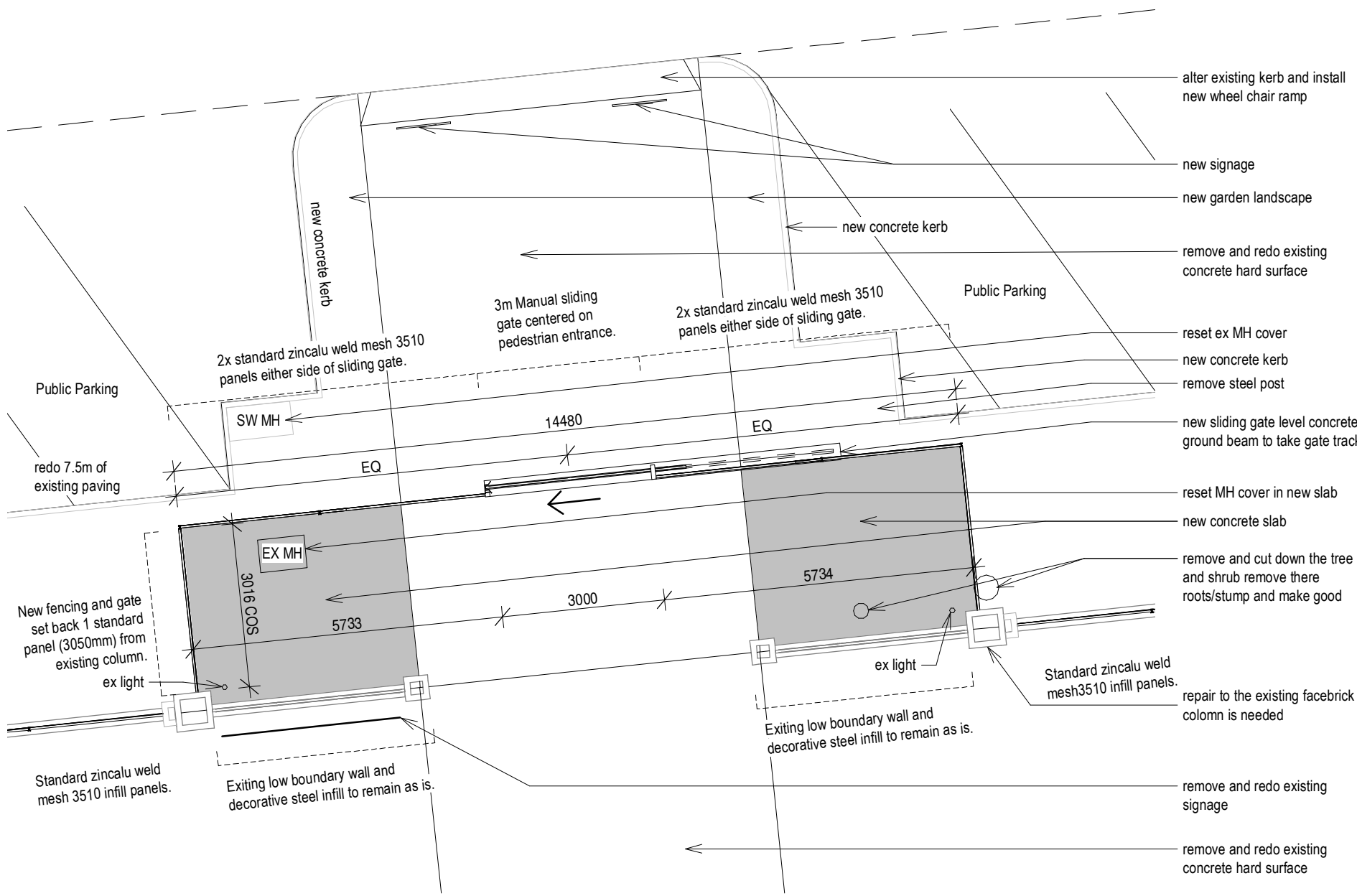
Designer: Designer

Professional Architect: Approver

Checked by: Checker

DWG No: ARC-005

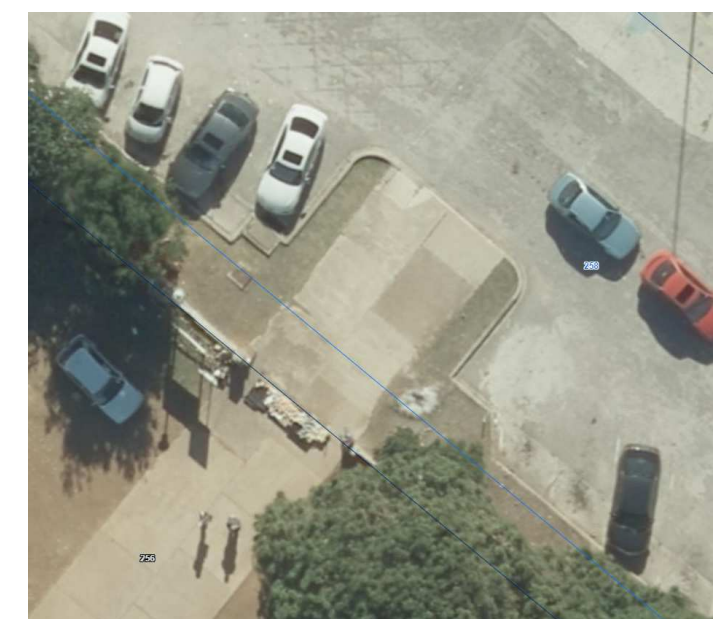
FOR TENDER ONLY REV 1



New Fence Specification:
Rigid Mesh Security Fencing
Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanising
Secure Posts: H - shaped profile post 70mm x 44mm. The panel is to fit securely behind the lip of the post. Height: 3000mm hot dipped galvanized mild steel posts. Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
Secured using tamper-proof shear-off nuts. (no self drilling screws).
All fixator components to be stainless steel Grade 304 per ISO 9223.
All Foundations to be 600mm (d)x 400mm (h)x 400mm(w) concrete.
Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations.

- alter existing kerb and install new wheel chair ramp
- new signage
- new garden landscape
- remove and redo existing concrete hard surface
- reset ex MH cover
- new concrete kerb
- remove steel post
- new sliding gate level concrete ground beam to take gate track
- reset MH cover in new slab
- new concrete slab
- remove and cut down the tree and shrub remove there roots/stump and make good
- Standard zincalu weld mesh3510 infill panels.
- repair to the existing facebrick column is needed
- remove and redo existing signage
- remove and redo existing concrete hard surface

9 Ground Floor_Pedestrian Entrance Layout
1 : 100



Existing Perdestrian Entrance

Existing Perdestrian Entrance Areal Photo

2023/11/08 16:02:44

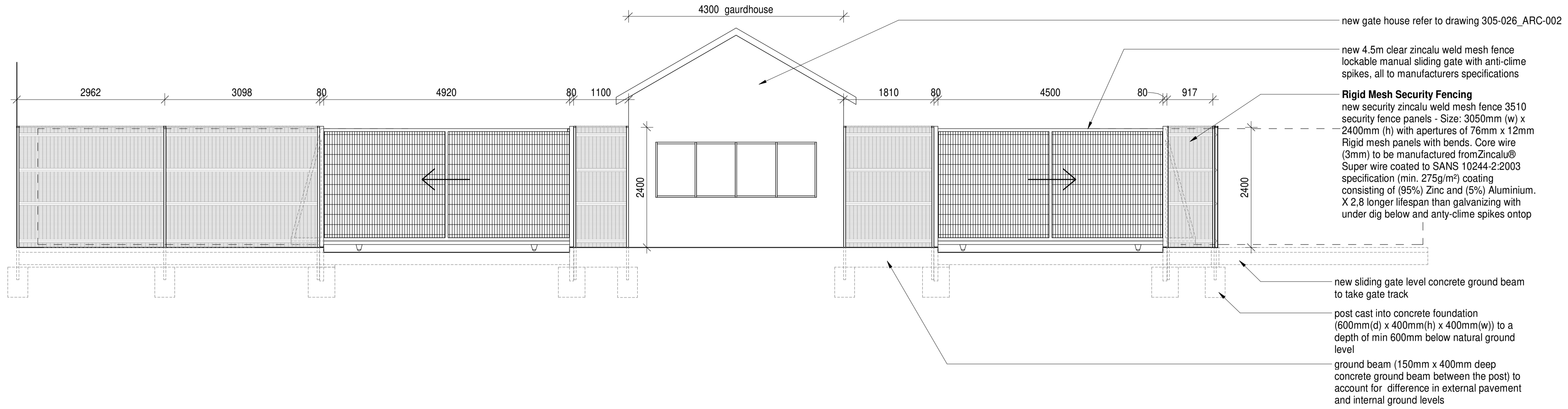
No.	Description	Date

REVISIONS:		
PROJECT:	PORT ELIZABETH PROVINCIAL HOSPITAL	
	Boundary Wall Replacement	
TITLE:	New Gate Elevations A	

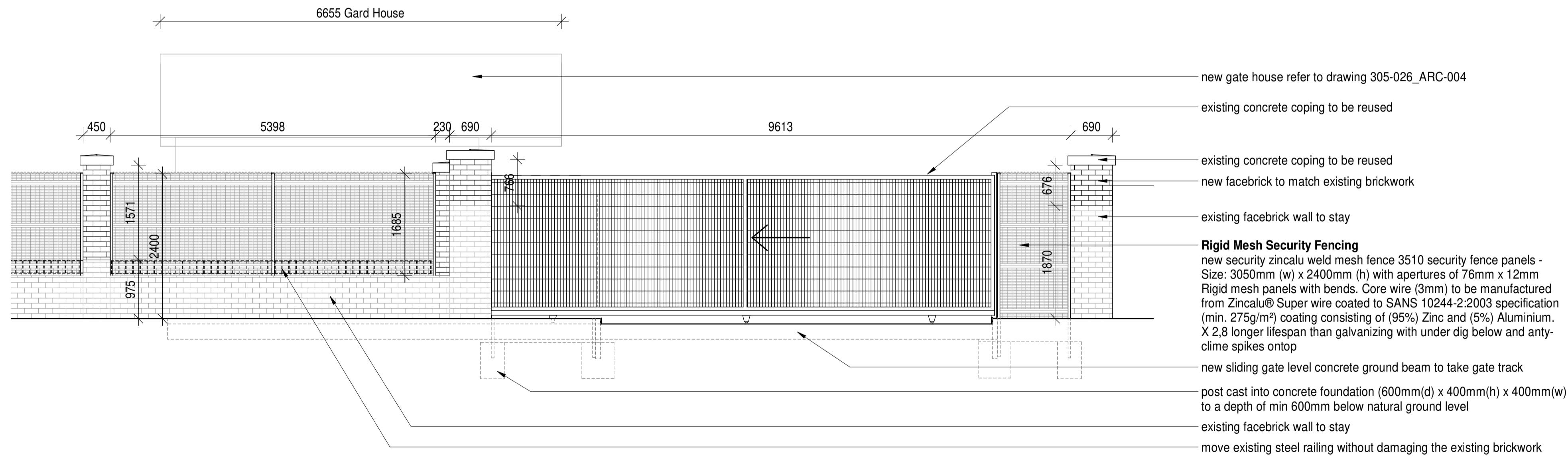
Scale	1 : 50
Date:	02 November 2023
Drawn by:	PHV
Designer:	BB
Professional Architect:	BB
Checked by:	BB

DWG No:	ARC-006
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FOR TENDER ONLY	REV:
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01 St Croix Road Elevation - 1
1 : 50



02 Buckingham Road Elevation - 2
1 : 50

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No.	Description	Date

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL

TITLE: Boundary Wall Replacement

TITLE: New Gate Elevations B

Scale: As indicated

Date: 02 November 2023

Drawn by: PHV

Designer: BB

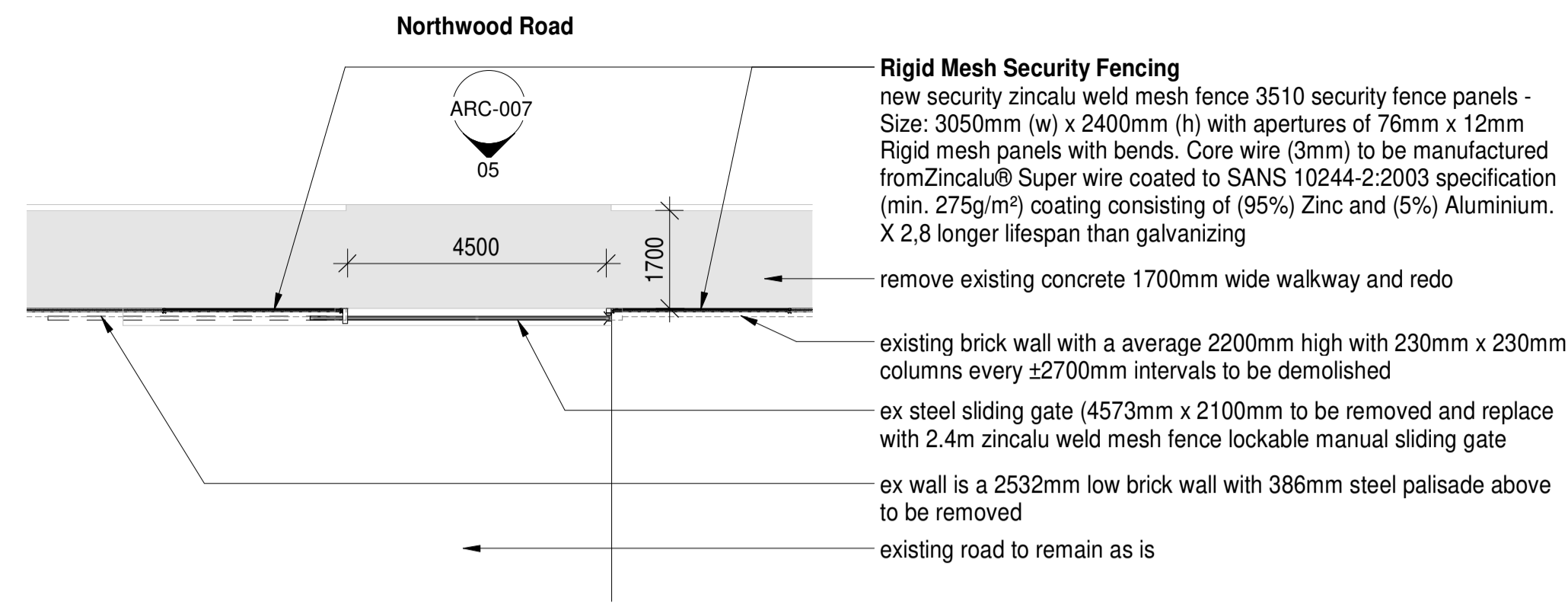
Professional Architect: BB

Checked by: BB

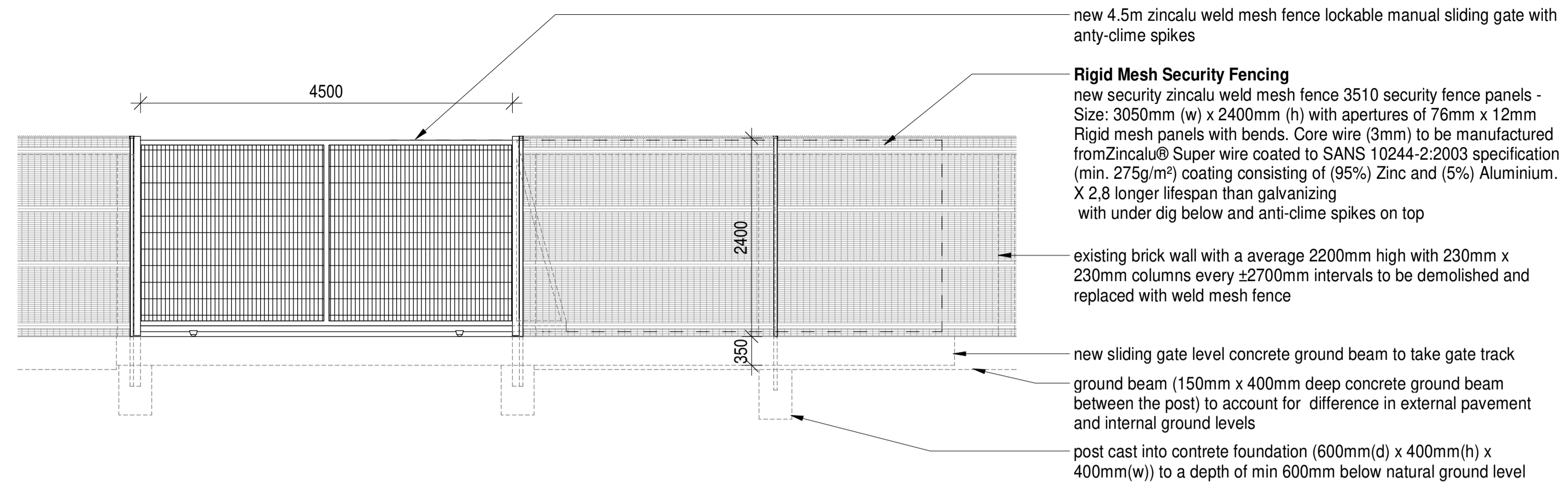
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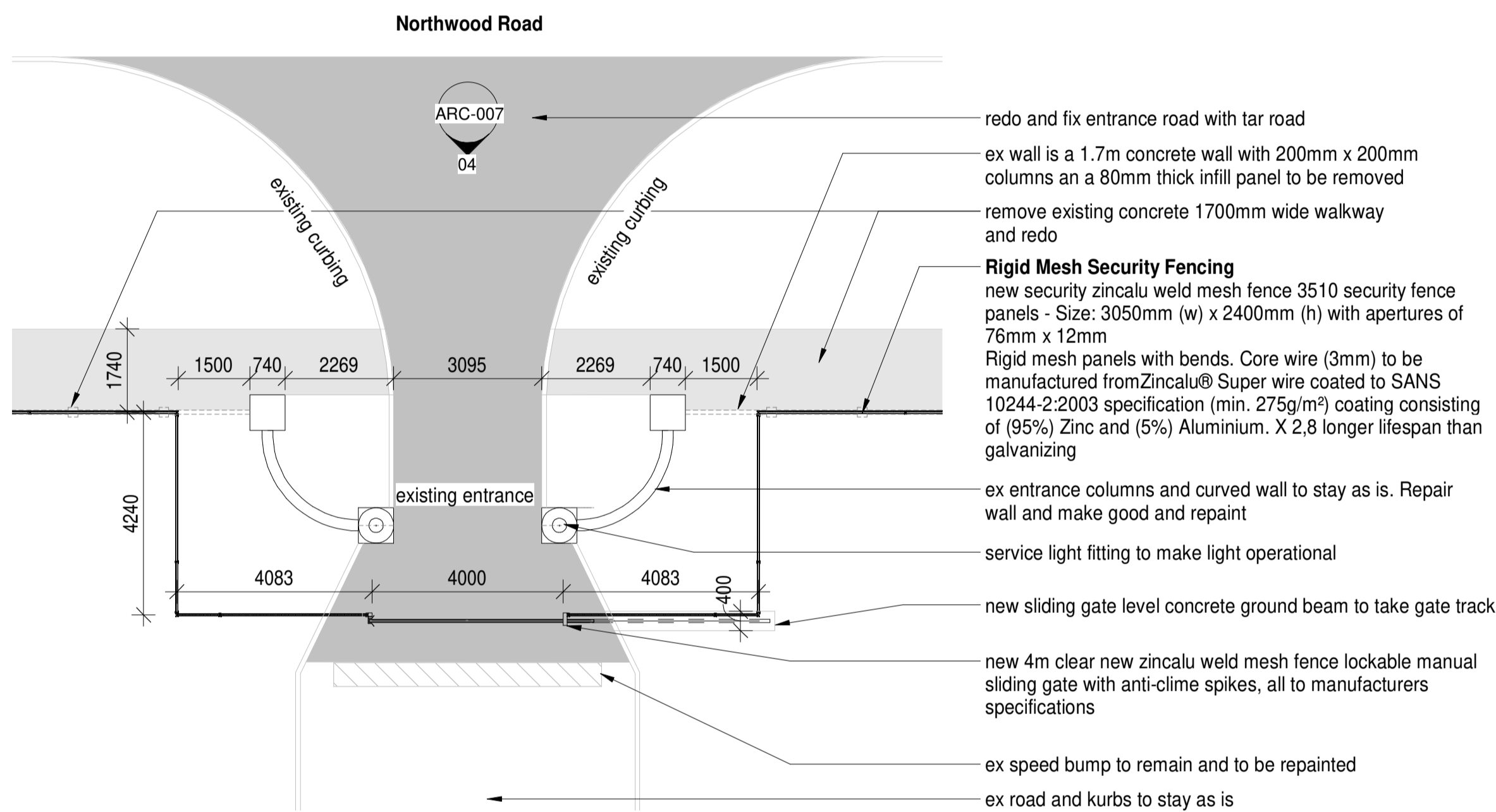
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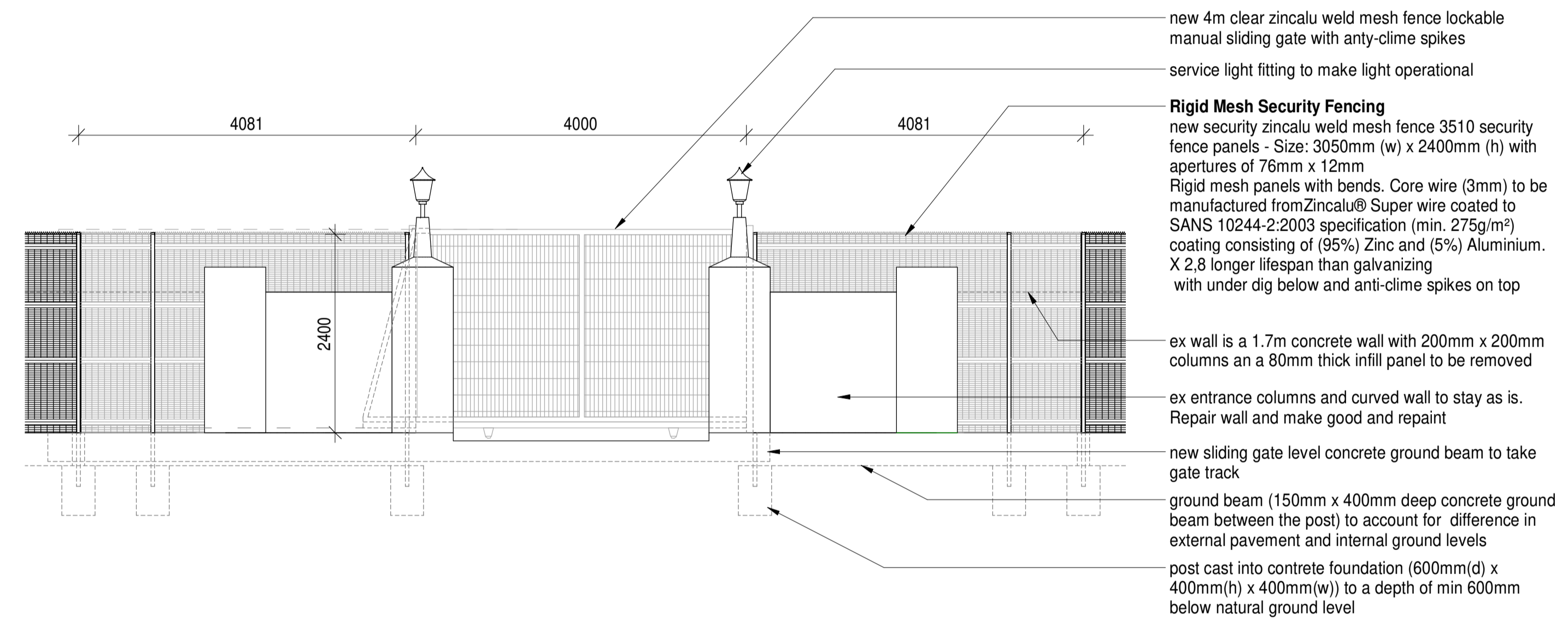
4 Site_North Wall_Northwood Road_sliding gate
1 : 100



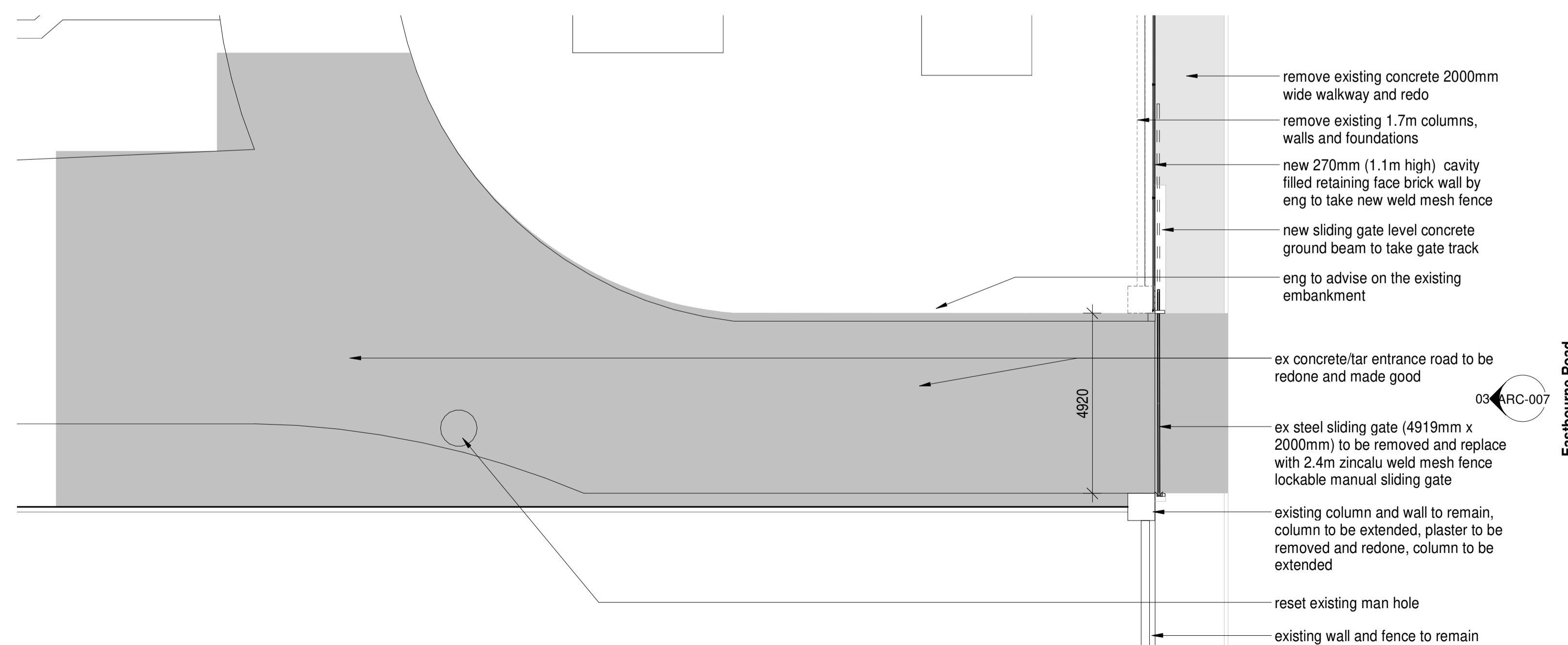
05 Northwood Road Elevation - 7
1 : 50



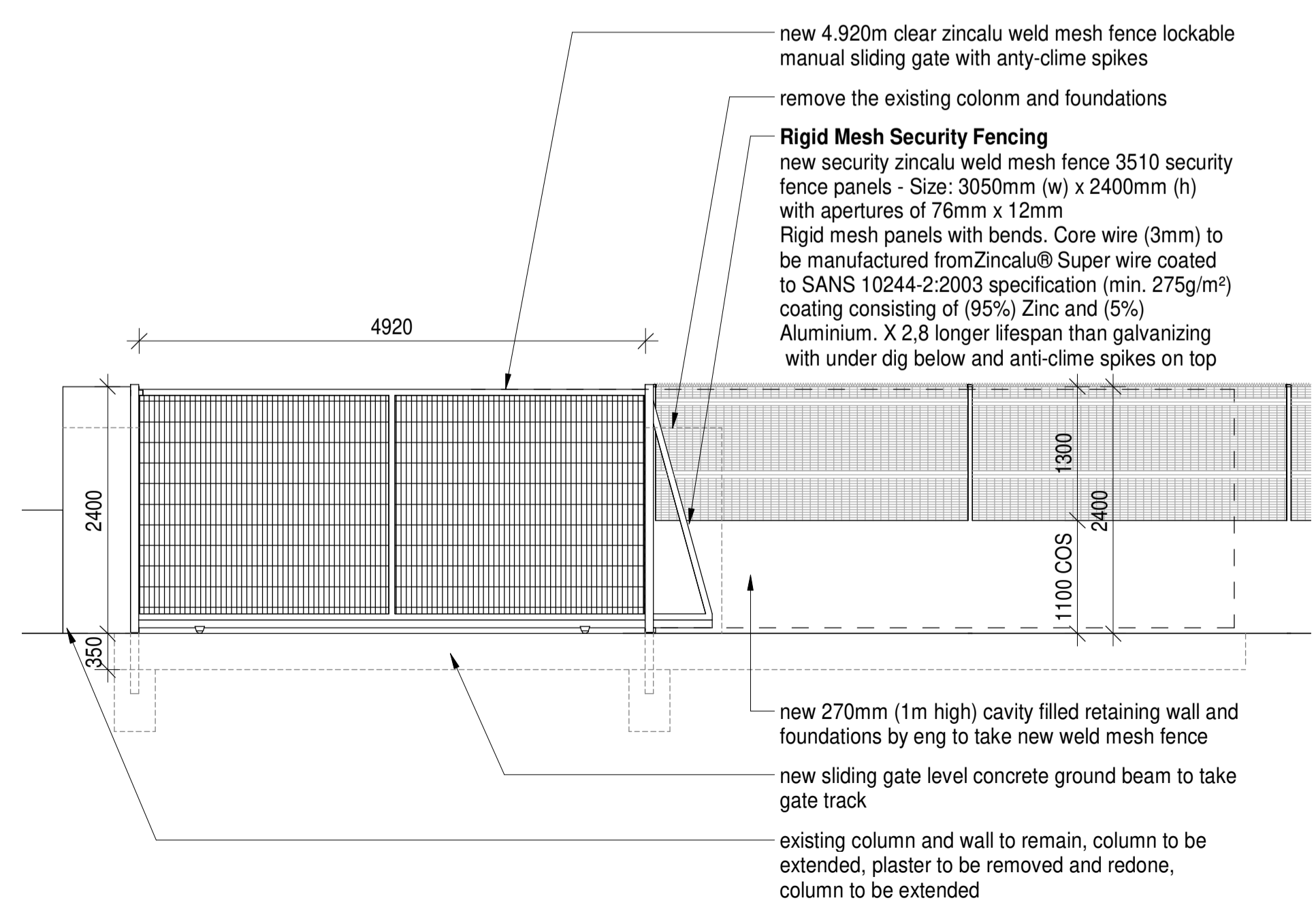
1 Site_North Wall_Northwood Road_Pedestrian Entrance
1 : 100



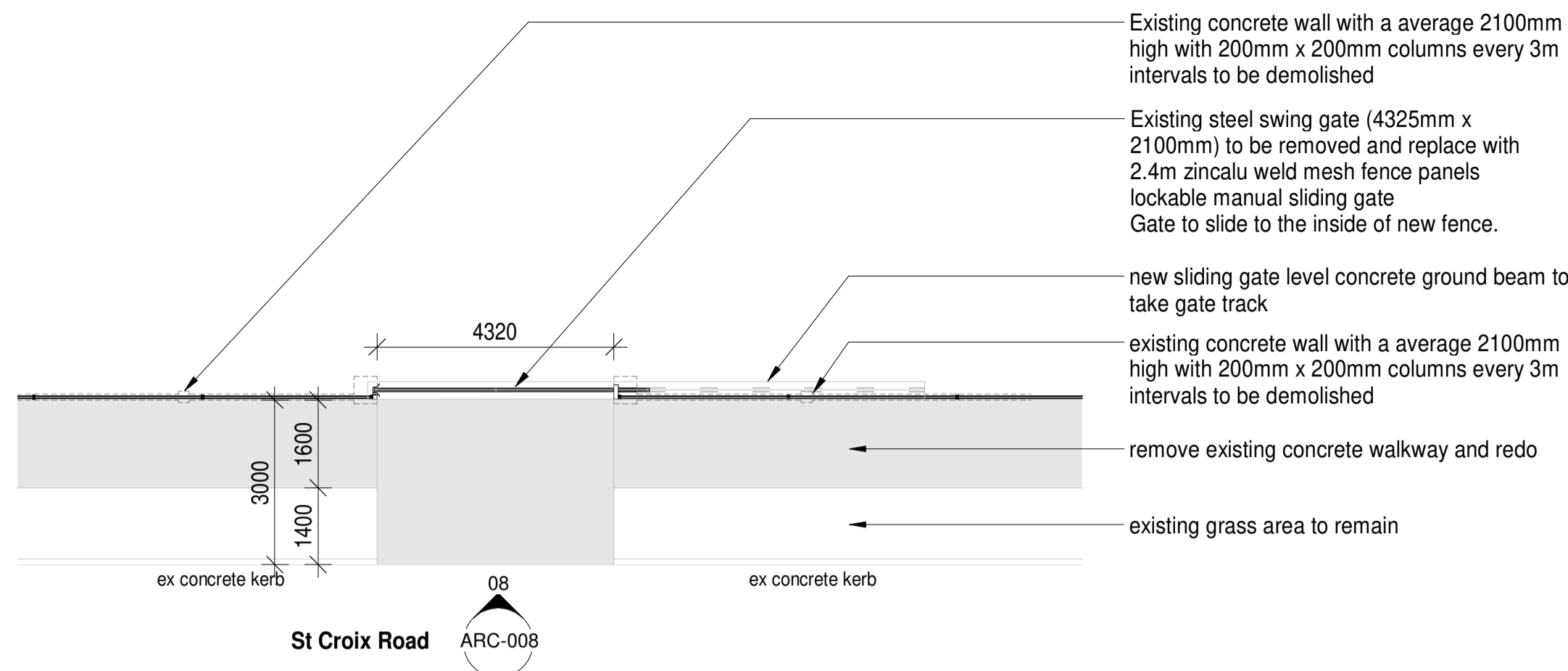
04 Northwood Road Elevation - 4
1 : 50



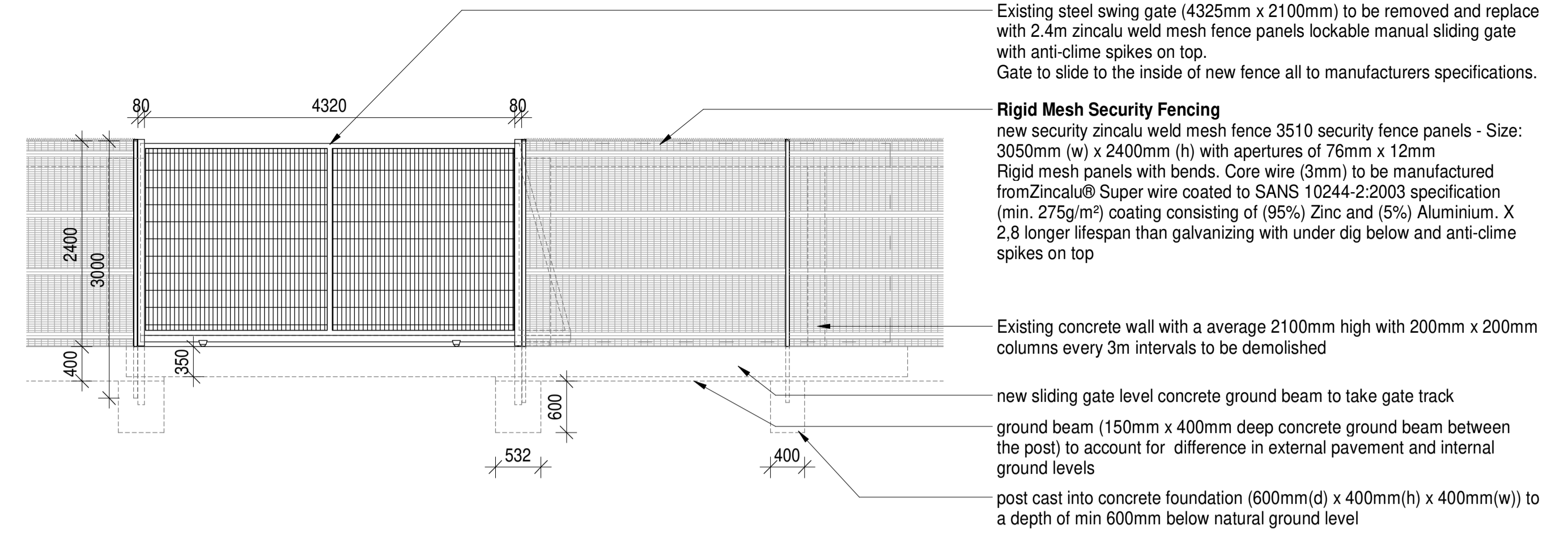
2 Site_East Wall_Eastbourne Road_Gate
1 : 100



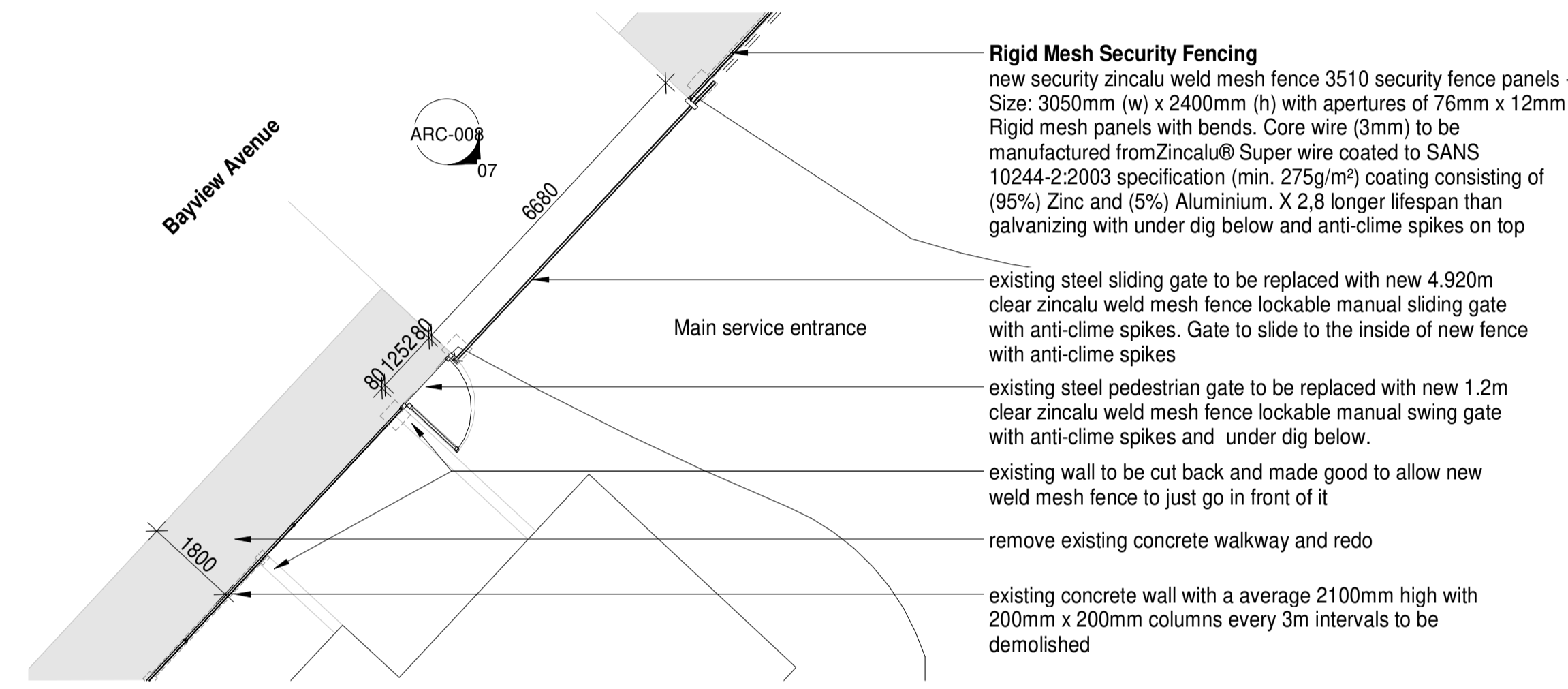
03 Eastbourne Road Elevation - 3
1 : 50



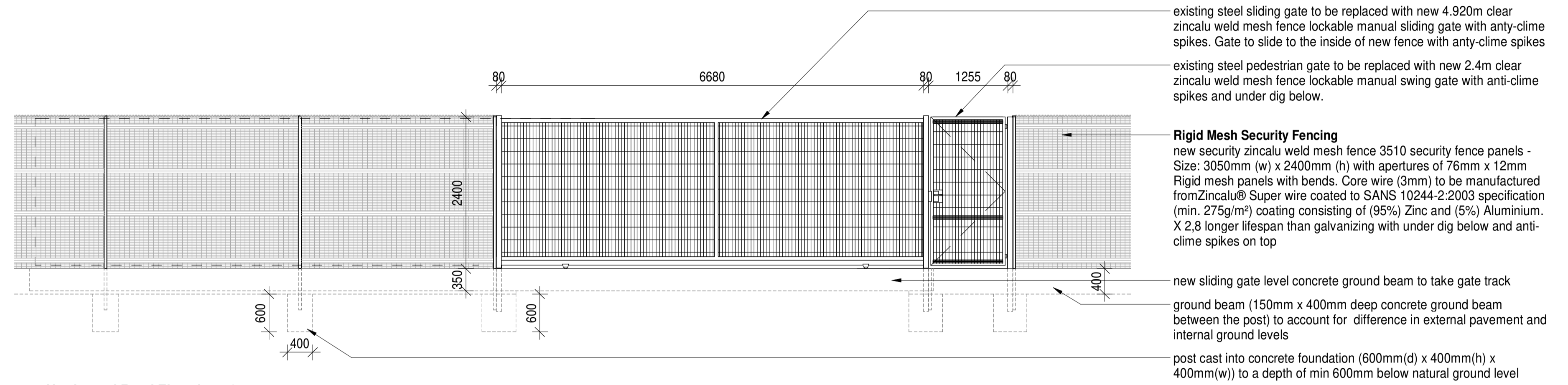
4 Site_West Wall_St Croix Avenue Copy 1
1 : 100



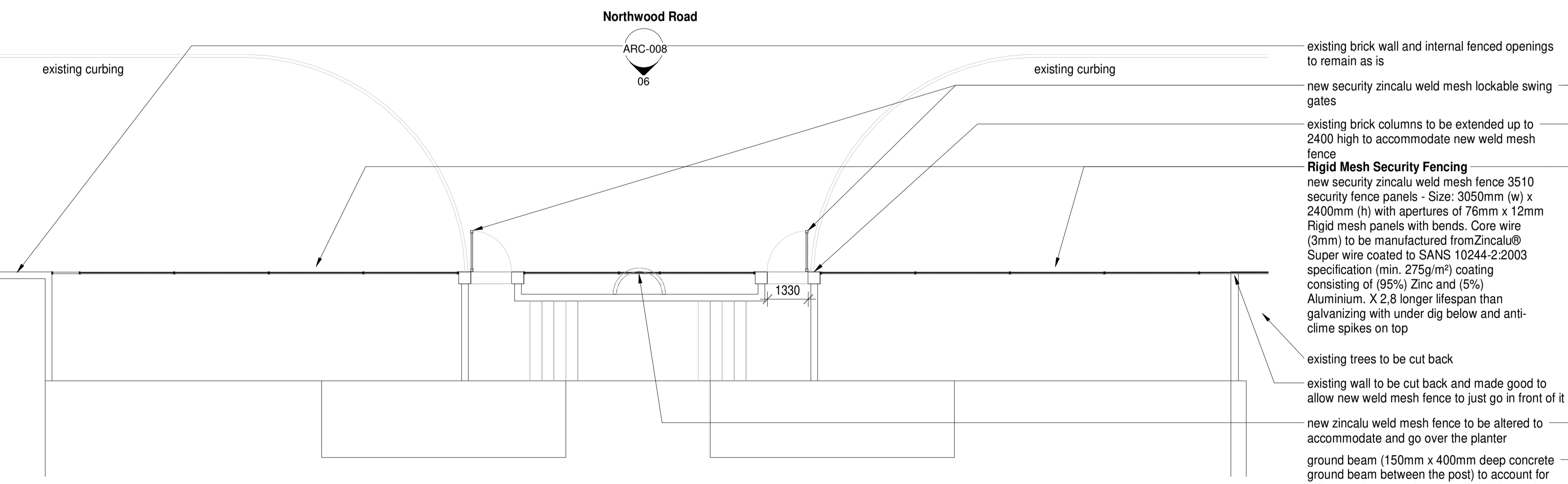
08 St Croix Avenue Elevation - 3
1 : 50



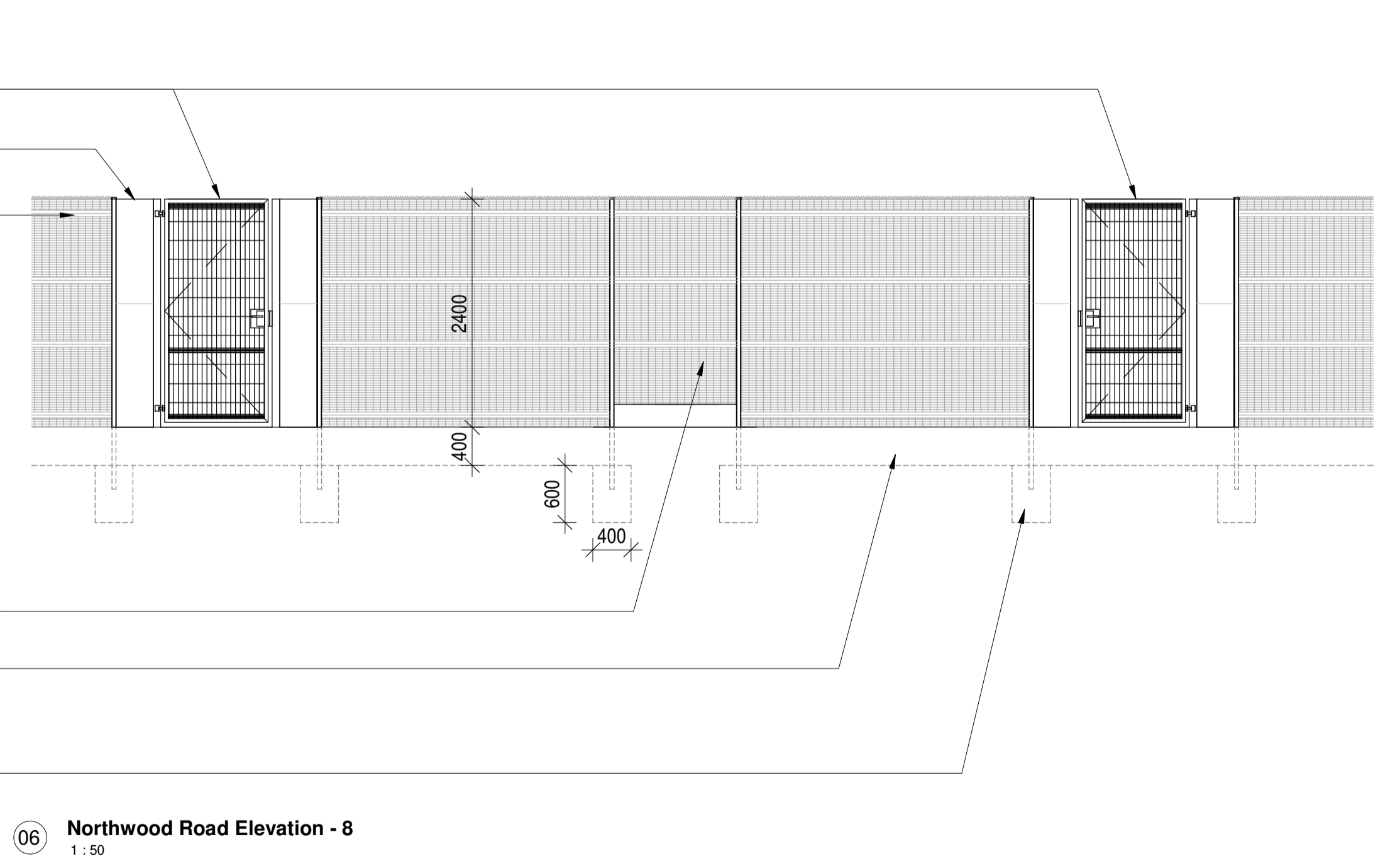
2 Site_North Wall_Northwood Road Back Entrance
1 : 100



07 Northwood Road Elevation - 6
1 : 50



1 Site_North Wall_Northwood Road back building entrance
1 : 100



06 Northwood Road Elevation - 8
1 : 50



Port Elizabeth
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Westville, Durban, 3630
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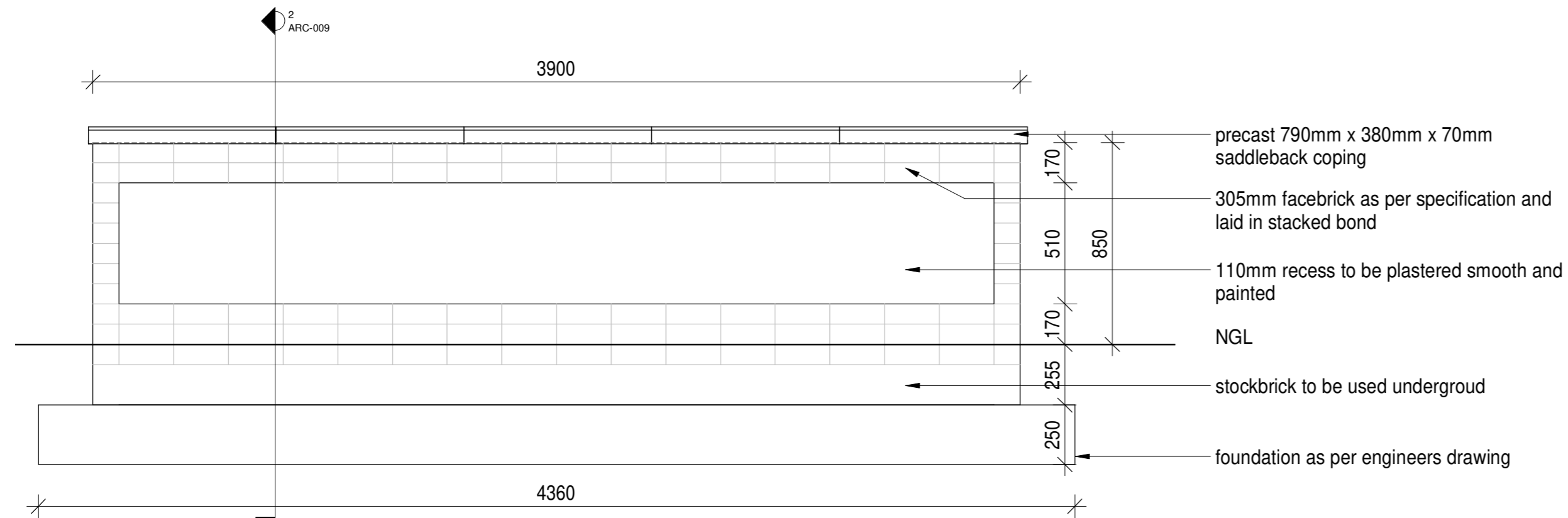
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No.	Description	Date

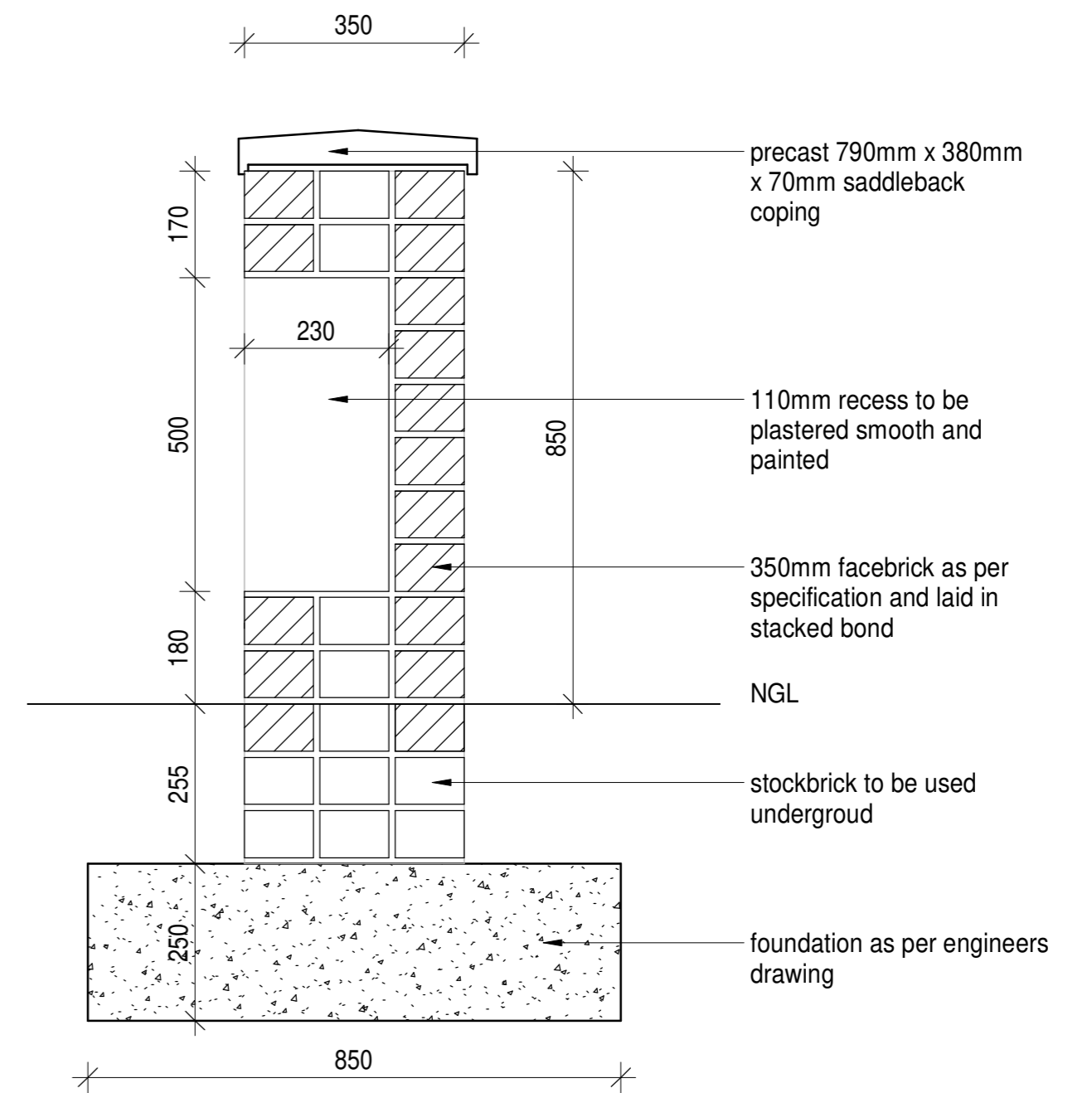
PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement

Date: 02 November 2023

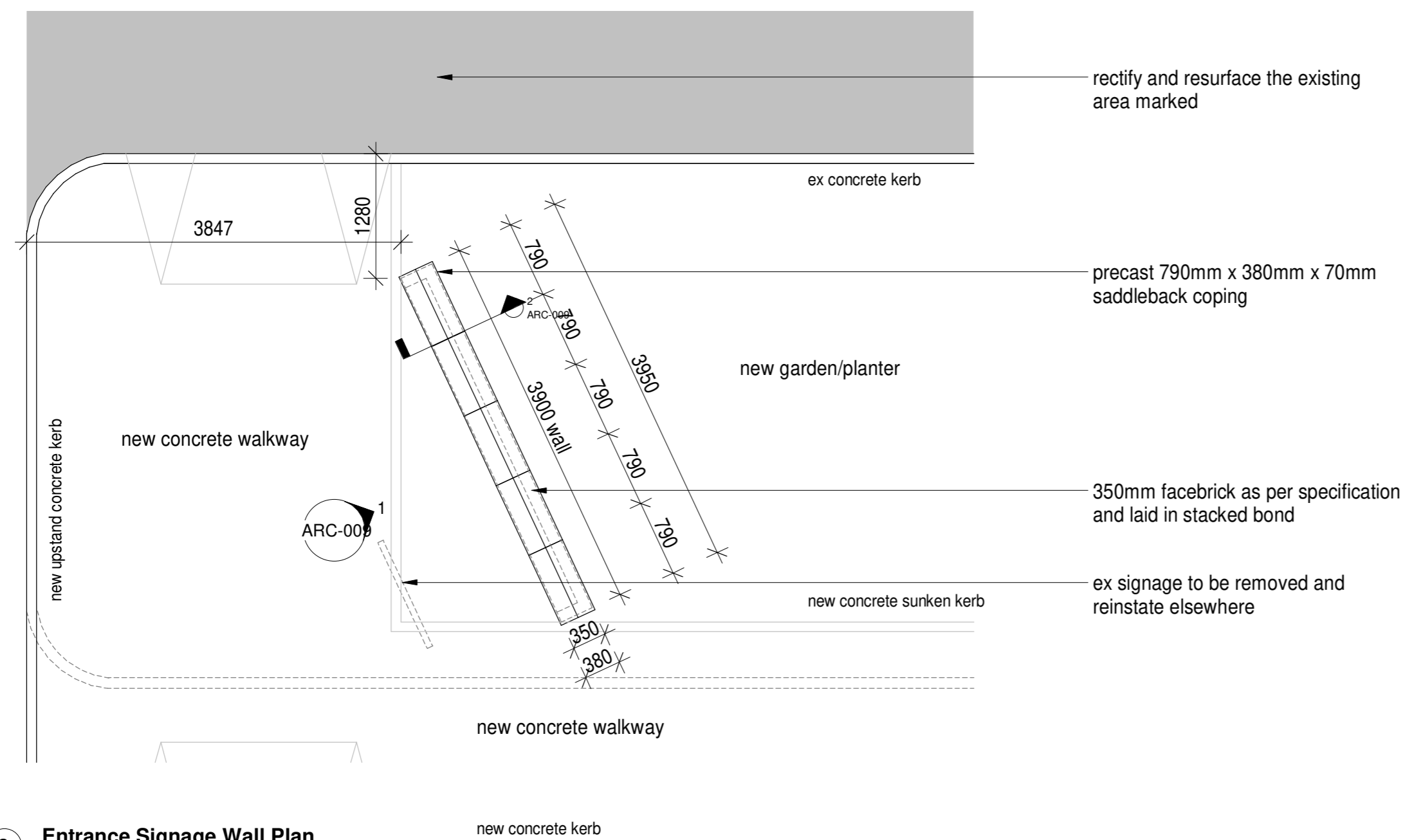
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Drawn by:	PHV	B4 Ref No.:	305-026
Designer:	BB	Architect DWG No.:	ARC-008
Professional Architect:	BB	Checked by:	BB
Checked by:	BB	FOR TENDER ONLY	



1 Entrance Signage Wall Elevation
1 : 20



2 Entrance Signage Wall Section
1 : 10



3 Entrance Signage Wall Plan
1 : 50

No.	Description	Date

PROJECT:

PORT ELIZABETH PROVINCIAL HOSPITAL	Scale:	As indicated
Boundary Wall Replacement	Drawn by:	PHV
	Designer:	PHV
	Professional Architect:	BB
	Checked by:	BB
Date:	02 November 2023	

TITLE: Entrance Signage Wall	
B4 Project Ref No.:	Architect DWG No:
305-026	ARC-009
FOR TENDER ONLY	
	REV

PORT ELIZABETH PROVINCIAL HOSPITAL

305-026 : BOUNDARY FENCING AND
GUARDHOUSE

Door Schedule

b4 Architects cc

Resuscitating Healthcare Design

Port Elizabeth

PO Box 5690, Walmer, Port Elizabeth, 6065
Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
Walmer, Port Elizabeth, 6070

Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban

1 Tamarine Close, Sunningdale, Umhlanga, 4139
Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za



DOOR TYPE A

FRAME:

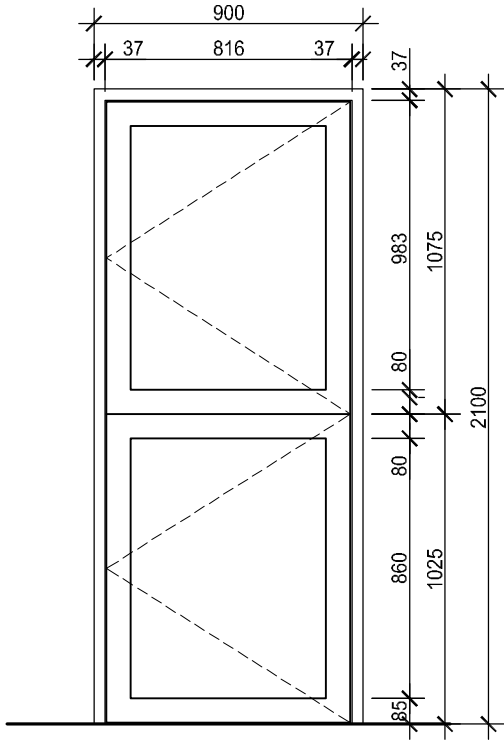
Aluminium frame, white powder coated.
Clip44 system

DOOR:

Aluminium framed stable door to fit in opening
2100 x 900mm - white powder coated

IRONMONGERY:

As per ironmongery schedule.



QUANTITY	DOOR NUMBERS
1	D01
GLAZING	6.4mm Laminated safety glass as glazing with spacer and deciccant

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IF IN DOUBT PLEASE ASK

No.	Description	Date

NOTE: DETAILS ARE AS FOR TYPICAL DOOR ILLUSTRATED

Scale: 1 : 10
Date: 19 October, 2023
Drawn by: ET
Checked by: BB
B4 Ref No.: Architect Dwg No:
Proj No. DS- 001

FOR TENDER ONLY

Sakhiwo Ref No:

DOOR TYPE B

FRAME:

Timber frame.

DOOR:

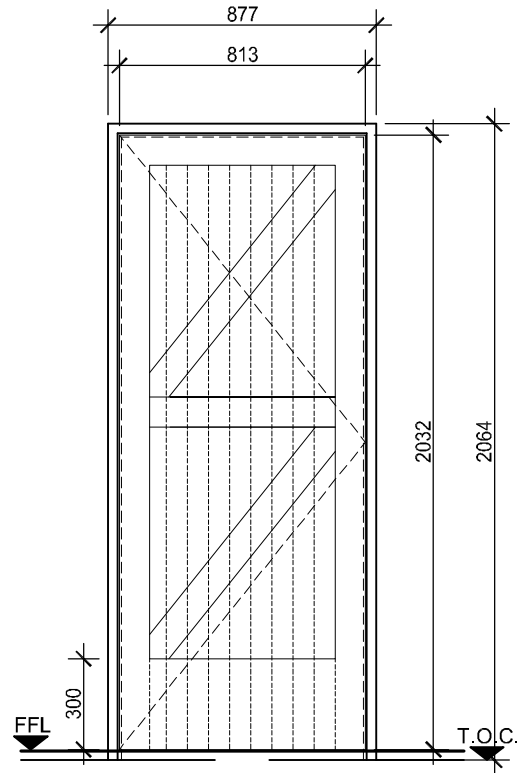
44mm thick Hardwood framed, ledged, braced and battened door.

Weatherboard on outside.

Plywood flush panel to inside.

IRONMONGERY:

As per ironmongery schedule.



QUANTITY	DOOR NUMBERS
1	D02

NOTE: DETAILS ARE AS FOR TYPICAL DOOR ILLUSTRATED.
CONTRACTOR TO MEASURE ALL DOOR OPENINGS BEFORE MANUFACTURE

Province of the EASTERN CAPE HEALTH

b4 Architects cc
Resuscitating Healthcare Design

SAKHIWO HEALTH SOLUTIONS | HDG | NEMA SA

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REVISIONS	No.	Description	Date

PROJECT: PEPH
Boundary Wall Replacement
Door Type B

TITLE: Sakihiwo Ref No:

Scale: 1 : 10
Date: 19 October, 2023
Drawn by: ET
Checked by: BB
B4 Ref No.: Architect Dwg No:
Proj No. DS-002

FOR TENDER ONLY

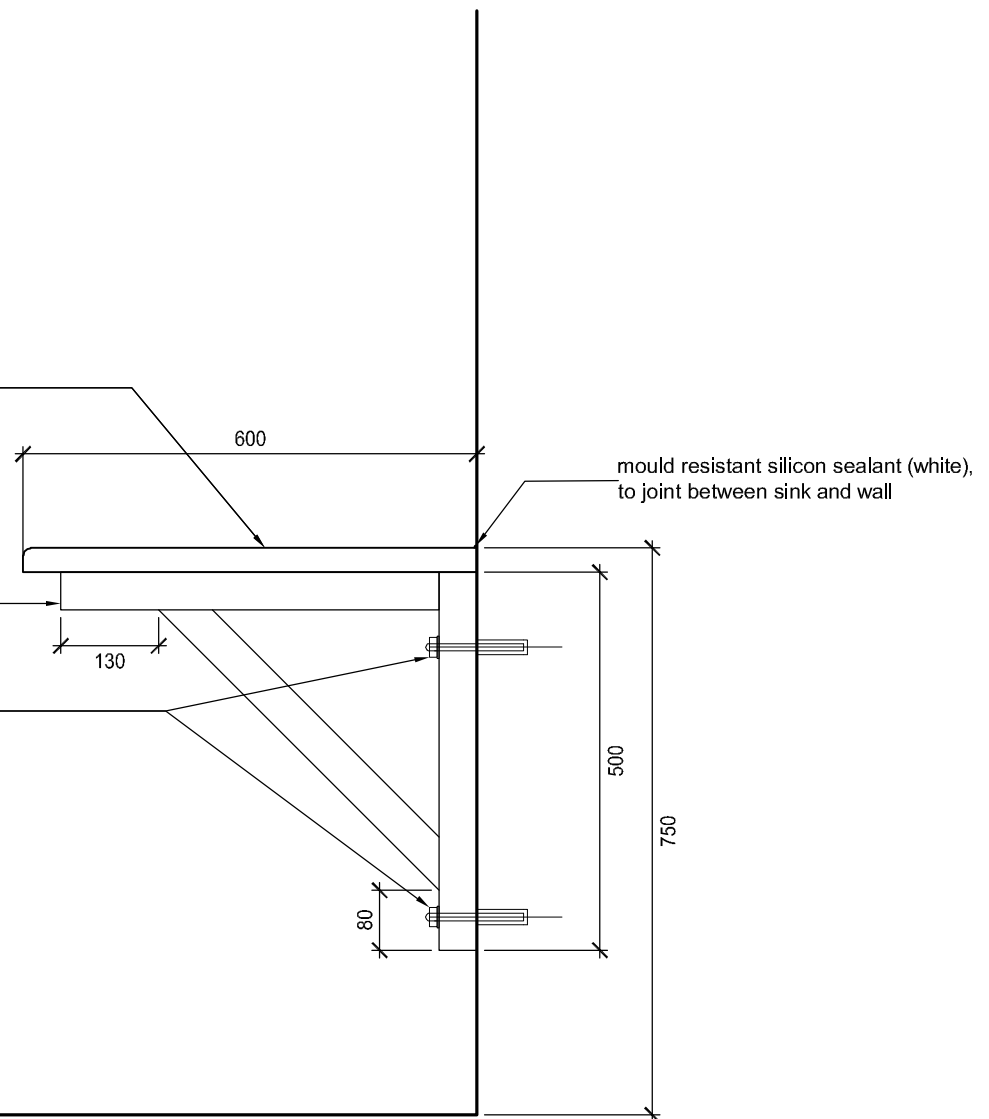
REV #

TYPE BB

600 x 32mm Life seal FORMICA finished post formed worktop with 90° bullnose edging. All cuts and rear edges to be painted with pink wood primer. Worktop screwed and fixed to support rails from below

mild steel bracket to be made of 50 x 50 x 3mm square tubing, painted (colour white)

10mm diameter s/s rawlbolt.



SECTION

SCALE 1:10

Province of the **EASTERN CAPE** HEALTH

b4 Architects cc
Resuscitating Healthcare Design

SAKHIWO HEALTH SOLUTIONS | bigen | HDG HOSPITAL DESIGN GROUP | NEMA SA

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IF IN DOUBT PLEASE ASK

REVISIONS	No.	Description	Date

PROJECT: PEPH
Boundary Wall Replacement

TITLE: Joinery Detail
Type B-B

Sakhiwo Ref No: _____

Scale: 1 : 10
Date: 19 October, 2023
Drawn by: ET
Checked by: BB

B4 Ref No.: _____ Architect Dwg No: _____

Proj No. _____

FOR PRICING ONLY

REV #

No.	Description	Date

PEPH

PROJECT:
Boundary Wall Replacement

TITLE:
Joinery Plan 01

Scale
1 : 20

Date: 18 October, 2023

Drawn by: ET

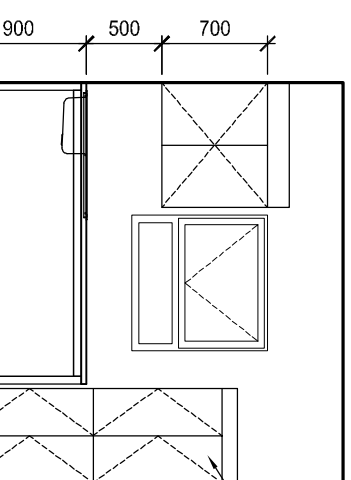
Designer: ET

Professional Architect: BB

Checked by: BB

DWG No: 305-026 JP-01

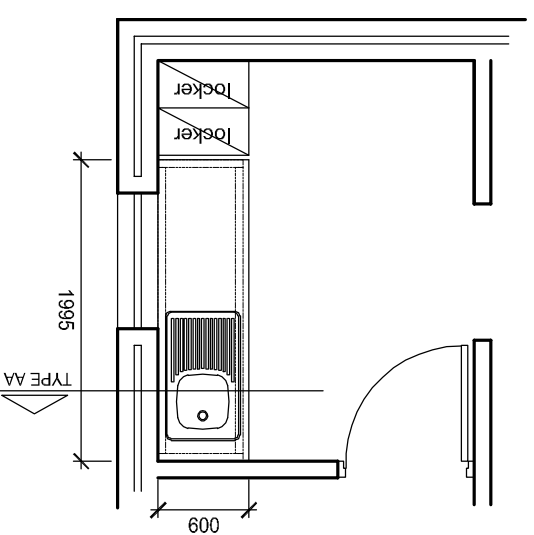
FOR PRICING ONLY



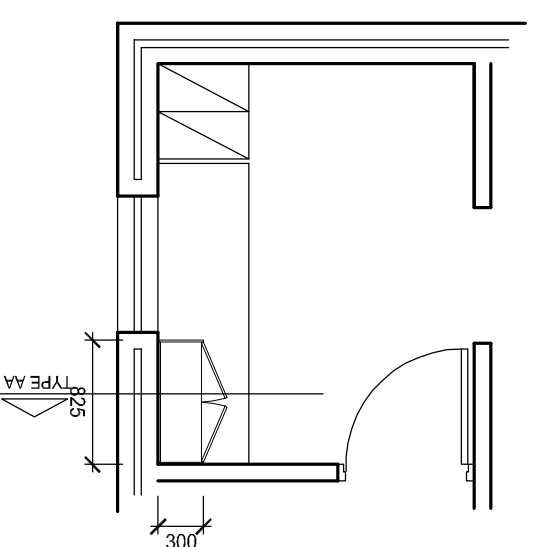
Locker SP- slatted Industrial locker manufactured from 1.2mm-2.0mm steel from "METMEISTER" or similar approved

Lockers with split full-height cubicles are rigid and made from 1.2mm and 2mm heavy duty quality steel, epoxy coated in blue & grey texture, with 4 compartments and shelf. Each compartment fitted with 3 point lever lock. Locker mounted onto a 50mm plinth epoxy powder coated in RAL 9011 block

ELEVATION A
SCALE 1:50



PLAN (LOWER LEVEL)
SCALE 1:50



PLAN (UPPER LEVEL)
SCALE 1:50

ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification.

note (where applicable)

- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easyglide slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others),
- All handles to be Raial fingertip flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Litesseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

No.	Description	Date

PEPH

PROJECT: **Boundary Wall Replacement**

TITLE: **Joinery Plan 02**

Scale: **1 : 20**

Date: **18 October, 2023**

Drawn by: **ET**

Designer: **ET**

Professional Architect: **BB**

Checked by: **BB**

DWG No: **305-026 JP-02**

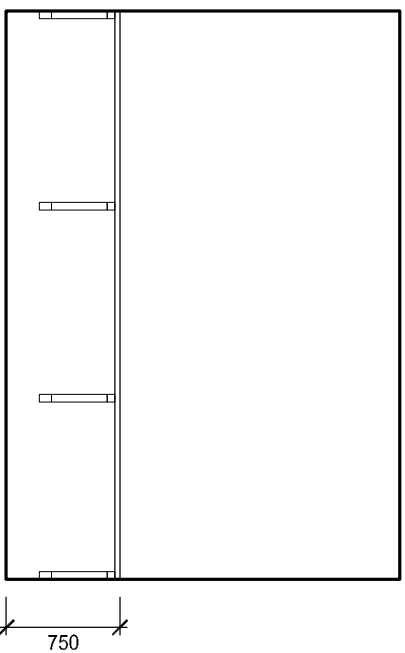
FOR PRICING ONLY

REV

ALL dimensions to be verified on site prior to manufacture. Any discrepancies above 10mm to be brought to the attention of the architect for clarification.

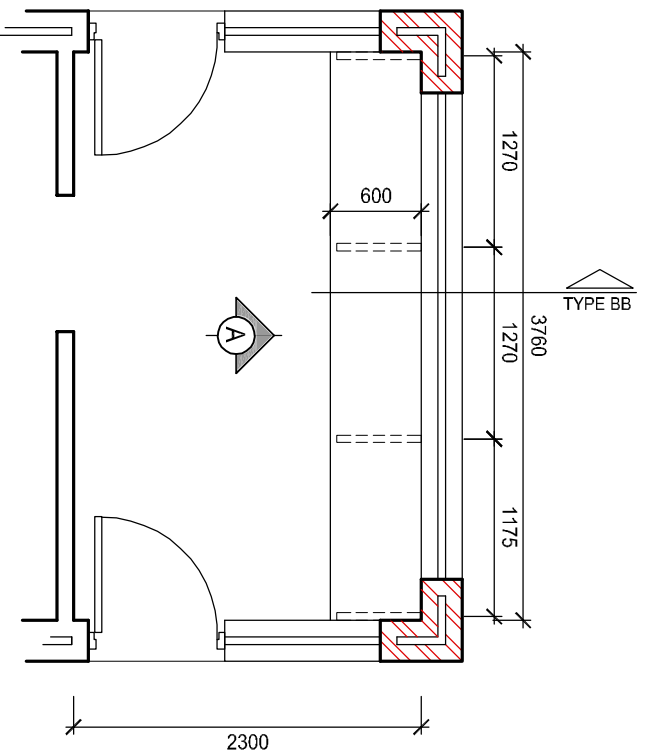
note (where applicable)

- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easyglide slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others),
- All handles to be Raiser fingergrasp flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Liteseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.



ELEVATION A

SCALE 1:50



PLAN

SCALE 1:50

No.	Description	Date

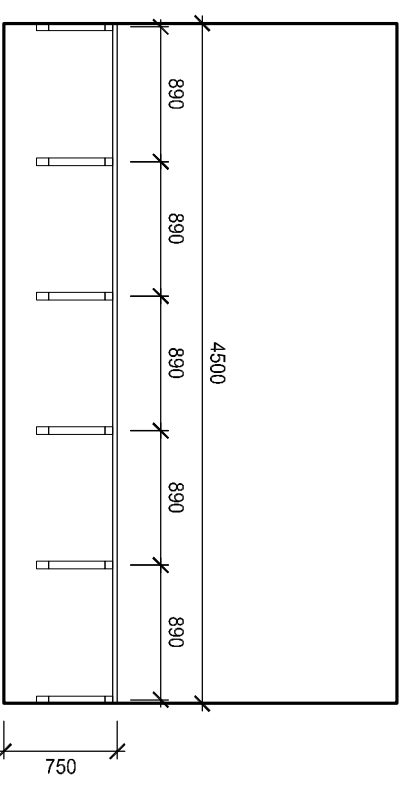
PROJECT:
PEPH
Boundary Wall Replacement

TITLE:
Joinery Plan 03

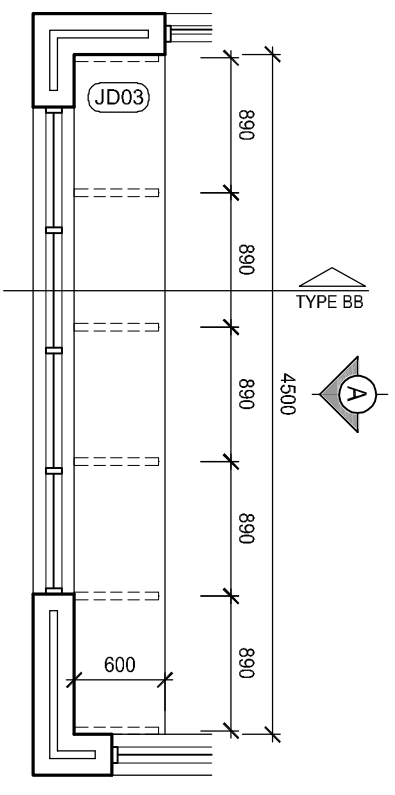
Scale 1 : 20
Date: 18 October, 2023
Drawn by: ET
Designer: ET
Professional Architect: BB
Checked by: BB

DWG No: 305-026 JP-03

FOR PRICING ONLY



ELEVATION A
SCALE 1:50



PLAN
SCALE 1:50

- note (where applicable)**
- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
 - All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
 - All doors to be fixed on chrome plated continuous piano hinges.
 - All drawers to be fitted with MEPLA or other approved easygide slides.
 - All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
 - 16mm BISONLAM SUPER WHITE board backing to fitting.
 - Where joinery is fixed against drywall, walls to be braced with suitable timber studs. (by others).
 - All handles to be Ratiel fingertip flat handles in natural anodized aluminium pull handle.
 - Skirting: refer to detail section.
 - Countertops: 32mm Formica Lifeseal Worktops width as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
 - All bases to be of solid SA Pine, treated for moisture resistance.
 - White silicone to be applied between worktops and walls / tiles.
 - All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

No.	Description	Date

PROJECT: **PEPH**
Boundary Wall Replacement

TITLE: **Joinery Plan 04**

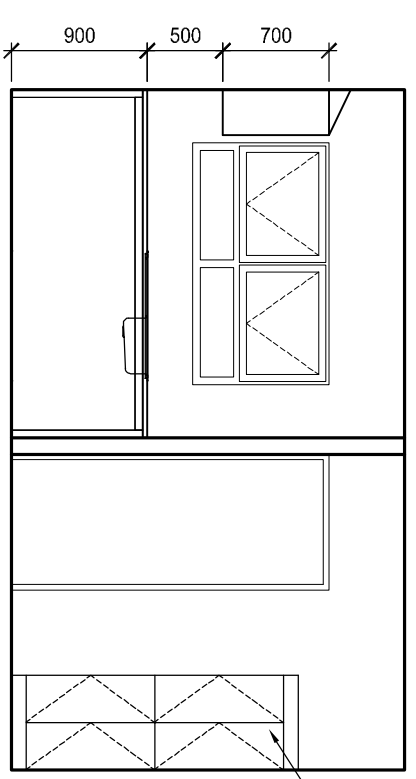
Scale: 1 : 20
Date: 18 October, 2023
Drawn by: ET
Designer: ET
Professional Architect: BB
Checked by: BB

DWG No: **305-026 JP-04**
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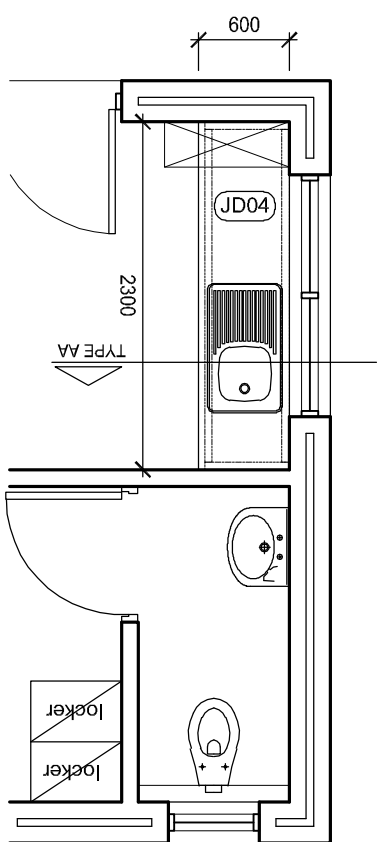
note (where applicable)

- All internal shelves to be of BISONLAM SUPER WHITE. Exposed edges to be finished with 2mm high impact edging, colour to match board. Internal selves to sink units to be of BISON BOARD V313 moisture resistant board.
- All shelving to be adjustable. All cupboards to be lockable with SISA 71550-20-23-00 (brass) cylinder cupboard locks or other approved.
- All doors to be fixed on chrome plated continuous piano hinges.
- All drawers to be fitted with MEPLA or other approved easyglide slides.
- All drawers, cupboard doors & fixed panels to be 16mm MELAMINE faced board with 2mm high impact edge to doors. Colour by Architect.
- 16mm BISONLAM SUPER WHITE board backing to fitting.
- Where joinery is fixed against drywall, walls to be braced with suitable timber studs (by others).
- All handles to be Ralel fingergrip flat handles in natural anodized aluminium pull handle.
- Skirting: refer to detail section.
- Countertops: 32mm Formica Lifeseal Worktops with as per detail with one edge to have 90° quadrant edge / 180° bullnose edge (as per detail) Colour by Architect.
- All bases to be of solid SA Pine, treated for moisture resistance.
- White silicone to be applied between worktops and walls / tiles.
- All internal cutouts to accommodate pipes to be cut neat & square / rectangular / circular and to be closed up with 4mm white faced MASONITE board cut to shape around pipe.

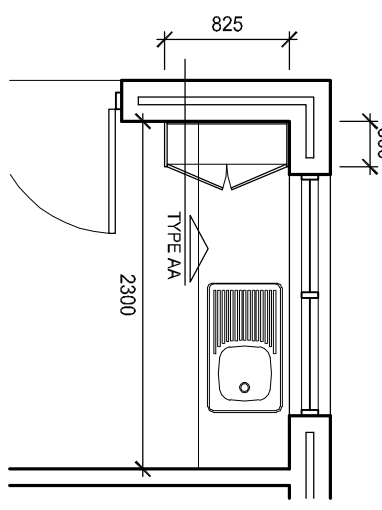


ELEVATION A
SCALE 1:50

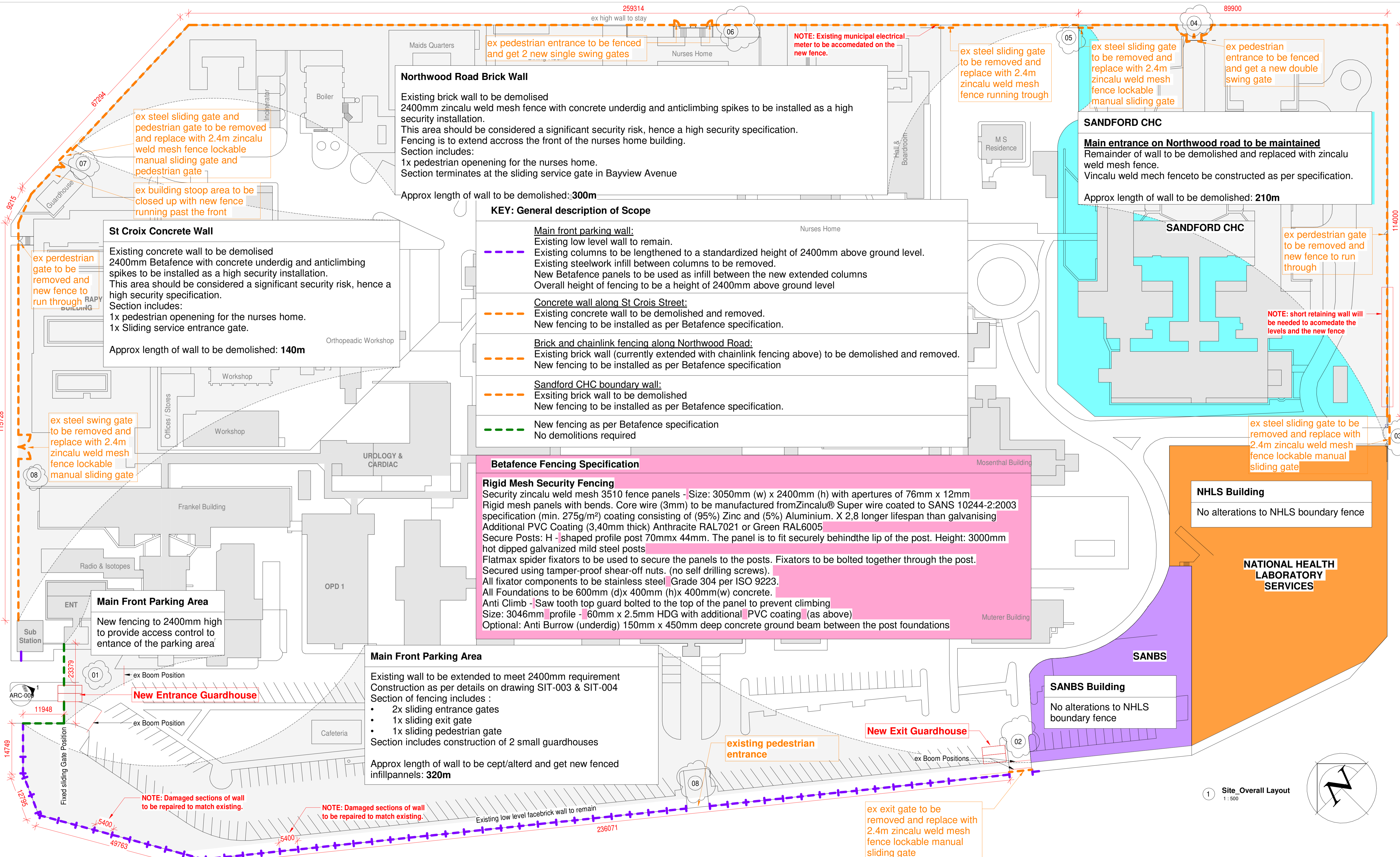
Locker SP- slanted Industrial locker manufactured from 1.2mm-2.0mm steel from "METMEISTER" or similar approved
Lockers with split full-height cubicles are rigid and made from 1.2mm and 2mm heavy duty quality steel, epoxy coated in blue & grey texture, with 4 compartments and shelf. Each compartment fitted with 3 point lever lock. Locker mounted onto a 50mm plinth epoxy powder coated in RAL 9011 black



PLAN (LOWER LEVEL)
SCALE 1:50



PLAN (UPPER LEVEL)
SCALE 1:50



Northwood Road Brick Wall

Existing brick wall to be demolished
 2400mm zincalu weld mesh fence with concrete underdig and anticlimbing spikes to be installed as a high security installation.
 This area should be considered a significant security risk, hence a high security specification.
 Fencing is to extend across the front of the nurses home building.
 Section includes:
 1x pedestrian opening for the nurses home.
 Section terminates at the sliding service gate in Bayview Avenue
 Approx length of wall to be demolished: **300m**

St Croix Concrete Wall

Existing concrete wall to be demolished
 2400mm Betafence with concrete underdig and anticlimbing spikes to be installed as a high security installation.
 This area should be considered a significant security risk, hence a high security specification.
 Section includes:
 1x pedestrian opening for the nurses home.
 1x Sliding service entrance gate.
 Approx length of wall to be demolished: **140m**

KEY: General description of Scope

- Main front parking wall:**
 Existing low level wall to remain.
 Existing columns to be lengthened to a standardized height of 2400mm above ground level.
 Existing steelwork infill between columns to be removed.
 New Betafence panels to be used as infill between the new extended columns
 Overall height of fencing to be a height of 2400mm above ground level
- Concrete wall along St Croix Street:**
 Existing concrete wall to be demolished and removed.
 New fencing to be installed as per Betafence specification.
- Brick and chainlink fencing along Northwood Road:**
 Existing brick wall (currently extended with chainlink fencing above) to be demolished and removed.
 New fencing to be installed as per Betafence specification
- Sandford CHC boundary wall:**
 Existing brick wall to be demolished
 New fencing to be installed as per Betafence specification.
- New fencing as per Betafence specification**
 No demolitions required

Betafence Fencing Specification

Rigid Mesh Security Fencing
 Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanising
 Additional PVC Coating (3,40mm thick) Anthracite RAL7021 or Green RAL6005
 Secure Posts: H -shaped profile post 70mmx 44mm. The panel is to fit securely behind the lip of the post. Height: 3000mm
 hot dipped galvanized mild steel posts
 Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
 Secured using tamper-proof shear-off nuts. (no self drilling screws).
 All fixator components to be stainless steel Grade 304 per ISO 9223.
 All Foundations to be 600mm (d)x 400mm (h)x 400mm(w) concrete.
 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations

Main Front Parking Area

Existing wall to be extended to meet 2400mm requirement
 Construction as per details on drawing SIT-003 & SIT-004
 Section of fencing includes :
 • 2x sliding entrance gates
 • 1x sliding exit gate
 • 1x sliding pedestrian gate
 Section includes construction of 2 small guardhouses
 Approx length of wall to be cept/alterd and get new fenced infillpanels: **320m**

b4 Architects cc
Resuscitating Healthcare Design

Port Elizabeth
 PO Box 5690, Walmer, Port Elizabeth, 6065
 Unit 12, Bloomingdales Office Park, 34 Ninth Avenue,
 Walmer, Port Elizabeth, 6070
 Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
 Westville, Durban, 3630
 Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za

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No.	Description	Date
1	Gate Numbers	27-10-2023

PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement

Date: 02 November 2023

Scale:	1 : 500
Drawn by:	J Thomson
Designer:	J Thomson
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE: Overall Site Layout

B4 Ref No.: 305-026
 Architect DWG No.: SIT-001

FOR TENDER ONLY

REV: 1

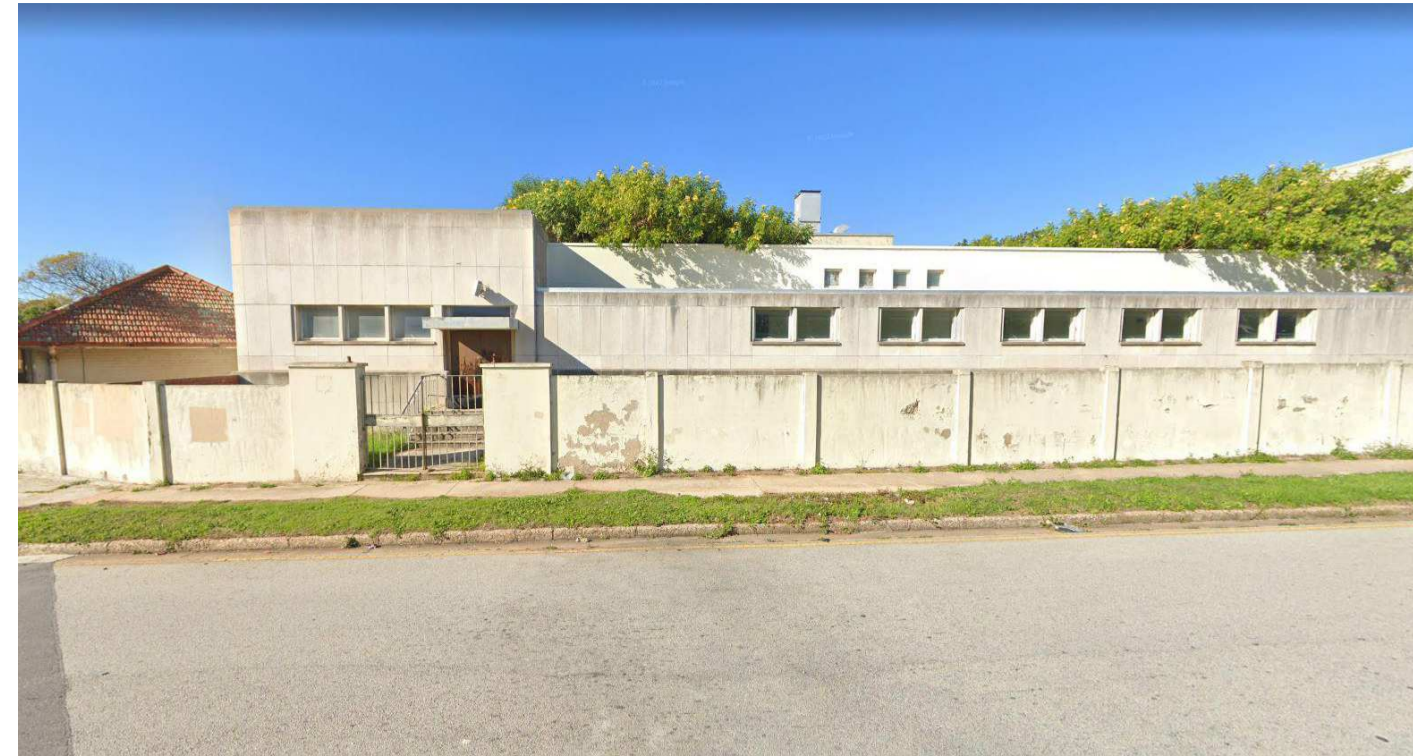
Photos of Existing Condition



St Croix section new fence to run through



Internal section of wall to be demolished along with boundary wall.

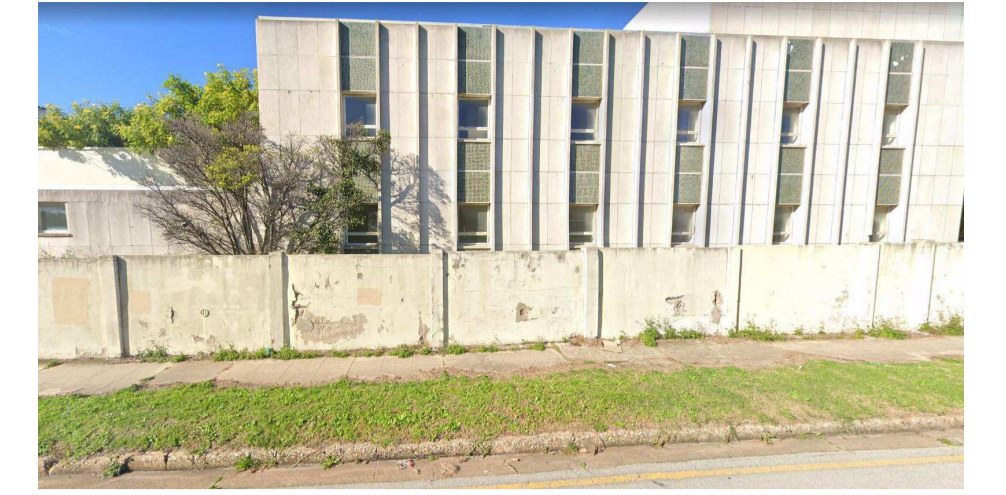


Existing pedestrian gate to be removed.

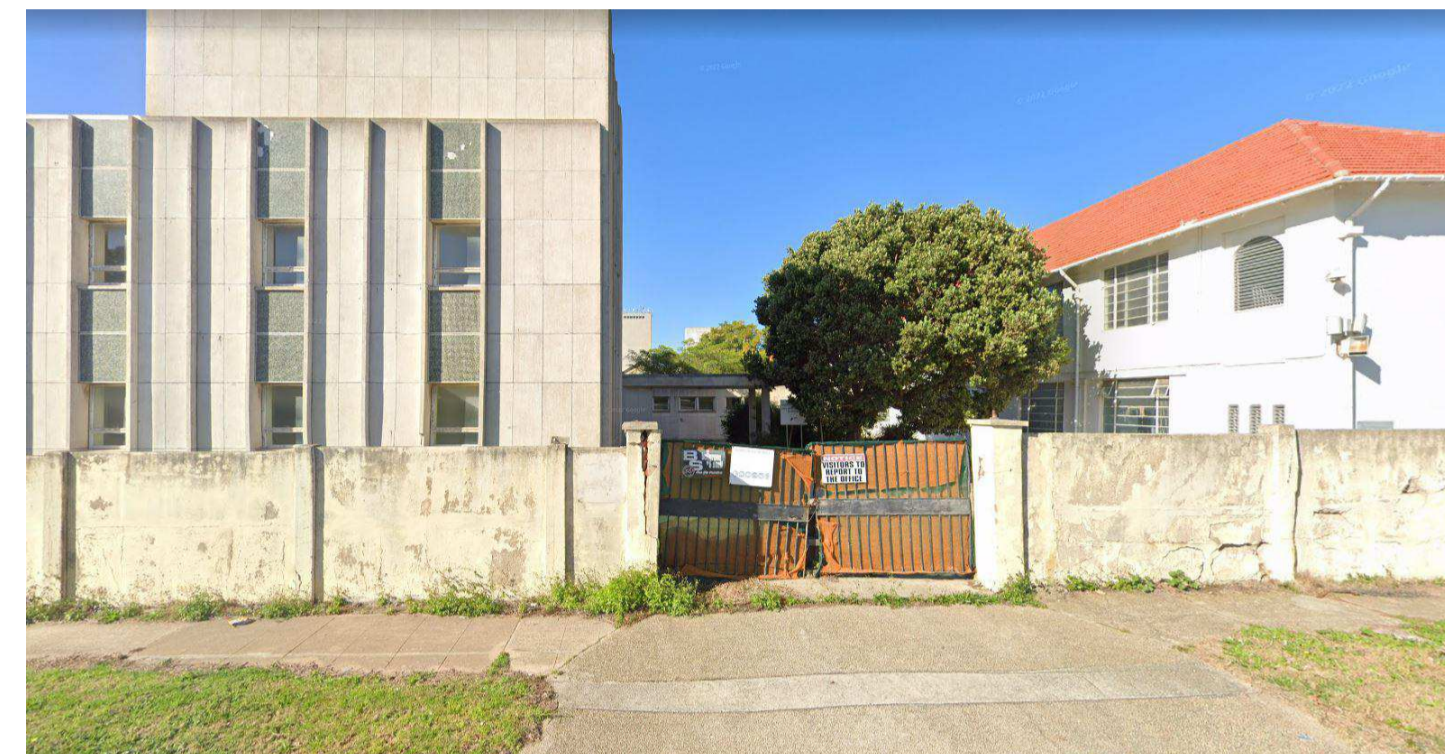
New pedestrian gate as per zincalu weld mech fence detailing, in same position.
Pedestrian gate width 2375mm.



Note:
Entire section of concrete wall along St Croix Avenue to be demolished.
Where existing foundations are unsuitable for use (due to spalling and cracking), a new ground beam is to be cast to account for existing level differences between internal grassed areas and external paved areas.



Existing steel sliding gate and pedestrian gate to be removed and replace with 2.4m Betafence lockable manual sliding gate and pedestrian gate



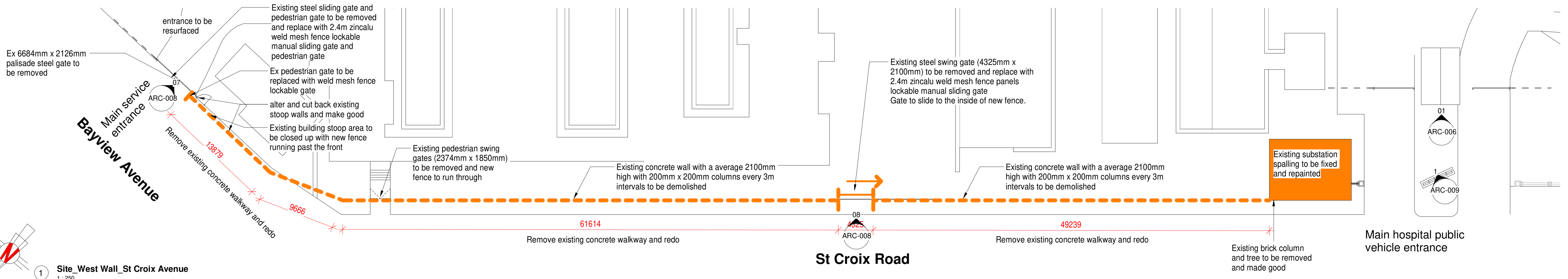
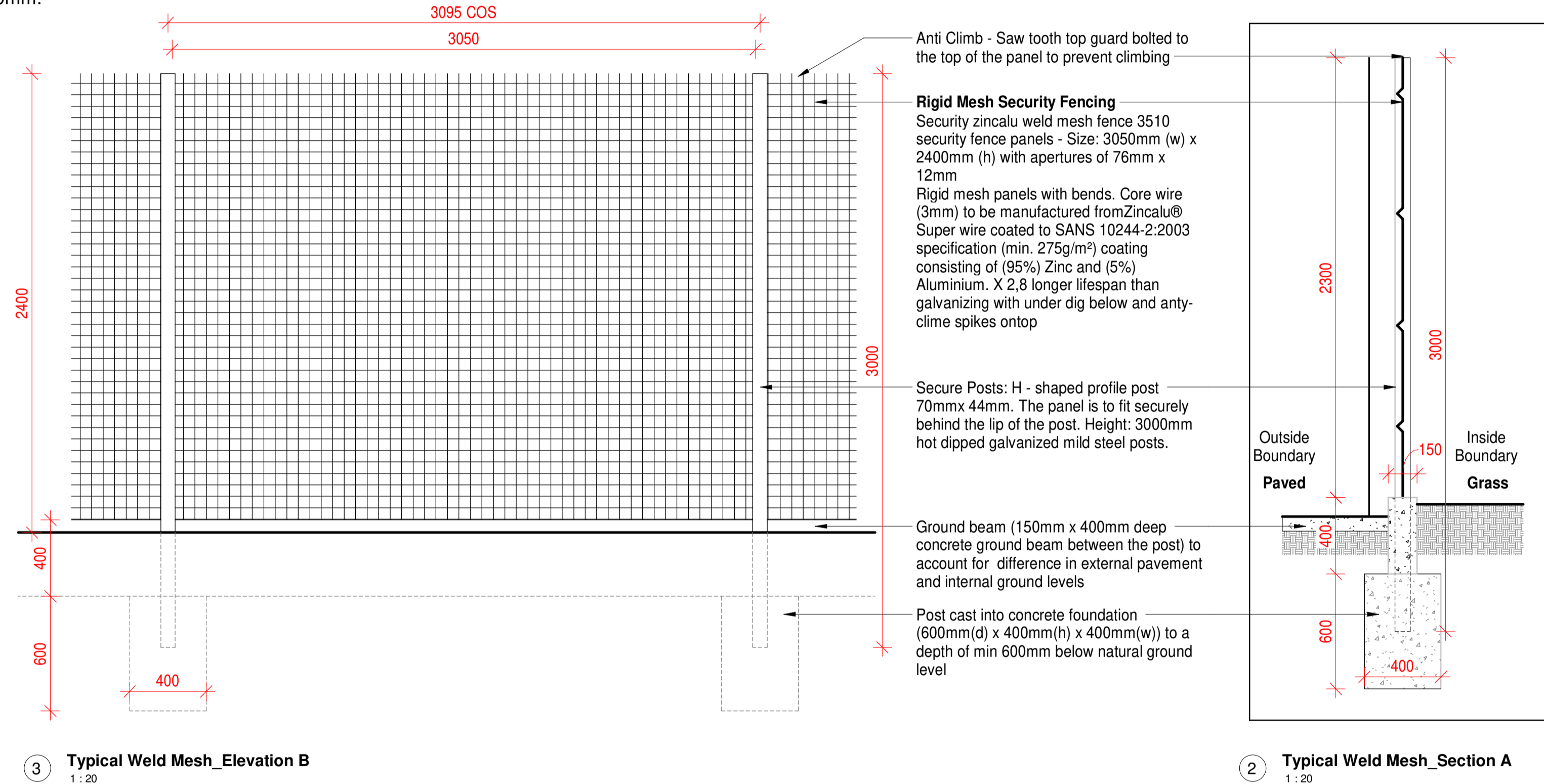
Existing entrance swing gate to be removed.

New sliding entrance gate as per Betafence detailing, in same position.
Sliding gate opening 4325mm.



St Croix section ungrade termination point
New Security zincalu weld mesh fence to terminate at side of existing substation and continue on the opposite side.
New public entrance gate as part of Buckingham Road wall section upgrade.

New Fence Specification:
Rigid Mesh Security Fencing
 Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2.8 longer lifespan than galvanizing
 Secure Posts: H - shaped profile post 70mm x 44mm. The panel is to fit securely behind the lip of the post. Height: 3000mm hot dipped galvanized mild steel posts.
 Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
 Secured using tamper-proof shear-off nuts. (no self drilling screws).
 All fixator components to be stainless steel Grade 304 per ISO 9223.
 All Foundations to be 600mm (d) x 400mm (h) x 400mm (w) concrete.
 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations.



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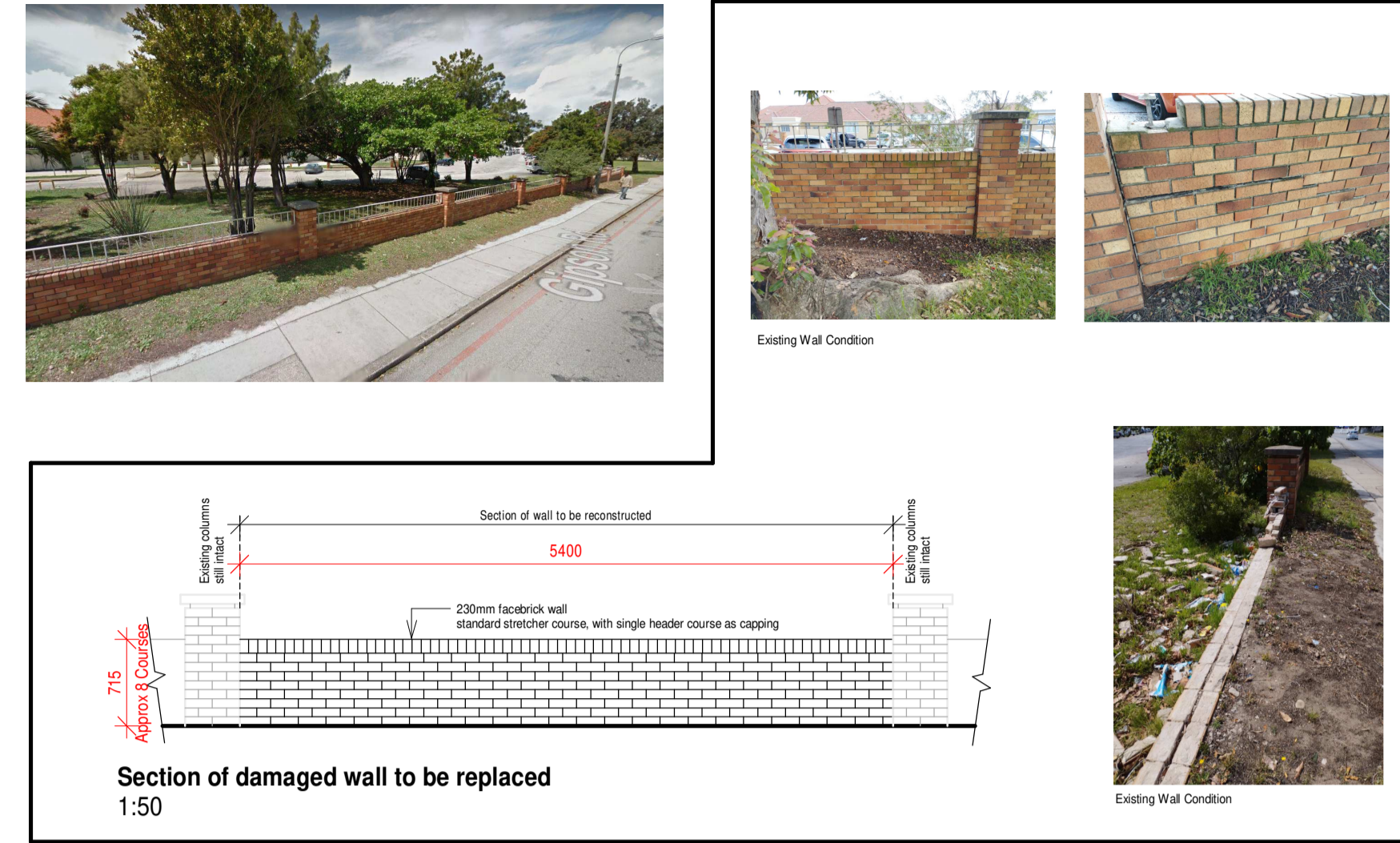
No.	Description	Date
1	Remove Trade Names	27-10-2023
REVISIONS:		

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement
Date: 02 November 2023

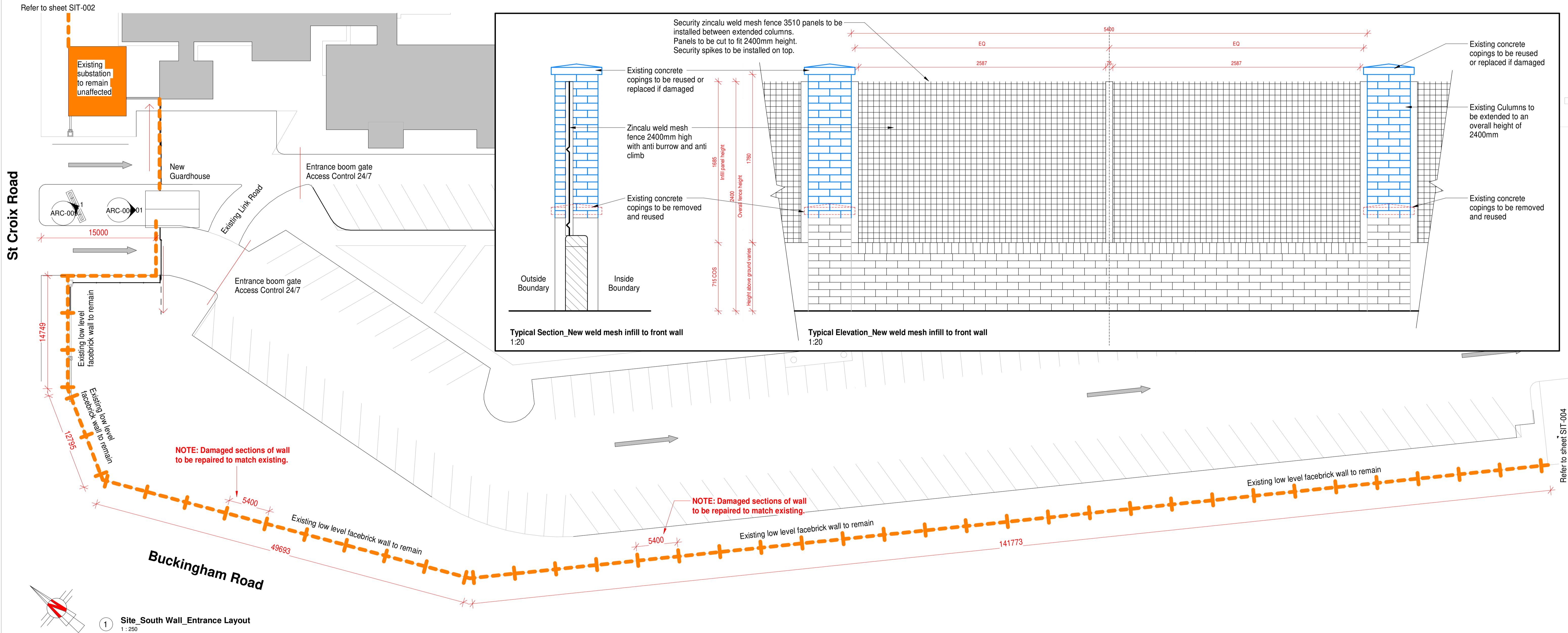
Scale:	As indicated
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE: West Wall - St Croix Road
B4 Ref No.: 305-026
Architect DWG No.: SIT-002
FOR TENDER ONLY
REV: 1

Photos of Existing Condition



New Fence Specification:
Rigid Mesh Security Fencing
 Security zincalu weld 3510 mesh fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanizing.
 Secure Posts: H - shaped profile post 70mm x 44mm. The panel is to fit securely behind the lip of the post. Height: 3000mm hot dipped galvanized mild steel posts.
 Flatmax spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
 Secured using tamper-proof shear-off nuts. (no self drilling screws).
 All fixator components to be stainless steel Grade 304 per ISO 9223.
 All Foundations to be 600mm (d)x 400mm (h)x 400mm(w) concrete.
 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations.



b4 Architects cc
 Resuscitating Healthcare Design
 Port Elizabeth
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 Unit 12, Bloomingdales Office Park, 34 Ninth Avenue, Walmer, Port Elizabeth, 6070
 Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Province of the **EASTERN CAPE** HEALTH
 SAKHIWO HEALTH SOLUTIONS
 HDG
 NEMA SA

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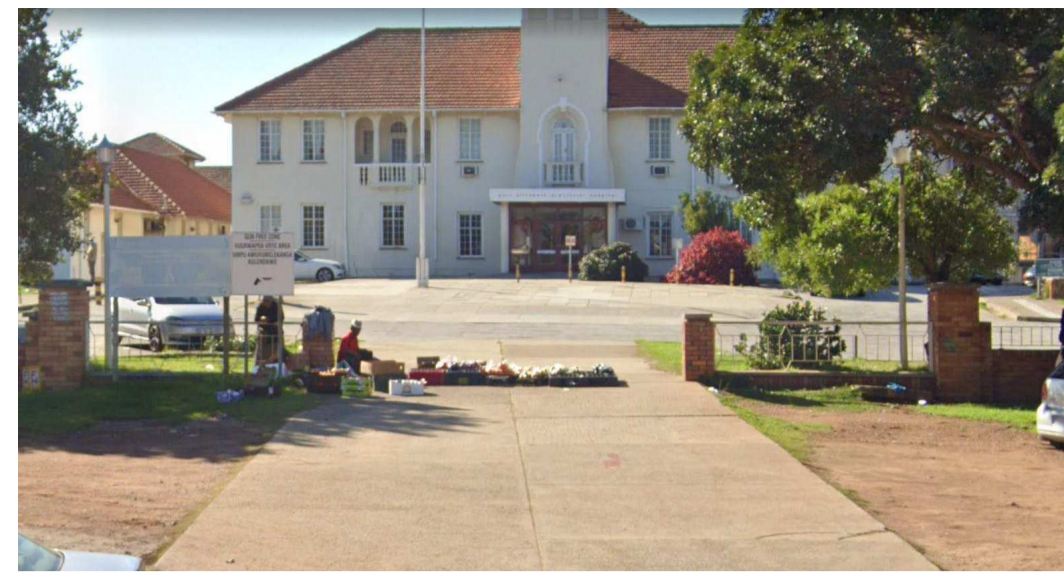
No.	Description	Date
1	Remove Trade Names	27-10-2023
REVISIONS:		

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL
Boundary Wall Replacement
 Date: 02 November 2023

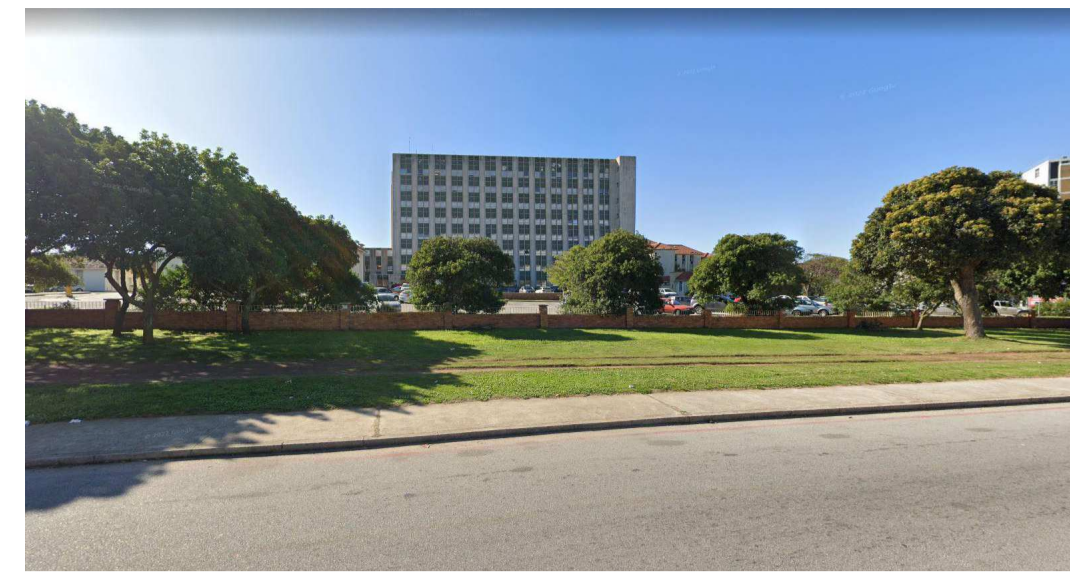
Scale:	As indicated
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE: South Wall - Buckingham Road
B4 Ref No.: 305-026
Architect DWG No.: SIT-003
FOR TENDER ONLY
REV: 1

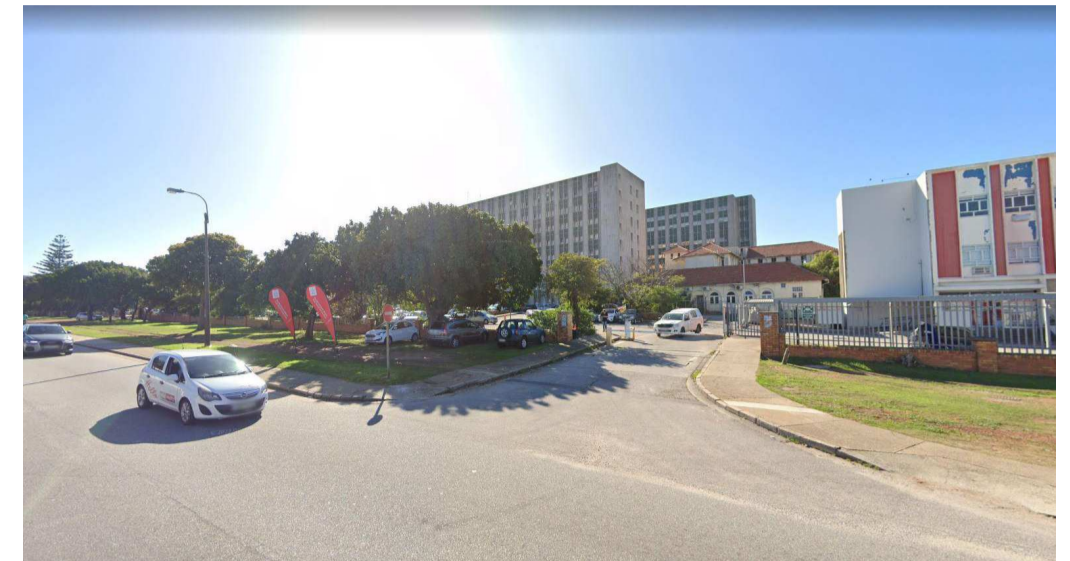
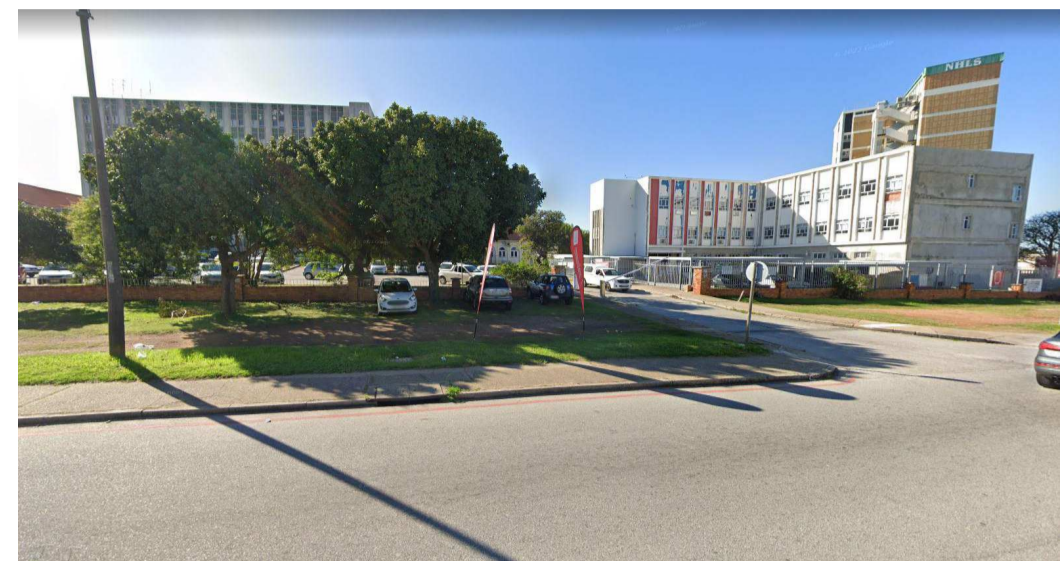
Photos of Existing Condition



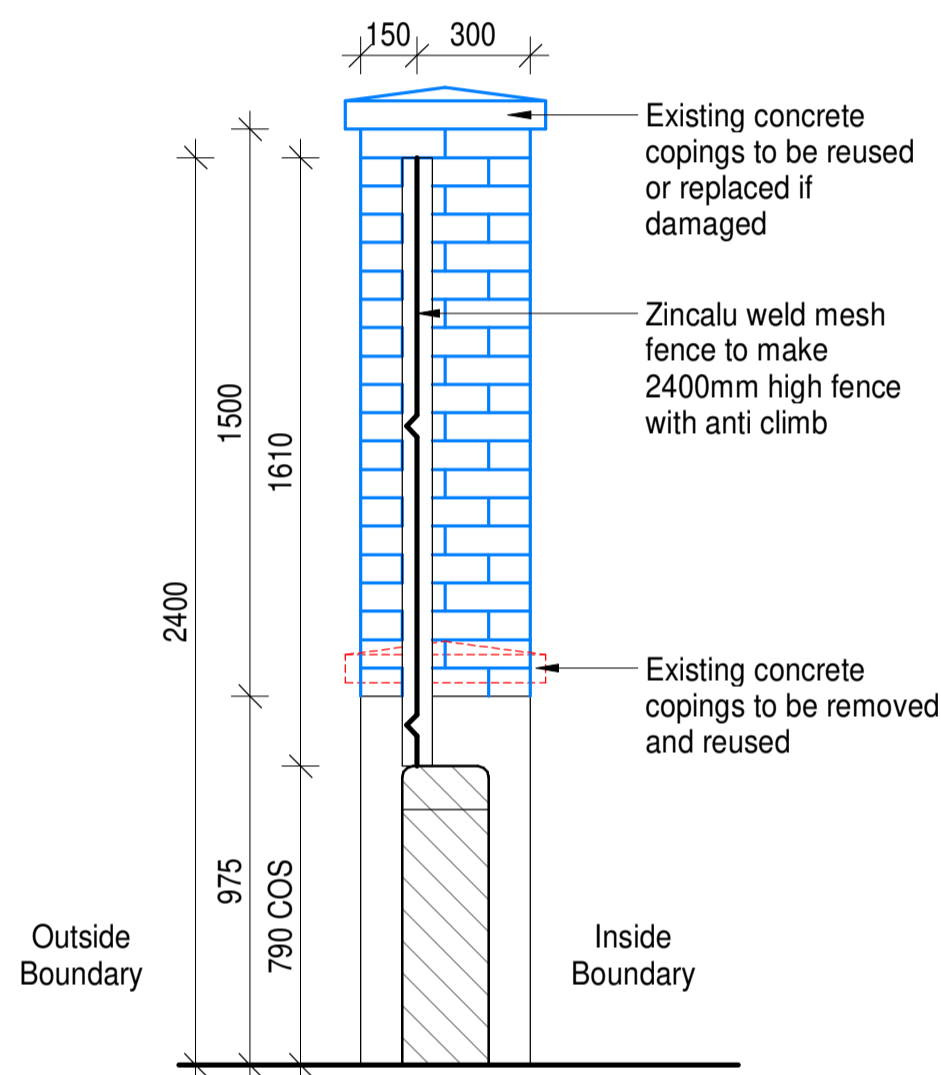
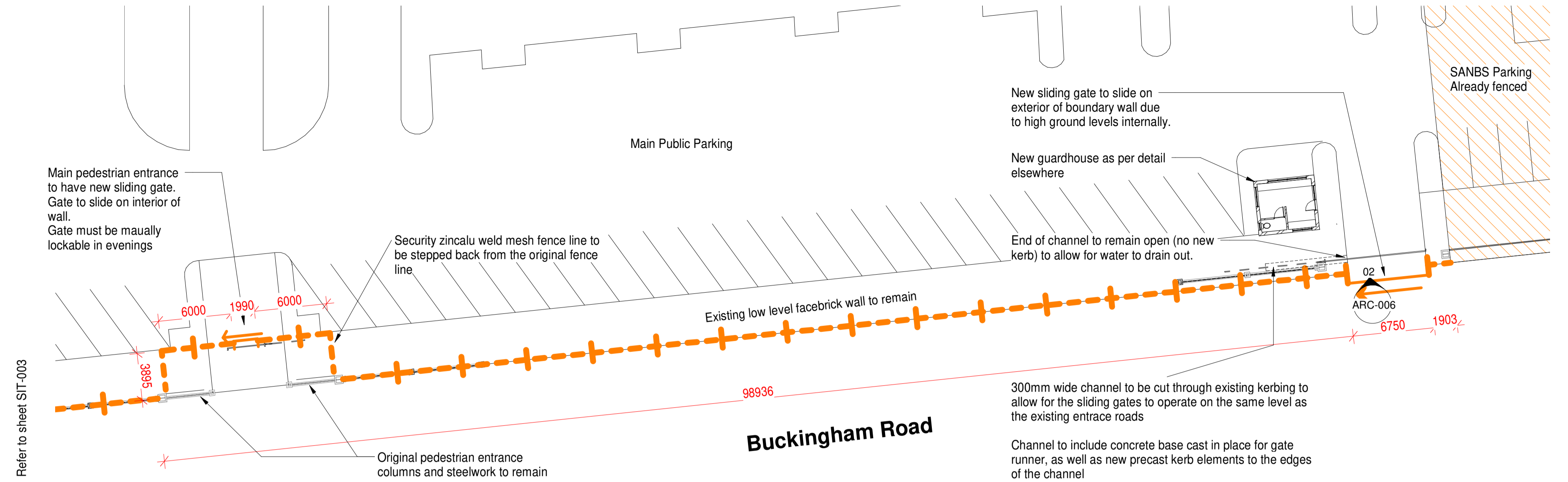
Main entrance to have single sliding gates
Swing gates as per standard betafence detailing
Gates must be lockable



Main public parking entrance to have new sliding gate.
Gate to slide on interior of wall.
Gate must be manually lockable in evenings

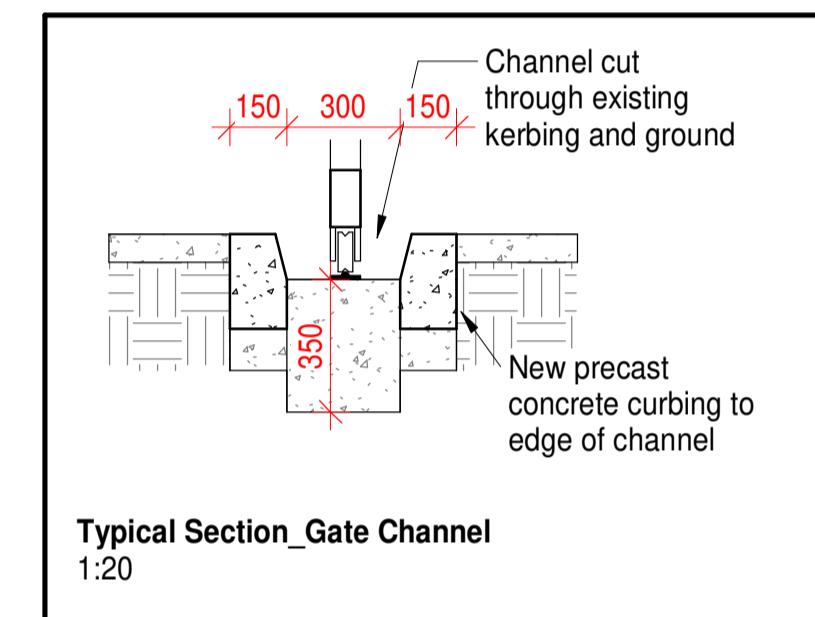


Single sliding gate to parking exit.
Existing boom arm to remain on inside of new gate position
Existing redundant security spikes to be removed and road made good.

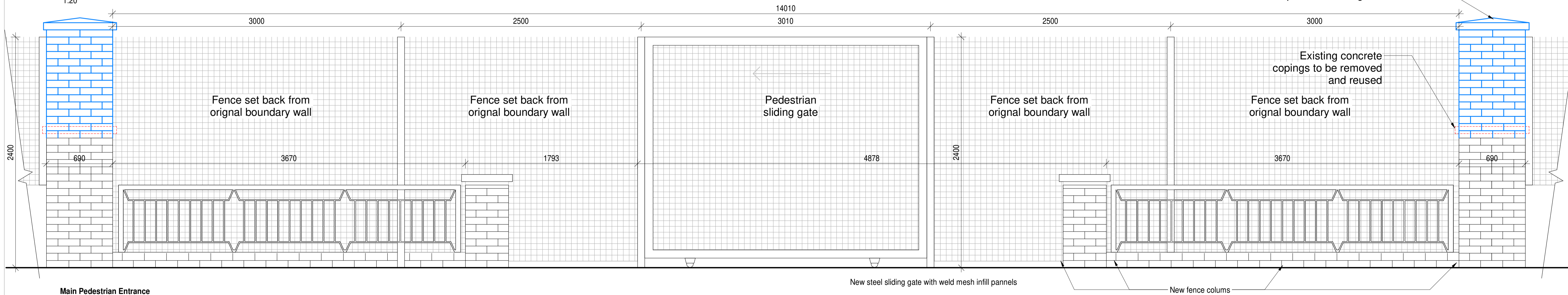


Typical Section_New weld mesh infill panel to front wall
1:20

New Fence Specification:
Rigid Mesh Security Fencing
 Security zincalu weld mesh 3510 fence panels - Size: 3050mm (w) x 2400mm (h) with apertures of 76mm x 12mm
 Rigid mesh panels with bends. Core wire (3mm) to be manufactured from Zincalu® Super wire coated to SANS 10244-2:2003 specification (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2,8 longer lifespan than galvanising
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 Anti Climb - Saw tooth top guard bolted to the top of the panel to prevent climbing
 Size: 3046mm profile - 60mm x 2.5mm HDG with additional PVC coating (as above)
 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations



Existing security boom and floor spikes currently unused, no longer functional and redundant due to dirt ingress. Should be removed entirely as position will clash with sliding gate.



Main Pedestrian Entrance
1:20



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No.	Description	Date
1	Remove Trade Names	27-10-2023

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement

Date: 02 November 2023

Scale:	As indicated
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Brinkman

TITLE: South Wall - Buckingham Road

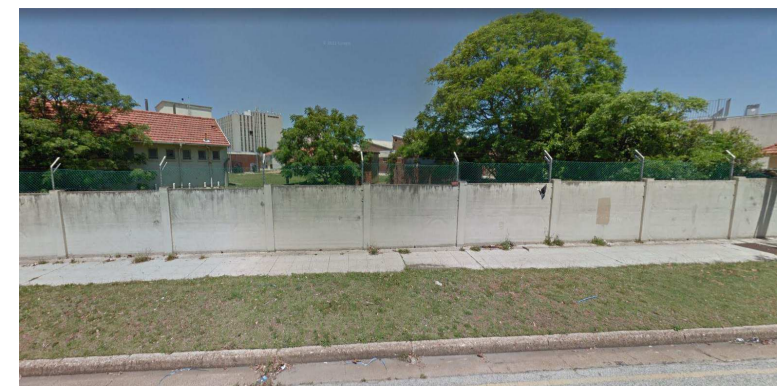
B4 Ref No.: Architect DWG No:

305-026 SIT-004

FOR TENDER ONLY

REV: 1

Photos of Existing Condition



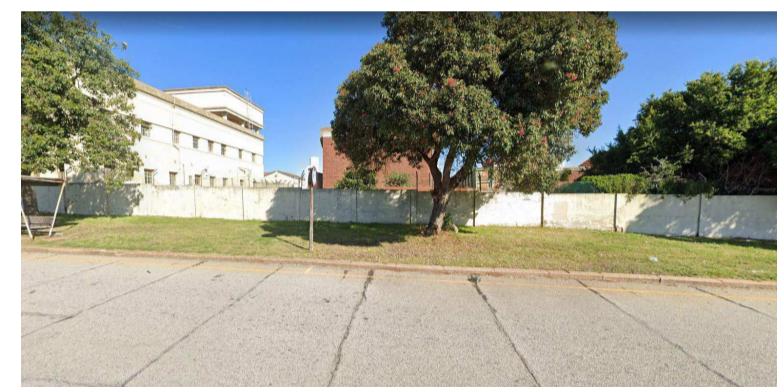
Existing diamond wiremesh fencing is not secure enough.



Wiremesh fencing is constantly cut and damaged, allowing a route for materials to be stolen from the hospital.



Damaged section of wiremesh fencing.



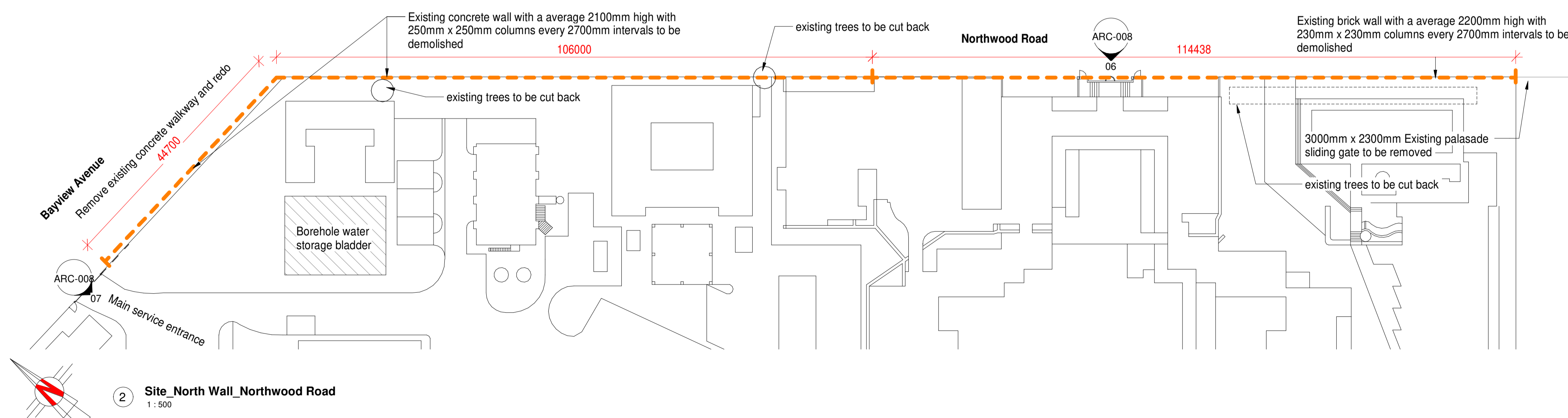
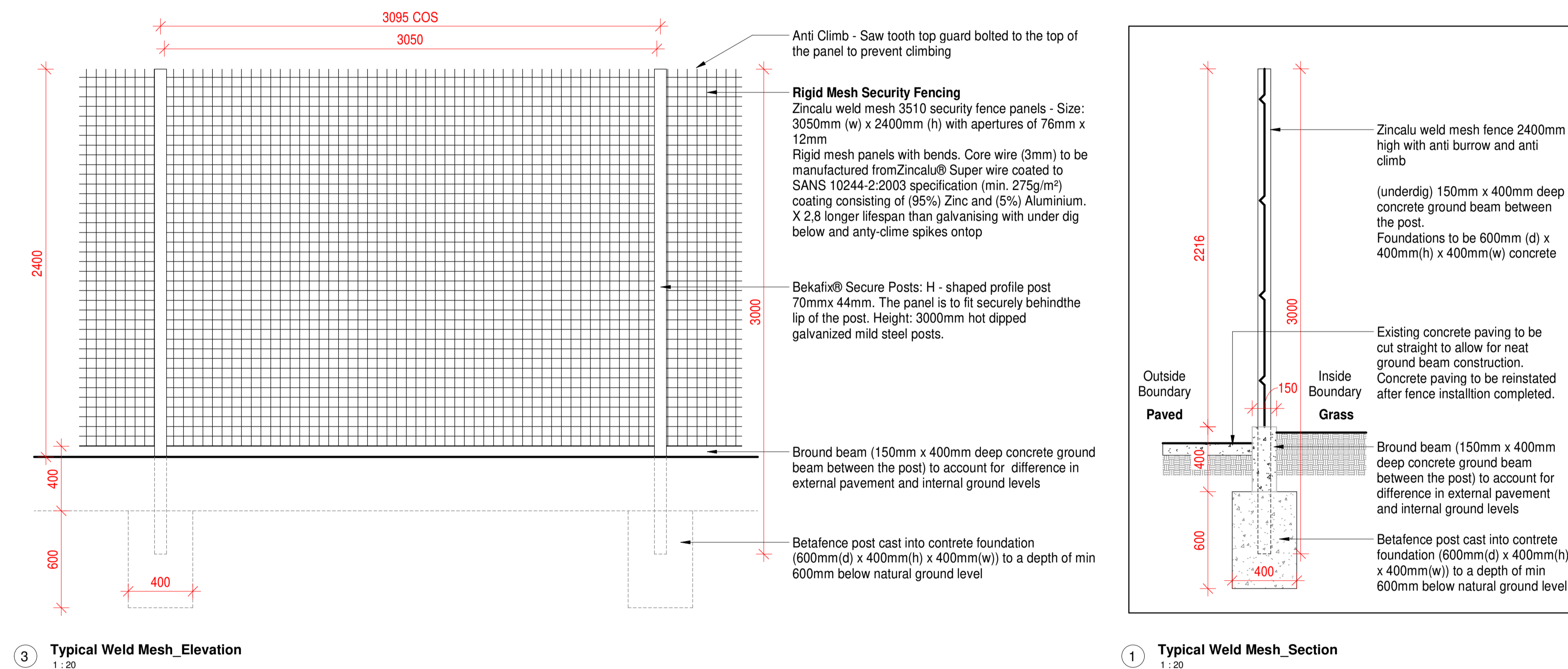
Note:

Existing brick walls and foundations to be demolished and removed from site and new Betafence installed.

Install new Betafence premeter fence as per site plan and specification on drawing 305-026 SIT-001

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No.	Description	Date
1	Remove Trade Names	27-10-2023

PROJECT:
 PORT ELIZABETH PROVINCIAL HOSPITAL
 Boundary Wall Replacement

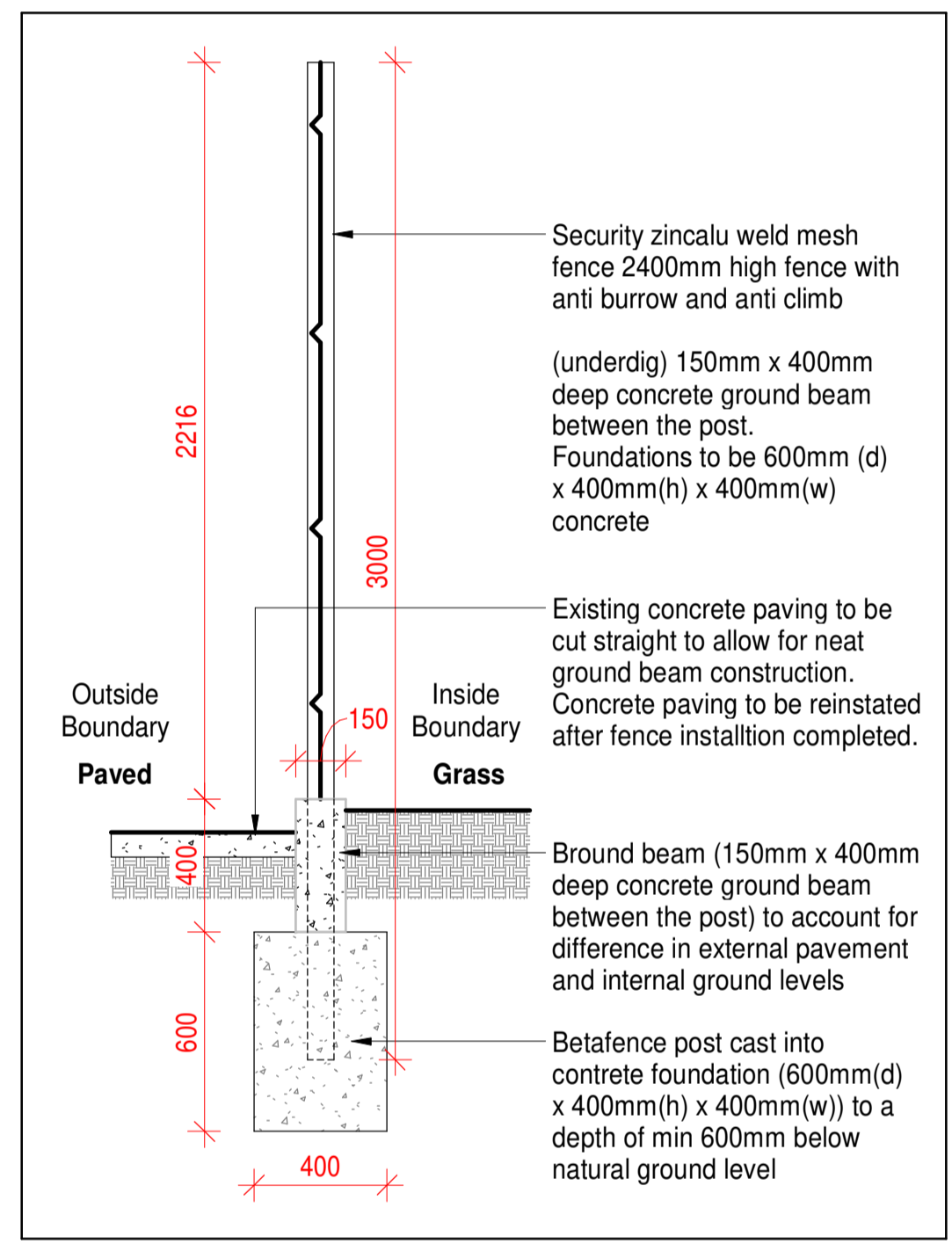
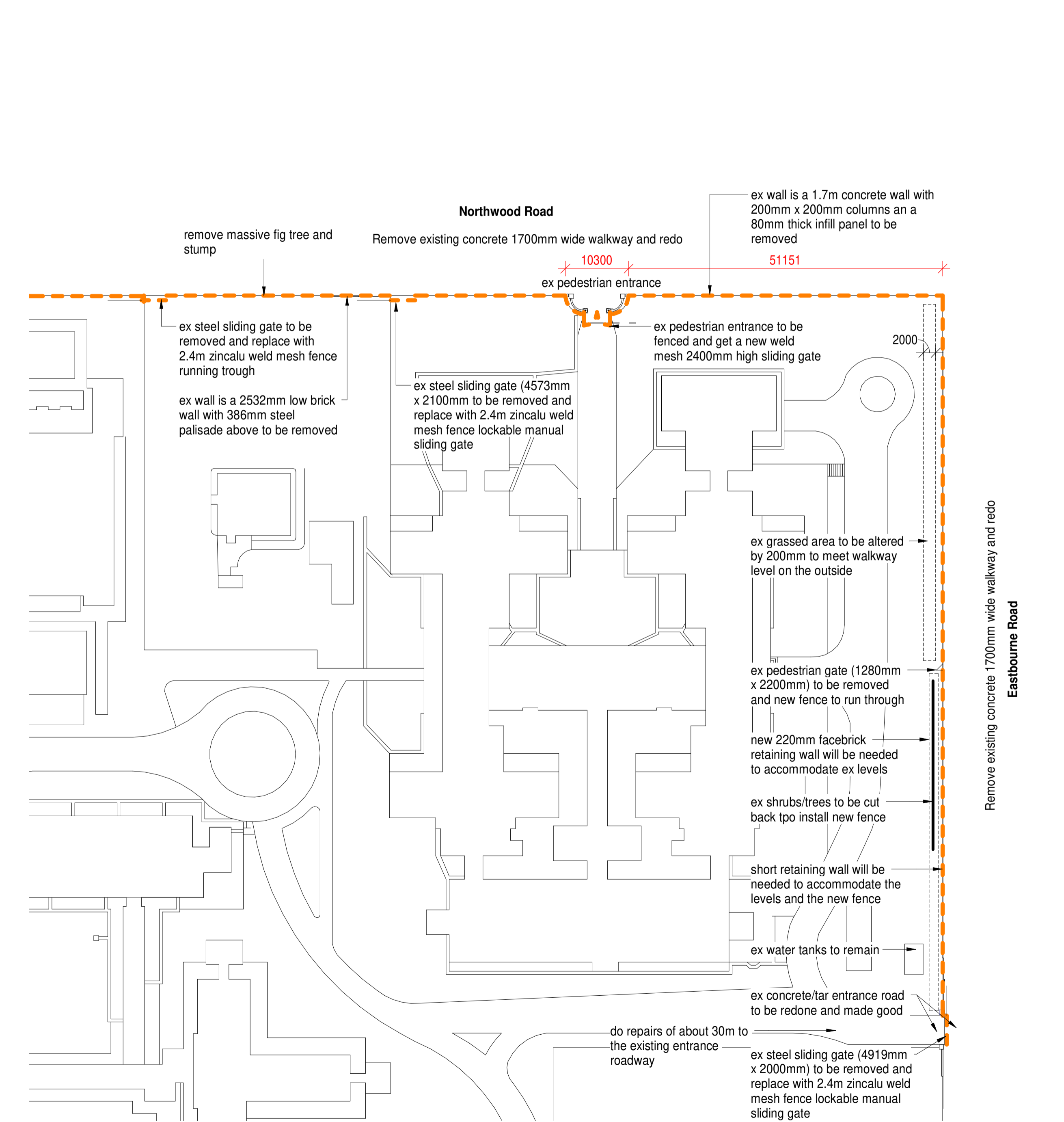
TITLE:
 North Wall - Northwood Road

Scale	As indicated
Date:	02 November 2023
Drawn by:	J Thomson
Designer:	-
Professional Architect:	B Brinkman
Checked by:	B Binkman

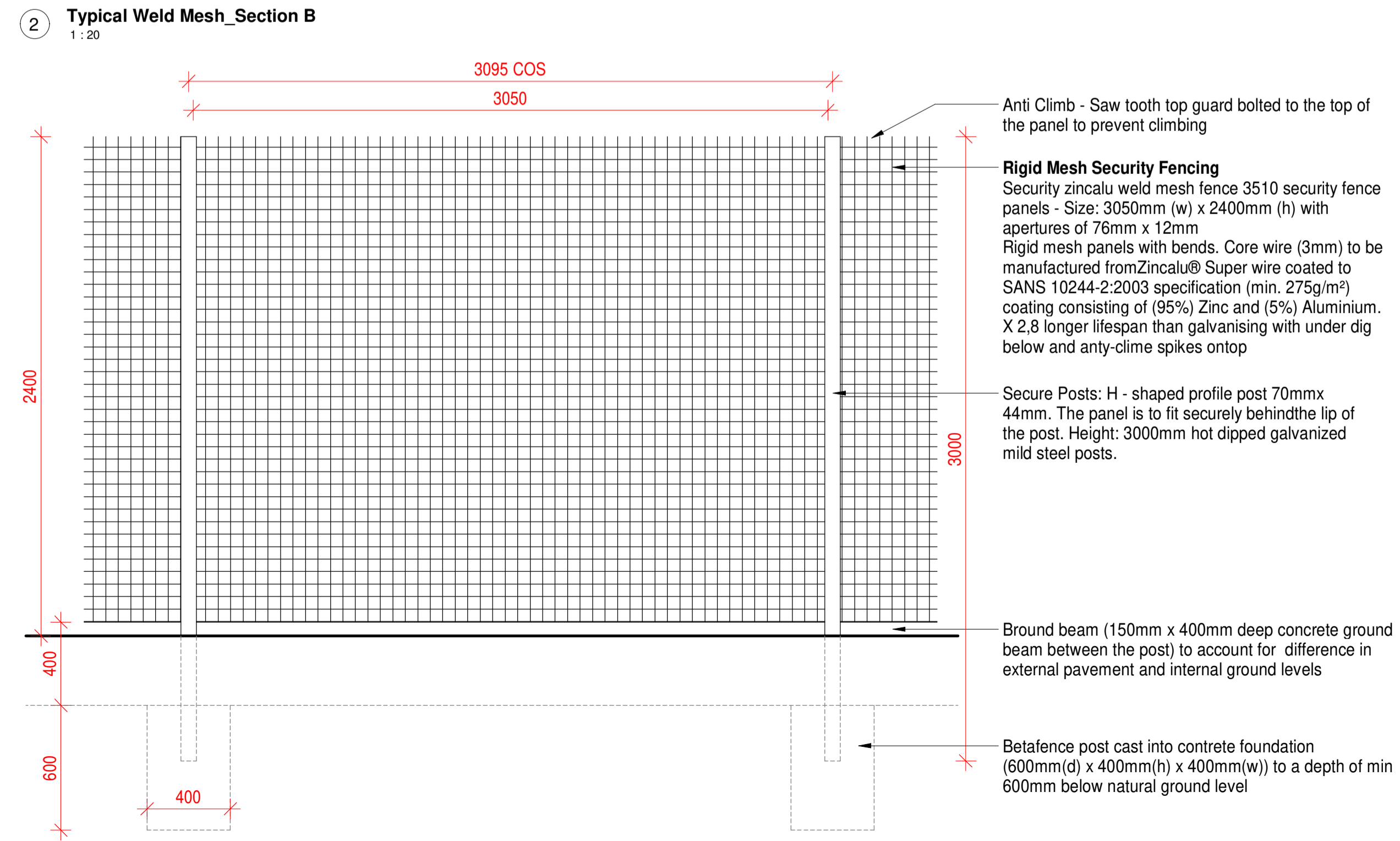
DWG No: SIT-005

FOR TENDER ONLY
 REV: 1

Photos of Existing Condition



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 Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations.



1 Site_North Wall_Northwood Road_Part 2 1:500

2 Typical Weld Mesh_Section B 1:20

3 Typical Weld Mesh_Elevation A 1:20



b4 Architects cc
Resuscitating Healthcare Design

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 Walmer, Port Elizabeth, 6070
 Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
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No.	Description	Date
1	Remove Trade Names	27-10-2023

PROJECT: PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement

TITLE: North Wall & East Wall - Northwood & Eastbourne Road

Scale: As indicated

Date: 02 November 2023

Drawn by: PV

Designer: PV

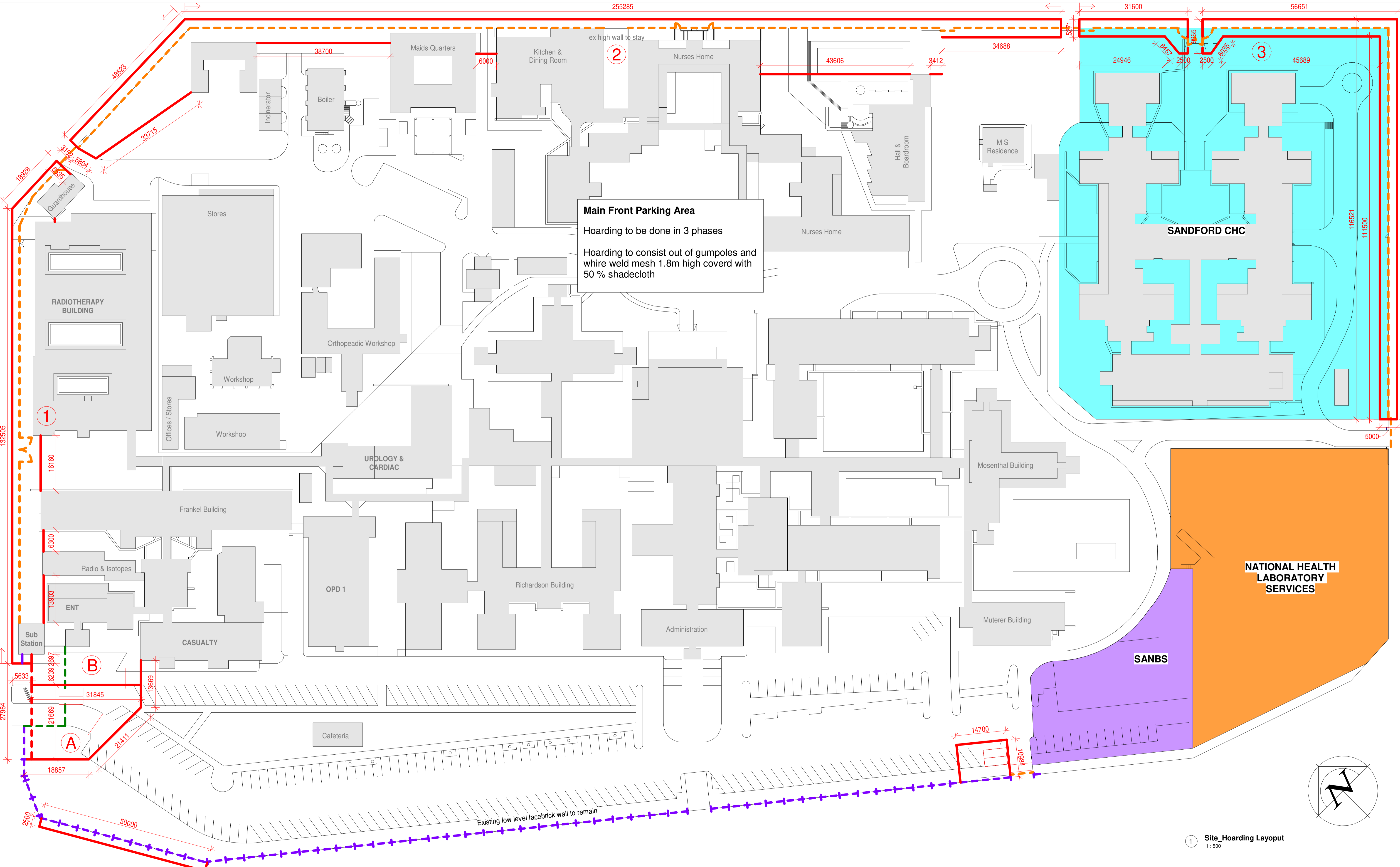
Professional Architect: BB

Checked by: BB

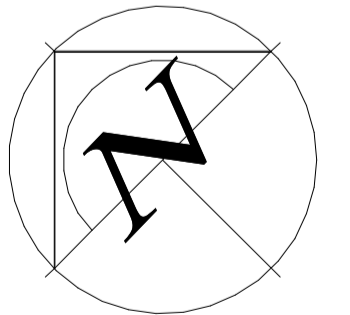
DWG No: SIT-006

FOR TENDER ONLY

REV: 1



Main Front Parking Area
 Hoarding to be done in 3 phases
 Hoarding to consist out of gum poles and whire weld mesh 1.8m high cover with 50 % shadecloth



① Site Hoarding Layoput
 1 : 500

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Resuscitating Healthcare Design

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 Walmer, Port Elizabeth, 6070
 Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban
 Westville, Durban, 3630
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No.	Description	Date

PROJECT:

PORT ELIZABETH PROVINCIAL HOSPITAL

Boundary Wall Replacement

Date: 02 November 2023

Scale:	1 : 500
Drawn by:	PHV
Designer:	BB
Professional Architect:	BB
Checked by:	BB

TITLE: Hoarding Drawing

B4 Ref No.: 305-026
Architect DWG No.: SIT-007

FOR TENDER ONLY

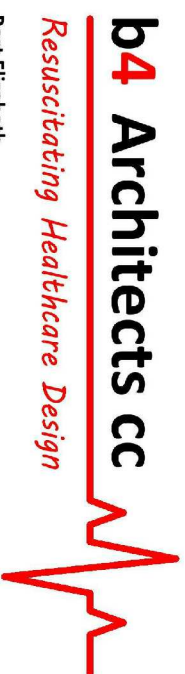
REV:

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PORT ELIZABETH PROVINTIAL HOSPITAL

305-026 : BOUNDARY FENCING AND GUARDHOUSE

Window Schedule



Port Elizabeth

PO Box 5690, Walmer, Port Elizabeth, 6065

Unit 12 , Bloomingdales Office Park, 34 Ninth Avenue,

Walmer, Port Elizabeth, 6070

Tel: 041 581 1217 E-mail: b4.pe@b4arch.co.za

Durban

1 Tamarine Close, Sunningdale, Umhlanga, 4139

Tel: 082 828 6443 E-mail: b4.kzn@b4arch.co.za



Sakhawo
health solutions



No.	Description	Date
1	As per Issued for Tender	27-10-2023

PROJECT: **PEPH**

Boundary Wall Replacement

TITLE: **Window Type A**

Scale: **1 : 20**

Date: **16 October, 2023**

Drawn by: **PHV**

Designer: **ET**

Professional Architect: **BB**

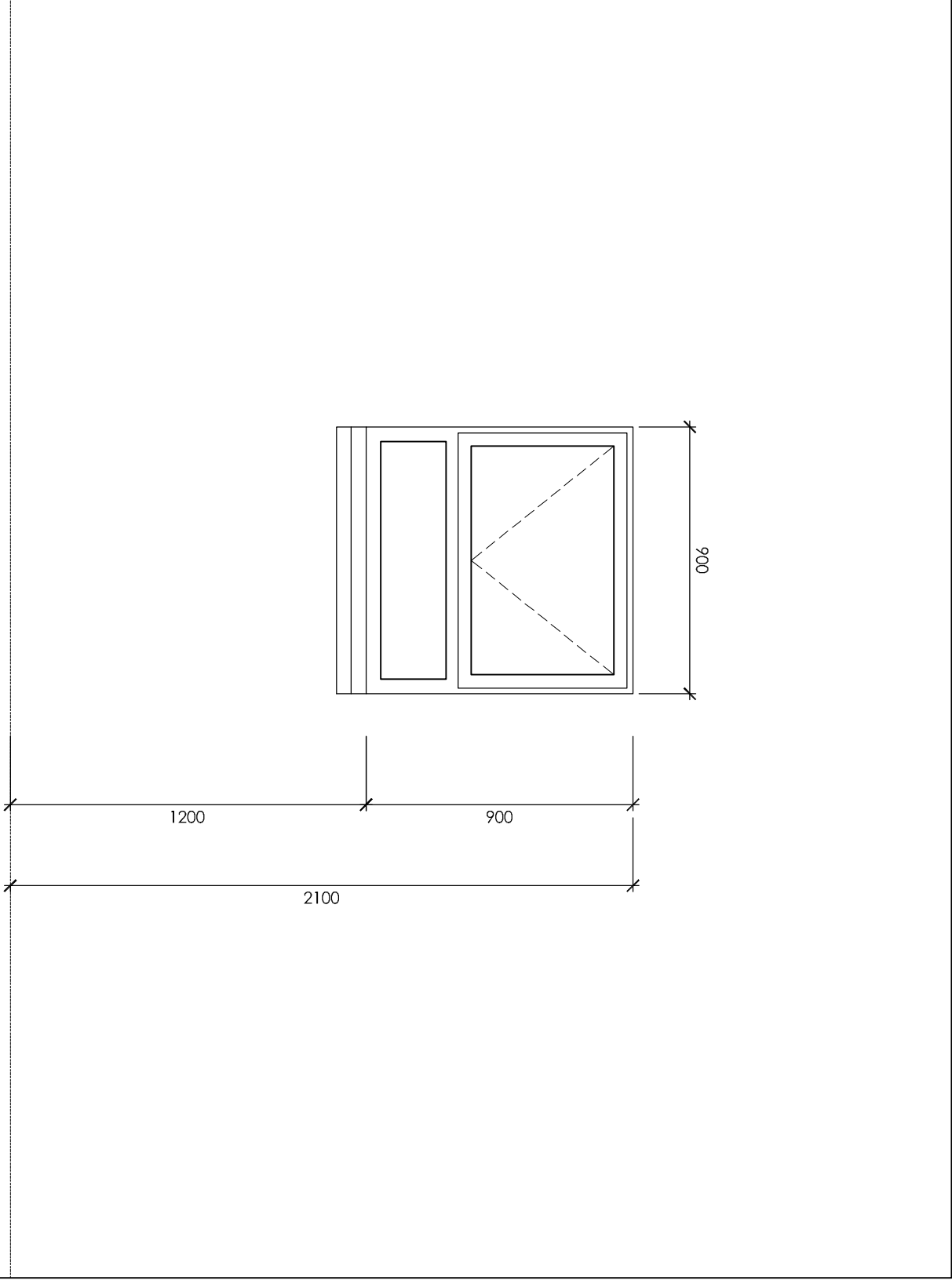
Checked by: **BB**

DWG No: **305-026 WIN-01**

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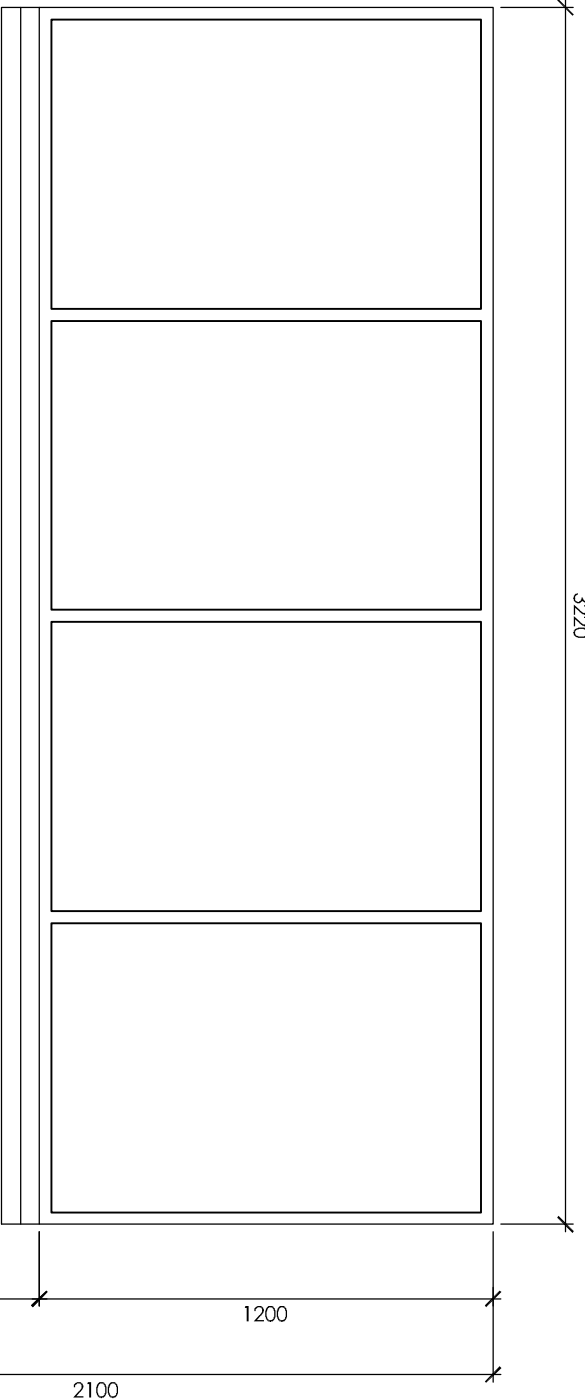
WINDOW TYPE A

WINDOW NOS	W05
QUANTITY	01
DESCRIPTION	900 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deciccont



No.	Description	Date
1	Added description	27/10/2023

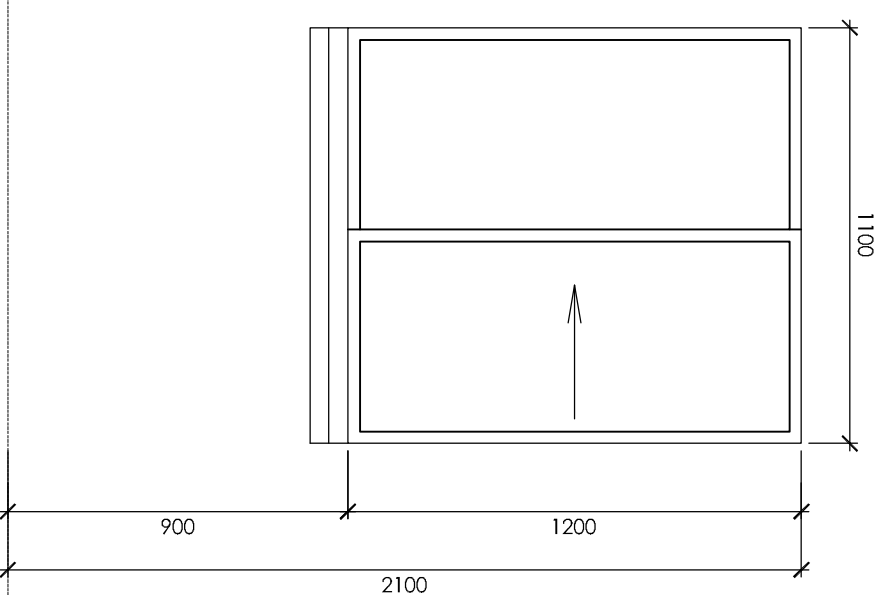
WINDOW TYPE B



WINDOW NOS	WO2
QUANTITY	02
DESCRIPTION	3220 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with Defender Slays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and decorative

WINDOW TYPE C

WINDOW NO'S	W01
QUANTITY	01
DESCRIPTION	1100 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deciccant



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Tel: (041) 591 1217 Email: b4_arch@b4arch.co.za
Durban
1 Tamaraire Close, Sunningdale, Umhlanga, 4139
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REVISIONS :

No.	Description	Date
1	As per design	27/10/2023
2	Window size change	31/10/2023

PROJECT:
PEPH
Boundary Wall Replacement

TITLE:
Window Type C

Scale
1 : 20

Date:
19 October, 2023

Drawn by:
PHV

Designer:
ET

Professional Architect:
BB

Checked by:
BB

DWG No:
305-026 WIN-03

FOR TENDER ONLY

REV
2

No.	Description	Date
1	Issue for tender	27-10-2023

PROJECT:
PEPH
Boundary Wall Replacement

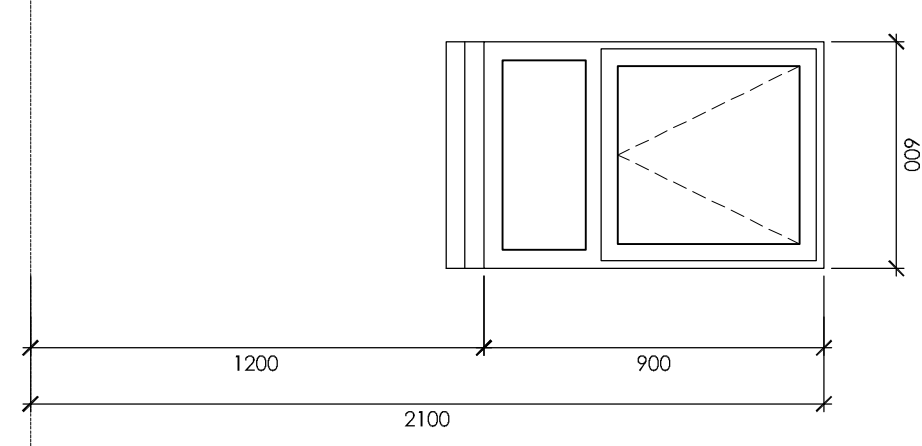
TITLE:
Window Type D

Scale
1 : 20
Date:
19 October, 2023
Drawn by:
PHV
Designer:
ET
Professional Architect:
BB
Checked by:
BB

DWG No:
305-026 WIN-04
FOR TENDER ONLY
REV 1

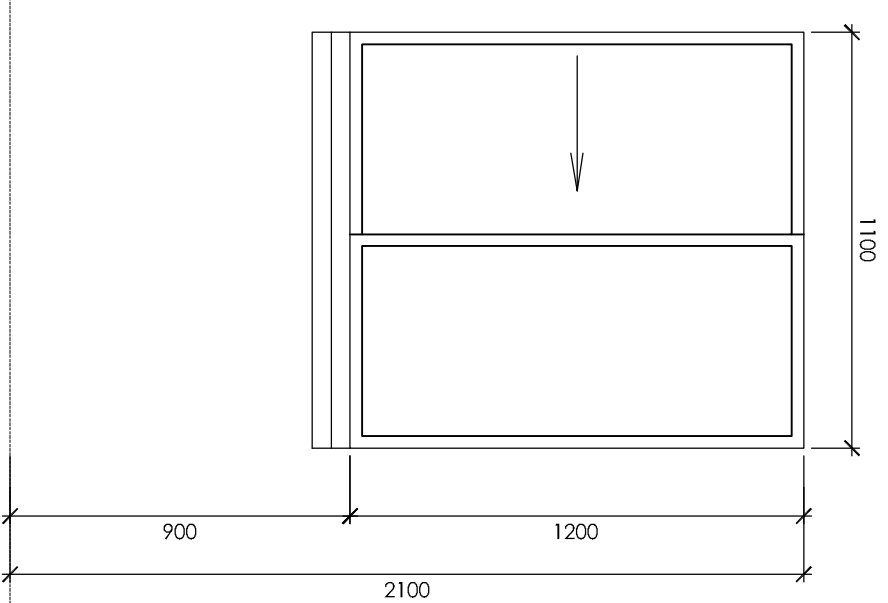
WINDOW TYPE D

WINDOW NOS	W04
QUANTITY	02
DESCRIPTION	600 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deiccant



WINDOW TYPE E

WINDOW NOS	W01
QUANTITY	01
DESCRIPTION	1030 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deccant



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No.	Description	Date
1	Client Request	27-10-2023
2	Final Site Change	31-10-2023

PROJECT: PEPH
Boundary Wall Replacement

TITLE: Window Type E

Scale: 1 : 20

Date: 19 October, 2023

Drawn by: PHV

Designer: ET

Professional Architect: BB

Checked by: BB

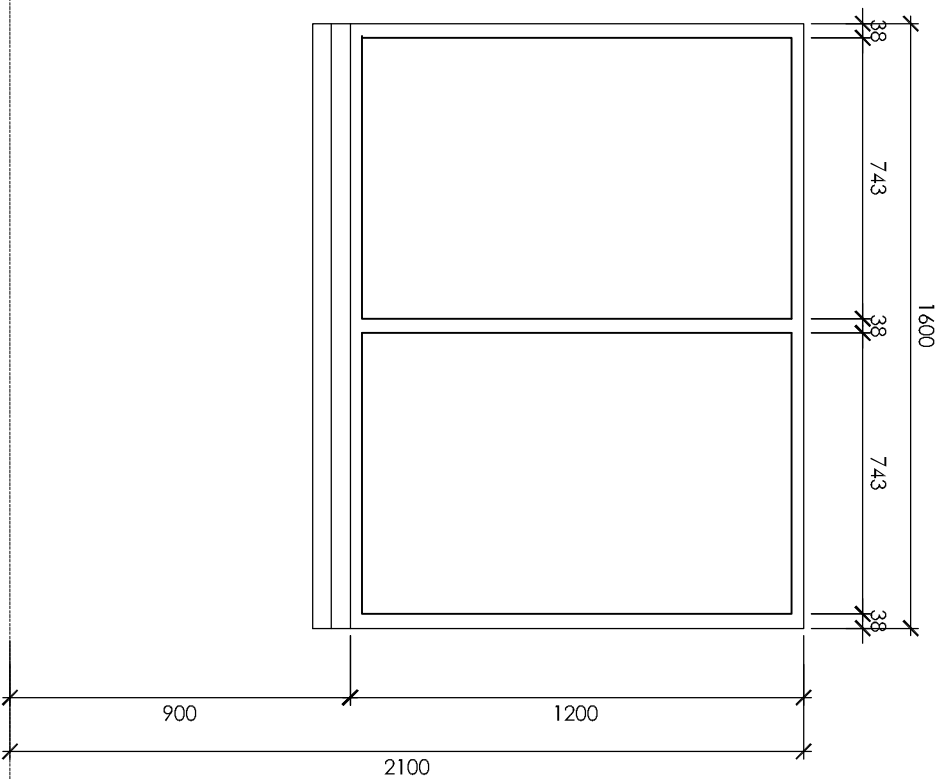
DWG No: **305-026 WIN-05**

FOR TENDER ONLY

REV 2

WINDOW TYPE F

WINDOW NOS	W03
QUANTITY	01
DESCRIPTION	1600 x 1200 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	38 Casement with aluminium sections defender stays
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and decicant



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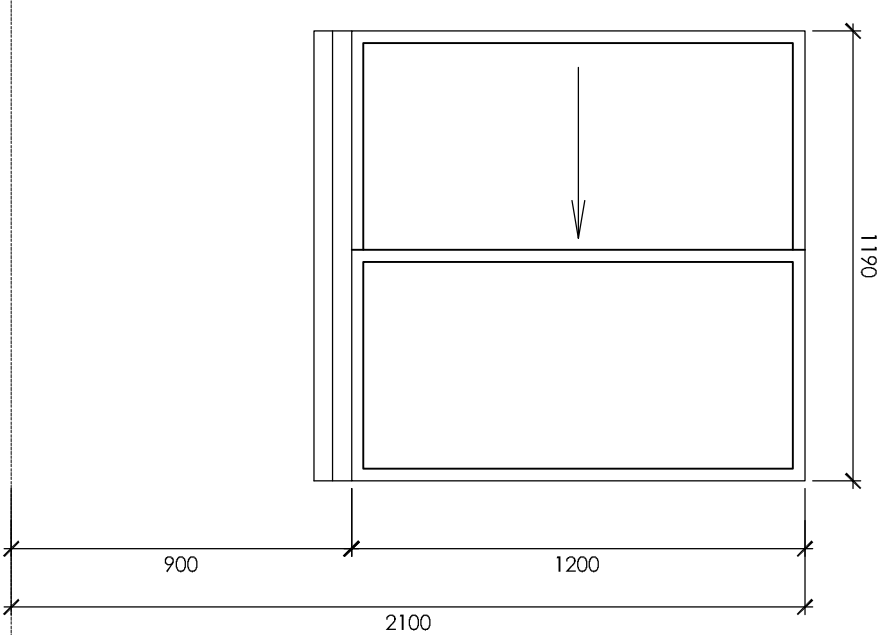
IF IN DOUBT PLEASE ASK

No.	Description	Date
1	Issue description	27-10-2023

FOR TENDER ONLY

WINDOW TYPE G

WINDOW NOS	W06
QUANTITY	01
DESCRIPTION	1030 x 1200 Aluminium framed window with NO opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deiccant



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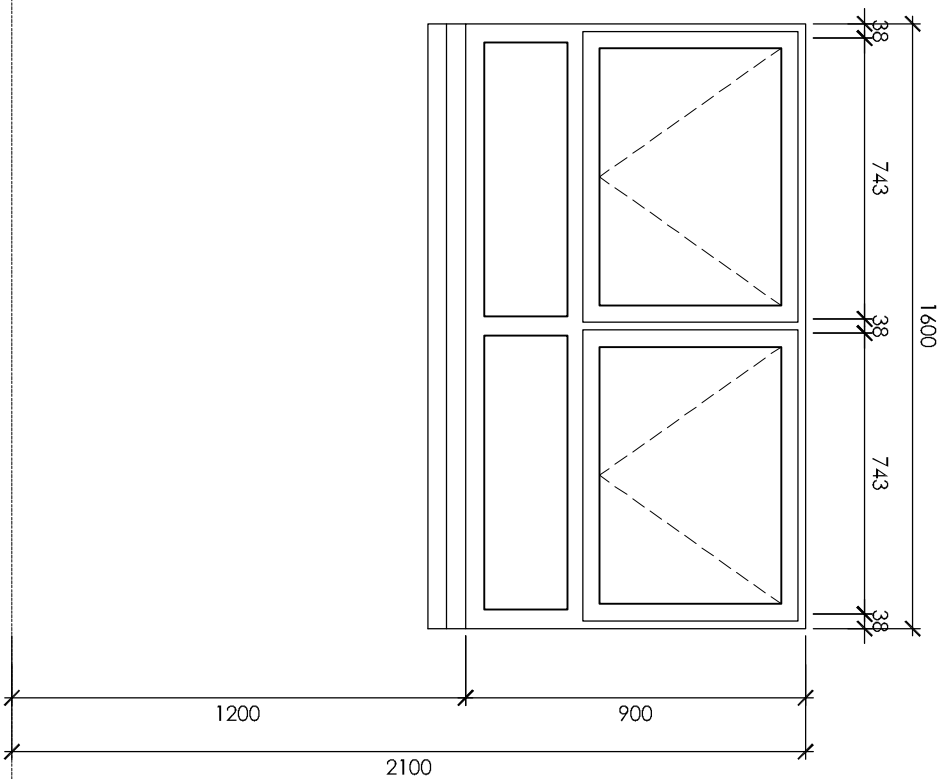
No.	Description	Date
1	Issue description	27/10/2023

FOR TENDER ONLY

REV

WINDOW TYPE H

WINDOW NOS	W07
QUANTITY	01
DESCRIPTION	1600 x 900 Aluminium framed window with top hung opening sections as shown
FRAME	Aluminium double glazed window frame
FRAME TYPE	HBS 900 Series slider system
FINISH	White Powder Coat
GLAZING	2 x 6.4mm Laminated safety glass as double glazing with spacer and deccant



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No.	Description	Date
1	New Window Type	31-01-2023

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REV

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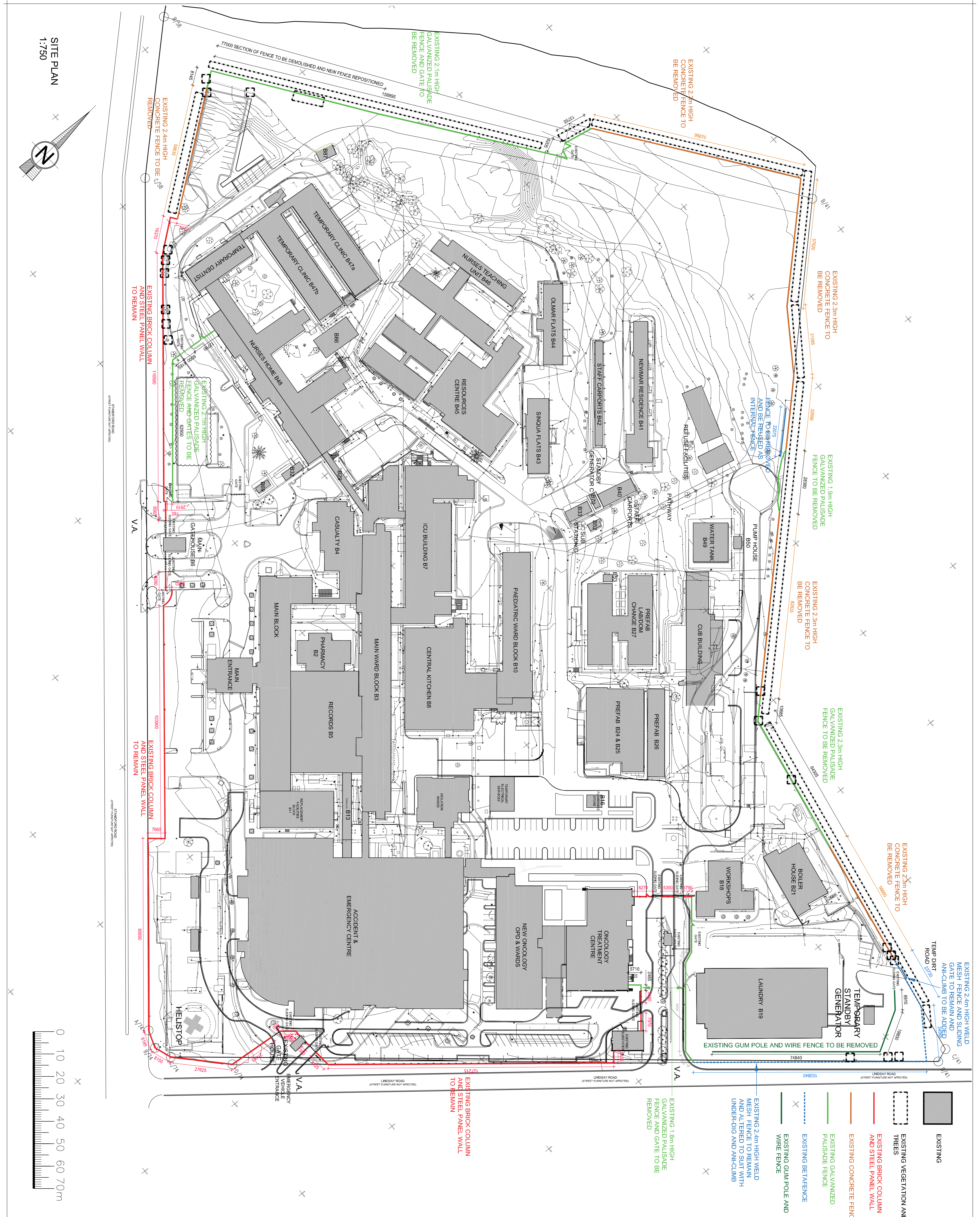
REVISIONS:

No.	Description	Date
1	Notes and fence codes	06-11-2023
2	Remove gate note	10-11-2023

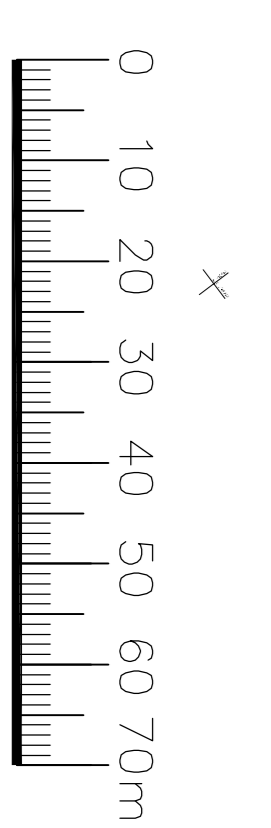
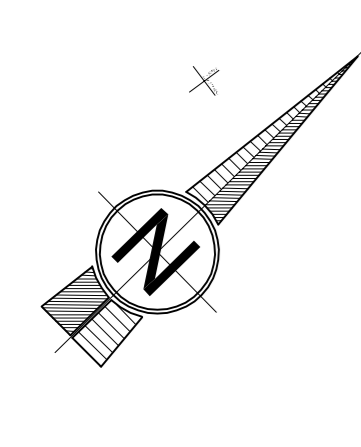
LIVINGSTONE HOSPITAL
EXISTING FENCE LAYOUT

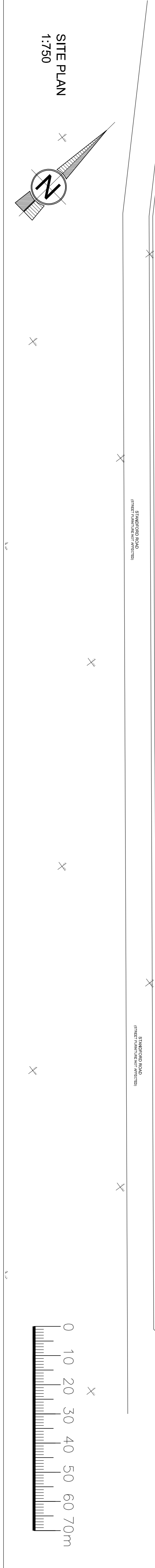
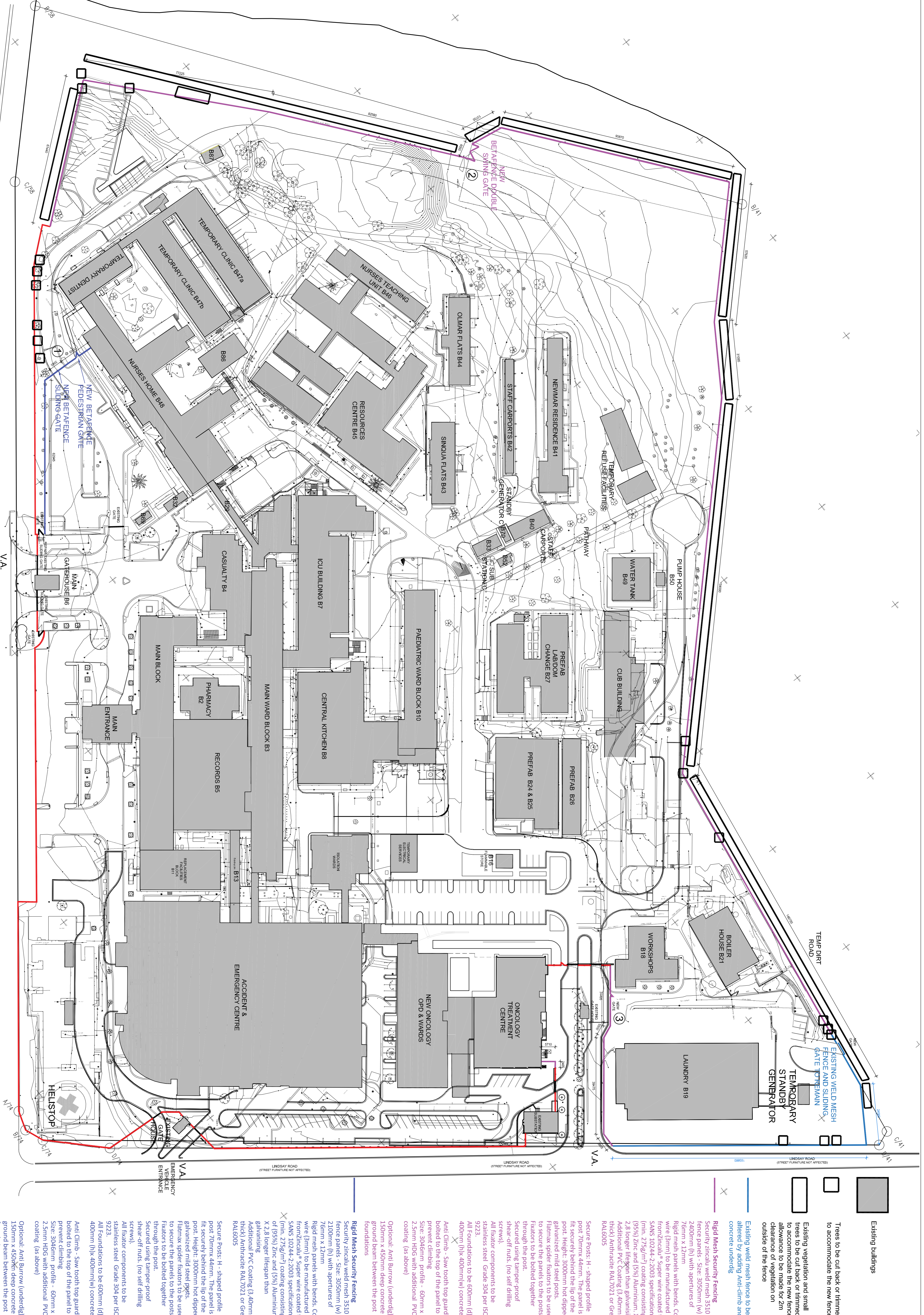
TITLE:	Site Layout Existing Fence Layout
PROJECT:	LIVINGSTONE HOSPITAL EXISTING FENCE LAYOUT
Scale	1:750
Date:	22 SEPTEMBER 2023
Drawn by:	PHV
Designer:	Bryan Brikman
Professional Architect:	Bryan Brikman
Checked by:	Bryan Brikman
B4 Project Ref No.:	314-013
DWG No.:	314-013-S001

REV:	DESCRIPTION
2	FOT TENDER ONLY



SITE PLAN
1:750





REVISIONS:

No.	Description	Date
1	New updated plans and elevations	06-11-2023

PROJECT:

LIVINGSTONE HOSPITAL
PROPOSED NEW FENCE GATES

TITLE:
Site Layout
New Gates Layout Information

Scale
1:100 & 1:50

Date:
22 SEPTEMBER 2023

Drawn by:
PHV

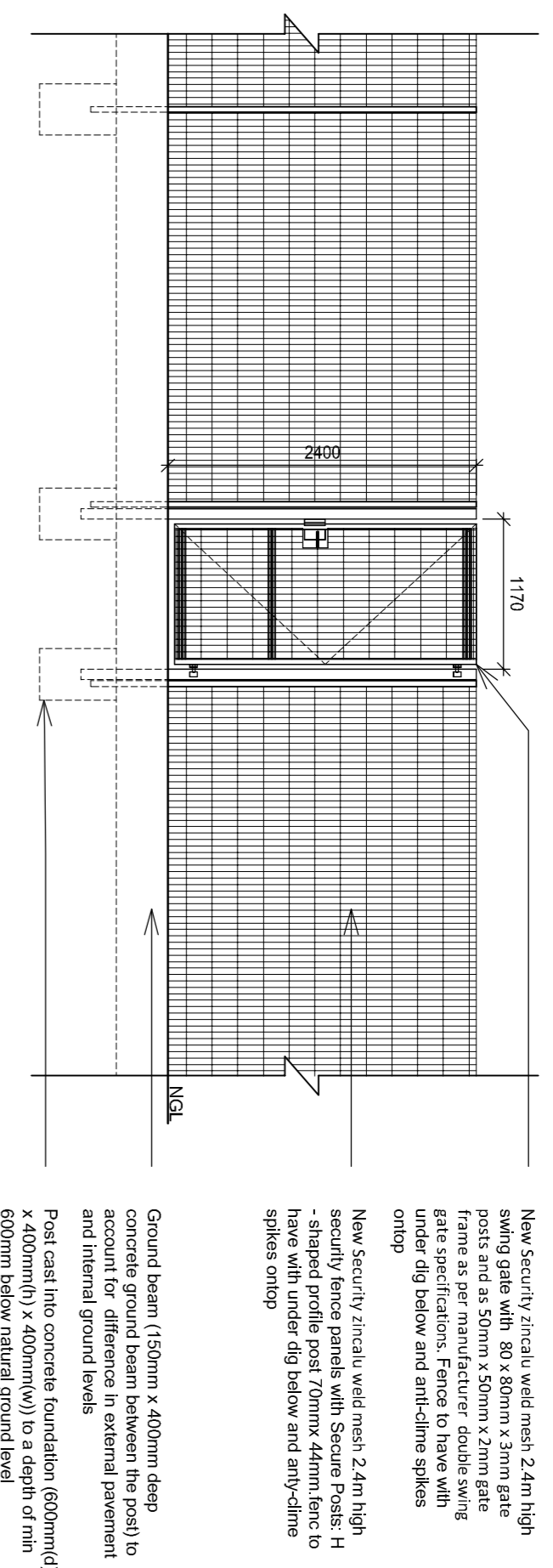
Designer:
Bryan Brinkman

Professional Architect:
Bryan Brinkman

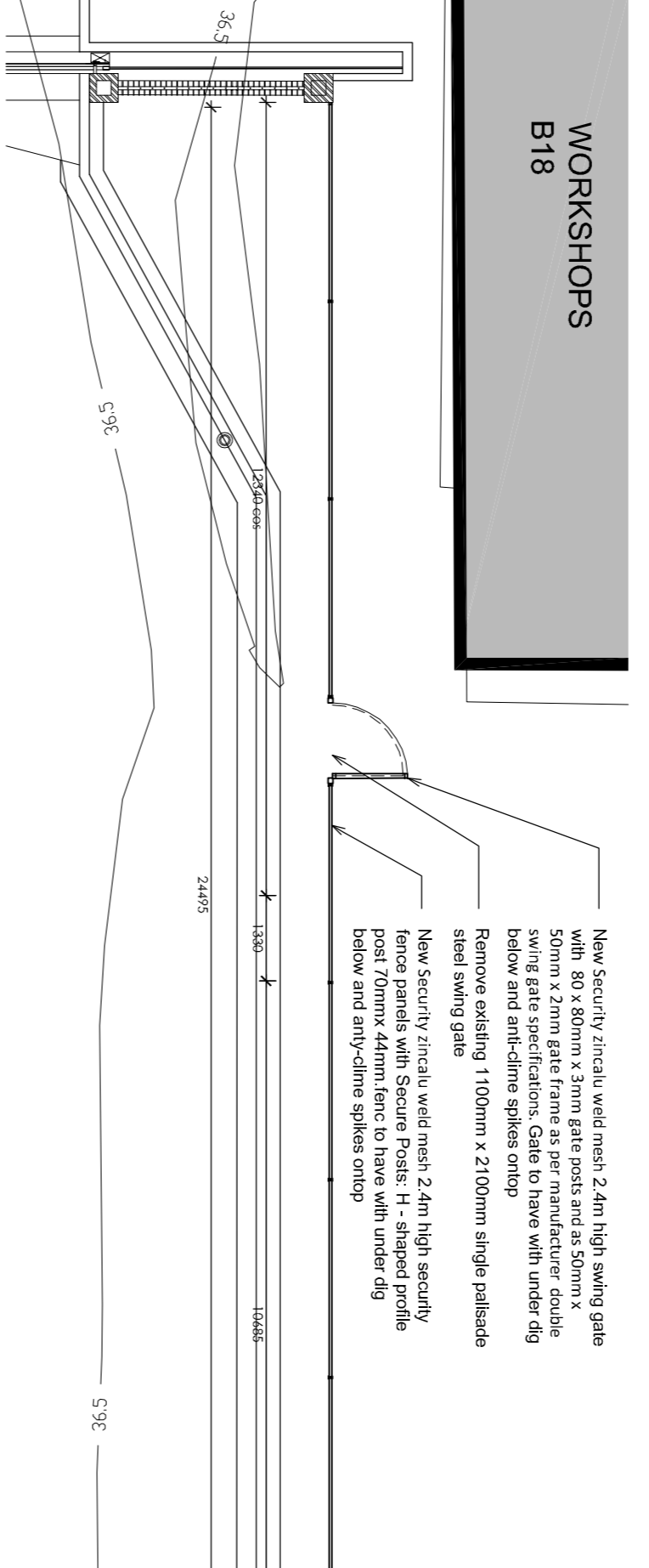
Checked by:
Bryan Brinkman

B4 Project Ref No.:
314-013

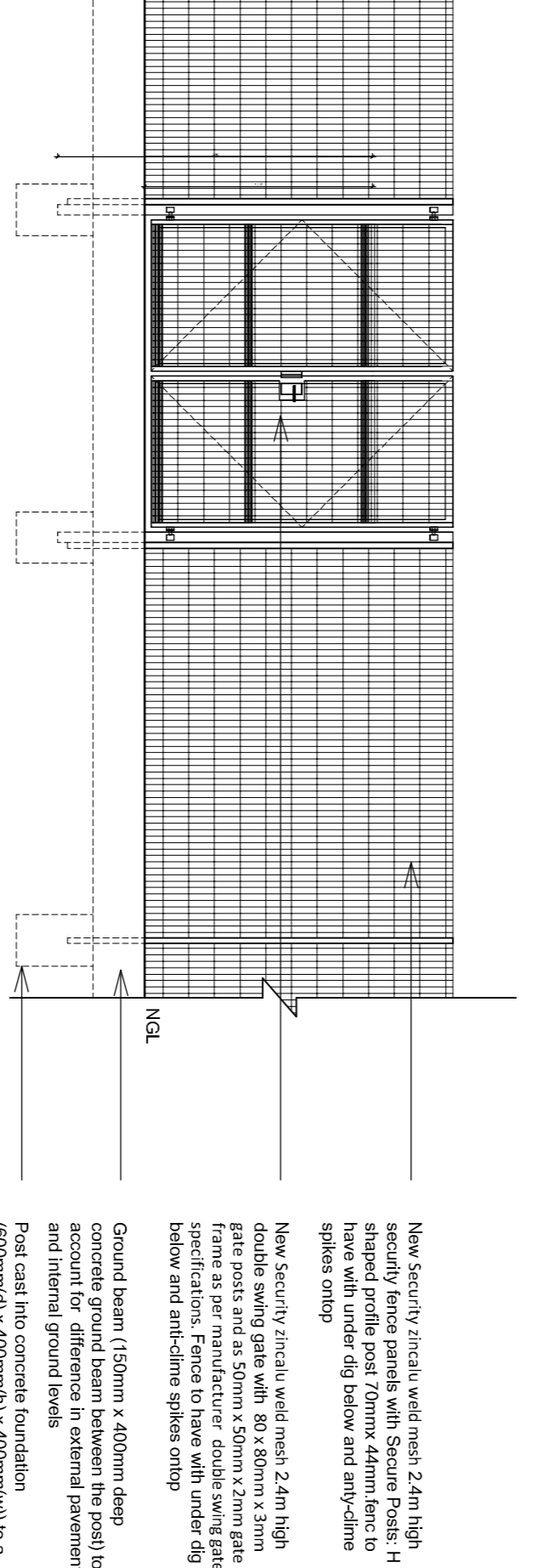
DMG No.:
314-013-003



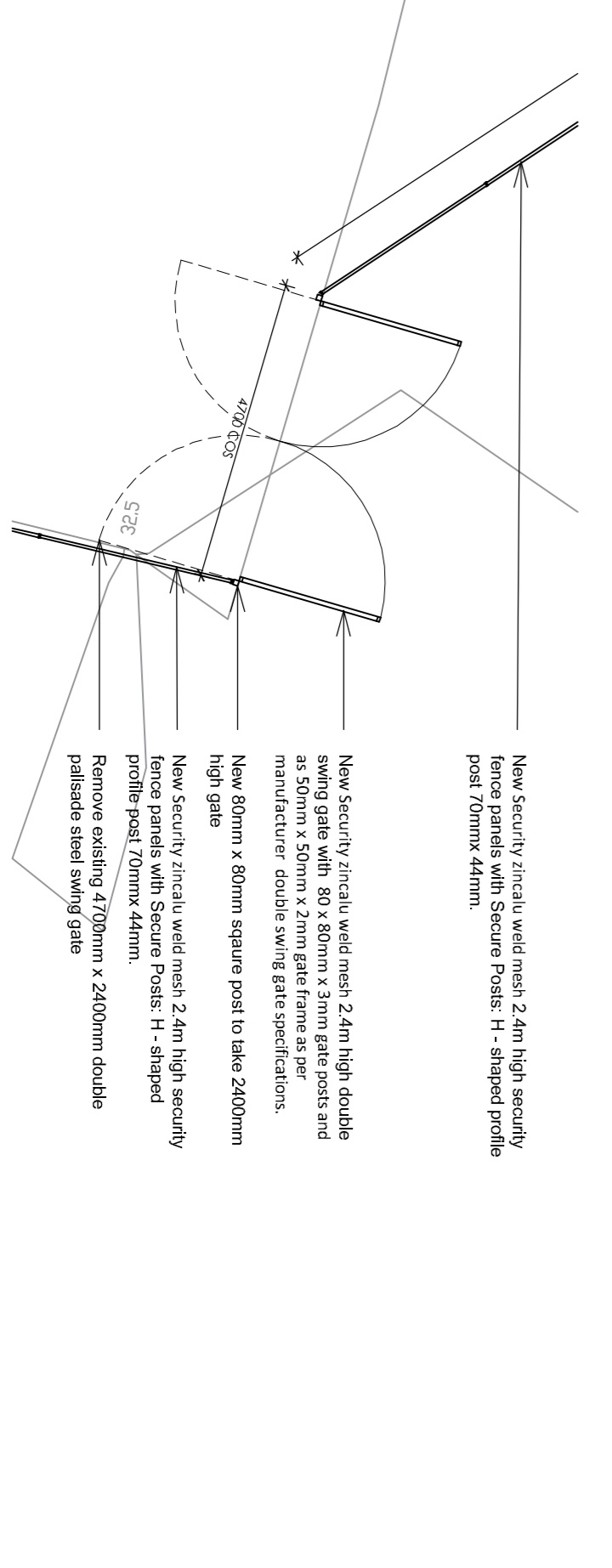
3. New single swing gate elevation
SCALE 1:150



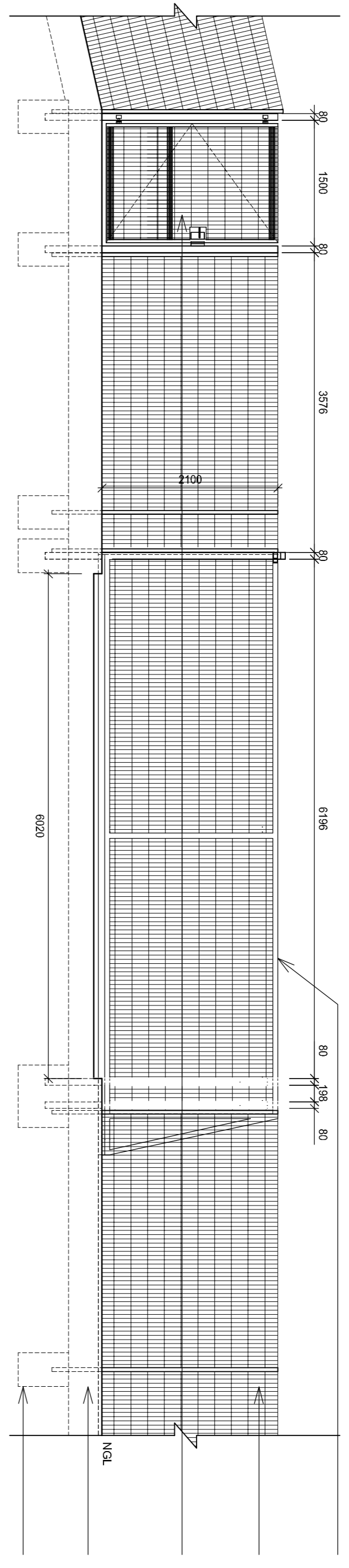
3. New single swing gate plan
SCALE 1:100



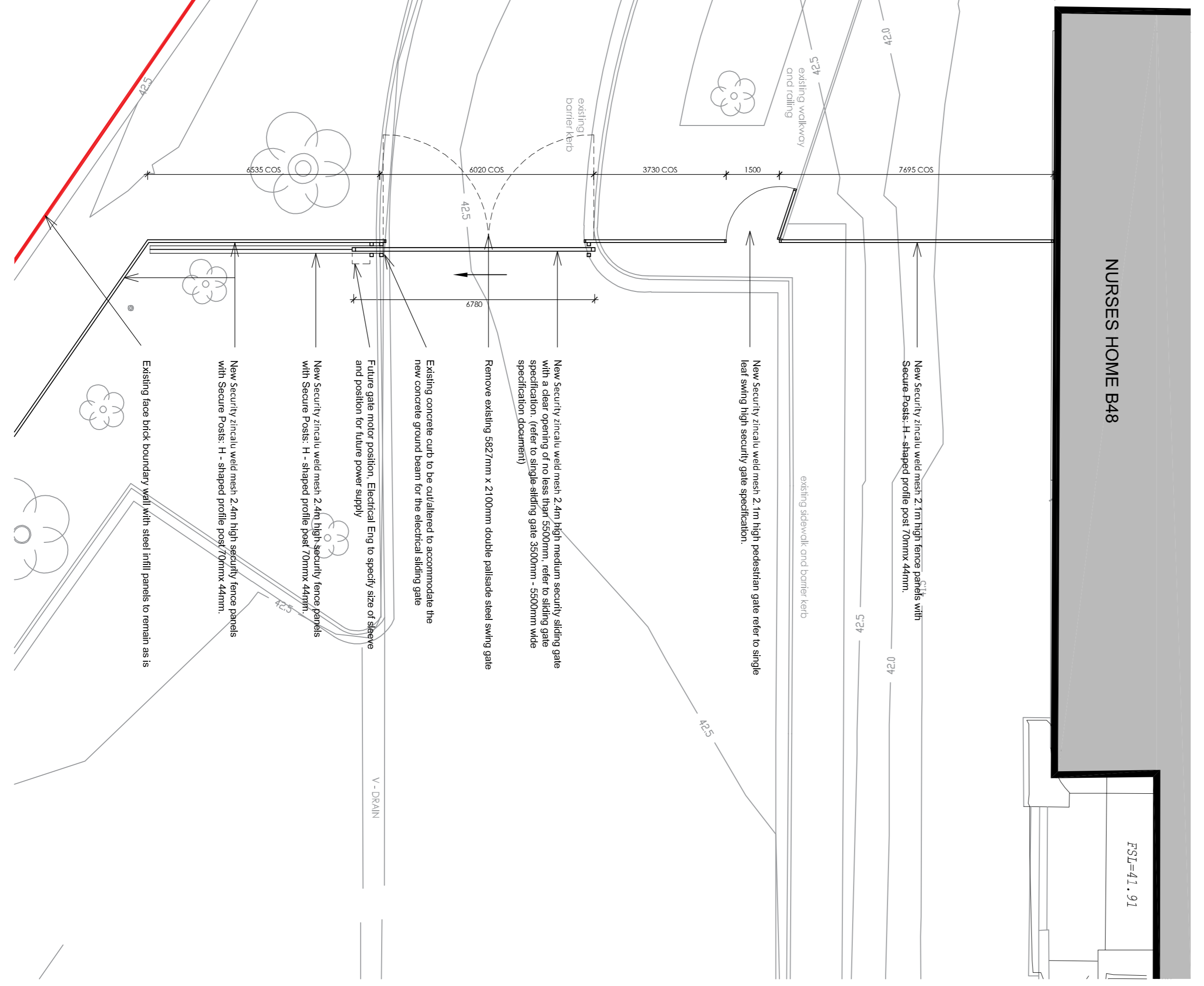
2. New double swing gate elevation
SCALE 1:50



2. New double swing gate plan
SCALE 1:100



1. New sliding and pedestrian gate elevation
SCALE 1:30



1. New sliding and pedestrian gate plan
SCALE 1:100

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No.	Description	Date

LIVINGSTONE HOSPITAL
PROPOSED NEW FENCE LAYOUT

PROJECT:
Site Layout
New Hoarding Plan

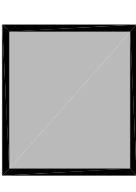








TITLE:
Site Layout
New Hoarding Plan

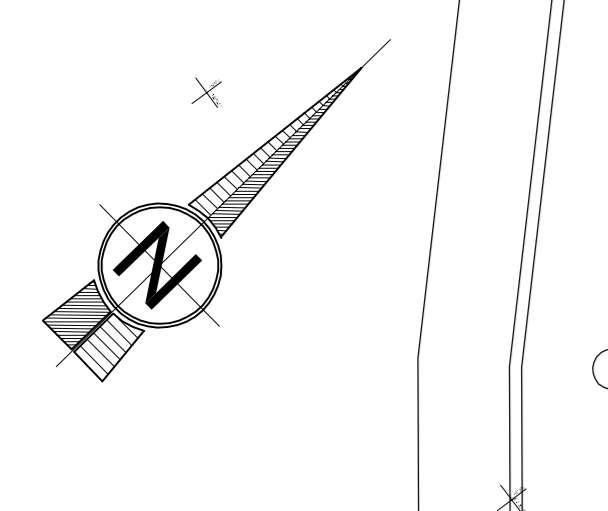
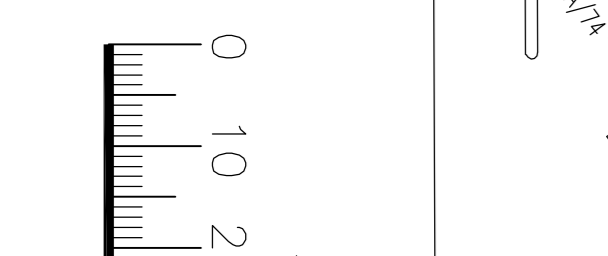
Scale: 1:750
Date: 10 NOVEMBER 2023
Drawn by: PHV
Designer: Bryan Brikman
Professional Architect: Bryan Brikman

Checked by: Bryan Brikman
B4 Project Ref No.: 314-013

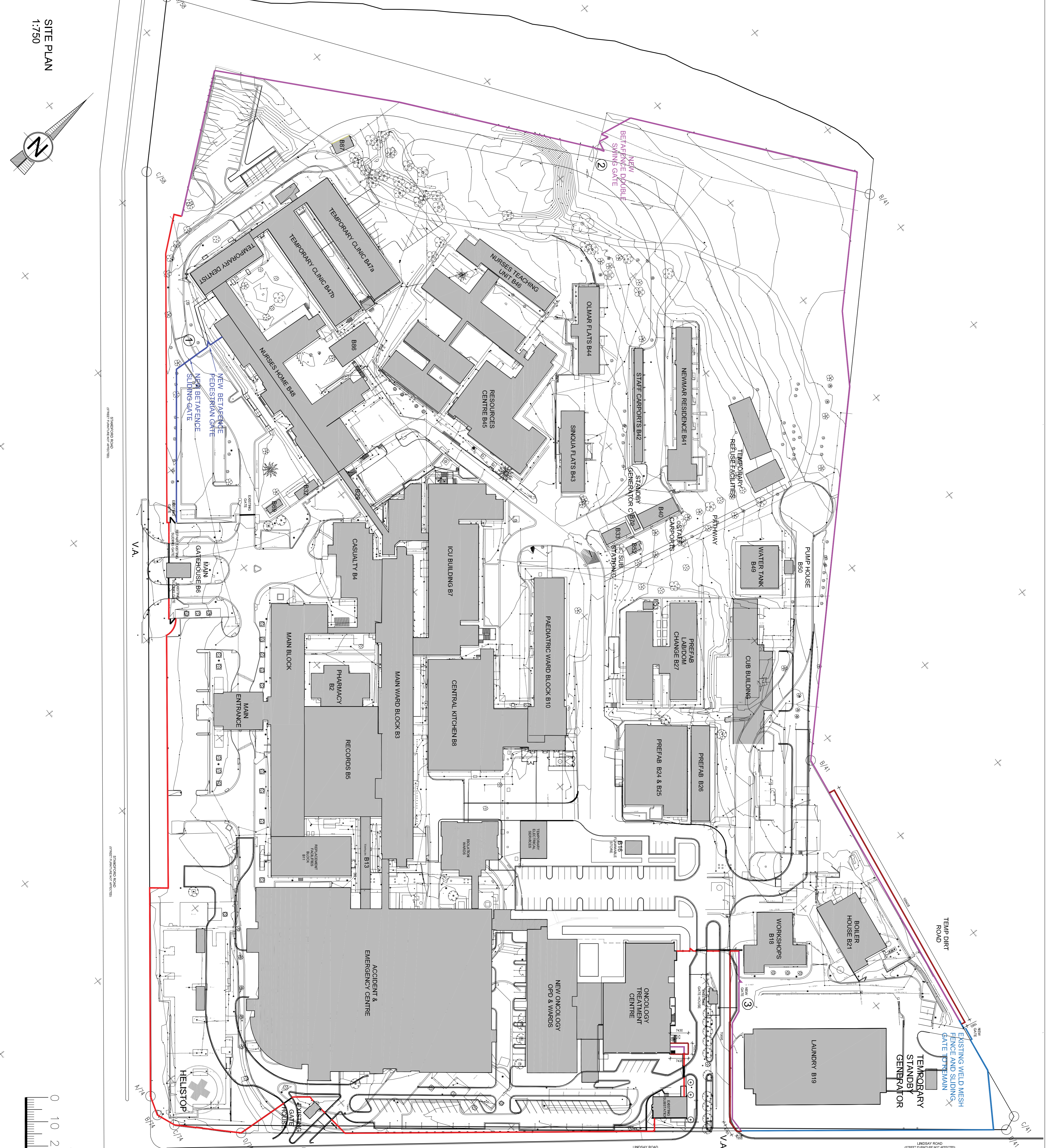
DWG No.: 314-013-S004
FOT TENDER ONLY

REV: -

-  Existing buildings
-  Hoarding to consist out of gum poles and wire mesh 1.8m high covered with 50% shade cloth
-  Existing weld mesh fence to be altered by adding Anti-climb and concrete underlig
-  Rigid Mesh Security Fencing
Security zincalu weld mesh 3510 fence panels - Size: 3050mm (W) x 2400mm (H) with apertures of 76mm x 12mm
Rigid mesh panels with bends. Core wire (3mm) to be manufactured from zincalu. Super wire coated to (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2.5 longer lifespan than galvanising
Additional PVC coating (3.40mm thick) Antiradiate RAL7021 or Green RAL6005
-  Secure Posts: H - shaped profile post 70mm x 40mm. The panel is to fit securely behind the lig of the post. Height: 3000mm hot dipped galvanised mild steel posts.
Fintax: spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
Secured using tamper-proof shear-off nuts. (no self-drilling screws).
All fixator components to be stainless steel Grade 304 per ISO 9223.
All Foundations to be 600mm (d) x 400mm (h) x 400mm (w) concrete.
-  Anti Climb - Saw tooth top blurd bolted to the top of the panel to prevent climbing
Size: 3060mm profile - 60mm x 23mm HDG with additional PVC coating (as above)
Optional: Anti Burrow (underdig) 150mm x 450mm deep concrete ground beam between the post foundations
-  Secure Posts: H - shaped profile post 70mm x 40mm. The panel is to fit securely behind the lig of the post. Height: 3000mm hot dipped galvanised mild steel posts.
Fintax: spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
Secured using tamper-proof shear-off nuts. (no self-drilling screws).
All fixator components to be stainless steel Grade 304 per ISO 9223.
All Foundations to be 600mm (d) x 400mm (h) x 400mm (w) concrete.
-  Rigid Mesh Security Fencing
Security zincalu weld mesh 3510 fence panels - Size: 3050mm (W) x 2100mm (H) with apertures of 76mm x 12mm
Rigid mesh panels with bends. Core wire (3mm) to be manufactured from zincalu. Super wire coated to (min. 275g/m²) coating consisting of (95%) Zinc and (5%) Aluminium. X 2.8 longer lifespan than galvanising
Additional PVC coating (3.40mm thick) Antiradiate RAL7021 or Green RAL6005
-  Secure Posts: H - shaped profile post 70mm x 40mm. The panel is to fit securely behind the lig of the post. Height: 3000mm hot dipped galvanised mild steel posts.
Fintax: spider fixators to be used to secure the panels to the posts. Fixators to be bolted together through the post.
Secured using tamper-proof shear-off nuts. (no self-drilling screws).
All fixator components to be stainless steel Grade 304 per ISO 9223.
All Foundations to be 600mm (d) x 400mm (h) x 400mm (w) concrete.



SITE PLAN
1:750



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No.	Description	Date

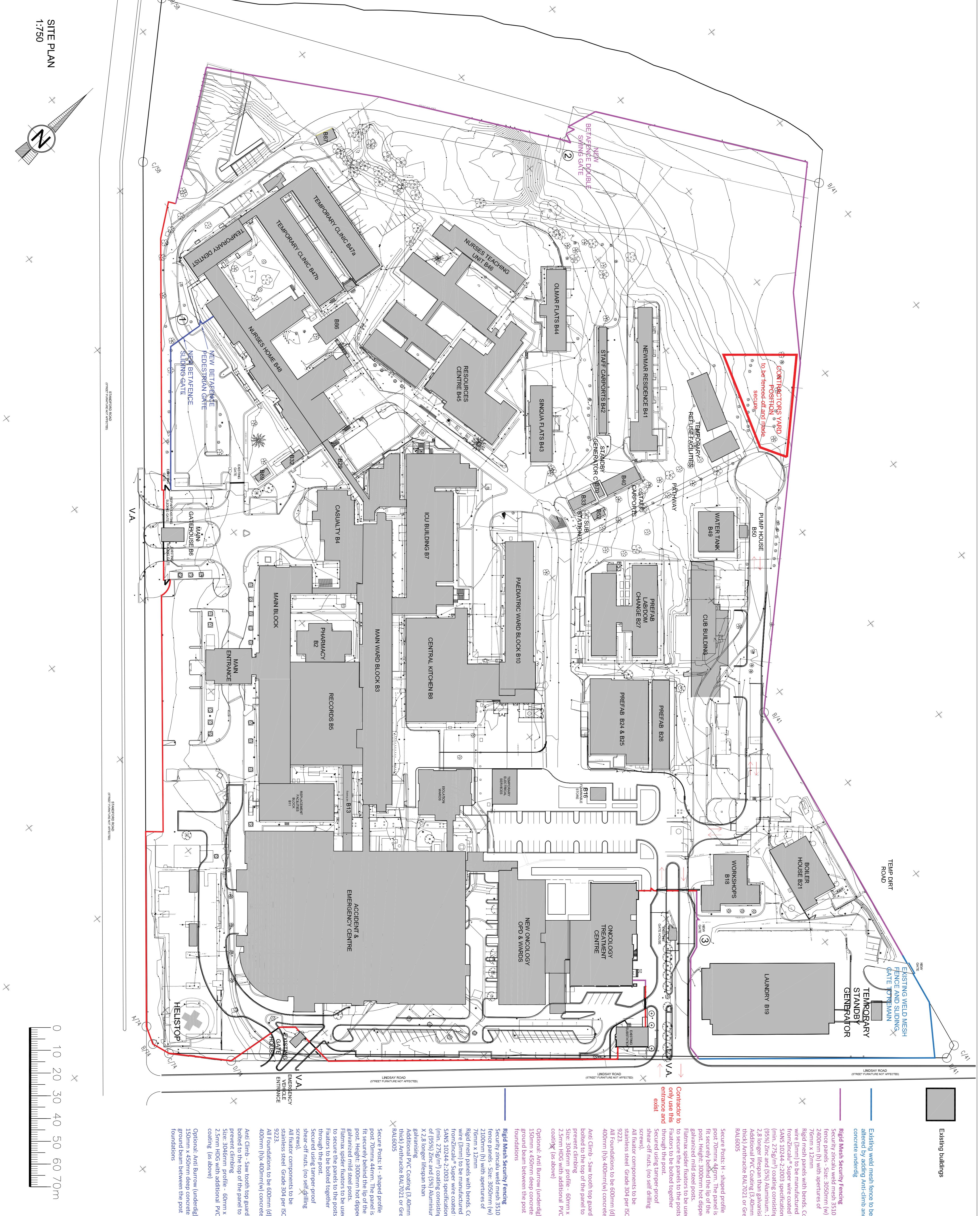
**LIVINGSTONE HOSPITAL
PROPOSED NEW FENCE
LAYOUT**

TITLE:
Site Layout
New Hoarding Plan

Scale: 1:750
Date: 10 NOVEMBER 2023
Drawn by: PHV
Designer: Bryan Brikman
Professional Architect: Bryan Brikman
Checked by: Bryan Brikman

B4 Project Ref No.: 314-013
DWG No.: 314-013-S005

FOR TENDER ONLY



SITE PLAN
1:750

5.6 ELECTRICAL AND MECHANICAL DRAWINGS

SECTION 8

ELECTRICAL SPECIFICATIONS AND DRAWINGS GUARDBOUSES

Vol. 1.1 Part 1

DETAILED SPECIFICATIONS

PROJECT TITLE:	LIVINGSTONE AND PEPH COMPLEX: LIVINGSTONE HOSPITAL – NEW ENTRANCE AND EXIT GUARDHOUSES - ELECTRICAL INSTALLATIONS
-----------------------	--

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6.0 BALANCING OF LOAD 3

7.0 BUILDER’S WORK 4

8.0 SCHEDULES OF INFORMATION 4

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1.0 INTRODUCTION & GENERAL

Should there be any conflict or ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority: -

- Schedule of Quantities
- Detailed Specification
- Drawings

Should the Tenderer notice any inconsistencies between these sections, it is his responsibility to notify the Engineer in order to obtain clarification thereon.

2.0 SCOPE OF WORK

The main contract is for the Construction of New Entrance and Exit Gatehouses for PE Provincial Hospital in Gqeberha.

The Electrical installations shall entail but not limited to following:

- Installation of new Distribution Boards;
- Installation of new LED lights throughout the buildings;
- Installation of socket outlets wall mounted;
- Installation of DB switchgear in the existing buildings adjacent to guardhouses to be constructed
- Installations of mains cables from existing DBs for Normal power supply to new guardhouse feeding these buildings.
- Earthing, testing and commissioning of the entire installation including issuing of Certificate of Compliance for each DB
- Installation of conduits with draw-wires for the boom gates (boom gates to be supplied by others)
- Repairs and maintenance to existing area-lighting (post tops)
- Etc.

2.1 General Electrical Installation

The Works will be executed in strict accordance with the following: -

- a) The Wiring Code - SANS 10421-1: 2008,
- b) Interior Lighting Part 1: Artificial Lighting of Interiors; Part 2: Emergency Lighting – SANS 10114-1,
- c) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended.

The general electrical installation is reflected on a set of drawings attached to this tender document.

- a) The Subcontractor to be mindful of the fact that the site is occupied at all times.
- b) The Subcontractor will be responsible for the supply and installation of new LV mains cabling between new distribution boards and existing distribution boards in existing

buildings including replacement of circuit breakers for the new cables.

The new DBs are as shown on the power layout.

- c) Supply and installation of
- complete building electrical installation including cabling, distribution boards,
 - the installation and connection to power of such equipment as may be supplied by the Employer or other Employer's contractors, and
 - Testing of the Electrical installation and issue Certificates of Compliance.
- d) Repairs to post top luminaires. This shall include
- Replacement of existing luminaires with new LED post top luminaires
 - Repairs to cables and streetlight wires
- e) Produce marked up As-Built drawings of the Electrical Installations and be submitted to the Engineer.

The description of the Works listed above, is not necessarily complete and shall not limit the work to be carried out by the Subcontractor under this Contract.

2.2 Specialised Installation

No allowance for specialised installations on this contract.

2.3 Temporary Works

No temporary works are envisaged in the current design and planned execution of the works except where the Subcontractor wants to incorporate it as part of his work method. In case the requirement for such is necessary, the subcontractor to arrange with Engineer for a variation order of such work before it is carried out.

3.0 SYSTEM LOW VOLTAGE

The supply to all the Electrical installation shall be 230 Volts, 1-phase, 50 Hertz, Earthed Neutral.

4.0 NOTICES AND FEES

The Subcontractor shall liaise, issue all notices to and make the necessary arrangements with the Technical department of the hospital for planned power disruptions.

5.0 QUALITY OF MATERIALS

Materials are to comply with the relevant South African National Standards (SANS), or to IEC specifications, where no SABS specifications exist. All materials used shall bear the SABS or IEC mark of approval as applicable.

NB: All materials must be of South African manufacture. The Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

6.0 BALANCING OF LOAD

The Subcontractor is required to balance the load as equally as possible over the multiphase supply **before Final Completion.**

7.0 BUILDER'S WORK

Subject to negotiations the following may be provided by the Contractor under the building works contract: -

- Making good all chasing
- Refurbishing of road surfaces

8.0 SCHEDULES OF INFORMATION

The schedule of information contained in this document consists of 2 sections:

- a) Information supplied by the Employer (schedules of; drawings, cables, luminaires, etc. as applicable.)
- b) Information to be supplied by the Subcontractor at bidding stage (information on the makes, types and ratings of equipment and materials offered, schedules of prices and rates for variations, schedules of quantities, etc. as applicable.)

Bidders are required to enter, at the time of bidding, in the "Schedule of Equipment and Material Offered", sufficient details to enable the equipment concerned to be identified without ambiguity.

It is not sufficient for a tender to state "as specified" in the schedules.

Failure to complete these schedules (if applicable) may render a bid invalid.

9.0 SCHEDULE OF LUMINAIRES

9.1 All luminaires to

- LED lights with suitable constant current drivers,
- 3m cable with 5A plug,
- bear a SABS or IEC mark of quality approval
- with average lifespan of 50 000 hours
- Power Factor > 0.9

9.2 LED luminaires to be 4000K

Type	Description
A	50W LED surface mounted linear luminaire with: <ul style="list-style-type: none">• Body – Seamless Aluminum extruded frame• Non-dimmable• Dimensions –1200mm (L)
N	20W LED module bulkhead wall/ceiling mounted luminaire with: <ul style="list-style-type: none">• Body – base and trim to be made of high-pressure die-cast marine grade aluminium• Stainless steel helicoils inserts to avoid metal corrosion.• Diffuser – Opal non-discolouring high impact acrylic injection molded diffuser• Environmental Protection – IP 65• Vandal resistant screws

	<ul style="list-style-type: none"> • Colour – thick black • Total luminous flux not less than 3400lm
S	<p>35W LED Post top luminaire with photocell on each luminaire mounted at a 4m mounting height on an existing steel pole.</p> <ul style="list-style-type: none"> • Body – painted housing aluminium • Diffuser – High impact acrylic <p>Luminaire price on the Schedule of Quantities to include removal of existing luminaire, repairs to wiring and cables and all components necessary to ensure the light works.</p>

10.0 SAMPLES AND ALTERNATIVES

- 10.1 Prior to installation the Subcontractor is required to submit for approval, comment or records, samples of materials upon which his offer is based. Any approvals given or comments made shall be on the generality of the scheme and shall not relieve the Subcontractor of his responsibility to ensure full compliance with all performance and regulatory criteria and materials latent defects.
- 10.2 Samples forwarded shall be labelled and remain in the site stores until completion of the Works. The samples may be the last items to be embodied in the installation.
- 10.3 All expenses in do with the supply and return of the samples shall be borne by the Subcontractor.

11.0 SUPERVISION, WORKMANSHIP AND DELAYS

The work shall at all times, for the entire duration of the contract, be executed under the supervision of a skilled and competent representative of the Subcontractor, who must be able and authorized to receive and execute instructions on behalf of the Subcontractor.

In the event that inferior materials or bad workmanship, on the part of the Subcontractor, leads to remedial work requiring redesign by the Engineer, the cost of this work, including related professional fees, shall be borne by the Subcontractor.

Similarly, should delays in the contract be caused by poor performance on the part of the Subcontractor causing the Engineer to spend extraordinary time on the project, the extra costs incurred may be borne by the Subcontractor.

These costs will be based on the ECSA hourly rates and may be deducted from claims due or claims which will become due to the Subcontractor.

12.0 MAKING GOOD

The Subcontractor will carry out in all instances any work to be made good such as damage to or disturbances of the building installations caused by themselves or their employees during the execution of the contract, at their own cost.

13.0 COMMISSIONING AND TESTING

13.1 Commissioning

A documented method shall be followed, whereby the Subcontractor shall ensure that his installation is correctly constructed in accordance with the manufacturers' specifications, consultant's specification, consultant's design and all codes of practice and international design codes.

The commissioning procedure must allow for signing off of the major items of equipment by a qualified person in terms of the codes. These signed off documents will form part of the record drawings.

The Subcontractor will arrange for all inspections and testing of the installation after completion, including the issuing of the Certificate of Compliance. All notices, fees, including inspection and re-inspection are the responsibility of the Subcontractor and all the relevant costs shall be borne by him.

Any materials or workmanship considered as faulty or incorrectly or inadequately installed or repaired, will be substituted, altered or rectified to the approval of the Employer, without additional cost to the Employer.

14.0 CONSTRUCTION PROGRAMME

The Subcontractor must submit their construction programme to the Contractor who will amalgamate it into the project's overall construction programme.

15.0 DRAWINGS

15.1 General

Drawings must be read in conjunction with this Specification and the Bills of Quantities. Any errors, discrepancies or contradictions found between the Drawings, the Specifications and the Bills of Quantities must be brought to the attention of the Engineer immediately, they become evident.

The drawings generally show the scope and extent of the proposed work and shall be construed as showing every minute detail of the work to be executed.

Construction Drawings will be issued to site accompanied by drawing issue slips. The drawing issue register reflecting the summary of all previously issued drawings with dates and drawing revisions will be issued at the site meetings once a month.

15.2 Record / As-Built Drawings

The Subcontractor must prepare Record/As-Built drawings of the completed installation indicating actual cable runs, circuiting, distribution board details, final cable sleeves positions, luminaire, power point layout details, etc. The contract will not be deemed complete until these drawings have been submitted to the Engineer.

16.0 MEASUREMENT

The Subcontractor shall not make any assumption regarding the installation. If there is any doubt or ambiguity, they must consult the Engineer. The Subcontractor shall take cognisance of the fact that the schedule of quantities is re-measurable and final quantities may be adjusted at the end of the contract.

- a) All outlet boxes up to 100 x 100mm are measured as one item regardless of the number of conduit entries.
- b) Outlet boxes shall be without covers and draw boxes shall include covers, screws, etc.
- c) Conduit boxes shall always include the fixing to the conduit with lock and bush nuts.
- d) All switches and plug (SSO) units shall include the fixing to conduit and shall include screws, cover plates.
- e) All fittings, equipment and accessories shall include connections to power. All light fittings shall be complete with lamps and tubes.
- f) All measurements are net Tendered rates must allow for wastage.

17.0 TRENCHING AND EXCAVATIONS

Trenching

Unless detailed otherwise on the drawings LV cables the depth shall be 450mm below final ground level. Where the required depth cannot be met, the Engineer may approve one of the following:

- cement slabs over the cables or
- cable Sleeve pipe encased in 300 mm² concrete

The width of trenches shall be 400mm.

Bedding of Cables

Normal bedding requirements for both LV cables shall be 150mm sand under and 150mm sand over.

The final decision as to whether bedding may be omitted or not, shall rest with the Engineer.

Backfilling

- a) All loose stones or any other material likely to cause damage to cables shall be removed from trenches, before backfilling commences.
- b) Backfilling shall not commence without prior inspection, measurement and approval of the Engineer.
- c) Backfilling of trenches in road reserves shall be in layers not exceeding 300mm and the use of a suitable compacting machine is essential in order to achieve an approximate 9,8% Mod. AASHO density.

Random Check of Excavations

The Engineer reserves the right to request random check holes to check cable depth, bedding, material classification, danger tape, etc.

18.0 LAYING, TESTING AND TERMINATION OF CABLES

18.1 Cable Terminations

- (a) Terminations shall only be made by competent personnel, who are regularly employed on this type of work, and shall be carried out strictly in accordance with manufacturers' instructions.
- (b) The use of only first class appropriate materials is essential. Conductors, all ferrules and lugs shall be tinned and crimped by means of suitable mechanical or pneumatic tools designed for this purpose and then sweated with solder added to ensure adequate contact.
- (c) Where cables are cut and not immediately made off, the ends shall be sealed without delay to avoid the ingress of moisture.
- (d) Cable core numbers and/or colours shall be matched without twisting of the joints; cable end seals may be removed and replaced to check this before the next length is laid.

Cable Marker Tape

- (a) All LV cables shall be marked by means of a continuous tough, brightly coloured PVC sheet known as "Cable Marker Tape" of 800 gauge thickness.
- (b) Cable marker tape shall be laid approximately 300mm from finished ground level.
- (c) Wording on cable marker tape shall be in three languages "DANGER INGOZI" with skull and crossbones.
- (d) Cable marker tape requirements and the following principle shall be followed:
 - One cable - 1x150mm
 - Two cables - 2x150mm or 1x300mm

19.0 MONTHLY CERTIFICATES

Pro forma claim form will be available from the Engineer in Excel format. This is the preferred method of submitting payment claims. Should the Subcontractor have developed his own method of claiming, this may be submitted to the Engineer for consideration.

20.0 LV DISTRIBUTION BOARDS

All distribution boards (DBs) will be supplied, wired and complete with all equipment of quantities, types, sizes and ratings as specified on the distribution board schematics, which are included in this document. The distribution boards shall be manufactured in accordance with the Standard Specification for Electrical Building Services.

The Subcontractor shall confirm on site, before commencing with any work that sufficient space and access is available to install the DBs as specified. No additional claims for failure to check these details and rectify any default will be entertained.

Before handing over, the DBs shall be thoroughly cleaned inside and outside. Damaged finished surfaces shall be made good where necessary with identical paint to the original finish.

20.1 Cascading

All DBs circuit breakers must be cascaded from the same manufacture and cascading group. Mixing of circuit breaker makes is not allowed.

Each cascaded DB must be marked with a label

- a) informing that circuit breakers are cascaded and
- b) that replacement and / or additional circuit breakers must be chosen from the same circuit breaker group.

20.2 Shop Drawings

Prior to manufacturing of DBs subcontractor will prepare and issue shop drawings of each DB to Engineer for approval. If the shop drawing is prepared by the manufacturer the subcontractor shall thoroughly review the drawings to ensure they match Engineer's schematic line diagrams before handing them over to the Engineer.

21.0 DISTRIBUTION CABLES

21.1 Low Voltage (LV)

All PVC Insulated PVC bedded SWA PVC sheathed 600/1000V copper cables shall conform to SANS 1507-3 and bear the SABS mark. Cables shall be of sizes and type as shown on the drawings.

Cables shall be supplied with their corresponding termination and as well as corresponding bare copper earth wire. The Subcontractor is advised to measure actual lengths of cable required on site before ordering as no compensation for over-measurements shall be entertained.

22.0 PVC SLEEVES

- a) Pipes for sleeving shall be the ribbed type-Kabelflex unless otherwise noted on the drawings.
- b) Sleeves shall be laid as shown on site plan layout at depth of approximately 300mm from the top of the sleeve to the finished surface of the road and laid in a straight line with the cable trench.
- c) All sleeves must be cleared by pulling through a loose fitting mandrel prior to the installing of cables.
- d) All spare sleeves shall be provided with a No. 10 gauge galvanised draw wire and sealed on both ends with a non-hardening material.

23.0 CABLE DRAW WIRE

The draw wire shall be No. 10 gauge galvanised draw wire.

24.0 EARTHING AND BONDING

24.1 General

Earthing shall generally be in accordance with

- SANS 10142-1: 2008 Wiring Code,
- SANS 10198: Part 3 - Earthing System; General Provision; Part 12 - Installation of Earthing Systems,
- SANS 10200: Neutral Earthing in Medium Voltage Industrial Power Systems,
- SANS 10292: Earthing of Low Voltage Distribution Systems,
- SANS 1063: Earth Rods Couplers and Clamps,
- AMEU Code of Practice for the application of protective multiple earthing to low voltage distribution systems and
- The latest amendments and the OHS Act 1993.

24.2 Water pipes

All metallic hot and cold-water pipes shall be bonded with 12mm x 0,8mm perforated for solid copper strapping and connected to the nearest system earth. The strapping shall be fixed to the pipework with brass nuts and bolts and against walls with brass screws at 150-mm centres. In all cases where metal water pipes, down pipes, flues, etc., are positioned within 1,6m of switchboards an earth connection consisting of copper strapping shall be installed between the pipework and the board.

24.3 Roofs, gutters and down pipes

Unless not included in the Lightning Protection System (LPS), all metal parts of roofs, gutters and down pipes shall be earthed.

24.4 Sub-distribution boards

A separate earth connection shall be supplied between the earth busbar in each sub-distribution board and the earth busbar in the Main Switchboard. These connections shall consist of bare stranded copper conductors installed along the same routes as the supply cables or in the same sleeve or ladder as the power conductors.

Alternatively, armoured cables with earth continuity conductors included in the armouring (ECC) may be utilised where specified or approved.

24.5 Sub-circuits

The earth conductors of all sub-circuits shall be connected to the earth busbar in the source DB in accordance with SANS 10142.

24.6 Common Earth

Common earth conductors may be used where various circuits are installed in the same wire way in accordance with SANS 10142. In such instances the sizes of earth conductors shall be equivalent to that of the largest current carrying conductor installed in the wire way, alternatively the size of the conductor shall be as directed by the Engineer. Earth conductors for individual circuits branching from the ring main shall be connected to the common earth conductor with T-ferrules or soldered.

NB: The common earth shall not be broken.

24.7 Non-metallic Conduit

Standard copper earth conductors shall be installed in the conduits and fixed securely to all metal appliances and equipment, including metal switch boxes, socket-outlet boxes, draw-boxes, switchboards, luminaires, etc. The securing of earth conductors by means of self-threading screws will not be permitted.

24.8 Flexible Conduit

An earth conductor shall be installed in all non-metal flexible conduits. This earth conductor shall not be installed externally to the flexible conduit but within the conduit with the other conductors. The earth conductor shall be connected to the earth terminals at both ends of the circuit.

24.9 Connection

Under no circumstances shall any connection points, bolts, screws, etc., used for earthing be utilised for any other purpose. It will be the responsibility of the Subcontractor to supply and fit earth terminals or clamps on equipment and materials that must be earthed where these are not provided.

Unless earth conductors are connected to proper terminals, the end shall be tinned and lugged.

24.10 Earth Terminal for Other Services

A readily accessible earthing terminal shall be provided, near the trap door in the ceiling, for the bonding of other services such as a television aerial or satellite dish, an audio system, a video surveillance system, and the like, to the building. Such an earthing terminal shall be bonded to the consumer's earth terminal in the main distribution board by a conductor of at least 6mm² copper or equivalent, and shall be identified by the earth symbol.

NOTE: Providers of services other than the electrical power services should not access the distribution board or other parts of the electrical installation.

25.0 CONDUIT, WIREWAYS AND ACCESSORIES

25.1 Conduit

Unless indicated differently on the drawings conduit and conduit accessories shall be PVC to SABS 950. The conduit shall be chased in concrete, under plaster and roof space, throughout.

All conduit/outlet boxes and associated fittings for use in this installation will be SABS approved.

The Electrical subcontractor must provide all conduit and accessories for the lighting, power, ICT, telephone, Access Control and fire protection as shown on the drawings and as measured in the bills of quantities.

Flexible metallic tubing of galvanized steel shall be used for connections to water heaters, fans and other similar equipment. The corrugations of the tubing shall have a rectangular cross section suitable to fit standard brass connections.

The Subcontractor must provide all conduit and accessories for the lighting, power, telephone, communications, computer and security systems, as shown on the drawings and as measured in the schedule of quantities.

Flexible metallic tubing of galvanized steel shall be used for connections to water heaters, fans and other similar equipment. The corrugations of the tubing shall have a rectangular cross section suitable to fit standard brass connections.

25.2 Wiring Trunking / Channel

Wiring channels in ceiling voids and wherever indicated on the drawings shall be medium duty of Cab-strut, Cooper B-Line or similar manufacture and shall be complete with corner pieces, end pieces, hangers, junction pieces, supply conduits, cover plates and power outlets as specified and indicated on the drawings. Note that Nylon or plastic nuts or fasteners will not be accepted.

The channels shall be manufactured of rolled sheet steel and hot-dip galvanised to SANS 763.

Channels shall be cold galvanised at all joints, sections that have been cut and at places where the galvanising has been damaged.

The wiring channels' metal covers shall be pop-riveted closed, once the installation is complete.

26.0 WIRING

Lighting and Power wiring in conduit and channel wireways shall comprise 600/1000V single core PVC insulated copper wire sized in accordance with the distribution board schematics. Conductor outer sheaths shall be of the following colours: -

- Phase Conductors : red, white, blue
- Neutral : black
- Earth : yellow + green

27.0 WALL SWITCHES AND SWITCH SOCKET OUTLETS

Wall switches to be of the flush type complete with cover plates and screws in 100 x 50 x 50 extension outlet boxes mounted on the wall surfaces. Colours of outlet boxes and cover plates must match.

All surfaces mounted switch socket outlets to be in 100 x 100 x 50 extension outlet boxes mounted on the wall surfaces. Colours of outlet boxes and cover plates must match.

All switched socket outlets mounted in power skirting to have matching cover plates.

The Subcontractor will be responsible for the installation of power points to feed equipment such as water heaters, air-conditioners, fans, security equipment, etc. This equipment, if supplied and installed by others, will be connected by the Subcontractor.

The cover plates to all outlets shall be fixed **AFTER** the final coat of paint has been applied.

All light switches and power points shall be labelled with indelible circuit numbers to tie up with a circuit number in the distribution boards. Labels shall be engraved Trifoliate or similar approved type. Labels, like Brother™ labels that peel off easily shall not be acceptable.

28.0 TELEPHONE, COMPUTER AND SECURITY INSTALLATIONS

The Subcontractor will be responsible for the complete installation of conduits and wireways for the I.C.T and security systems.

29.0 EQUIPMENT GUARANTEES, MAINTENANCE AND INSTRUCTION MANUALS

The Contractor shall submit to the Engineer all manufacturers' equipment guarantees, maintenance and instruction manuals. All equipment shall be guaranteed for twelve (12) months from the date of Practical Completion Certificate.

30.0 COMMISSIONING AND TAKE-OVER

The Contractor shall carry out the necessary tests according to the SANS 10142-1, the latest edition and provide a certificate of compliance on completion of the works. The certificates of compliance shall be of the approved type as issued by the Electrical Contracting Board of South Africa.

30.1 Completion

The electrical installation shall be complete after:

- (i) All tests for the switchgear and cables have been done and tests results submitted to the Engineer.
- (ii) The completed certificates of compliance have been submitted to the Engineer.
- (iii) All equipment guarantees, maintenance and instruction manuals have been submitted to the Engineer.
- (iv) The site has been cleared of all debris and electrical waste materials and left in a neat and tidy condition.
- (v) "As-Built" drawings of the Works; and
- (vi) Certificates for Distribution boards have been submitted to the Engineer.

GENERAL NOTES:

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
- DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
- A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
- FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
- CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
- SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
- NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
- ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS (FLUSH MOUNTED DBs)
- IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
- TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
- IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
- CIRCUITING:
 - AC = AIR CONDITIONING
 - D = DEDICATED SSO
 - L = LIGHTING CIRCUIT
 - P = STANDARD SSO
 - XL = LIGHTING CIRCUIT ON STANDBY POWER
 - XP = STANDARD SSO ON STANDBY POWER
- DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:
 - 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES.
 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
- ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
- AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.

LIGHTING LEGEND	
●	PHOTO CELL
⤴	1 LEVER - 1 WAY - LIGHT SWITCH
⤴⤴	2 LEVER - 1 WAY - LIGHT SWITCH
⊖	50W LED CHANNEL LUMINAIRE WITH POLYCARBONATE DIFUSSER. 1200mm LONG.
⊖ ⊖	20W LED OUTDOOR DOMESTIC TYPE DECORATIVE CEILING / WALL MOUNTED BULKHEAD.
▭	ELECTRICAL DISTRIBUTION BOARD

REVISIONS

REV	DATE	INIT.	DESCRIPTION
00	10-11-23	E.C.	ISSUED FOR DESIGN.



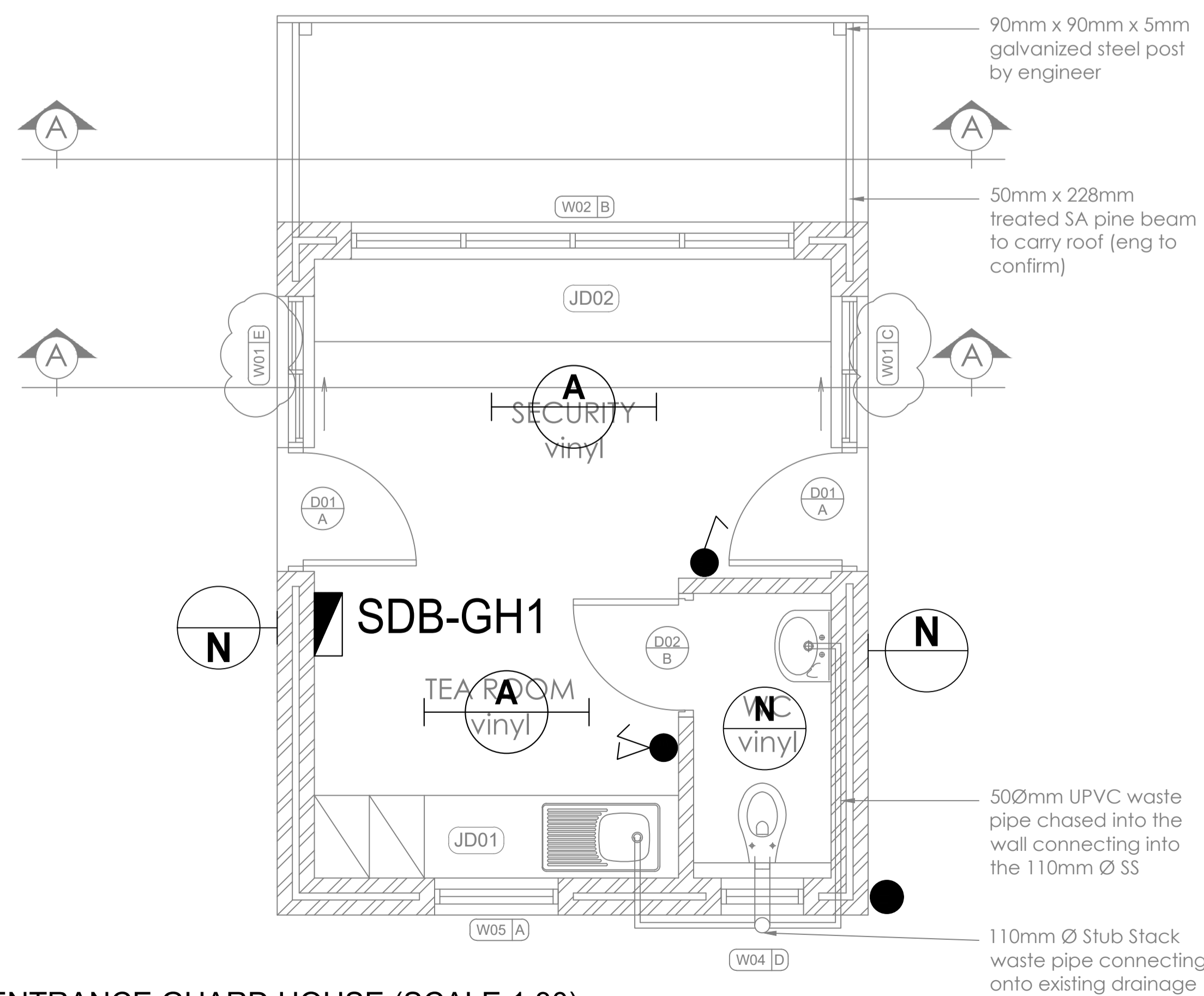
PROJECT
ALTERATIONS AND ADDITIONS AT PEPH, GQEBERHA

TITLE
NEW ENTRANCE GATE HOUSE AND NEW EXIT GATE HOUSE - LIGHTING LAYOUT

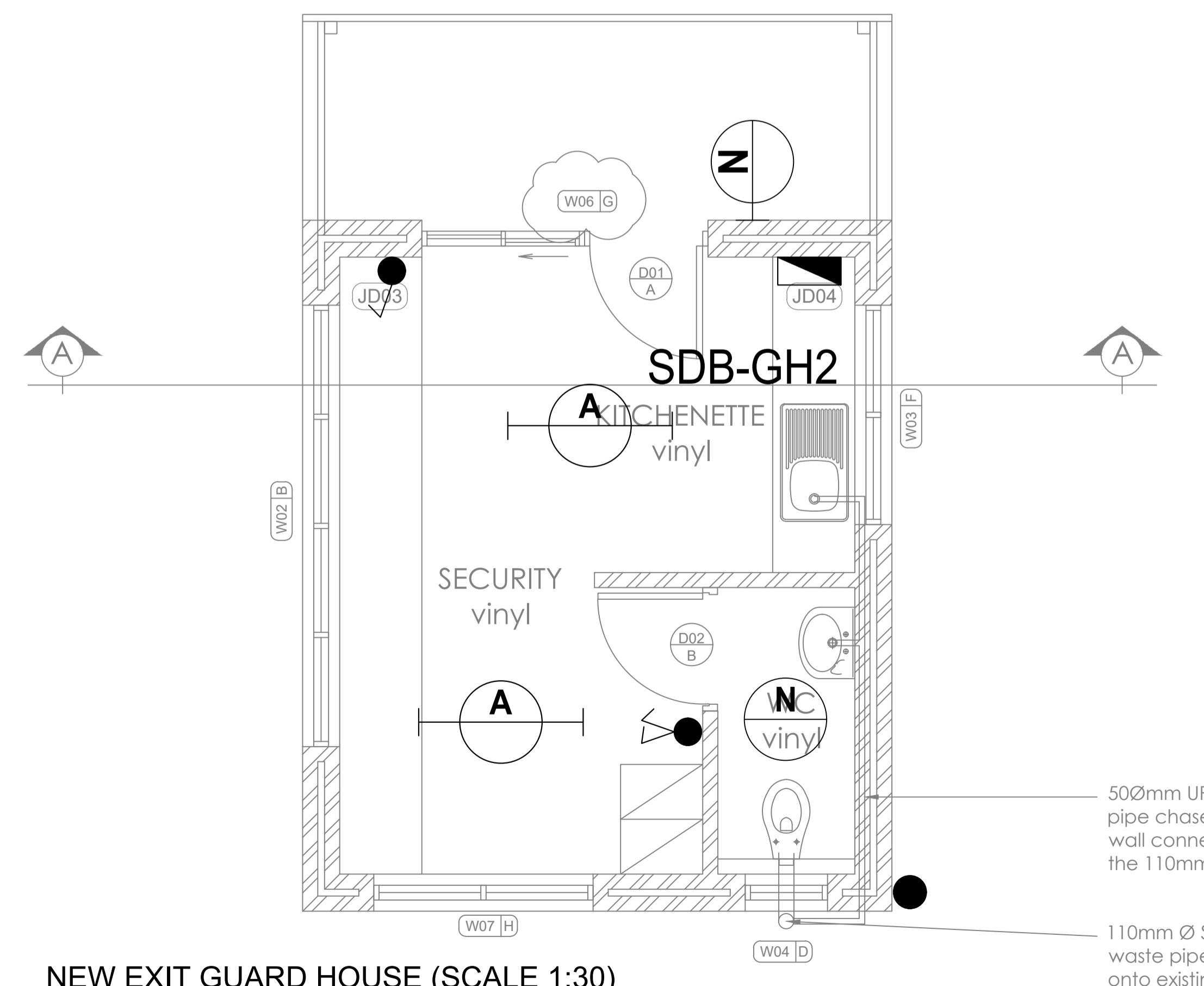
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DESIGN	TENDER	CONSTRUCTION
✓		
DESIGNED BY: B.GEELBOOI		SCALE: 1:100
DRAWN: B.GEELBOOI	DATE: 10/11/2023	PRINT DATE: 10/11/2023
CHECKED BY: E. CEBA		
REGISTRATION No. 201930053		
SIGNED:		
DRAWING NO. 2316-D-E-101 GH1-2		REV No. 00



NEW ENTRANCE GUARD HOUSE (SCALE 1:30)



NEW EXIT GUARD HOUSE (SCALE 1:30)

ARCHITECTS DRAWING NO. 00	REV No. 00
---------------------------	------------

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
 - DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
 - A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
 - FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
 - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
 - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
 - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
 - DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
 - ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS (FLUSH MOUNTED DBs)
 - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
 - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
 - CIRCUITING:
 - AC = AIR CONDITIONING
 - D = DEDICATED SSO
 - L = LIGHTING CIRCUIT
 - P = STANDARD SSO
 - XL = LIGHTING CIRCUIT ON STANDBY POWER
 - XP = STANDARD SSO ON STANDBY POWER
 - DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:
 - 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES.
 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
 - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
 - AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.

POWER LEGEND	
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 & 2 (White) 450mm AFFL (Normal Supply)
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 & 2 (White) 1200mm AFFL OR 300mm ABOVE WORKTOPS (Normal Supply)

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	10-11-23	E.C.	ISSUED FOR DESIGN



PROJECT
ALTERATIONS AND ADDITIONS AT PEPH, GQEBERHA

TITLE
NEW ENTRANCE GUARD HOUSE AND NEW EXIT GUARD HOUSE - POWER LAYOUT

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 P.O. Box 35039, Newton Park, 6055
 TEL: 041 581 2807
 Fax: 041 581 2808



DESIGN	TENDER	CONSTRUCTION
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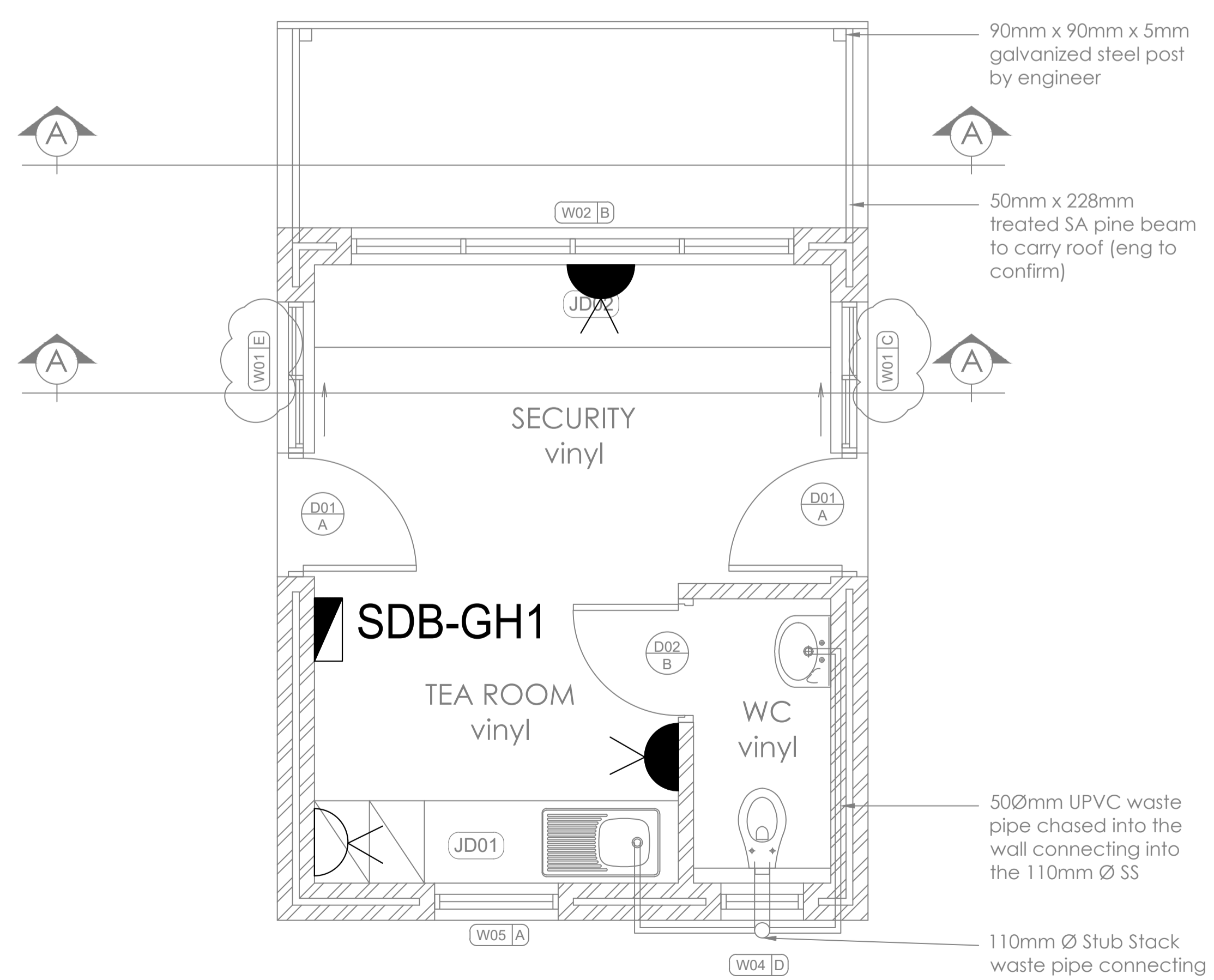
DESIGNED BY: **B.GEELBOOI** SCALE: 1:100

DRAWN: **B.GEELBOOI** DATE: 10/11/2023 PRINT DATE: 10/11/2023

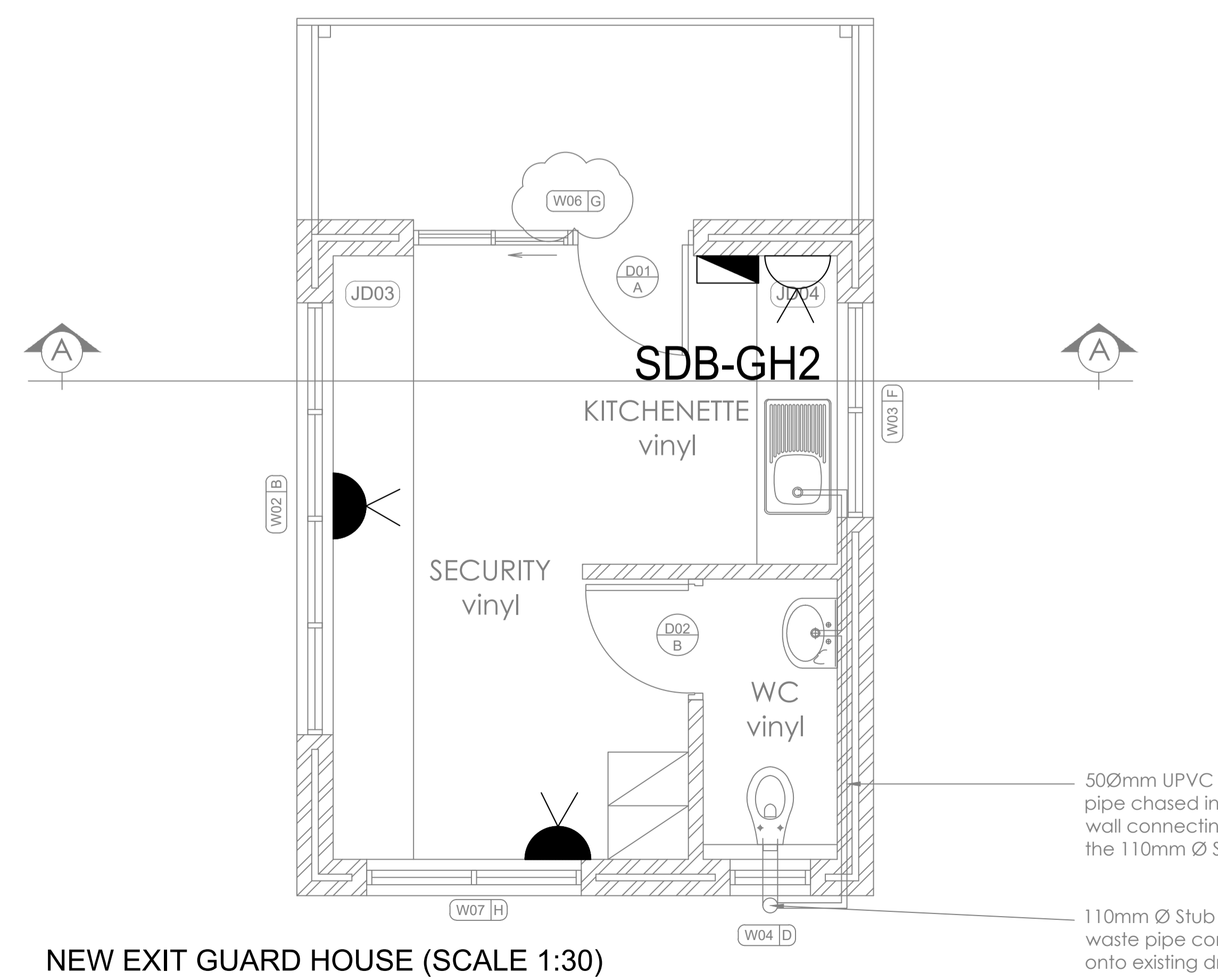
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 REGISTRATION No. 201930053
 SIGNED:

ARCHITECTS DRAWING NO. 00 REV No. 00

DRAWING NO. 2316-D-E-102 GH1-2 REV No. 00

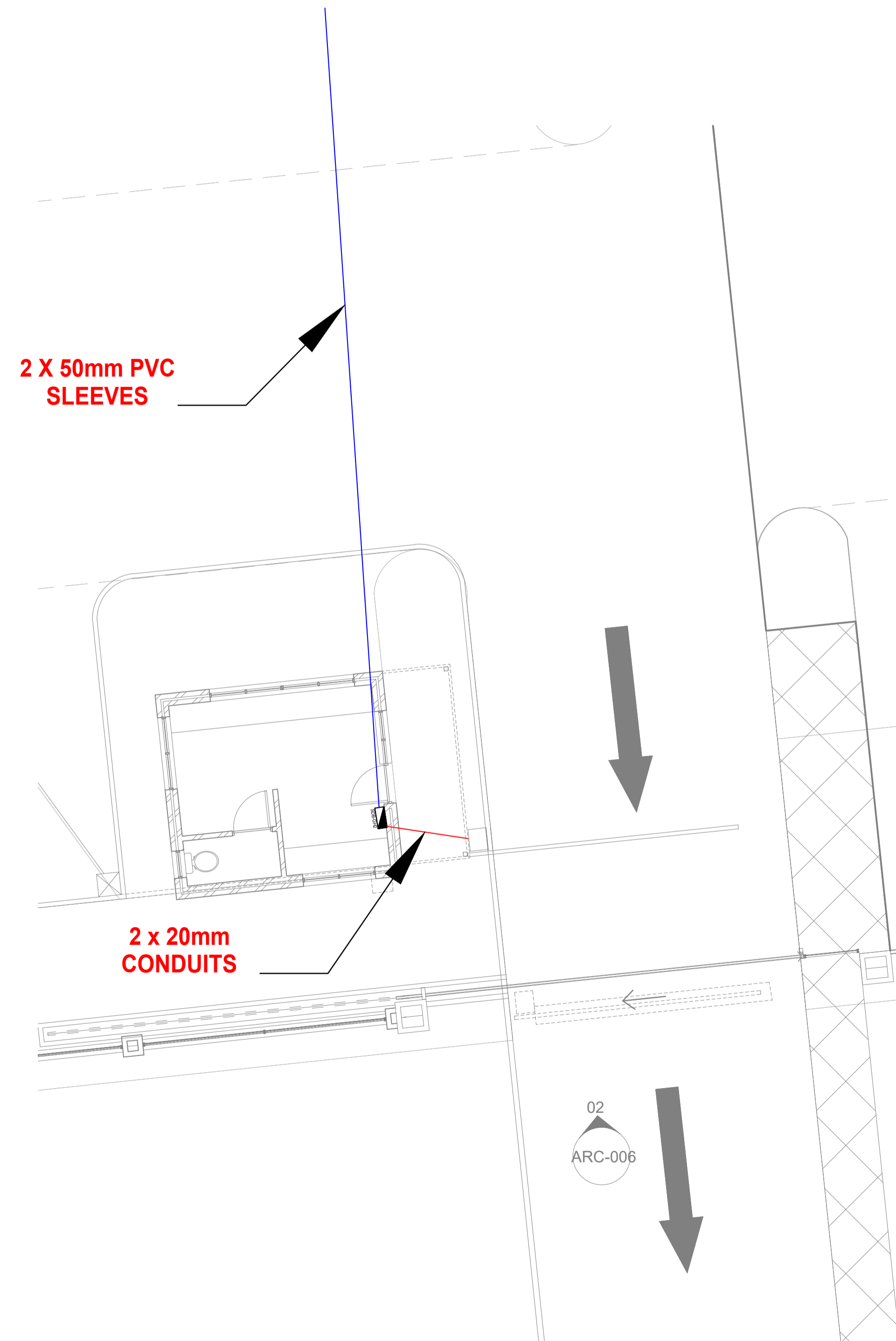
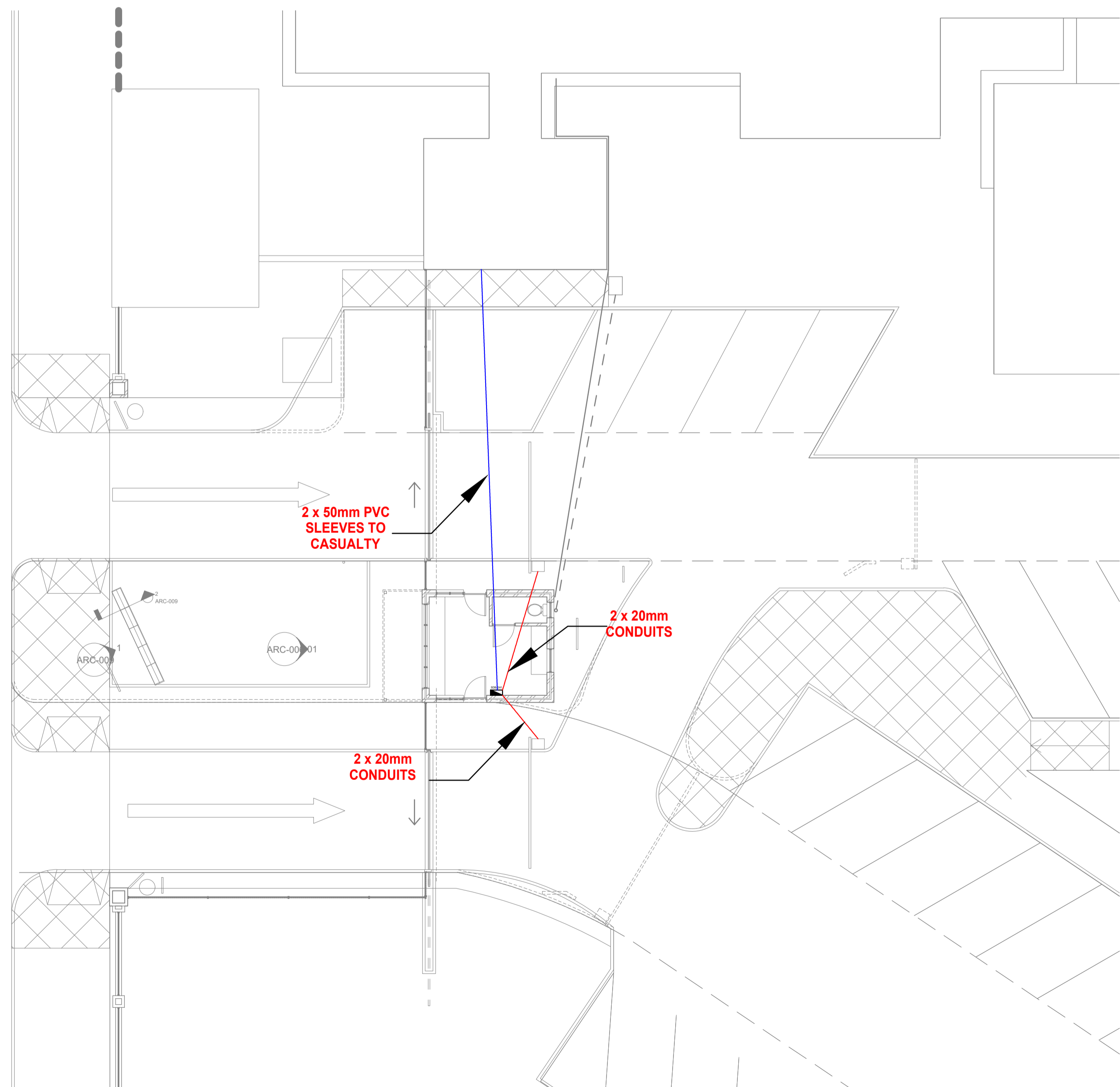


NEW ENTRANCE GUARD HOUSE (SCALE 1:30)



NEW EXIT GUARD HOUSE (SCALE 1:30)

- GENERAL NOTES:**
1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
 2. DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
 3. A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
 4. FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
 5. CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
 6. SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
 7. NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
 8. DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
 9. ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
 10. IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 11. TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
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 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
 15. ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
 16. AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.



REVISIONS			
REV	DATE	INIT	DESCRIPTION
00	15-11-23	E.C.	ISSUED FOR TENDER.



PROJECT
ALTERATIONS AND ADDITIONS AT PEPH,
GQEBERHA

TITLE
NEW ENTRANCE GATE HOUSE AND NEW
EXIT GATE HOUSE -
SITE PLAN

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DESIGN	TENDER	CONSTRUCTION

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DRAWN: B.GEELBOOI DATE: 15/11/2023 PRINT DATE: 15/11/2023

CHECKED BY: E. CEBA
REGISTRATION No. 201930053
SIGNED: _____

ARCHITECTS DRAWING NO. 00 REV No. 00

DRAWING NO. 2316-D-E-100 GH1-2 REV No. 00

LEGEND

BUSBAR

—+— SINGLE POLE

—+—+ TRIPLE POLE

—+— ISOLATOR

—+—/— CIRCUIT BREAKER
SIZE AS SHOWN

CH = WIRING CHANNEL

—+—/— EL EARTH LEAKAGE PROTECTION UNIT WITH DISCONNECTOR

—+—/— C2 3 POLE CONTACTOR

—+—/— E MM ELECTRONIC CONSUMPTION MULTIMETER

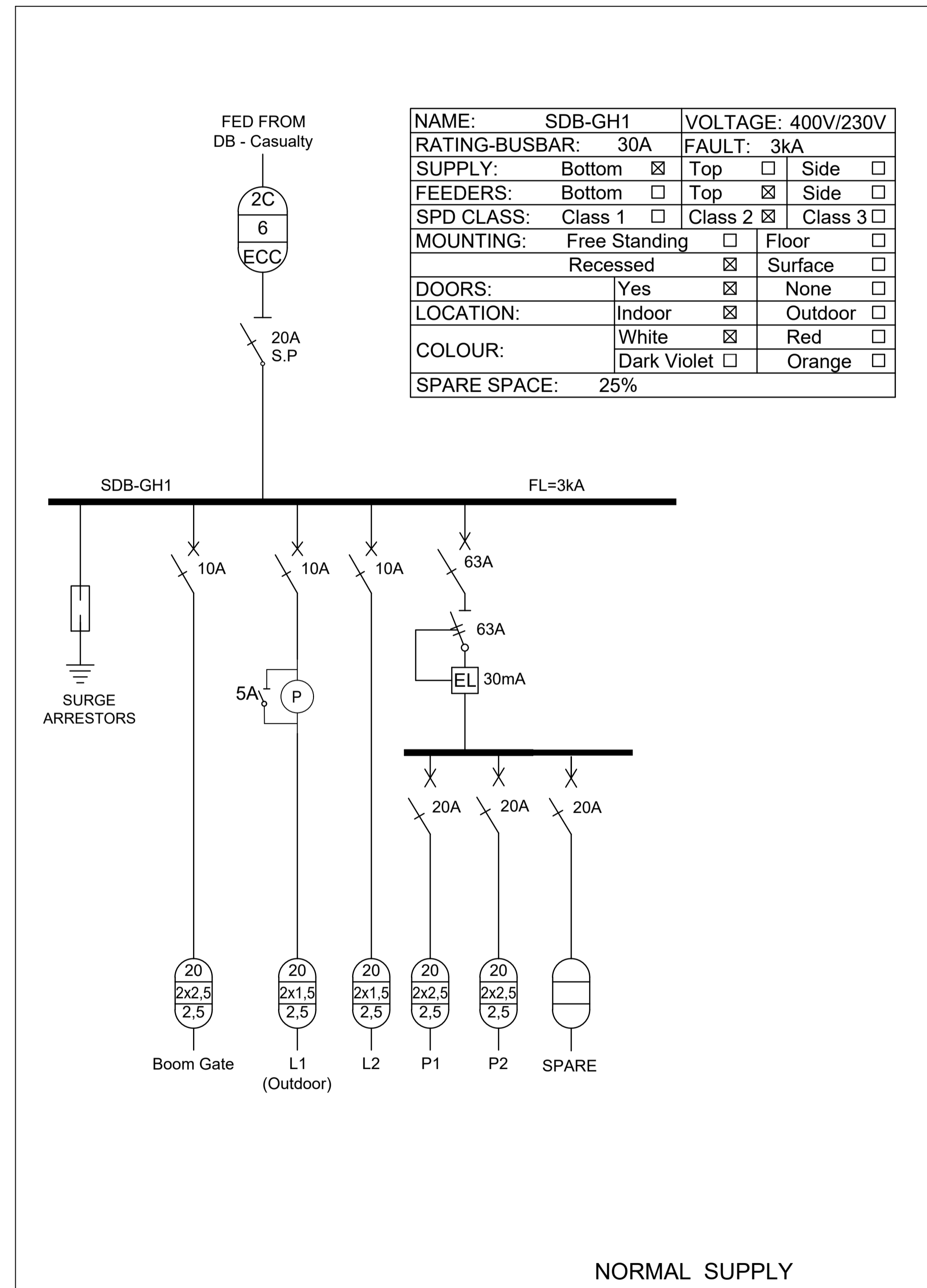
—+—/— P PHOTOCELL WITH BYPASS SWITCH

CABLES

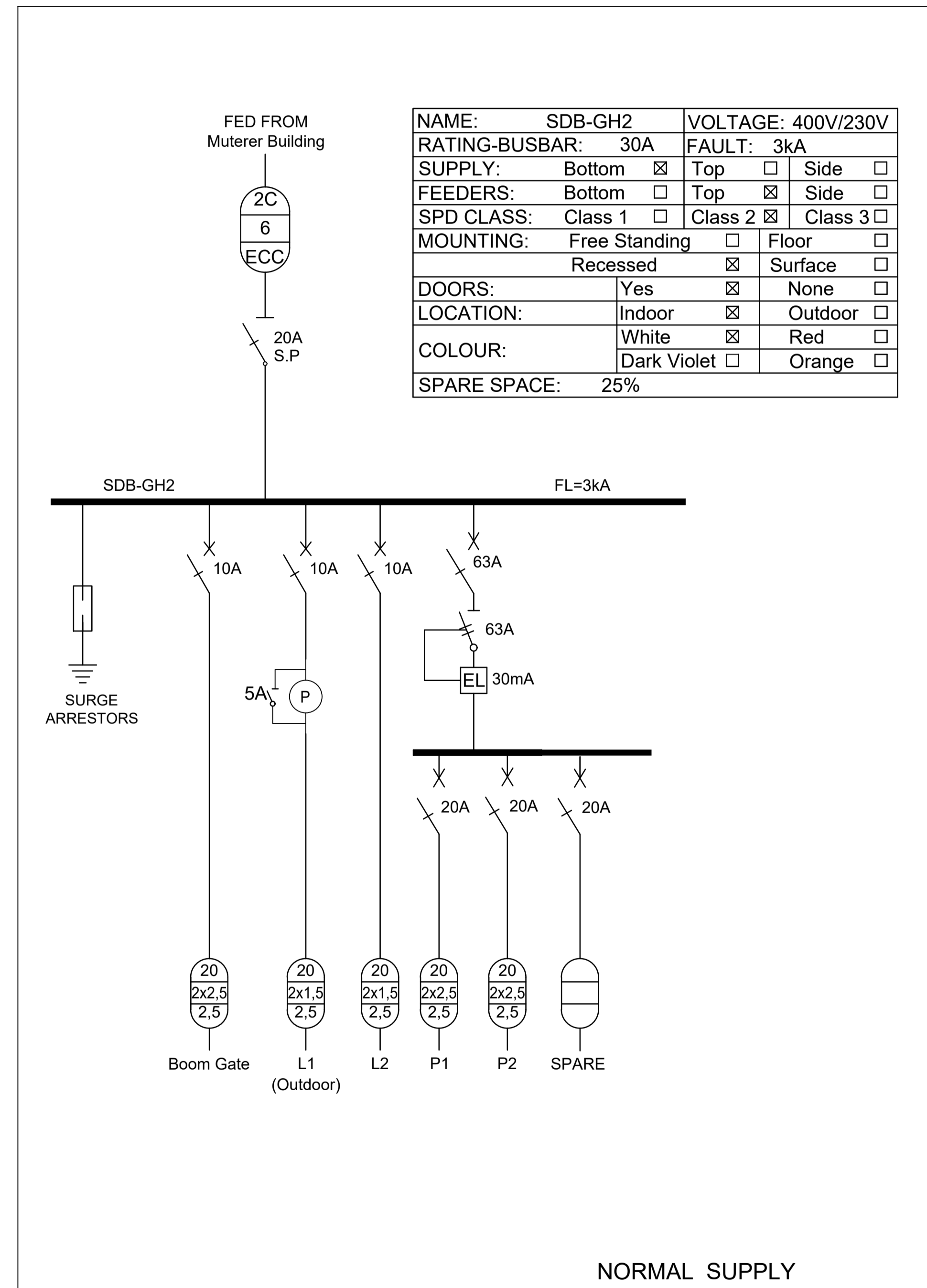
4C NO. OF CORES
16 CORE SIZE mm
ECC EARTH CONTINUITY CONDUCTOR mm

WIRING IN CONDUIT

25 CONDUIT SIZE mm
2x4 No. & CONDUCTOR SIZE mm²
2.5 EARTH CONDUCTOR mm²



ENTRANCE GUARD HOUSE



EXIT GUARD HOUSE

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
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REVISIONS

REV	DATE	INIT.	DESCRIPTION
00	13-11-23	E.C.	ISSUED FOR DESIGN.

CLIENT

Province of the **EASTERN CAPE** HEALTH

PROJECT

ALTERATIONS AND ADDITIONS AT PEPH, GQEBERHA

TITLE

NEW ENTRANCE GUARD HOUSE AND NEW EXIT GUARD HOUSE - DB SCHEMATIC DIAGRAM

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RNA CONSULTING ENGINEERS
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CESA
Consulting Engineers South Africa

DESIGN	TENDER	CONSTRUCTION
✓		

DESIGNED BY: **B.GEELBOOI** SCALE: 1:100

DRAWN: **B.GEELBOOI** DATE: 13/11/2023 PRINT DATE: 27/11/2023

CHECKED BY: **E. CEBA**

REGISTRATION No. 201930053

SIGNED:

ARCHITECTS DRAWING NO. 00 REV No. 00

DRAWING NO. 2316-D-E-300 GH1-2 REV No. 00

SECTION 9

ELECTRICAL SPECIFICATIONS AND DRAWINGS PROTEA FLATS

Vol. 1.1 Part 1
DETAILED SPECIFICATIONS

PROJECT TITLE:	ALTERATIONS AND ADDITIONS AT PROTEA FLATS: NEW GSA OFFICES - ELECTRICAL INSTALLATIONS
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1.0 INTRODUCTION & GENERAL

Should there be any conflict or ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority: -

- Schedule of Quantities
- Detailed Specification
- Drawings

Should the Tenderer notice any inconsistencies between these sections, it is his responsibility to notify the Engineer in order to obtain clarification thereon.

2.0 SCOPE OF WORK

The main contract is for the Alterations and Additions at Protea Flats: New GSA Offices in Gqeberha.

The Electrical installations shall entail but not limited to following:

- Installation of new Distribution Board;
- Installation of new LED lights throughout the buildings;
- Installation of socket outlets wall mounted;
- Installation of DB switchgear in the existing buildings
- Installations of mains cables from existing DB to new DB planned for feeding the building.
- Removal and disposal of existing electrical installations.
- Earthing, testing and commissioning of the entire installation including issuing of Certificate of Compliance
- Installation of conduits, conduit boxes and wireways for other services viz; Fire Detection, HVAC and Access Control
- etc.

2.1 General Electrical Installation

The Works will be executed in strict accordance with the following: -

- a) The Wiring Code - SANS 10421-1: 2008,
- b) Interior Lighting Part 1: Artificial Lighting of Interiors; Part 2: Emergency Lighting – SANS 10114-1,
- c) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended.

The general electrical installation is reflected on a set of drawings attached to this tender document.

- a) The Subcontractor to be mindful of the fact that the site is occupied at all times.
- b) The Subcontractor will be responsible for the supply and installation of new LV mains cabling between new distribution board and existing distribution board in existing buildings including replacement of circuit breaker for the new cables.

- c) Supply and installation of
- complete building electrical installation including cabling, distribution board;
 - the installation and connection to power of such equipment as may be supplied by the Employer or other Employer's contractors; and
 - Testing of the Electrical installation and issue Certificates of Compliance.
- d) Produce marked up As-Built drawings of the Electrical Installations and be submitted to the Engineer.

The description of the Works listed above, is not necessarily complete and shall not limit the work to be carried out by the Subcontractor under this Contract.

2.2 Specialised Installation

No allowance for specialised installations on this contract.

2.3 Temporary Works

No temporary works are envisaged in the current design and planned execution of the works except where the Subcontractor wants to incorporate it as part of his work method. In case the requirement for such is necessary, the subcontractor to arrange with Engineer for a variation order of such work before it is carried out.

3.0 SYSTEM LOW VOLTAGE

The supply to all the Electrical installation shall be 400/230 Volts, 1-phase, 50 Hertz, Earthed Neutral.

4.0 NOTICES AND FEES

The Subcontractor shall liaise, issue all notices to and make the necessary arrangements with the Technical department of the hospital for planned power disruptions.

5.0 QUALITY OF MATERIALS

Materials are to comply with the relevant South African National Standards (SANS), or to IEC specifications, where no SABS specifications exist. All materials used shall bear the SABS or IEC mark of approval as applicable.

NB: All materials must be of South African manufacture. The Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

6.0 BALANCING OF LOAD

The Subcontractor is required to balance the load as equally as possible over the multiphase supply **before Final Completion**.

7.0 BUILDER'S WORK

Subject to negotiations the following may be provided by the Contractor under the building works contract: -

- Making good all chasing

- Refurbishing of road surfaces

8.0 SCHEDULES OF INFORMATION

The schedule of information contained in this document consists of 2 sections:

- a) Information supplied by the Employer (schedules of; drawings, cables, luminaires, etc. as applicable.)
- b) Information to be supplied by the Subcontractor at bidding stage (information on the makes, types and ratings of equipment and materials offered, schedules of prices and rates for variations, schedules of quantities, etc. as applicable.)

Bidders are required to enter, at the time of bidding, in the “Schedule of Equipment and Material Offered”, sufficient details to enable the equipment concerned to be identified without ambiguity.

It is not sufficient for a tender to state “as specified” in the schedules.

Failure to complete these schedules (if applicable) may render a bid invalid.

9.0 SCHEDULE OF LUMINAIRES

9.1 All luminaires to

- LED lights with suitable constant current drivers,
- 3m cable with 5A plug,
- bear a SABS or IEC mark of quality approval
- with average lifespan of 50 000 hours
- Power Factor > 0.9

9.2 LED luminaires to be 4000K

Type	Description
A	50W LED surface mounted linear luminaire with: <ul style="list-style-type: none"> • Body – Seamless Aluminum extruded frame • Non-dimmable • Dimensions –1500mm (L)
N	20W LED module bulkhead wall/ceiling mounted luminaire with: <ul style="list-style-type: none"> • Body – base and trim to be made of high-pressure die-cast marine grade aluminium • Stainless steel helicoils inserts to avoid metal corrosion. • Diffuser – Opal non-discolouring high impact acrylic injection molded diffuser • Environmental Protection – IP 65 • Vandal resistant screws • Colour – thick black • Total luminous flux not less than 3400lm
JSS	40W LED Surface mount luminaire with:

	<ul style="list-style-type: none"> • Suitable surface mount frame • Body – Seamless Aluminum extruded frame • Non-dimmable • Dimensions –600mm (L) x 600mm (W)
Z	<p>11W LED downlight luminaire</p> <ul style="list-style-type: none"> • Body – Die cast extruded aluminum • Dimensions – 96mm diameter x 130mm

10.0 SAMPLES AND ALTERNATIVES

- 10.1 Prior to installation the Subcontractor is required to submit for approval, comment or records, samples of materials upon which his offer is based. Any approvals given or comments made shall be on the generality of the scheme and shall not relieve the Subcontractor of his responsibility to ensure full compliance with all performance and regulatory criteria and materials latent defects.
- 10.2 Samples forwarded shall be labelled and remain in the site stores until completion of the Works. The samples may be the last items to be embodied in the installation.
- 10.3 All expenses in do with the supply and return of the samples shall be borne by the Subcontractor.

11.0 SUPERVISION, WORKMANSHIP AND DELAYS

The work shall at all times, for the entire duration of the contract, be executed under the supervision of a skilled and competent representative of the Subcontractor, who must be able and authorized to receive and execute instructions on behalf of the Subcontractor.

In the event that inferior materials or bad workmanship, on the part of the Subcontractor, leads to remedial work requiring redesign by the Engineer, the cost of this work, including related professional fees, shall be borne by the Subcontractor.

Similarly, should delays in the contract be caused by poor performance on the part of the Subcontractor causing the Engineer to spend extraordinary time on the project, the extra costs incurred may be borne by the Subcontractor.

These costs will be based on the ECSA hourly rates and may be deducted from claims due or claims which will become due to the Subcontractor.

12.0 MAKING GOOD

The Subcontractor will carry out in all instances any work to be made good such as damage to or disturbances of the building installations caused by themselves or their employees during the execution of the contract, at their own cost.

13.0 COMMISSIONING AND TESTING

13.1 Commissioning

A documented method shall be followed, whereby the Subcontractor shall ensure that his installation is correctly constructed in accordance with the manufacturers' specifications, consultant's specification, consultant's design and all codes of practice and international design codes.

The commissioning procedure must allow for signing off of the major items of equipment by a qualified person in terms of the codes. These signed off documents will form part of the record drawings.

The Subcontractor will arrange for all inspections and testing of the installation after completion, including the issuing of the Certificate of Compliance. All notices, fees, including inspection and re-inspection are the responsibility of the Subcontractor and all the relevant costs shall be borne by him.

Any materials or workmanship considered as faulty or incorrectly or inadequately installed or repaired, will be substituted, altered or rectified to the approval of the Employer, without additional cost to the Employer.

14.0 CONSTRUCTION PROGRAMME

The Subcontractor must submit their construction programme to the Contractor who will amalgamate it into the project's overall construction programme.

15.0 DRAWINGS

15.1 General

Drawings must be read in conjunction with this Specification and the Bills of Quantities. Any errors, discrepancies or contradictions found between the Drawings, the Specifications and the Bills of Quantities must be brought to the attention of the Engineer immediately, they become evident.

The drawings generally show the scope and extent of the proposed work and shall be construed as showing every minute detail of the work to be executed.

Construction Drawings will be issued to site accompanied by drawing issue slips. The drawing issue register reflecting the summary of all previously issued drawings with dates and drawing revisions will be issued at the site meetings once a month.

15.2 Record / As-Built Drawings

The Subcontractor must prepare Record/As-Built drawings of the completed installation indicating actual cable runs, circuiting, distribution board details, final cable sleeves positions, luminaire, power point layout details, etc. The contract will not be deemed complete until these drawings have been submitted to the Engineer.

16.0 MEASUREMENT

The Subcontractor shall not make any assumption regarding the installation. If there is any doubt or ambiguity, they must consult the Engineer. The Subcontractor shall take cognisance of the fact that the schedule of quantities is re-measurable and final quantities may be adjusted at the end of the contract.

- a) All outlet boxes up to 100 x 100mm are measured as one item regardless of the number of conduit entries.

- b) Outlet boxes shall be without covers and draw boxes shall include covers, screws, etc.
- c) Conduit boxes shall always include the fixing to the conduit with lock and bush nuts.
- d) All switches and plug (SSO) units shall include the fixing to conduit and shall include screws, cover plates.
- e) All fittings, equipment and accessories shall include connections to power. All light fittings shall be complete with lamps and tubes.
- f) All measurements are net Tendered rates must allow for wastage.

17.0 TRENCHING AND EXCAVATIONS

Trenching

Unless detailed otherwise on the drawings LV cables the depth shall be 450mm below final ground level. Where the required depth cannot be met, the Engineer may approve one of the following:

- cement slabs over the cables or
- cable Sleeve pipe encased in 300 mm² concrete

The width of trenches shall be 400mm.

Bedding of Cables

Normal bedding requirements for both LV cables shall be 150mm sand under and 150mm sand over.

The final decision as to whether bedding may be omitted or not, shall rest with the Engineer.

Backfilling

- a) All loose stones or any other material likely to cause damage to cables shall be removed from trenches, before backfilling commences.
- b) Backfilling shall not commence without prior inspection, measurement and approval of the Engineer.
- c) Backfilling of trenches in road reserves shall be in layers not exceeding 300mm and the use of a suitable compacting machine is essential in order to achieve an approximate 9,8% Mod. AASHO density.

Random Check of Excavations

The Engineer reserves the right to request random check holes to check cable depth, bedding, material classification, danger tape, etc.

18.0 LAYING, TESTING AND TERMINATION OF CABLES

18.1 Cable Terminations

- (a) Terminations shall only be made by competent personnel, who are regularly employed on this type of work, and shall be carried out strictly in accordance

with manufacturers' instructions.

- (b) The use of only first class appropriate materials is essential. Conductors, all ferrules and lugs shall be tinned and crimped by means of suitable mechanical or pneumatic tools designed for this purpose and then sweated with solder added to ensure adequate contact.
- (c) Where cables are cut and not immediately made off, the ends shall be sealed without delay to avoid the ingress of moisture.
- (d) Cable core numbers and/or colours shall be matched without twisting of the joints; cable end seals may be removed and replaced to check this before the next length is laid.

Cable Marker Tape

- (a) All LV cables shall be marked by means of a continuous tough, brightly coloured PVC sheet known as "Cable Marker Tape" of 800 gauge thickness.
- (b) Cable marker tape shall be laid approximately 300mm from finished ground level.
- (c) Wording on cable marker tape shall be in three languages "DANGER INGOZI" with skull and crossbones.
- (d) Cable marker tape requirements and the following principle shall be followed:
 - One cable - 1x150mm
 - Two cables - 2x150mm or 1x300mm

19.0 MONTHLY CERTIFICATES

Pro forma claim form will be available from the Engineer in Excel format. This is the preferred method of submitting payment claims. Should the Subcontractor have developed his own method of claiming, this may be submitted to the Engineer for consideration.

20.0 LV DISTRIBUTION BOARDS

All distribution boards (DBs) will be supplied, wired and complete with all equipment of quantities, types, sizes and ratings as specified on the distribution board schematics, which are included in this document. The distribution boards shall be manufactured in accordance with the Standard Specification for Electrical Building Services.

The Subcontractor shall confirm on site, before commencing with any work that sufficient space and access is available to install the DBs as specified. No additional claims for failure to check these details and rectify any default will be entertained.

Before handing over, the DBs shall be thoroughly cleaned inside and outside. Damaged finished surfaces shall be made good where necessary with identical paint to the original finish.

20.1 Cascading

All DBs circuit breakers must be cascaded from the same manufacture and cascading group. Mixing of circuit breaker makes is not allowed.

Each cascaded DB must be marked with a label

- a) informing that circuit breakers are cascaded and
- b) that replacement and / or additional circuit breakers must be chosen from the same circuit breaker group.

20.2 Shop Drawings

Prior to manufacturing of DBs subcontractor will prepare and issue shop drawings of each DB to Engineer for approval. If the shop drawing is prepared by the manufacturer the subcontractor shall thoroughly review the drawings to ensure they match Engineer's schematic line diagrams before handing them over to the Engineer.

21.0 DISTRIBUTION CABLES

21.1 Low Voltage (LV)

All PVC Insulated PVC bedded SWA PVC sheathed 600/1000V copper cables shall conform to SANS 1507-3 and bear the SABS mark. Cables shall be of sizes and type as shown on the drawings.

Cables shall be supplied with their corresponding termination and as well as corresponding bare copper earth wire. The Subcontractor is advised to measure actual lengths of cable required on site before ordering as no compensation for over-measurements shall be entertained.

22.0 PVC SLEEVES

- a) Pipes for sleeving shall be the ribbed type-Kabelflex unless otherwise noted on the drawings.
- b) Sleeves shall be laid as shown on site plan layout at depth of approximately 300mm from the top of the sleeve to the finished surface of the road and laid in a straight line with the cable trench.
- c) All sleeves must be cleared by pulling through a loose fitting mandrel prior to the installing of cables.
- d) All spare sleeves shall be provided with a No. 10 gauge galvanised draw wire and sealed on both ends with a non-hardening material.

23.0 CABLE DRAW WIRE

The draw wire shall be No. 10 gauge galvanised draw wire.

24.0 EARTHING AND BONDING

24.1 General

Earthing shall generally be in accordance with

- SANS 10142-1: Wiring Code (latest),
- SANS 10198: Part 3 - Earthing System; General Provision; Part 12 - Installation of Earthing Systems,

- SANS 10200: Neutral Earthing in Medium Voltage Industrial Power Systems,
- SANS 10292: Earthing of Low Voltage Distribution Systems,
- SANS 1063: Earth Rods Couplers and Clamps,
- The latest amendments and the OHS Act 1993.

24.2 Water pipes

All metallic hot and cold-water pipes shall be bonded with 12mm x 0,8mm perforated for solid copper strapping and connected to the nearest system earth. The strapping shall be fixed to the pipework with brass nuts and bolts and against walls with brass screws at 150-mm centres. In all cases where metal water pipes, down pipes, flues, etc., are positioned within 1,6m of switchboards an earth connection consisting of copper strapping shall be installed between the pipework and the board.

24.3 Roofs, gutters and down pipes

Unless not included in the Lightning Protection System (LPS), all metal parts of roofs, gutters and down pipes shall be earthed.

24.4 Sub-distribution boards

A separate earth connection shall be supplied between the earth busbar in each sub-distribution board and the earth busbar in the Main Switchboard. These connections shall consist of bare stranded copper conductors installed along the same routes as the supply cables or in the same sleeve or ladder as the power conductors.

Alternatively, armoured cables with earth continuity conductors included in the armouring (ECC) may be utilised where specified or approved.

24.5 Sub-circuits

The earth conductors of all sub-circuits shall be connected to the earth busbar in the source DB in accordance with SANS 10142.

24.6 Common Earth

Common earth conductors may be used where various circuits are installed in the same wire way in accordance with SANS 10142. In such instances the sizes of earth conductors shall be equivalent to that of the largest current carrying conductor installed in the wire way, alternatively the size of the conductor shall be as directed by the Engineer. Earth conductors for individual circuits branching from the ring main shall be connected to the common earth conductor with T-ferrules or soldered.

NB: The common earth shall not be broken.

24.7 Non-metallic Conduit

Standard copper earth conductors shall be installed in the conduits and fixed securely to all metal appliances and equipment, including metal switch boxes, socket-outlet boxes, draw-boxes, switchboards, luminaires, etc. The securing of earth conductors by means of self-threading screws will not be permitted.

24.8 Flexible Conduit

An earth conductor shall be installed in all non-metal flexible conduits. This earth conductor shall not be installed externally to the flexible conduit but within the conduit with the other conductors. The earth conductor shall be connected to the earth terminals at both ends of the circuit.

24.9 Connection

Under no circumstances shall any connection points, bolts, screws, etc., used for earthing be utilised for any other purpose. It will be the responsibility of the Subcontractor to supply and fit earth terminals or clamps on equipment and materials that must be earthed where these are not provided.

Unless earth conductors are connected to proper terminals, the end shall be tinned and lugged.

24.10 Earth Terminal for Other Services

A readily accessible earthing terminal shall be provided, near the trap door in the ceiling, for the bonding of other services such as a television aerial or satellite dish, an audio system, a video surveillance system, and the like, to the building. Such an earthing terminal shall be bonded to the consumer's earth terminal in the main distribution board by a conductor of at least 6mm² copper or equivalent, and shall be identified by the earth symbol.

NOTE: Providers of services other than the electrical power services should not access the distribution board or other parts of the electrical installation.

25.0 CONDUIT, WIREWAYS AND ACCESSORIES

25.1 Conduit

Unless indicated differently on the drawings conduit and conduit accessories shall be PVC to SABS 950. The conduit shall be chased in concrete, under plaster and roof space, throughout.

All conduit/outlet boxes and associated fittings for use in this installation will be SABS approved.

The Electrical subcontractor must provide all conduit and accessories for the lighting, power, ICT, telephone, Access Control and fire protection as shown on the drawings and as measured in the bills of quantities.

Flexible metallic tubing of galvanized steel shall be used for connections to water heaters, fans and other similar equipment. The corrugations of the tubing shall have a rectangular cross section suitable to fit standard brass connections.

The Subcontractor must provide all conduit and accessories for the lighting, power, telephone, communications, computer and security systems, as shown on the drawings and as measured in the schedule of quantities.

Flexible metallic tubing of galvanized steel shall be used for connections to water heaters, fans and other similar equipment. The corrugations of the tubing shall have a rectangular cross section suitable to fit standard brass connections.

25.2 **Wiring Trunking / Channel**

Wiring channels in ceiling voids and wherever indicated on the drawings shall be medium duty of Cab-strut, Cooper B-Line or similar manufacture and shall be complete with corner pieces, end pieces, hangers, junction pieces, supply conduits, cover plates and power outlets as specified and indicated on the drawings. Note that Nylon or plastic nuts or fasteners will not be accepted.

The channels shall be manufactured of rolled sheet steel and hot-dip galvanised to SANS 763.

Channels shall be cold galvanised at all joints, sections that have been cut and at places where the galvanising has been damaged.

The wiring channels' metal covers shall be pop-riveted closed, once the installation is complete.

26.0 **WIRING**

Lighting and Power wiring in conduit and channel wireways shall comprise 600/1000V single core PVC insulated copper wire sized in accordance with the distribution board schematics. Conductor outer sheaths shall be of the following colours: -

- Phase Conductors : red, white, blue
- Neutral : black
- Earth : yellow + green

27.0 **WALL SWITCHES AND SWITCH SOCKET OUTLETS**

Wall switches to be of the flush type complete with cover plates and screws in 100 x 50 x 50 extension outlet boxes mounted on the wall surfaces. Colours of outlet boxes and cover plates must match.

All surfaces mounted switch socket outlets to be in 100 x 100 x 50 extension outlet boxes mounted on the wall surfaces. Colours of outlet boxes and cover plates must match.

All switched socket outlets mounted in power skirting to have matching cover plates.

The Subcontractor will be responsible for the installation of power points to feed equipment such as water heaters, air-conditioners, fans, security equipment, etc. This equipment, if supplied and installed by others, will be connected by the Subcontractor.

The cover plates to all outlets shall be fixed **AFTER** the final coat of paint has been applied.

All light switches and power points shall be labelled with indelible circuit numbers to tie up with a circuit number in the distribution boards. Labels shall be engraved Trifoliolate or similar approved type. Labels, like Brother™ labels that peel off easily shall not be acceptable.

28.0 TELEPHONE, COMPUTER AND SECURITY INSTALLATIONS

The Subcontractor will be responsible for the complete installation of conduits and wireways for the I.C.T and security systems.

29.0 EQUIPMENT GUARANTEES, MAINTENANCE AND INSTRUCTION MANUALS

The Contractor shall submit to the Engineer all manufacturers' equipment guarantees, maintenance and instruction manuals. All equipment shall be guaranteed for twelve (12) months from the date of Practical Completion Certificate.

30.0 COMMISSIONING AND TAKE-OVER

The Contractor shall carry out the necessary tests according to the SANS 10142-1, the latest edition and provide a certificate of compliance on completion of the works. The certificates of compliance shall be of the approved type as issued by the Electrical Contracting Board of South Africa.

30.1 Completion

The electrical installation shall be complete after:

- (i) All tests for the switchgear and cables have been done and tests results submitted to the Engineer.
- (ii) The completed certificates of compliance have been submitted to the Engineer.
- (iii) All equipment guarantees, maintenance and instruction manuals have been submitted to the Engineer.
- (iv) The site has been cleared of all debris and electrical waste materials and left in a neat and tidy condition.
- (v) "As-Built" drawings of the Works; and
- (vi) Certificates for Distribution boards have been submitted to the Engineer.



LIGHTING LEGEND	
	PHOTO CELL
	1 LEVER - 1 WAY - LIGHT SWITCH
	MOTION SENSOR
	2 LEVER - 2 WAY - LIGHT SWITCH
	11W LED RECESSED DOWNLIGHTER(96mm DIAMETER)
	40W LED SURFACE MOUNTED LUMINAIRE (600mm X 600mm)
	40W LED SURFACE MOUNTED LUMINAIRE (600mm X 600mm) WITH 50% MAINTAINED EMERGENCY LIGHTING FOR 1 HOUR
	11W LED RECESSED DOWNLIGHTER(96mm DIAMETER) USED AS NIGHT LIGHT.
	50W LED LINEAR LUMINAIRE WITH POLYCARBONATE DIFUSSER. 1200mm LONG.
	20W LED OUTDOOR DOMESTIC TYPE DECORATIVE CEILING / WALL MOUNTED BULKHEAD.
	ELECTRICAL DISTRIBUTION BOARD

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
 - DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
 - A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
 - FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
 - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
 - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
 - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
 - DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
 - ALLOW 4 X 20mmØ & 4 X 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
 - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
 - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SPLITTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
- 13. CIRCUITING:**
- | | | |
|----|---|-----------------------------------|
| AC | = | AIR CONDITIONING |
| D | = | DEDICATED SSO |
| L | = | LIGHTING CIRCUIT |
| P | = | STANDARD SSO |
| XL | = | LIGHTING CIRCUIT ON STANDBY POWER |
| XP | = | STANDARD SSO ON STANDBY POWER |
- 14. DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:**
- 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES.
 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
- 15. ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.**
- 16. AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.**

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	15-11-23	E.C.	ISSUED FOR INFORMATION.

CLIENT

PROJECT

ALTERATIONS AND ADDITIONS AT PROTEA FLATS, GQEBERHA

TITLE

NEW GSA OFFICES - LIGHTING LAYOUT

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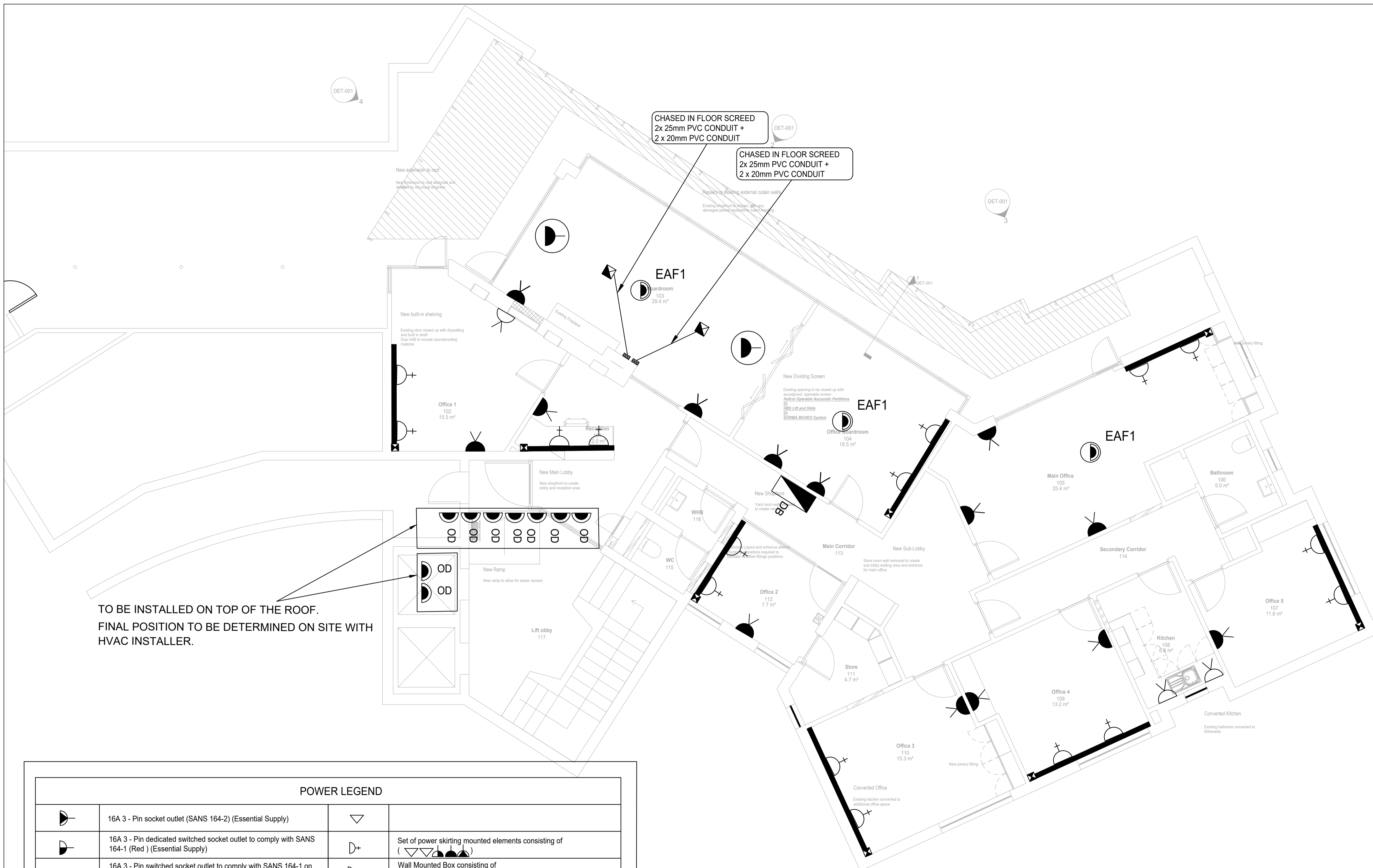
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	✓	

DESIGNED BY: B.GEELBOOI
SCALE: 1:50

DRAWN: B.GEELBOOI
DATE: 29/06/2023
PRINT DATE: 23/11/2023

CHECKED BY: E. CEBA
REGISTRATION No. 201930053
SIGNED:

DRAWING NO. 2316-T-E-101PF
REV No. 00



- GENERAL NOTES:**
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 - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
 - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
 - DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
 - ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
 - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
 - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
 - CIRCUITING:

AC	=	AIR CONDITIONING
D	=	DEDICATED SSO
L	=	LIGHTING CIRCUIT
P	=	STANDARD SSO
XL	=	LIGHTING CIRCUIT ON STANDBY POWER
XP	=	STANDARD SSO ON STANDBY POWER
 - DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:
 - 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES.
 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
 - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
 - AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	15-11-23	E.C.	ISSUED FOR INFORMATION.

CLIENT

PROJECT
ALTERATIONS AND ADDITIONS AT PROTEA FLATS, GQEBERHA

TITLE
NEW GSA OFFICES - POWER LAYOUT



DESIGN	TENDER	CONSTRUCTION

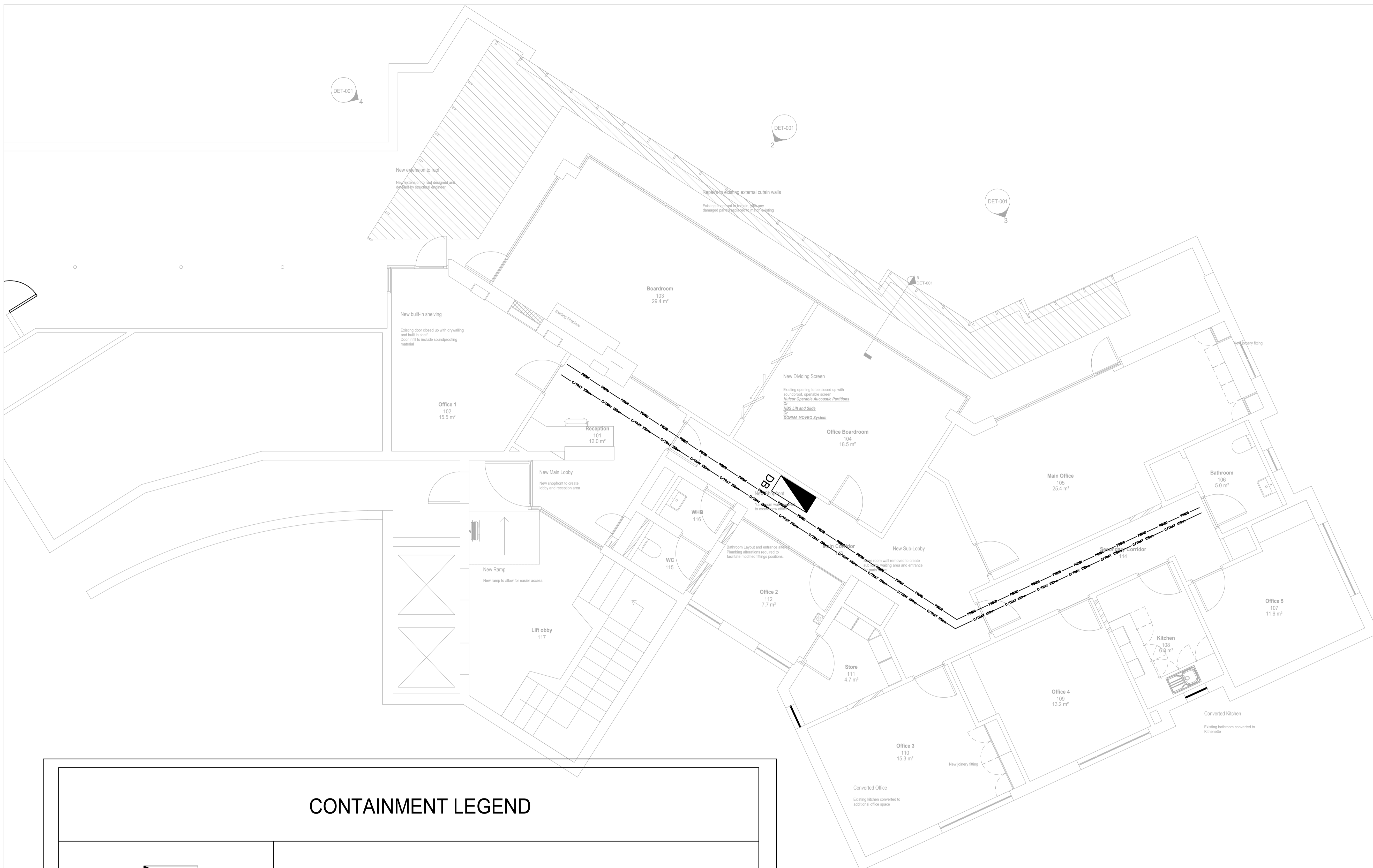
DESIGNED BY: B.GEELBOOI
SCALE: 1:50

DRAWN: B.GEELBOOI
DATE: 29/06/2023
PRINT DATE: 23/11/2023

CHECKED BY: E. CEBA
REGISTRATION No. 201930053
SIGNED:

DRAWING NO. 2316-T-E-102PF
REV No. 00

POWER LEGEND			
	16A 3 - Pin socket outlet (SANS 164-2) (Essential Supply)		Set of power skirting mounted elements consisting of ()
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 on (White) 450mm AFFL (Normal Supply)		Wall Mounted Box consisting of ()
	16A 3 - Pin dedicated switched socket outlet to comply with SANS 164-1 & 2 (Red) (Essential Supply)		Power Skirting (2 Compartments).
	16A 3 - Pin dedicated switched socket outlet to comply with SANS 164-1 (Red) (Essential Supply)		Electrical distribution board
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 (White) mounted in the ceiling void (Normal Supply)		2 Pole isolator (Normal Supply)
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 & 2 (white) 450mm AFFL (Normal Supply)		2 Pole Outdoor isolator (Normal Supply)
	16A 3 - Pin switched socket outlet to comply with SANS 164-1 & 2 (White) 1200mm AFFL OR 300mm ABOVE WORKTOPS (Normal Supply)		POWER SKIRTING RISER
	4 Pole isolator (Normal Supply)		Access Floor outlet consisting of ()



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 - CIRCUITING:

AC	=	AIR CONDITIONING
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 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
 - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
 - AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	15-11-23	E.C.	ISSUED FOR INFORMATION.

CLIENT

PROJECT
ALTERATIONS AND ADDITIONS AT PROTEA FLATS, GQEBERHA

TITLE
NEW GSA OFFICES - CONTAINMENT LAYOUT



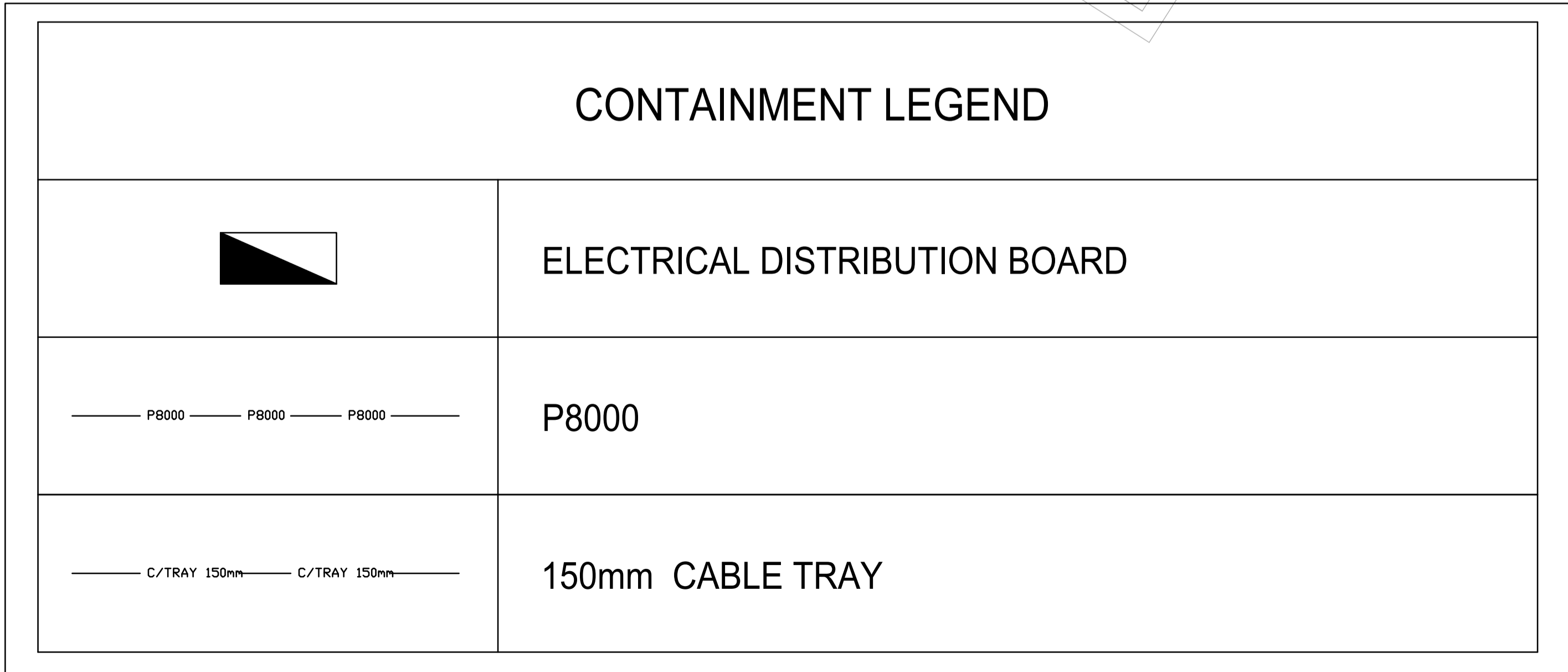
DESIGN	TENDER	CONSTRUCTION
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DESIGNED BY: B.GEELBOOI
SCALE: 1:50

DRAWN: B.GEELBOOI DATE: 29/06/2023 PRINT DATE: 16/11/2023

CHECKED BY: E.CEBA
REGISTRATION No. 201930053

SIGNED: _____
DRAWING NO. 2316-T-E-103PF REV No. 00



SECTION 10

HVAC SPECIFICATIONS AND DRAWINGS

PROTEA FLATS

PROTEA FLATS

VOLUME 2.1 PART 1: HVAC - SCOPE OF WORKS

HEATING VENTILATION AND AIR CONDITIONING EQUIPMENT

1. GENERAL

- 1.1 The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act No. 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.

2. THE CONTRACT

2.1 HEATING VENTILATION AND AIR CONDITIONING EQUIPMENT

The work to be carried out and commissioned by a SAQCC gas approved installer:

- a. Inverter split air conditioning units,
- b. Testing and Commissioning,
- c. Manuals, Drawings, OEM Literature,

2.2 Existing

All installations new. Building is Existing.

2.3 Order of The Works

As per the building contractors' program of works.

PROTEA FLATS

VOLUME 2.1 PART 2: HVAC - STANDARD SPECIFICATION

1.0 GENERAL

The scope of Work is as stated in 1.0

The system shall offer the best possible compromise between the initial expenditure and the long term interest and redemption charges and running/operating costs.

The design and installation shall comply with the codes of practice and standards promulgated by recognized authorities in the fields of air-conditioning, refrigeration, ventilation, piping, electrical technology and all other branches of engineering science applicable, such as the S.A.N.S., B.S.S., A.S.H.R.A.E., SMACNA and A.S.M.E.

All workmanship and materials used in the execution of the works shall conform to modern practice and the entire installation shall comply fully with all relevant requirements of governmental and the Local Authority whose jurisdiction embraces the location of the site.

2.0 BIDS

2.1 Conditions of bid

The attention of bidders is drawn to the conditions of bid as indicated on the official bid form.

2.2 Modifications

Bidders are at liberty to submit modifications based on their standard practice and such modifications, with reasons therefore, shall be clearly stated in the bid. The price for this shall not be included in the net bid price but shall be stated separately as an extra or an omission.

2.3 Checking of bid documents

On receipt of the bid documents, the bidder must, prior to submitting his bid, check all the bid documents and should any difference or discrepancy between or in the Drawings and Specification be detected by the bidder, he shall seek in writing a decision also in writing of the Representative/Agent on the true intent and meaning of the bid documents as the East London Industrial Development Zone cannot be held liable for the additional cost of extra work that may be caused as a result thereof.

2.4 Scope of bid price

The bid price and all prices and/or rates which are inserted into the price schedules in the Specification and transferred to the bid form, must be for the execution and completion of the Works in accordance with the Drawings, Specifications and Conditions of Contract, as well as for the provision of all labour, materials, workmanship, machinery, plant and everything that is or may become necessary.

If there are or may be any exemptions from levies, customs duties, tax, etc applicable on materials, goods or work, the bidder must make his own arrangements therefore, as the bid price shall be regarded as comprehensive.

2.5 Value Added Tax

The bid price shall include Value Added Tax payable in terms of the Value Added Tax act, 1991 (Act 89 of 1991).

2.6 Information required with bids

Bidders shall supply with their bids a full specification where necessary, including dimensioned drawings or sketches of the plant, and a complete wiring diagram of any automatic controls.

Particulars shall be given as set out in the schedule concerned which shall be filled in by the bidder. Failure to comply with these requirements may render the bid liable to disqualification.

2.7 Proof that materials are available

A bidder may be required, before acceptance of his bid, to furnish proof to the satisfaction of the Representative/Agent that he is in a position to secure all the materials required to complete the Contract within the contract period stated in the contract documents.

2.8 Bid documents and ownership thereof

The bid documents consisting of the official bid form, the specifications and the drawings (if any) scheduled in the Specification, and which have been made available to bidders, are the property of the East London Industrial Development Zone and shall be returned to the East London Industrial Development Zone, whether or not a bid is submitted.

3.0 THE SITE

3.1 Definition of Site

Location: Gqeberha, Eastern Cape

External: Summer Max. Average : 26°C
Winter Min. Average : 6°C

3.2 Inspection of Site

Bidders shall visit the Site before bidding and satisfy themselves as to the local conditions, the accessibility of the Site, the full extent and nature of the work to be done and the conditions affecting the execution of the Contract generally. Claims on the grounds of lack of knowledge in such respects or otherwise will not be entertained.

3.3 The Site

The Site to be occupied by the Contractor will be clearly defined on the site plan, or will be pointed out to him by the Representative/Agent. The Contractor will on no account be allowed to extend his operations beyond the boundaries of the Site.

3.4 Procedure of work (Site in occupation)

If the site will be in occupation during the course of the Contract, the Works shall be carried out at such times and in such manner as will cause the least inconvenience to the occupants, and still allow the work to be proceeded with expeditiously. The instruction of the Representative/Agent shall be complied with in regard to the carrying out of any portion of the works which in his opinion requires to be expedited and priority shall be given to such work as and when directed.

(Site not in occupation)

If the Site will not be in occupation during the course of the Contract, the Works shall be proceeded with expeditiously. Priority shall be given to any portion of the Works as indicated in the Specification.

3.5 Existing services

If the Contractor encounters any existing services such as cables, pipes or sewers during the execution of the works, he must immediately notify the Representative/Agent, halting all work in the vicinity thereof, until instructions to proceed have been given by the Representative/Agent. Electric wires, telephone wires, pipes, etc., shall not be interfered with during the course of the Contract, but should it be necessary to disconnect or cut any such wires or pipes the Representative/Agent shall be advised thereof and his instructions awaited.

3.6 Protection of trees, shrubs and plants

The Contractor will be held responsible for any damage to trees, shrubs and plants on the Site and shall make good such damage at his own expense.

Trees, shrubs and plants may only be removed as indicated on the Drawings. The remaining trees, shrubs and plants may not be removed, cut back or disturbed in any way without the written consent of the Representative/Agent.

3.7 Water for the Works

The contractor shall provide all water he may require for the execution of the Works at his own expense.

3.8 Electricity for the Works

The Contractor shall provide all electricity for the execution of the Works at his own expense.

3.9 Recoverable materials property of Contractor

Items specified to be removed, taken out, demolished or dismantled and which are not specified for re-use, or for handing over to the Representative/Agent or others, become the property of the Contractor and must be removed from the Site immediately.

4.0 ADMISSION TO SITE

4.1 Permission for admission to and establishment on Site

Before the Site is visited by bidders or before the successful bidder (Contractor) establishes himself on the Site, the Representative/Agent's prior approval must be obtained. The Representative/Agent will, in the case of a Site located in defence or other security areas, make arrangements with the unit commander, or in the case of other Government sites, with the officer-in-charge, for permits for inspection of the Site for bidding purposes.

5.0 PAINTING

Painting shall only be necessary to those items which would normally be visible or visible when serviced, all mild steel or other components which would otherwise suffer corrosion if unpainted, however, shall be painted with two coats of rust-proof paint whether such components are normally visible or not.

Items which are factory-painted need not be repainted other than any making good which may be necessary. All plants requiring painting shall be correctly prepared and painted. No untreated metal surfaces shall be permitted on the project.

Items which are not galvanized or similarly protected against rust and corrosion shall be painted, as later detailed herein. No equipment, hanger brackets, etc., shall be permitted to be delivered on site in unprotected form; they shall be factory-coated with an approved zinc-rich prime coat before dispatch from their place of manufacture.

Painting shall comprise the following consecutive processes. First thoroughly clean, descale and degrease all surfaces, in accordance with acknowledged good practice, follow with a good coating of approved zinc-rich primer and finish with two coats of quality high-gloss enamel of an acceptable make. Final finish shall be to the full approval of the Engineer.

With the exception of ducting and piping, items with a galvanized finish, such as cable trays, need not be painted but shall be properly cleaned with a suitable proprietary galvanized iron cleaning fluid.

Particular care shall be taken that appropriate primers be used as a basis for painting and that paint be of high quality manufacture, all to provide a completely satisfactory finish to the approval of the Engineer. It shall be noted that galvanized surfaces are to be treated to ensure proper bonding of paint.

Whereas it would not be necessary to paint any ductwork conduits or pipe work installed in roof voids, shafts masonry ducts, etc., or where not normally visible, it is a requirement that such equipment be properly cleaned, treated with two coats of rust proofing paint if not galvanized or not metal subject otherwise to rust.

All equipment on the project shall be colour-coded in accordance with standards recognized in the Republic of South Africa and, where possible, to comply with relevant South African National Standard Colour Codes. (SANS. 01091-1975).

6.0 PIPEWORK

Refrigeration pipe work shall be carried out in seamless refrigeration quality copper tubing, suitable provision being made that the piping is not subjected to any stresses by vibration from the compressors.

7.0 EQUIPMENT SUPPORTS

Where equipment supports, stands, platforms and suspension brackets are indicated, specified or necessary for ductwork, pipe work, etc., the Sub-contractor shall provide supporting structures capable of carrying the load without distortion, affixed to the building structure in such a manner as not to subject it to undue stress.

Supporting of any rotating equipment shall incorporate vibration mountings of the type and selection specified in the applicable clauses referring to equipment bases herein.

All methods of suspension or supports shall be submitted to the Engineer for approval and for reference to the Structural Engineer where necessary prior to manufacture or installation.

Generally, supports shall preferably be proprietary products such as Unistrut or failing this, shall be of mild steel sections, purpose fabricated for their application. Under no circumstances whatever will sheet metal straps or plastic tie-wraps be accepted as a supporting method.

All supports shall cradle the item to be supported; shall not be riveted or welded to the equipment to be carried except in exceptional circumstances approved by the Engineer. Rod hangers shall not exceed one meter in length and be of minimum diameter 12 mm. For longer suspensions use mild steel angles. Angel iron supports shall be of 25 mm x 3 mm minimum. All supporting structures for equipment shall be dip galvanized.

Fastening methods shall employ REDHEAD or RAMSET anchor bolts or their equivalent for fixing supports to the building structure, it not being permissible to utilize gunpowder shot-driven bolts for this purpose unless prior approval be obtained.

Pipe work supporting holder bats shall be the product of a recognized manufacturer of such equipment, shop-fabricated saddles or similar devices being unacceptable unless limited space available necessitates their use. On insulated pipe work, hardwood inserts consisting of two-round machine cut pieces of timber shall be clamped around the pipe, insulation being cut away at such points, to allow proper support fitting. Wooden inserts shall be of the same thickness as adjoining insulation and 50 mm longer than the width of the holder bat support, to permit correct finishing of the insulation of vapour sealing to them.

Cable and flexible pipes shall be supported on Unistrut or equivalent perforated galvanized cable trays, manufactured by specialists, shop-fabricated trays or racks not being acceptable. The cable tray shall be suspended or bracketed using suitable mild steel angles.

8.0 DRAINS

The sub-contractor to provide all necessary drain piping laid to suitable falls from every item requiring such drainage. Such drains shall be run to the adjacent relevant drain points shown on the Drawings.

Drainage pipe work shall be adequately sized and carried out generally in medium grade galvanized piping and secured to wall (where applicable), all connections to equipment being effected with conical faced unions or flanged.

Drainage pipe work of longer than 4,5m run shall be provided with cleaning eyes on all bends to facilitate maintenance.

All condensate drainage is to terminate to the nearest drain.

9.0 ASSEMBLY OF COMPONENTS

9.1 It is essential that all mating components such as couplings, taper lock bushes, machined faces, etc., be thoroughly cleaned with a suitable solvent before assembly. All surfaces must be free from burrs or irregularities, which may prevent the correct mating of the surfaces.

9.2 A molybdenum-disulphide lubricant similar or equivalent to Mobil-grease Super shall be used on the threads of all bolts and between the mating surfaces of all parts closely fitted together, such as shafts and couplings, keys and base plates. PTFE tape shall be used in all screwed pipe connections.

10.0 WELDING

10.1 Welding shall be carried out in accordance with the current edition of SANS 044 Parts I to VII where applicable.

- 10.2 All welded filler or butt joints shall be free from porosity, cavities and entrapped slag. Joints shall be ground smooth, if required for aesthetic reasons only, without effecting weld strength.
- 10.3 The joints in the weld run, where welding has been recommended, shall be as smooth as possible and shall show no pronounced hump or crater in the weld surface.
- 10.4 The profile of the weld shall be uniform, of approximately equal leg length and free from overlap at the toe of the weld. Unless otherwise specified the surface shall be either flat or slightly convex in the case of fillet welds and with reinforcement of not more than 3mm in the case of butt welds. The weld face shall be uniform in appearance throughout its length.
- 10.5 Filler metal electrodes shall be of an approved type for the material being used and shall be kept in a dry condition. All electrodes shall conform to SANS 0455.
- 10.6 Only welders in possession of a valid approved competence certificate shall be employed.
- 10.7 All welds must show proper fusion.
- 10.8 Where welding is contemplated in pipe work systems, Tenderers shall allow for the removal and testing by an approved body of 5% of the welded joints in the system. These will be removed at random as indicated by the Engineer and tested. Should faulty welding be discovered, all other joints shall be X-ray tested by the SANS or an approved body, all at the expense of the Contractor.

11.0 GALVANISING

- 11.1 Unless otherwise specified in the Detailed Specification the following items shall always be galvanised:
- a) Fabricated mild steel sections exposed to the weather.
 - b) Steel grilles and louvers exposed to the weather.
- 11.2 Where hot dip galvanising is called for, items to be galvanised shall be entirely pre-fabricated and then dismantled in sections for galvanising. No cutting of threads or welding will be accepted after galvanising.
- 11.3 All hot dip galvanising shall be carried out in accordance with SANS 0934 and SANS 0763 where applicable, including preparation for galvanising.
- 11.4 Mild steel plate and sections shall be of good commercial quality, or higher grades, best suited for galvanising. The materials shall be free from slag or coarse laminations, fine fissures and rolled-in impurities.
- 11.5 Castings shall be sound, dense and clean, and free from distortion, porosity, carbon and slag enclosures, blowholes, and other injurious conditions.
- 11.6 Welding flux shall be chipped away and all welds wire brushed before galvanising.
- 11.7 The surface to be galvanised shall be free from paint, oil, grease and similar impurities.
- 11.8 All exposed surfaces including welds shall be thoroughly sand blasted prior to galvanising.
- 11.9 The Engineer reserves the right to inspect all steel components before galvanising, and shall have the right to reject or ask for remedial treatment of any material which is considered to be unsuitable. This applies particularly to welds.
- 11.10 The galvanising coating shall be smooth, adherent, continuous and free from black spots or flux stains.
- 11.11 Globular extra-heavy deposits of zinc, which interfere with the intended use of the material, will not be acceptable. Excessively protuberant lumps and nodules shall be removed by hot wiping or by the skilful application of mechanical means, however there shall remain a sufficient minimum thickness of unbroken zinc coating. Flaws on small parts and working surfaces shall be repaired only by stripping and re-dipping.
- 11.12 Repairs to galvanised coatings will not be accepted. Items damaged will need to be re-galvanised.

- 11.13 Coating thickness shall be as per table 1 of SANS 0763 unless otherwise specified in the Detailed Specification.
- 11.14 The SANS requirement for uniformity shall apply.
- 11.15 Galvanised surfaces specified with paint finishing shall not be passivated.

12.0 BEARINGS

12.1 Anti-friction

Anti-friction bearings shall include all bearings, which provide rolling contact between one or more sets of hardened steel balls or rollers and hardened steel rings or raceways.

Anti-friction bearings shall be of approved manufacture and available throughout South Africa.

To facilitate maintenance, spares interchangeability and standardisation, anti-friction bearings of standard design and manufacture shall be employed. All anti-friction bearings shall be provided with greasing facilities in accordance with manufacturer's requirements.

12.2 Bushed Bearings

Only where specifically stated in the Detailed Specification and in the case of low velocities and light loads in moisture free conditions will bushed bearings be accepted. All bushed bearings shall be made of an approved bearing metal composition, which has good anti-friction qualities and is capable of withstanding severe usage in the specific application.

All bushed bearings shall be provided with lubrication facilities to ensure adequate lubrication and shall be properly grooved to distribute the lubricant uniformly over the bearing surfaces. Grooves shall not be cut into the journal, but always into the surrounding bush. The edges of all chambers and grooves shall be rounded to avoid sharp corners and to facilitate the introduction of the oil or grease between the journal and the bearing metal.

12.3 Self-lubricating or oil less bearings

Self-lubricating or oil less bearings shall only be used on application of light and low velocities in moisture free and low humidity conditions and where access to bearings is difficult and likely to be neglected during servicing.

The type of bearing metal composition used shall have frictional and wear resistant properties akin to those of grease lubricated bushed bearings.

13.0 NOISE AND VIBRATION CONTROL

13.1 General

Unless otherwise specified in the Detailed Specification the design, Manufacture and installation of all the mechanical and electrical equipment shall be such as to ensure compliance with the relevant sections of SANS 0103 of 1983 "The Measurement and Rating of Environmental Noise with Respect to Annoyance and Speech Communications", as amended.

Any installation where the measured residual sound level exceeds the maximum desired residual sound level as per SANS 0103 shall be rectified to comply with SANS 0103 at the Contractor's own expense.

In all plant room applications where airborne noise cannot be limited or comply with the set standards, provision shall be made for acoustical treatment of the equipment involved or, alternatively, total enclosure thereof with acoustical panelling to comply with requirements laid down in this specification.

Such provisions shall be included in the tender price and no claims for payment to comply with this requirement will be entertained.

13.2 Vibration Isolation

Proper provisions shall be made in the foundations and mountings of all equipment capable of transmitting vibration forces to its environment, whether local or remote, (As is the case with pipes) for vibration isolation.

14.0 DAMPING

- 14.1 Where static deflections in excess of 8mm are indicated, steel springs shall be employed incorporating acoustic sound pads in series with the spring.

The horizontal stiffness of the springs shall not exceed that in the vertical, in particular for systems mounted at vertical frequencies below 5Hz.

Low frequency mounts shall incorporate rubber snubbers to accommodate extreme horizontal or vertical motions such as can occur near resonance during start up.

The snubbers shall however not be relied upon to provide the necessary horizontal stability of the machine in normal operational conditions.

Spring layouts and inertia blocks shall be employed to avoid this situation.

For static deflections below 8mm, rubber in shear mounts may be used provided the frequency is above 6Hz.

For small static deflections less than 4mm and particularly for high-speed machines and general acoustic isolation, ribbed rubber neoprene composite pads may be employed subject to the specified requirements.

No equipment shall be installed in critical areas without correct and approved vibration isolation. Sufficient stability and damping shall be incorporated in the mountings to minimise the movement of the machine during start up or changes in the operating conditions.

The selection of mounts shall take proper cognisance of unequal distribution of the mounting weight of equipment and rotational and/or pressure forces acting thereon.

15 PUMPS

Where condensate pumps are required, the pumps shall be totally enclosed in the corner of the surface mounted trunking, and shall be specified to pump the maximum condensate generated by the unit.

16.0 FANS

- 16.1 Centrifugal Fans

No centrifugal fan shall be selected in a class range other than Class 1 or 2 and the rotating speed of the fan at duty point shall not exceed 1 440 r/min.

Centrifugal fans in critical areas and fans above 7,5kW shall in all cases be mounted together with the drive motor on anti-vibration mountings together with the correct inertia mass.

- 16.2 Propeller Fans

Propeller fans shall comply with the criteria already laid down and shall be carefully selected for the highest possible efficiency with due regard for the noise criteria.

Propeller fans in excess of 0,5kW and of rotational speed higher than 800 r/min shall, in addition to the requirements already laid down, be mounted on correctly selected and installed anti-vibration mountings to reduce possible vibration transmission to surrounding structures.

- 16.3 Axial Flow Fans

Axial flow fans shall be selected for the highest possible efficiency and comply with the noise criteria specified. In critical areas no fan shall be installed without attenuators on inlet and outlet sides.

In addition it will be required that the fan as a whole be mounted on anti-vibration mountings and where specified in the Detailed specification, it may be required for the fan to be enclosed in acoustic

panelling.

No axial flow fan may be installed without anti-vibration mountings to match the fan characteristics and in critical areas it may be required for the axial fan to be provided with inertia mass to match.

Fan rotational speeds specified in the Detailed Specification shall not be exceeded.

17.0 PIPING

17.1 General

Under no circumstances may any piping be directly connected to noise generating equipment such as pumps, chillers, cooling towers etc.

Connections to such equipment shall be made with correctly selected flexible rubber type connectors of the spherical type.

In critical areas double spherical rubber type isolators immediately adjacent to the noise generating machine will be required.

17.2 Pipe Penetrations Through Walls

Under no circumstances will pipe penetrations through walls be permitted where the pipe comes in direct contact with the surrounding wall or structure.

At such penetrations it is required that a sleeve of 25mm thick soft neoprene, or other approved material, be provided around the piping at the penetration and, where plastering is applied, plastering shall be cut back to the outer edge of this sleeve.

Rubber links similar to the LINK-SEAL bolted type are preferred.

17.3 Pipe Supports

In all critical applications and within the first ten meters of all equipment, it is required that pipe supports shall be of the flexible type, correctly selected for the application and with the correct static deflection.

Any other areas and applications at risk of noise or vibration transmission to the surrounding structure similarly require pipe mountings isolated from the structure.
Pipe supports fixed to sensitive building elements will not be permitted.

17.4 Refrigerant Piping

Refrigerant piping in critical applications shall similarly be supported on anti-vibration mountings and in addition, delivery and suction piping at compressors and air handling units shall be provided with at least two braided flexible connections installed at 90° to each other and in close proximity of each other.

18.0 SOUND ATTENUATORS

18.1 Where required, in order to comply with the noise and vibration criteria already laid down, or where specified in the Detailed specification, sound attenuators shall be provided for ventilation, air conditioning and all other plant (Duct mounted and/or as applicable).

Primary sound attenuators shall be installed near or in the plant room.
The attenuators selected shall match the specific fan or plant characteristics to ensure the correct insertion loss to meet the sound criteria laid down.

Unless otherwise specified, sound attenuators shall be installed with flexible connections at the inlet and outlet connections.

The sound attenuators shall in addition be selected to produce the minimum pressure loss across the attenuator coupled to the least re-generated noise level produced by the flow through the attenuator.

18.2 Unless otherwise specified, air path sound attenuators shall be manufactured from galvanised sheet

steel with the sound absorption material moisture repellent and erosion resistant up to 20 m/s air speed, and preferably flange connected.

Wherever possible attenuators shall be proprietary type supplied by the same manufacturer as the plant manufacturer to ensure complete compatibility.

Where not clearly indicated on the drawings, attenuators shall in all cases be provided at points where supply and return air ducting leaves the plant room and shall be installed to prevent noise breakout from the plant room via the ductwork.

Where specified in the Detailed Specification and indicated on the drawings, additional cross talk attenuators shall be installed in the air conditioning or ventilation ductwork.

The internal free area of sound absorbers shall be not less than the cross sectional area of the connecting duct as indicated on the drawings.

18.3 Field fabricated type sound absorbers shall be made as follows:-

All sides of rectangular ducting shall be double walled with the inner walls perforated with 10mm holes at 25mm centres. The space between the two sidewalls shall be divided into 3 unequal sections by means of 25mm thick cement fibre panel strips and filled with glass wool. The lining thickness shall be at least 80mm. Circular ducts shall be lined as specified above except that the lining thickness shall not be less than 100mm.

19.0 AIR FILTERS

19.1 General

Filters of the type, size and quantity as specified in the Detailed Specification shall be provided.

Filter efficiency and arrestance shall be in accordance with ASHRAE Test Standard 52-76.

Filters and filter holding frames shall be of approved manufacture with standardised dimensions to enable replacement with equivalent filters of all recognised manufacturers.

Construction and manufacture of all components shall be such that under no circumstances any unfiltered air can by-pass filters or filter banks.

Sufficient space shall be allowed in front or behind filters, as applicable, to enable inspection and servicing.

Proper access doors shall be fitted to filter service areas.

Filters installed close to exposed air inlets shall be weather protected with weather louvers and a wire mesh screen.

Tubes for the measuring of the pressure drop across each filter bank shall be fitted as standard to enable connecting a manometer or other instrument as specified.

All filters and filter banks, including two-stage high efficiency and final filters shall be fitted with inclined pressure differential manometer gauges, clearly marked with filters clean (green) and filters dirty (red) indicators of a permanent type.

A separate manometer shall be fitted for each filter stage.

Fan and system selection shall allow for expected final filter resistance to ensure a supply air quantity in excess of 90% of design air quantity immediately prior to filter replacement.

Unless otherwise specified in the Detailed Specification only dry media filters are required. Where specified, pressure monitoring across a filter bank or banks shall be fitted for alarm purposes using differential pressure switches to activate the warning alarm or indicator required.

Where air filters of the washable type are specified in the Detailed Specification a suitable filter wash tank and stand complete with a drying rack shall be provided in each plant room.

The wash tank and stand shall be manufactured from galvanised steel and epoxy powder coated. The wash tank shall be connected to mains water and a suitable overflow and drain piped to the building drain fitted. The drying rack shall hold at least 20 filters. Where washable filters are specified one

complete set of spare filters shall be provided.

19.2 Panel Filters

Panel filters shall be of the pleated type and not less than 50mm thick.
The filter shall be washable or disposable as specified.

Synthetic media shall be used bounded together with galvanised wire for reinforcing and bonded in the frame ensuring no air bypass.

The frame shall be galvanised steel or a distortion and corrosion free moulding.
Initial synthetic dust arrestance shall be not less than 70% with dust holding capacity needed in excess of 300g per square meter nominal face area.
Initial dust spot efficiency shall be not less than 20%.

Nominal filter face velocity shall not exceed 1,5m/s with initial clean filter resistance 60Pa or less and recommended resistance at specified arrestance not more than 250Pa.

19.3 Pad Type Panel Filters

Pad type panel filters shall make use of disposable replacement media of thickness as specified, but generally not less than 25mm thick.
Disposable media supplied and the filter in general shall comply with 24.1 above, unless otherwise specified.

The media shall be held in galvanised steel frames with galvanised steel screen supports on both sides. The downstream screen shall be fixed in the frame with the upstream screen removable.

19.4 Extended Surface Intermediate Efficiency Filters

Filter media shall be self-supporting, leak-free and stable under all airflow conditions.
Front frames shall be of aluminium, galvanised steel or reinforced high-density hard polyurethane foam with a continuous foam rubber gasket.
"Slide-in" type of arrangements will not be accepted for filters in this class.
Filter depths less than 150mm will not be accepted.

Galvanised protection screens shall be fitted to match the airflow arrangement.
Initial synthetic dust arrestance shall be not less than 85% with dust holding capacity not less than 1500g per square meter nominal face area.

Nominal filter face velocity shall not exceed 2,5m/s with initial clean filter resistance 60Pa or less and recommended resistance at specified arrestance not more than 250Pa.

19.5 High Efficiency Particulate Air Filters (HEPA)

Filter media shall be self-supporting leak-free and stable under all airflow conditions.

The media shall be bonded in to a pressed and sealed particle board housing.
Unless otherwise specified in the Detailed Specification filters shall be provided with silicone filled channel seals.

"Slide-in" type of arrangements will not be accepted for filters in this class.
Filters shall be arranged in two or three stage configuration with the primary filters complying with clauses above as specified in the Detailed Specification.

Filter depths less than 300mm will not be accepted and effective filter media surface area shall exceed 50m per square meter nominal face area.

Each filter shall be individually tested in the factory for leakage with a DOP aerosol and supplied to site in completely sealed protection containers.

Corrugated media separators shall be of aluminium or Kraft paper.
Filter efficiency shall be not less than 99,9% when tested with 0,3 micrometer Dioctylphthalate smoke.

Dust holding capacity shall not be less than 2 000g per square meter nominal face area.

Nominal filter face velocity shall not exceed 1,5m/s with initial clean filter resistance to be 250Pa or less and final resistance not to exceed 500Pa.

Pressure monitoring across the HEPA filters is required with warning light and/or alarm as specified.

19.6 Filter Holding Frames

Filter holding frames shall be the manufacturer's standard product installed and used in accordance with his recommendations.

Holding frames shall be manufactured from at least 16 gauge galvanised or epoxy powder coated steel. Holding frames may be bolted or riveted together and shall be suitably reinforced in larger arrangements to withstand all possible operating conditions.

Fasteners shall be positive sealing type and a minimum of four fasteners per filter is required. Fasteners shall match the particular filter, filter arrangement and frame.

20.0 **MEASUREMENT OF COMPLETED WORK**

The attached Bills of Quantities is provisional, which means that the Bill does not represent the exact scope of work to be performed and completed and that every piece of completed work will be measured and agreed with the Contractor before payment is processed.

21.0 **UNAUTHORISED EXPENDITURE**

Although the Engineer has conducted the audit of the buildings installations other items may have degraded in the intervening period up to site handover. It is therefore very imperative for the Contractor to bring to the Engineer's attention as soon as he / she realises that the work measured in the Bill of Quantities may be appreciably exceeded. Failure to observe this procedure where the Contractor proceeds with excessive additional work without authorisation will be tantamount to unauthorised expenditure which may lead to non-payment for unauthorised work.

22.0 **SPECIFICATIONS & STANDARDS**

The works carried out under this Contract shall be governed by the:

- (i) The latest issue of SANS 10142: "Code of Practice for the Wiring of Premises"
- (ii) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended

23.0 **SCHEDULE OF MATERIALS**

In all instances where schedule of materials are attached or included on the drawings, these schedules are to be regarded as forming part of the specification.

24.0 **QUALITY OF MATERIALS**

Materials are to comply with the relevant South African National Standards (SANS), or to IEC specifications, where no SANS specifications exist. All materials used shall bear the SANS mark of approval as applicable.

25.0 **PROGRAMME AND PLANNING**

The sequence, in which the work must be carried out, must be established in consultation with the Main Contractors construction programme, Sub-contractors and their respective Domestic contractors. The Engineer must be kept informed on the progress all the time.

26.0 **SUPERVISION**

The work shall, at all times be carried out under the supervision of a skilled and competent representative of the Contractor, who will be able and be authorised to receive and carry out instructions on behalf of the Contractor.

27.0 **WORKMANSHIP**

All inferior work shall, on indication by the Engineer, immediately be removed and rectified by and at the expense of the Contractor.

28.0 SUPPLY OF MATERIAL

The Employer reserves the right to supply any items of material or equipment to the Contractor for installation. The Contractor must arrange for taking delivery of and providing safe storage for these materials and he will be held responsible for all damages to or loss of such materials while they are in his custody.

29.0 COMPLETION

Completion shall take place only after the whole installation has been accepted by the Engineer and

- (a) All damage that may have been done by the Contractor in the process of the installation has been repaired and made good
- (b) All tests of the Mechanical installation has been done and tests results have been submitted to the Engineer,
- (c) The completed Certificate of Compliance as specified has been submitted to the Engineer,
- (d) All equipment guarantees, if any have been submitted to the Engineer,
- (e) The work site has been cleared of all debris and waste materials and left in a neat and tidy condition.

PROTEA FLATS
VOLUME 2.1 PART 3: HVAC - DETAILED SPECIFICATIONS

1.0 INTRODUCTION & GENERAL

This Detail Specification complements & qualifies the foregoing standard specifications of material & workmanship. The Standard Specification should be regarded as a basis and guideline, with this Detailed Specification taking preference where any ambiguity is concerned.

In the event of any further technical ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority:

- a) Schedule of quantities
- b) Project specification
- c) Drawings (loose and bound-in)
- d) Standard specification

2.0 SITE CONDITIONS

Location: Gqeberha, Eastern Cape

3.0 SCOPE OF WORK

General

The standard specification shall apply unless otherwise indicated in this section.

The drawings issued herewith and listed in the relevant section are to be read in conjunction with the specification and all items mentioned, together with all ancillary equipment necessary for the correct installation, operation and full compliance with the Standards and codes must be provided, notwithstanding the fact that they may not have been included in detail in these documents.

The bidder shall, at the time of bidding, draw the Engineer's attention to any omissions or discrepancy between the specification and the drawings and request from him clarification of details or responsibilities.

If a limited allowance or special conditions are made for the Bid Sum for the supply or erection of any item of the installation, the limit or special conditions shall be defined at the time of bidding.

It is the sole responsibility of the bidder to ensure that all quotations obtained from manufactures and suppliers are complete in their entirety and must include all equipment and accessories necessary for compliance with current practice and the efficient and proper functioning of the installation.

If any such items of equipment, brackets and accessories, etc., have been omitted from a supplier's quotation, or incidental work is necessary, the bidder must include for all such items and work in the bid.

The whole installation shall be in accordance with the latest edition of the Occupational Health and Safety Act: No. 85 of 1993. All regulations framed therein, shall be carried out to the satisfaction of the Engineer.

All equipment offered by the bidder shall be to the approval of the duly appointed Engineer, prior to installation. This standard specification and the supplementary specification with drawings shall be carefully adhered to by the bidder. Equipment installed without the approval of the Engineer will have to be removed at the Contractor's expense and be replaced with officially approved listed items.

The successful bidder will be required to prove to the Engineer that he has qualified personnel on

his staff establishment as well as recognised test equipment for the successful completion of a safe working installation.

The contractor shall employ only skilled artisans and technicians approved by the Engineer who are competent in this type of work. The work shall be carried out in accordance with the standards laid down by the Engineer.

The contracting firm shall be recognised contractor specialising in this field and approved by the Engineer.

The work performed shall comprise the supply, delivery, off-loading, interim storage, installation, testing, commissioning and leaving in good working order of the complete electric access goods only lift installation inclusive of all guarantees as specified herein and the supply of 'AS IS' installation record drawings, Maintenance and Operating Manuals for:

Heating Ventilation and Air Conditioning Systems Overview:

- Inverter mid wall air conditioning units,

The liaison with a Building/Principal Contractor, Electrical Subcontractor, and their Domestic Subcontractors if and when required

Testing and commissioning of all air-conditioning and ventilation system equipment in conjunction with the Fire Detection and Alarm Evacuation Systems Sub-contractor.

This Sub Contract also includes all electrical work for the installations but excludes the power supply to the isolator provided by others.

Notwithstanding any omission in this specification the installations shall be complete in all respects. This condition shall be recognised in the preparation of all working drawings submitted for approval. Further, despite any approval of working drawings given by and on behalf of the Main Contractor the responsibility for correct functioning of the plant during tests, inspection and the maintenance period shall rest entirely with the successful bidder.

The installation shall be strictly in accordance with the approved drawings or such further drawings, modifications, or instructions as may be given by the Engineer concerned, or that are found to be necessary, and such modifications or instructions shall be deemed to be within the specification for the purpose of the bid, and shall not vitiate the contract.

Payment for such modifications will only be made on certification by the Engineer to the effect that such modifications have involved additional expense to the Sub-Contractor.

4.0 PROGRAM

The Sub Contractor shall complete the installation within the time stipulated. The Sub Contractor will be required to report to the Principal Contractor, generally on a weekly basis (or more often if required by the Principal Contractor), progress of work and any difficulties arising, to enable the Principal Contractor to update the programme or forward plan any changes.

The sequence in which the work is to be carried out shall be decided upon in consultation with the Principal Contractor. The Sub Contractor shall thereafter submit an adequately detailed Sub Contractor's installation programme for approval within two (2) weeks of the Sub Contract being awarded unless otherwise indicated herein after.

This programme must be periodically updated as the work progresses and as may be necessary to meet changing site conditions and alterations to the overall installation programme.

Programmes shall take the form of bar charts, network diagrams and schedules as may be required by the Main Contractor or as applicable, and shall reflect quantities of work as required for supervision purposes and measurements.

As a minimum the programme shall reflect:

- sequence and timing of installation activities.

- sequence and latest event times of major equipment ordering, manufacture and delivery dates.
- sequence and dates for the submission of drawings and samples for approval.
- sequence and dates for factory and site inspections and tests.
- target and achieved work quantities on a weekly, fortnightly and monthly basis.

In preference all work is to be undertaken by staff in the full time employ of the bidder.

All work which is to be undertaken by "Domestic Sub Contractors" of the Sub Contractor will be clearly identified in the bid submission and the Sub Contractors to be used subject to prior approval of the Client and/or Engineer and/or Principal Contractor; failure to comply with this requirement may result in the "Domestic Sub Contractors" being removed from site.

All costs in replacing the undesirable "Domestic Sub Contractor" or any delays incurred as a consequence of this will be entirely for the Sub Contractor's account.

5.0 DESIGN CONDITIONS

Indoor: 24°C 50% RH

Outdoor: 31°C DB; 22.8 °C DB

6.0 DESIGN

Refer to the drawings provided with this specification for:

Heating, Air Conditioning & Ventilation:

- 2316-M-T-101 HVAC

7.0 ELECTRICAL

Overloads shall be adjustable to approximately 25% higher than the relevant motor overload current.

Wiring in panels shall be neatly run in vertical or horizontal lines and each terminal shall be numbered to accord with the relevant wiring and control diagram. Circuit breakers, timers, relays, etc. shall be labelled in accordance with the wiring diagram and the item of plant served.

8.0 OPERATING AND MAINTENANCE MANUALS

8.1 Operating Manuals

Three complete sets of operating manuals shall be supplied by the Contractor, two sets to the Engineer for onward forwarding to the Employer and one for the User Department's use.

Manuals must be compiled in layman's language.

At least one month before commissioning, one draft copy shall be submitted to the Department/Engineer for comments and approval.

Operating manuals shall give a clear description of and the purpose of the installation.

- (a) Paper copies of all approved drawings and diagrams.
- (b) Detailed description of the different components used in the installation.
- (c) On- and off switching procedures.
- (d) Guidelines for routine-test to be carried out by the User Department inclusive of the

periods during which tests are to be undertaken.

- (e) Detailed instructions for procedures to be followed during a fault

The following drawings are required:

- Layout drawings
- Wiring drawings showing wire colour codes and numbers as well as all connections onto terminal strips (markers to be approved by the Engineer) of all plant new and existing.

The following documents are required:

- Full description of the system.
- Operating instructions.
- Installation instructions.
- Commissioning instructions.
- Maintenance instructions, maintenance schedule and trouble shooting guide.

8.2 Maintenance Manuals

Two complete sets of maintenance manuals (Technical) prepared in English, shall be supplied by the Contractor.

At least one month before commissioning a draft copy shall be submitted to the Department/Engineer for comments and approval.

Maintenance manuals shall consist of the following:

- (a) A general description of the system.
- (b) A general description of the controls.
- (c) Schedule of equipment, model numbers, optional extras, modifications, electrical power requirements, etc.
- (d) Detailed monthly, quarterly, semi annually and annual preventative maintenance procedures.
- (e) Manufacturer's catalogues clearly indicating type, size and model of equipment supplied.
- (f) Tabulated commissioning data of all equipment and the system, indicating- as measured and according to specification - requirements.
- (g) List of suppliers, addresses and telephone numbers.
- (h) List of spare parts for all equipment.
- (i) Fault tracing/finding procedures.

The following drawings are required:

- Layout drawings
- Wiring drawings showing wire colour codes and numbers as well as all connections onto terminal strips (markers to be approved by the Engineer) of all plant new and existing.

The following documents are required:

- Full description of the system.
- Operating instructions.
- Installation instructions.
- Commissioning instructions.
- Maintenance instructions, maintenance schedule and trouble shooting guide.

Manuals shall be bound in a firm hard cover.

The information shall be clear and readable and supplied with an index.

The above-mentioned manuals shall be available at first delivery. Delivery of the installation will not be accepted without the manuals.

9.0 TRAINING OF STAFF

The bidder shall allow for sufficient time for instructing the User's appointed responsible persons in the correct operation of all plant and equipment, procedures to be followed in the event of faults etc.

Two sets of instruction manuals shall be provided. Each manual shall comprise of the following sections, bound in a vinyl plastic covered folder with the name of the project typewritten on a card inserted into a clear plastic covered cardholder on the front cover and spine and shall be handed to the Main Contractor on completion of the installation:

- Table of Contents
- Functional Description of Plant (as installed)
- Operation of Plant (as installed – step by step instructions for setting temperatures, etc.)
- Plant and Equipment (a scheduled list of all major plant to include description, make, model number and supplier's name and address).
- Performance Testing Procedures including Test Report
- Maintenance Instructions (in schedule form setting out each item of plant, the description and frequency of maintenance operations required).
- Spare Parts (list of spare parts that shall be required, with detailed description of each part, make, model or part number and supplier's name and address).
- Descriptive Literature (for all items of plant and equipment).
- Record Drawings (of plant as installed to include plant layout drawings showing component location, control and wiring diagrams and schematic piping diagrams).

10.0 GUARANTEE

The entire air-conditioning and ventilation / extraction installation shall be fully guaranteed for twelve calendar months from date of acceptance by the Engineer and contract practical completion date.

During the guarantee period, the Tenderer shall be responsible for the making good of any defects reported by the Tenant. The guarantee shall be ceded to the Superintendent following acceptance of the installation.

11.0 MAINTENANCE

The air-conditioning Tenderer shall be responsible for the maintenance of the entire plant during the guarantee period, as specified in this document. During this period the plant shall be serviced quarterly including filter cleaning and the Superintendent undertakes to provide access to the plant

at suitable times during trading hours. Record of all services shall be kept and copies signed by the Superintendent.

12.0 CERTIFICATION ON COMPLETION OF GUARANTEE & MAINTENANCE PERIOD

Included in the pricing for the installation of the package plant is a 12 month quarterly service plan.

In the month prior to the expiry of the guarantee / first twelve months maintenance period, the Engineer shall inspect and, if necessary, retest the installation so as to be able to provide the Superintendent with a certificate, within fourteen days of the guarantee expiry date. This is to confirm that the guarantee has been honoured and that the installation has been properly serviced at required regular intervals by the air-conditioning Tenderer.

13.0 SAMPLES & ALTERNATIVES

Samples (within reason) will be requested by the Engineer and are to be made available on-site for inspection / approval.

The tender prices shall be based on the equipment as specified and not on any alternatives. Should the Tenderer wish to submit prices for alternatives, he shall do so separately, in a letter or similar correspondence, attached to the tender. The use of any alternative equipment, if any, will be evaluated and decided on after tender award, when the costs, etc. will be negotiated with the successful Tenderer.

The Engineer reserves the right to call for prices on alternative equipment subsequent to tender submission.

14.0 SCHEDULES OF INFORMATION

The schedules of information contained in this document consists of 2 sections:

Information supplied by the Engineer (schedules of drawings, etc. as applicable).

Information to be supplied by the Tenderer at tender stage (tender form, information on the makes, types and ratings of equipment and materials offered, schedules of prices and rates for variations, schedules of quantities, etc. as applicable).

Tenderers must provide, at the time of tendering, in the "Schedule of Material Offered", sufficient details to enable the equipment concerned to be identified without ambiguity.

It is not sufficient for a Tenderer to state "as specified" in the schedules.

Failure to complete these schedules may render a tender invalid.

15.0 DRAWINGS

15.1 General

Generally, the term "detail" shall mean that the drawing is exact in all aspects to what shall be provided. Where the term "illustration" is used, however, it shall be construed that the drawing is to be regarded as a proposal or guideline as to what is to be provided, manufactured or supplied.

15.2 Tender Drawings

Refer to the tender drawing as provided with this document.

15.3 Construction / Workshop Drawings

The successful Tenderer shall submit construction drawings (or detailed catalogues) of the manufactured equipment, such as mounting details, etc., for consideration by the Engineer prior to manufacture/supply thereof.

The Engineer's approval of construction or workmanship drawings does not relieve the Tenderer of his responsibility with regards to any of the deviations from the requirements of this contract unless the Engineer has been clearly informed, in writing, of such deviations at the time of submission and the Engineer subsequently gives written approval for the specific deviation. Similarly, the Engineer's approval shall not relieve the Tenderer of responsibility for errors or omissions in the

construction / workmanship drawings.

15.4 Record Drawings

The Tenderer must prepare record drawings of the completed installation as constructed, indicating cable runs, equipment mounting details, circuiting & distribution board details, sleeve pipe positions, etc.

The contract shall not be deemed as complete until these drawings have been submitted.

16.0 **SUPERVISION, WORKMANSHIP AND DELAYS**

The work shall at all times, for the entire duration of the contract, be executed under the supervision of a skilled and competent representative of the Tenderer, who must be able and authorized to receive and execute instructions on behalf of the Tenderer. This person must be a registered and accredited person, as described by the OHS Act. It must be noted that the staff complement of the Tenderer shall remain similar throughout the duration of the contract, for all sections of the Works.

In the event that inferior materials or bad workmanship, on the part of the Tenderer, leads to remedial work requiring redesign by the Engineer, the cost of this work, including related professional fees, shall be borne by the Tenderer.

Similarly, should delays in the contract be caused by poor performance on the part of the Tenderer causing the engineer to spend extraordinary time on the project, the extra costs incurred shall be borne by the Tenderer.

These costs will be based on the CESA hourly rate and will be deducted from claims due to from claims which will become due to the Tenderer.

17.0 **COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES**

The Tenderer shall arrange for all inspections and testing of the installation as required. All notices, fees, including inspection and re-inspection, are the responsibility of the Tenderer and all the relevant costs shall be borne by him.

The workmanship throughout the Works will be to the satisfaction of the Employer. Any materials or workmanship considered as faulty or incorrectly or inadequately erected or repaired, will be substituted, altered or rectified to the satisfaction of the Employer, without additional cost to the Employer.

The Works will be executed in strict accordance with the following:

- All relevant by-laws and regulations of local authorities.
- All relevant SANS, BS and other international standards.
- The Occupational Health and Safety Act of 1993.

18.0 **COMMISSIONING AND TESTING**

18.1 General

Upon practical completion of this Sub Contract the Sub Contractor shall allow for providing the Engineer with a complete commissioning schedule indicating the actual test results and measurement of all the design or specified data/variables.

Tests to demonstrate the capacity specified and general operating characteristics of all plant shall be made under the direction of the Engineer at any time before the practical completion inspection under conditions imposed by him.

The Sub Contractor shall be responsible for supplying test equipment which is to the Engineer's satisfaction; any costs incurred by the Sub Contractor in supplying adequate instrumentation will be entirely for his account. Test instruments shall be tested for accuracy by an approved laboratory or by the manufacturer and certificates showing the degree of accuracy shall be furnished to the Engineer if required.

On satisfactory completion of all tests and after the completed installation has been inspected and passed as satisfactory by the Engineer, the installation will be accepted as being practically complete and be handed over to the Employer.

The Sub-Contractor shall be responsible for supplying an itemised set of test results for the Engineer's approval; the Engineer may at his discretion request the Sub-Contractor to re run at the Sub Contractor's expense any test which he has not witnessed or with which he feels not satisfied.

The following shall be recorded/measured for each separate installation as specified and installed under this contract:

Description of installation tested;

Date and time of test;

Ambient temperature conditions (measured in the shade):

- (a) Dry bulb temperature
- (b) Wet bulb temperature
- (c) % RH

19.0 BUILDER'S WORK

The onus is on the Tenderer to point out and check the requirements for and positioning and correctness of all builder's work for his services.

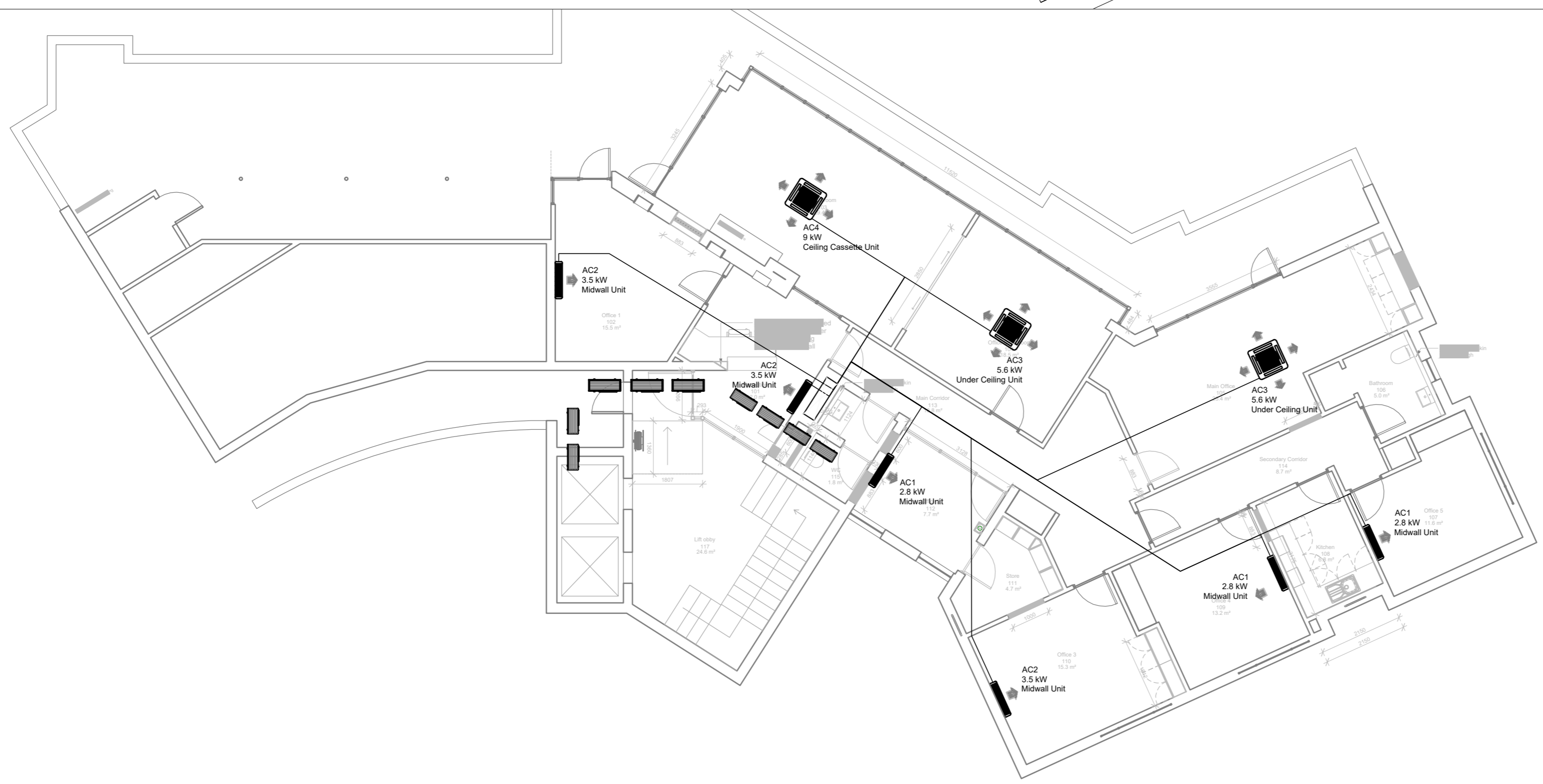
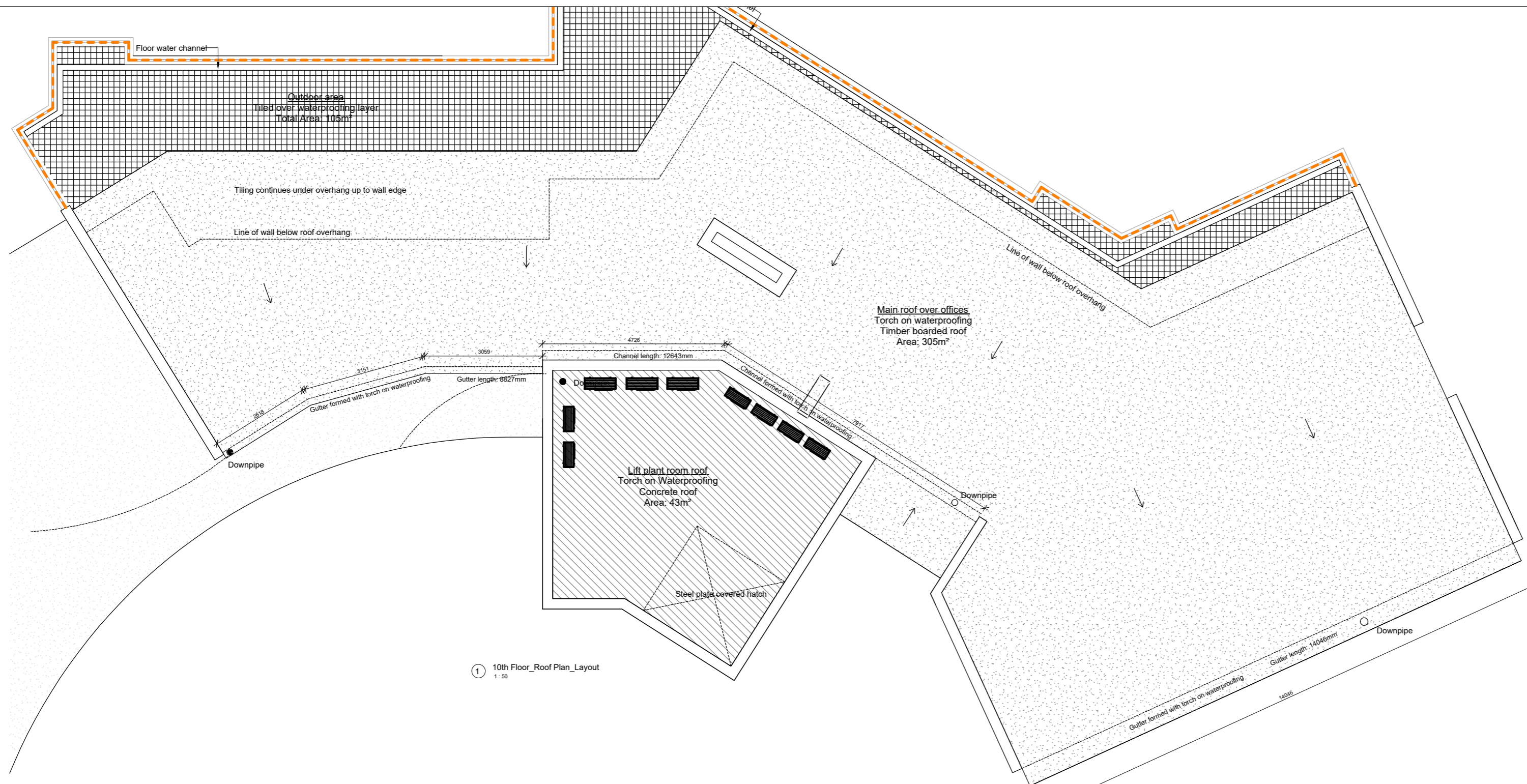
20.0 MAKING GOOD

The builder is to be made aware of all works, timeously, relating to the impact of this installation(s). The Tenderer will carry out, in all instances any work to be made good such as damage to, or disturbance of the building installations caused by himself or his employees during the execution of the contract at his own cost.

21.0 SITE MEETINGS

The Tenderer's representative shall be expected to attend an official site meeting at the onset of the project including scheduled technical and site meetings during the contract period. For meetings termed as "technical or site", a site representative for the nominated Tenderer is required to attend and this person must be competent and able to interpret and receive and act on instructions on behalf of the Tenderer.

The Tenderer shall price all relevant P & G costs, overheads, travelling, etc. for these meetings.



GENERAL NOTES:

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	25/10/23	TW	Issued for information

CLIENT

ECDoH

TITLE

HEATING VENTILATION AND
AIR CONDITIONING
EQUIPMENT LAYOUT

NEW GSA OFFICES



COPYRIGHT



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DESIGN	TENDER	CONSTRUCTION
	✓	

DESIGNED BY: T. WARNE

SCALE: 1 : 200

DRAWN: T. WARNE

DATE: 25/10/2023

PRINT DATE: 25/10/2023

CHECKED BY: Travis Warne

REGISTRATION No. 201770017

SIGNED: _____

DRAWING NO. 2316-M-T-101 HVAC

REV No. B

SECTION 11

ICT AND ACCESS CONTROL SPECIFICATIONS AND DRAWINGS PROTEA FLATS

Vol. 1.1 Part 2 DETAILED SPECIFICATIONS

PROJECT TITLE:	ALTERATIONS AND ADDITIONS AT PROTEA FLATS: NEW GSA OFFICES - ICT AND ACCESS CONTROL INSTALLATIONS
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1.0 INTRODUCTION & GENERAL

Should there be any conflict or ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority: -

- Schedule of Quantities
- Detailed Specification
- Drawings

Should the Tenderer notice any inconsistencies between these sections, it is his responsibility to notify the Engineer in order to obtain clarification thereon.

2.0 SCOPE OF WORK

The main contract is for the Alterations and Additions at Protea Flats: New GSA Offices in Gqeberha. This document covers, for the installation, testing and commissioning of ICT and Access Control Installations. The work entailed under this contract shall be:

2.1 ICT INSTALLATIONS

This installation entails:

- Installation of data switch with suitable wall mount data cabinet
- Installation of data and network cabling including terminating to points in various buildings
- Supply and issuing of Operations and Maintenance manuals for the installation
- Provision of as-built drawings
- Configuration of installation working with client's IT personnel

2.2 ACCESS CONTROL INSTALLATIONS

The work entailed on each installation is listed below.

- **Access Control**
 - Installation of door magnet on access-controlled door
 - Installation of biometric/card readers and "Touch Free" release button
 - Emergency break-glass door unit with alarm
 - Linking of new installation with existing hospital network
 - Interfacing of the installation with fire detection
 - Supply and issuing of Operations and Maintenance manuals for the installation
 - Provision of as-built drawings
 - Training of DOH staff on how to operate and maintain the equipment
 - Intercom system complete with push-button on the main door, handset in the security room and its associated cabling

The Subcontractor is responsible for providing the installation in accordance with this Specification and as shown on tender drawings.

The intent of this document is a performance specification for a modular security management system encompassing the sub-systems described. Tenderers are at liberty to offer enhancements to the equipment specified.

The security subcontract will be inclusive of the following IP based installations:

- Door Monitoring
- Access Control
- Electro-mechanical and Magnetic locks
- Biometric/card readers

Tenderers are encouraged to tender a main option which would represent a compliance with the specification and quantities and would relate to the completed Bills of Quantities. Alternative options may be offered together with a full motivation and separate Bills of Quantities.

In instances where reference is made or inferred to particular products, it only serves the purpose of defining a required standard. Tenderers are requested to offer the best and most suitable products for the application.

General items include the following:

- a) Cable trays to be supplied and used where possible and all cable to be neatly and securely tied with cable ties.
- b) If no cable trays, all cables to be installed in conduit and correctly secured.
- c) No cables may be left to lay on the ceiling boards.
- d) All cable loops to have minimum of 20% spare capacity.
- e) All cabling to electronic locks is to be installed on the secure side.
- f) No joins in cable will be accepted.
- g) All junction boxes and boards to be correctly mounted.
- h) All door monitors will be of the 20mm recessed type unless specified otherwise.
- i) All readers must be wired to facilitate the reader sounder and other functionalities.
- j) All electronic devices, power supplies and any other control equipment must be mounted neatly in suitable enclosures to protect them against damage and tampering. Each enclosure will be fitted with a tamper switch and all power supplies are to be monitored.
- k) All floor, room and ceiling voids to be protected and monitored for smoke, fire and water.
- l) All power supplies will be battery backed up with a 12Vdc, sealed rechargeable lead acid battery.
- m) On system hand-over, the installation is to be complete and FULLY functional.
- n) A complete set of user-friendly operating instructions to be provided.
- o) Adequate operator training to be included in tender price.
- p) A complete set of design architecture drawings depicting correct positioning of all equipment to be supplied.

- q) All devices including public address speakers and access control devices must be labelled according to the floor number and location on the floor. A register of the items installed and the corresponding numbering must be supplied on hand over.
- r) All equipment must be networkable and facilitate remote monitoring and operation.

3.0 SPECIFICATION

Local and Supply Authority

The project location is in Dora Nginza Hospital, Spondo Street, Zwive, Gqeberha.

The area to be renovated consist of single-storey buildings.

Site Conditions

Equipment shall be suitable for the following conditions:

Ambient temperature	-5°C to 40°C
Altitude	0m
Relative Humidity	32°C dB Temperature 22°C wB Temperature
Nominal LV Supply	400/231 [no load] 4 wire, 3 phase system with earthed neutral.
Nominal HV Supply	11kV 3-wire system.
Frequency	50 Hz.

Details to be submitted with the tender document:

Should the tenderer in any way differ from the Specification, the differences shall be stated in detail. The information shall be included in a covering letter accompanying the tender, stating the paragraph of the Specification where the requirements are deviated from.

It shall be noted that the information entered in the schedules will not relieve the Subcontractor of his obligations to comply with the Specification.

3.1 ACCESS CONTROL

General

Tenderers shall submit a proposal for a modular access control and security management.

Tenderers shall respond fully to the following minimum criteria as well as any additional options offered:

System architecture, modular at all levels, to allow:

- Software elements to be installed as required in different locations.
- Large number of controllers to be connected via flexible multidrop interfacing.
- Software and hardware able to support local and remote sites.

Core software to be employed, providing set up and monitoring without affecting stand-alone operation of field elements and controllers.

- Other information [10 lines of 80 characters per line], which shall be password, protected.
- [e] Anti-pass back operation at all levels [local and global as programmed].
- [f] Minimum of 24 levels of security each with four separately programmable time zones per level.
- [g] Minimum of 16 programmable time zones.
- [h] Automatic visitors card voiding. [Refer retrieval system specified.]
- [i] Lost card voiding with associated alarm.
- [j] Alarms for invalid transactions.
- [k] Event of alarm logging as selected with associated reports.
- [l] Automatic personnel logging for selected areas.
- [m] Personnel location interrogation.
- [n] Visitor/host attachment
- [o] Duress alarms
- [p] System alarm/event/protocol printer
- [q] Four digit PIN option and Duress PIN function.

The Access Control system alarm and selected event recording [including video ID of visitors and vehicles as required] shall have a seven-day wrap-around storage capacity.

Tenderers are requested to tender the following option:

- Main Offer
Proximity card readers and cards as described above

Tenderers are requested to provide under separate heading in their tender submission, the following rates for higher access level readers, that may be available in the system offered, or may be imported into the system from other manufacturers:

- Biometric reader with Wiegand Interface (include card reader)

Tenderers shall confirm that the above higher level readers can be accommodated at any reader point in the system, in the card reader positions as indicated on the drawings.

The access control system will consist of a central processor located in the equipment room adjacent to the security control room with terminals as follows:

- [a] The reception counter on ground floor level shall be provided with two terminals for visitors card validation and tenant card validity checking. [Extend to four stations for +50% extension]
- [b] Visitors arriving by vehicle [one driver per vehicle] or on foot at the entrance, will be issued with a temporary card, which must be exchanged for a metal or other token to operate the exit boom [or pedestrian turnstile] upon leaving the premises. Tenderers shall allow for the provision of temporary plastic cards and tokens [1 000 per day +50% future], as well as for the required token-operated releases for the exit boom and exit pedestrian turnstile. [Both these being off-line devices]

The access control system shall be provided with a guard clocking/patrol facility, which will allow a user programmed route and time-lapse facility between card readers. This will allow the holders of defined cards to follow the route and if there is any deviation in route or time between stations, [too short or too long], then an alarm shall be raised in the Security Control Room.

Access cards offered shall be suitable for use with or without photographs of the holder.

The card readers shall have a positive means of indication to show that the card reader is on-line and whether a transaction is accepted or rejected.

Tenderers are advised that normal type proximity [or Smart Card option] cards will be used to be programmed for visitors. Tenderers shall allow high-reliability, dual reading visitor's card retrieval devices at the pedestrian barrier exit line at the main reception [full details to be submitted].

Specification

The Specification covers all activities up to final commissioning and maintenance during the guarantee period of the installation.

- IP Based Access control
- Full Integration of the above

Tenderers shall allow for the future extension of the systems and equipment offered for an additional 20% extension of all systems.

Access Control termination boxes will be provided on and will be all linked to the Hospital network.

The Access Control (ACS) Installation shall include but not be limited to:

- The installation of the ACS, supply, delivery, installation, testing, integration, commissioning, guarantee and maintenance of the Access Control Installation.
- The provision of all necessary equipment, tools, accessories and test equipment to complete the Security Installation.
- The timeous provision of building work details.
- The provision of shop drawings showing all wiring routes, equipment details, equipment positions, [including fixing details], sleeves, etc.
- The compilation of manuals including a full schedule of equipment installed spares lists, "As Built" drawings and information as set out in the Specification.

Related work by others

The following related work associated with this Subcontract will be carried out by other parties as specified:

Access Control Subcontractor and Main Contract

The following work will be provided by the Main Contractor:

- Provisions of penetrations in walls and structure for reticulation of cabling.
- Closing of ducts and opening through concrete slabs after installation of wiring and piping.
- Setting out of all equipment

Access Control Subcontractor and Electrical Subcontract

The following work will be provided by the Electrical Subcontractor:

- A 400V 3-phase or 240V [uninterrupted] power supply point at each point as required and identified by the Subcontractor. Any transformers or converters required for other voltages shall form part of this subcontract and shall be priced with associated equipment.
- All conduit and wiring channels.

Access Control Subcontractor and the Fire Detection, Alarm and Extinguishing System Subcontractor

The following related work will be provided by the Fire Detection, Alarm and Extinguishing System Subcontractor:

- The Fire Detection, Alarm and Extinguishing System Subcontractor will provide signals for the interfacing of the Fire Detection and Security Systems. These signals will be wired to terminal strips in the equipment racks in the Security Control Room. Connections of these signals to the Security System including wiring forms part of this Subcontract.
- The Fire Detection, Alarm and Extinguishing System monitoring and control computers will be located in the Security Control room.

The Access Control and CCTV installation Subcontractor will be required to liaise with the Fire Detection, Alarm and Extinguishing System Subcontractor if not the same Subcontractor to co-ordinate the requirements in respect of space, wiring routes and access.

Sub-Contracting

Tenderers are advised that no part of the Access Control and CCTV installation may be sub-contracted to companies external to the permanent employment of the Subcontractor, except for purposes of Empowerment as submitted in pre-qualification submissions. It is a specific requirement that all operational team members responsible for installation, commissioning and training shall be permanent employees of the tenderer.

Confidentiality

It is a condition of issue of these documents that the successful Subcontractor shall maintain full confidentiality of the documents and drawings.

During the course of the Subcontract, the successful Subcontractor shall institute such procedures to ensure proper control over copies of documentation and drawings. Such procedures may vary from time to time but shall include:

- Numbering of all prints of shop drawings and recording issue.

- Return of all drawings when superseded.

Conduits and wire-ways

All conduits and wire-ways required by the Subcontractor will be supplied and installed by the subcontractor as provided for in the bills of quantities.

Trunking in place of conduits will be preferred for neatness in areas of exposed slabs.

The Subcontractor shall provide shop drawings for requirements over and above those already indicated for co-ordination purposes. These shall in particular, show size and position of outlet boxes as well as details of any special fixings that are required. All additional wire ways and power supplies to be supplied on shop drawings that may be accordance with the product specified

All wiring required to make the Security System operational shall form part of this Subcontract. This shall include all power and control wiring from the 400V/240V power points installed by the Electrical Subcontractor.

All wire ways in the Security Control and Equipment rooms are excluded from this subcontract and will be installed by the Electrical Subcontractor.

MAGNETIC LOCKS AND STRIKES

Magnetic locks shall be fitted to all doors shown on the drawings and/or schedules.

The doors shall be in the locked position during normal operation and shall only be possible to open a door in one of the following ways:

- From the outside by presenting a valid card to the corresponding card reader and thereby activating the magnetic lock.
- From the outside by withdrawing the bolt from the strike with a key without activating the magnetic lock.
- By the fire system in the event of a fire. A main override will be provided at the control desk to override all magnetic locks in the event of a fire.
- By means of a green break glass emergency feature, operable in the event of a software failure.

The Subcontractor shall ensure and test that all magnetic locks are powered by the nearest available POE+ switch.

Should the magnetic lock be powered by a dedicated power supply, the installer is to ensure and test that the unit operates on UPS power if available.

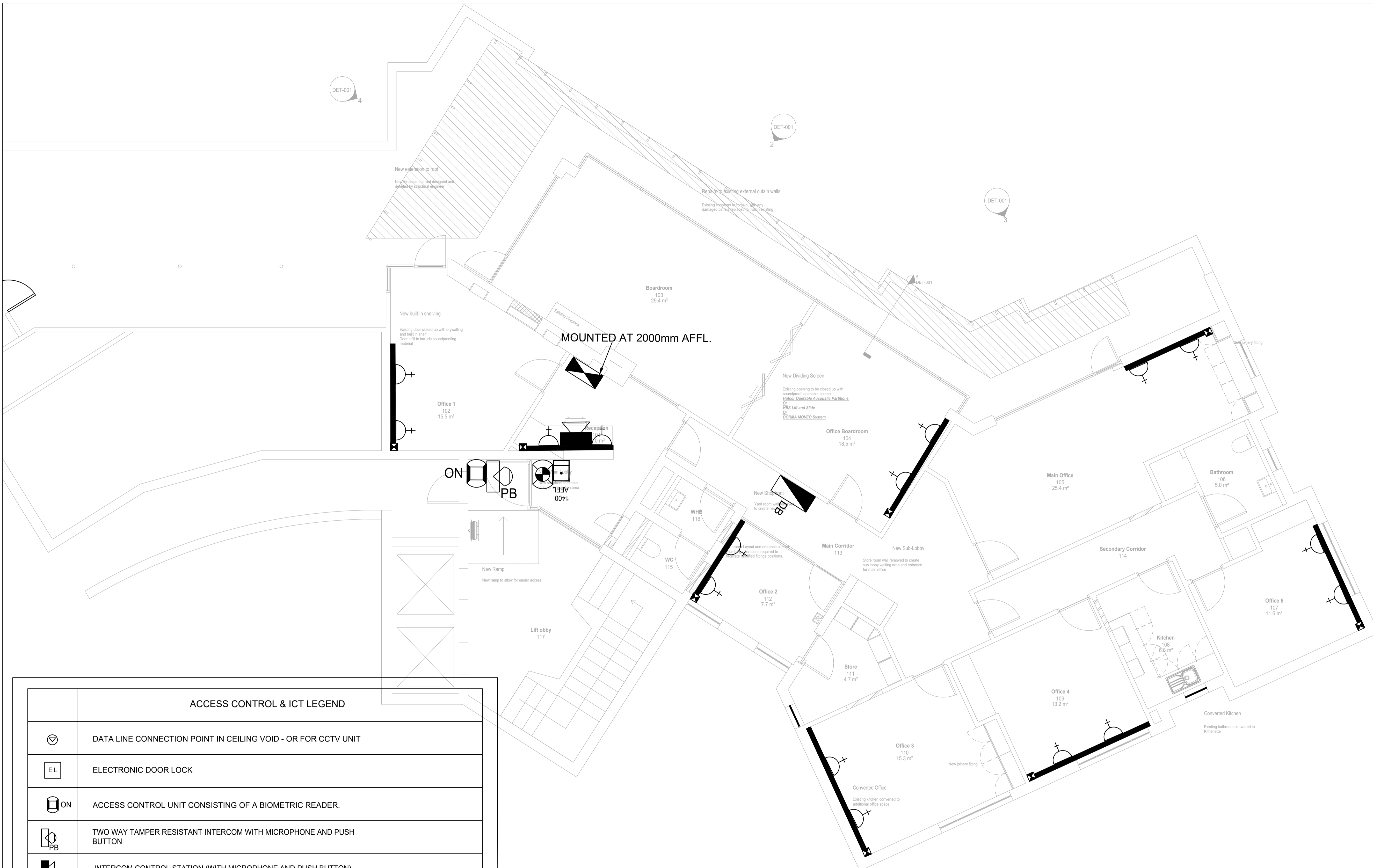
All doors shall be equipped with a door closer which will be supplied and installed by the Contractor.

The magnetic locks shall be suitable for intermittent duty i.e. doors are normally locked and released only momentarily from time to time.

Locks to be installed by subcontractor requiring openings will be made by the main contractor. Where possible, locks must be recessed in doors/frames and the subcontractor is responsible for coordinating the required cut-outs etc. with the main contractor to be made in the door manufacturer's factory prior to delivery to site.

It will be the responsibility of the Subcontractor to identify to the Contractor doors to be equipped at the factory with concealed door loops and/or other equipment.

The installation of the magnetic lock and the alignment of the door to ensure proper operation shall be the responsibility of the Subcontractor.



DET-001
4

DET-001
2

DET-001
3

DET-001
5

MOUNTED AT 2000mm AFFL.

ACCESS CONTROL & ICT LEGEND	
	DATA LINE CONNECTION POINT IN CEILING VOID - OR FOR CCTV UNIT
	ELECTRONIC DOOR LOCK
	ACCESS CONTROL UNIT CONSISTING OF A BIOMETRIC READER.
	TWO WAY TAMPER RESISTANT INTERCOM WITH MICROPHONE AND PUSH BUTTON
	INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
	TOUCH FREE DOOR RELEASE (STAINLESS STEEL)
	ADDRESSABLE MANUAL CALL POINT / BREAK GLASS (FLUSH MOUNTED AT 1400 AFFL)
	DATA DISTRIBUTION RACK
	Data line connection point
	SET OF POWER SKIRTING MOUNTED ELEMENTS CONSISTING OF () TO BE INSTALLED BY OTHERS
	WALL MOUNTED BOX CONSISTING OF () TO BE INSTALLED BY OTHERS

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
 - DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
 - A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
 - FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
 - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
 - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
 - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
 - DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
 - ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
 - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
 - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
 - CIRCUITING:

AC	=	AIR CONDITIONING
D	=	DEDICATED SSO
L	=	LIGHTING CIRCUIT
P	=	STANDARD SSO
XL	=	LIGHTING CIRCUIT ON STANDBY POWER
XP	=	STANDARD SSO ON STANDBY POWER
 - DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:
 - 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES.
 - 1x200mm WIDE FOR POWER CABLES (MINIMUM).
 - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.
 - AC ISOLATORS TO BE INSTALLED ON THE RHS OF THE AC POSITIONS.

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
00	24-11-23	E.C.	ISSUED FOR TENDER.

CLIENT

PROJECT
ALTERATIONS AND ADDITIONS AT PROTEA FLATS, GQEBERHA

TITLE
NEW GSA OFFICES - ICT AND ACCESS CONTROL LAYOUT



DESIGN	TENDER	CONSTRUCTION
	✓	
DESIGNED BY: B.GEELBOOI	SCALE 1:50	
DRAWN B.GEELBOOI	DATE 29/06/2023	PRINT DATE 24/11/2023
CHECKED BY: E.CEBA	REGISTRATION No. 201930053	SIGNED.
DRAWING NO. 2316-T-E-104PF	REV No. 00	