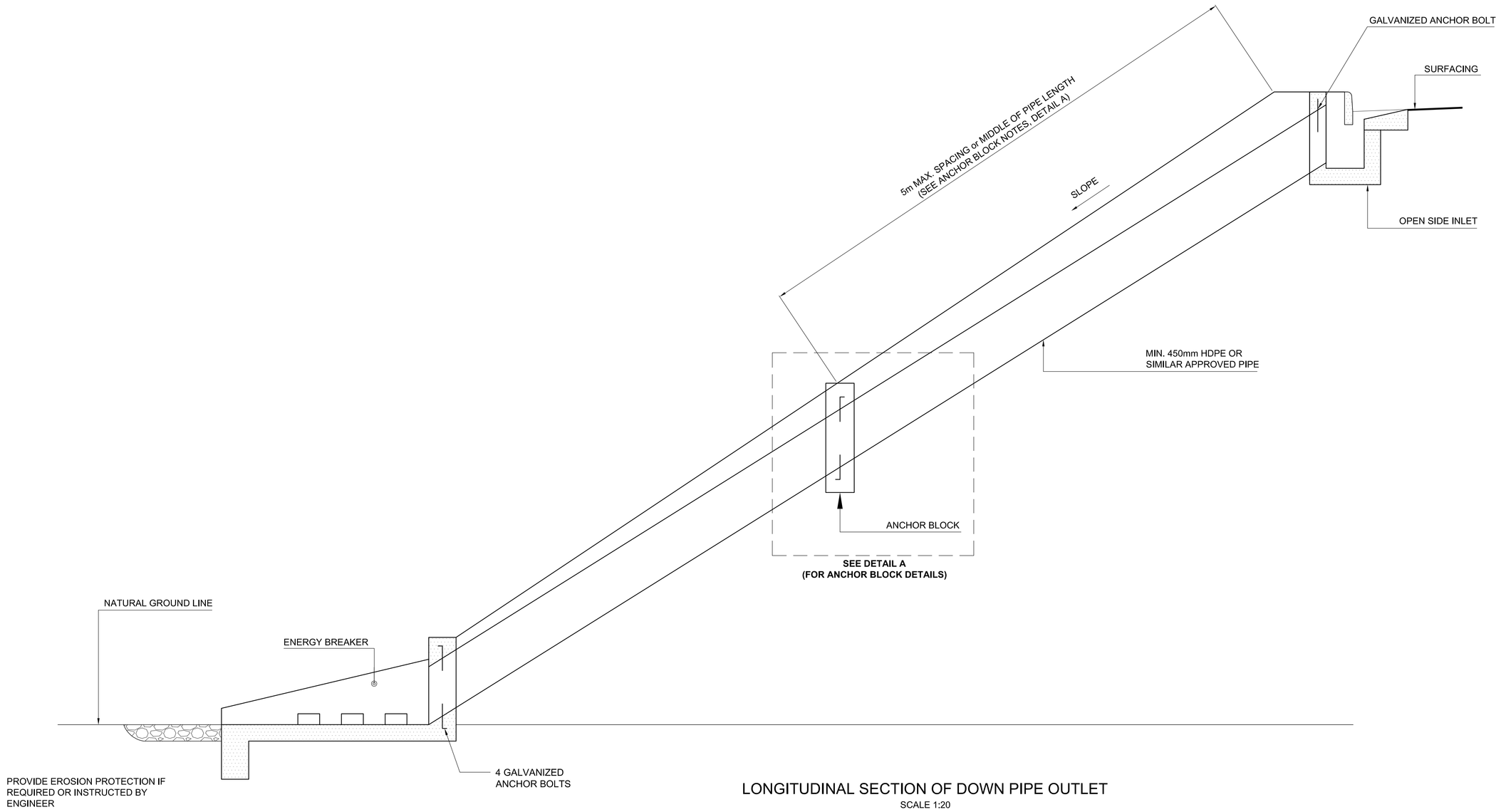
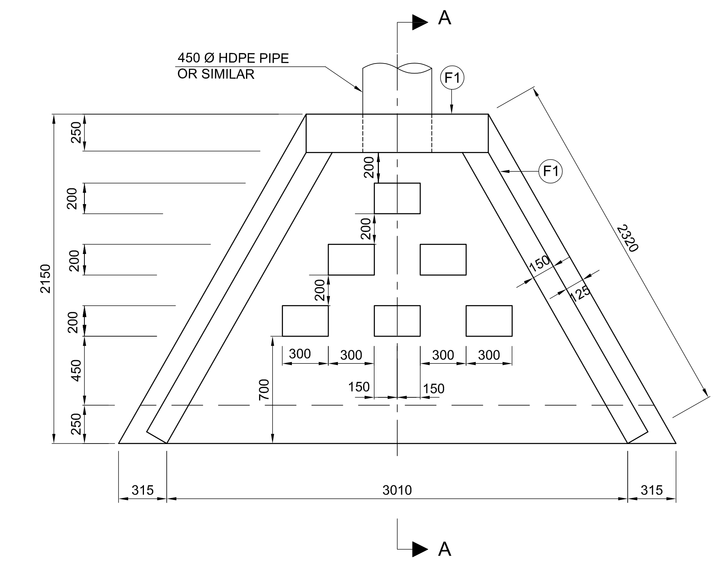
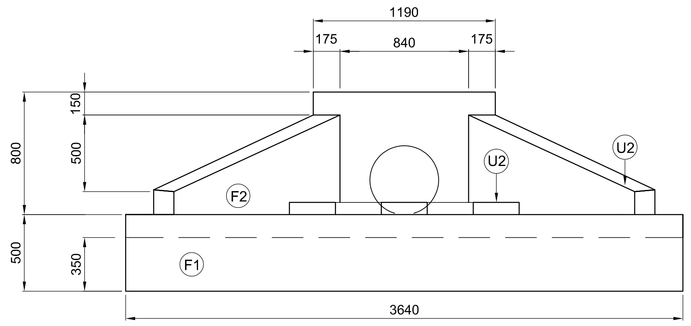


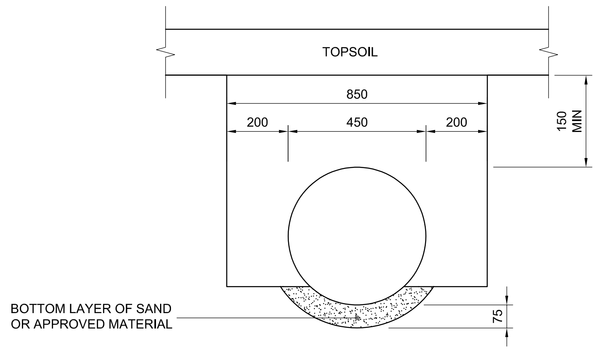
LONGITUDINAL SECTION OF DOWN PIPE OUTLET
SCALE 1:20



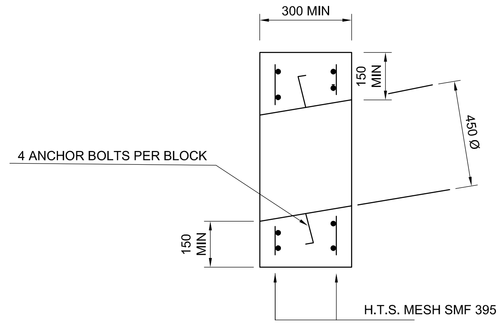
PLAN OF DOWN PIPE OUTLET
WITH ENERGY BREAKERS
SCALE 1:20



ELEVATION OF DOWN PIPE OUTLET
WITH ENERGY BREAKERS
SCALE 1:20



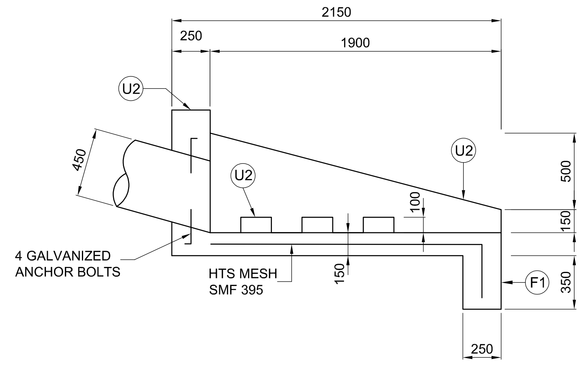
BEDDING FOR DOWN PIPES
SCALE 1:10



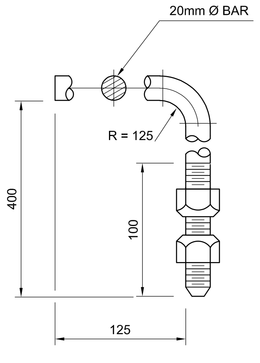
DETAIL A:
SECTIONAL VIEW OF ANCHOR BLOCK
N.T.S

NOTES FOR ANCHOR BLOCKS

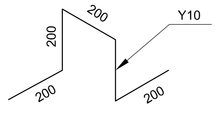
1. "ARMCO" PIPE LENGTH = L.
   FOR L = 0m 10m : 1 ANCHOR BLOCK.
   FOR L = 10m 15m : 2 ANCHOR BLOCKS.
   FOR L = 15m 20m : 3 ANCHOR BLOCKS.
   FOR L = 20m 30m : 4 ANCHOR BLOCKS.
2. ANCHOR BLOCKS MUST BE SPACED AT EQUAL DISTANCES.
3. ANCHOR BLOCKS TO BE CAST AGAINST NEAT EXCAVATION. (NO FORMWORK).
4. THE TYPE OF SURFACE FINISH IS INDICATED AS F1, F2 & U2.
   F - FORMED SURFACES
   U - UNFORMED SURFACES



SECTION A-A
SCALE 1:20



GALVANIZED ANCHOR BOLT
N.T.S.



FIXING BAR
(2 PER BLOCK)
N.T.S

NOTES

1. MATERIAL:
   1.1. REINFORCEMENT: SABS 920, LATEST REVISION.
   HIGH TENSILE STEEL: WORKING STRESS - 210 mPa.
   1.2. CONCRETE: SIDE DRAINS AND TRANSITIONS - CLASS C24/30-20
   : SIDE INLETS AND MANHOLES - CLASS C24/30-20
   : ENERGY BREAKERS - CLASS C24/30-20
   : ANCHOR BLOCKS - CLASS C24/30-20
   : BENCHING - CLASS C12/15-20
2. TYPE OF SURFACE FINISH IS INDICATED AS F1, F2 AND U2.
   F - FORMED SURFACES
   U - UNFORMED SURFACES
3. MINIMUM CONCRETE COVER TO MAIN REINFORCEMENT IS 50mm.
4. ALL EXPOSED CORNERS MUST BE RIUNDED OFF TO A MINIMUM RADIUS OF 10mm OR BE CHAMFERED 25mm x 25mm.
5. FOR SIDE INLET DETAILS, REFER TO DRAWING NO. ????

No.	DATE	REVISION	CONSULT. ENG.
V1	21/06/2023	ORIGINAL VERSION	-

CONSTRUCTION RECORD (AS-BUILT)
WORKS CONTRACT ENGINEER
Name :
Prof. Reg. No. :
Date :
SANRAL PROJECT MANAGER
Name :
Date :

DESIGNED BY
NAME -
Prof. Reg. No. -
CHECKED BY
NAME -
Prof. Reg. No. -
DRAWN BY
NAME -

CONSULTANT APPROVAL
Name : -
Prof. Reg. No. : -
Date : -

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SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg No. 1998/12944/30
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

NORTHERN REGION
38 Ida Street
Menlo Park
Pretoria
0081

Private Bag X17
Lynnwood Ridge
0040

Tel: (012) 426 6200

ACCEPTANCE
THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING
for the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

PROJECT DESCRIPTION
MSBBR : R531 SECTION 2 - EMERGENCY REPAIR OF DAMAGED STEEL RIBBED PIPE CULVERT AT km 6.9 AND SINKHOLE AT km 11.4

DRAWING DESCRIPTION
DOWN PIPE OUTLET DETAILS

SCALE : AS SHOWN (A0 SHEET) **SHEET** 1 **OF** 1

PROJECT NUMBER	R.531-020-2023/1	
DRAWING LOCATION DATA	START	END
ROUTE	R531	R531
SECTION	2	2
DRAWING km DISTANCE	km 6.90	km 11.40
DRAWING TYPE	ROADS - DRAINAGE	
BRIDGE/STRUCTURE No.	-	
CONSULTANT DRAWING No.	TP1916.32-H02	VER
SANRAL DOCUMENT #	-	V1

DRAWING TP1916.32-H02