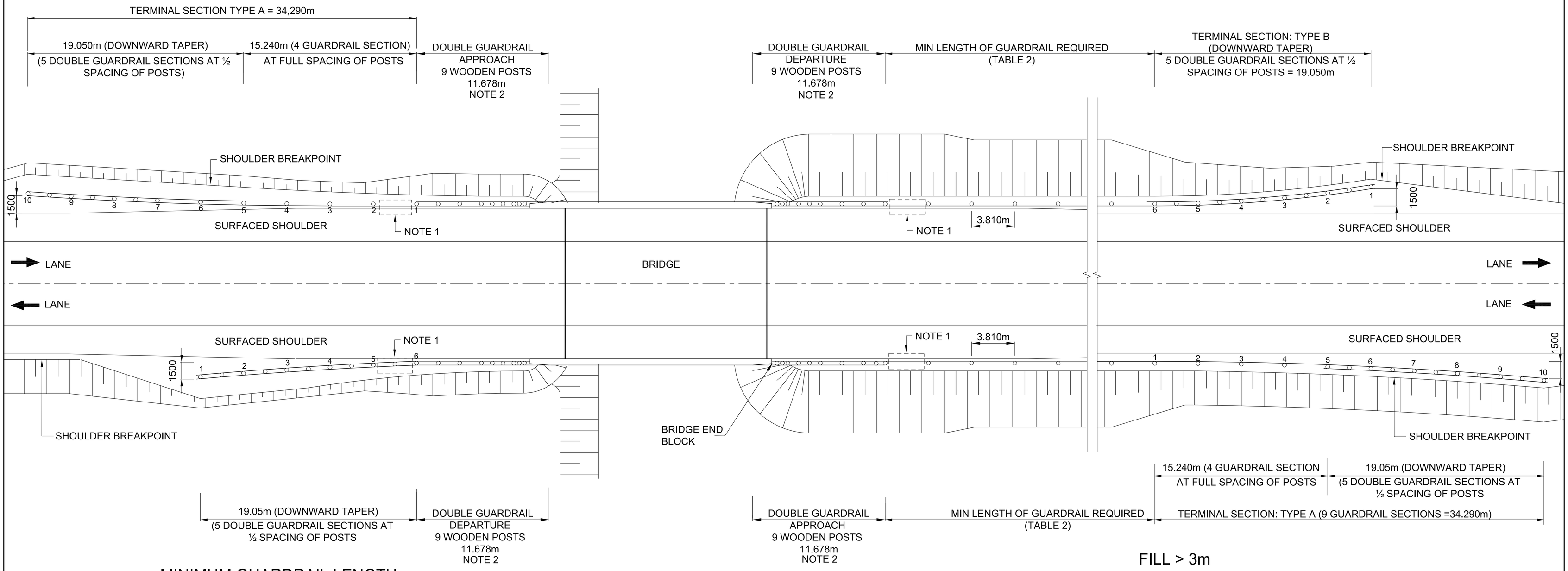


## MINIMUM GUARDRAIL LENGTH AT BRIDGES (FILL BELOW 3m)

## BRIDGE APPROACH SCALE 1 : 125

FILL > 3m

**TABLE 1 : SETTING OUT POSITIONS OF GUARDRAIL POSTS**

| TERMINAL SECTION: TYPE A : L=34.29m | | | | TERMINAL SECTION: TYPE B : L=19.050m | | | |
|---|---|---|---|---|---|---|---|
| | POST No. | HORIZONTAL OFF-SET X(mm) | VERTICAL OFF-SET Y(mm) | | POST No. | HORIZONTAL OFF-SET X(mm) | VERTICAL OFF-SET Y(mm) |
| APPROACH SIDE | 1 | 0 | 0 | DEPARTING SIDE | 6 | 0 | 0 |
| | 2 | 19 | 0 | | 5 | 60 | 36 |
| | 3 | 74 | 0 | | 4 | 240 | 144 |
| | 4 | 167 | 0 | | 3 | 540 | 324 |
| | 5 | 296 | 0 | | 2 | 960 | 576 |
| | 6 | 463 | 36 | | 1 | 1500 | 900 |
| | 7 | 667 | 144 | | | | |
| | 8 | 907 | 324 | | | | |
| | 9 | 1185 | 576 | | | | |
| | 10 | 1500 | 900 | | | | |

**TABLE 2**

| MIN LENGTH OF GUARDRAIL REQUIRED (EXCLUDING TERMINAL SECTIONS) | |
|---|---|
| DESIGN SPEED km/h | MIN LENGTH |
| 60 | 12 SECTIONS (45.72m) |
| 70 | 14 SECTIONS (53.34m) |
| 80 | 16 SECTIONS (60.96m) |
| 90 | 20 SECTIONS (76.20m) |
| 100 | 23 SECTIONS (87.63m) |
| 110 | 27 SECTIONS (102.87m) |
| 120 | 29 SECTIONS (110.49m) |
| 130 | 32 SECTIONS (121.92m) |
| 140 | 35 SECTIONS (133.35m) |

NOTES

1. CLOSEST PERMISSIBLE POSITION OF CATCH PIT TO END BLOCK ie. NO CATCH PIT PERMITTED BETWEEN POST No. 1 AND END BLOCK.
2. REFER TO SANRAL TYPICAL DRAWING TD-S-P-5003-1-V1 FOR DETAILS OF GUARDRAIL TO END BLOCK CONNECTION AND GUARDRAIL APPROACH AND DEPARTURE DETAILS.
3. GUARDRAIL SPACING = 3.810m.
4. DETAILS AT BRIDGE END BLOCKS TO BE ADJUSTED TO TIE-IN WITH EACH SPECIFIC BRIDGE END BLOCK.

| 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 : -


**HEAD OFFICE**
48 Tambotie Avenue
Val de Grace
Pretoria
0184

PO Box 415
Pretoria 0001
South Africa

Tel: (012) 844 8000

SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg No. 1998/022994/30
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**
GUARDRAILS
PLACING DETAILS AT BRIDGE APPROACHES AND HIGH FILL
(SINGLE CARRIAGEWAY)

SCALE : 1 : 25 (A0) 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 - ANCILLARY | |
| BRIDGE/STRUCTURE No. | N/A | |
| CONSULTANT DRAWING No. | TP1916.32-C05 | VER V1 |
| SANRAL DOCUMENT # | - | |

DRAWING TP1916.32-C05