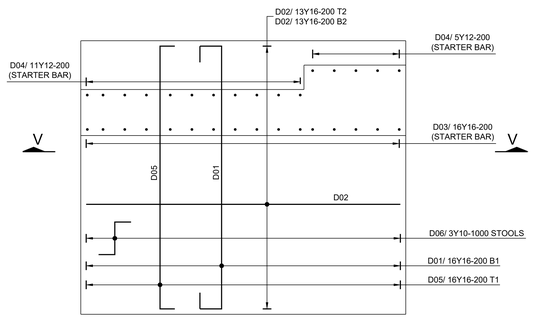
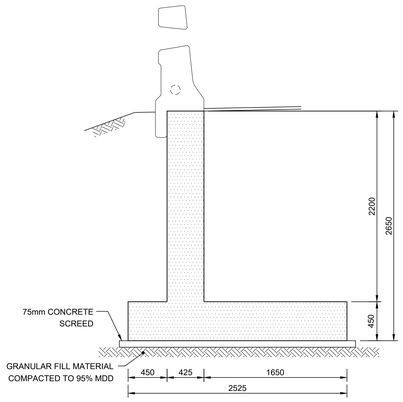
NOTE
REFER TO DETAIL DRAWING TP1916-2/B3297/02 FOR NOTES.

REINFORCEMENT NOTES

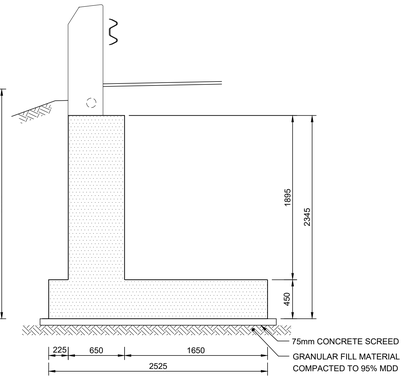
1. THE REINFORCEMENT DETAILS SHOWN ON THIS DRAWING ARE FOR CONVENTIONAL REINFORCING STEEL BARS TO SANS 920 - 2005
   MILD STEEL : R-BARS : 250MPa
   HIGH TENSILE STEEL : Y-BARS : 450MPa
2. REINFORCEMENT DETAILING ACCORDING TO SANS 282 : 2011.
3. CONCRETE COVER TO REINFORCEMENT: 50mm.
4. ATTENTION SHALL BE GIVEN TO THE NUMBER AND POSITIONING OF THE COVER BLOCKS TO ENSURE THAT MINIMUM CONCRETE COVER IS MAINTAINED DURING CONCRETING.
5. MINIMUM LAP LENGTH SHALL BE 45 x BAR DIA.
6. REINFORCEMENT SHALL BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
7. BAR MARKS J20 TO J39 (STARTER BARS) TO BE HEAVY DUTY HOT-DIP GALVANISED IN ACCORDANCE WITH SANS 121:2000 TO A ZINC COAT THICKNESS OF NOT LESS THAN 105 MICRONS.
8. ABBREVIATIONS:
   ABR = ALTERNATE BARS REVERSED
   ALT = ALTERNATELY
   AS = AS SHOWN
   B1 = LOWEST OF THE BOTTOM LAYERS
   B2 = SECOND LOWEST OF THE BOTTOM LAYERS
   EF = EACH FACE
   EW = EACH WAY
   NF = NEAR FACE
   FF = FAR FACE
   STG = STAGGERED
   T1 = HIGHEST OF THE TOP LAYERS
   T2 = SECOND HIGHEST OF THE TOP LAYERS



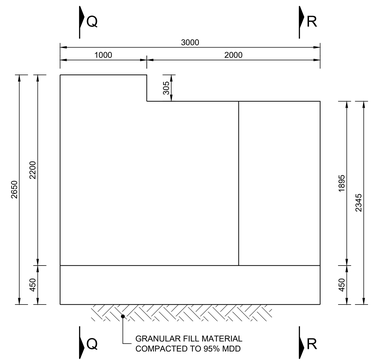
FOUNDATION PLAN OF ENDBLOCK SUPPORT WALL
SCALE 1:20



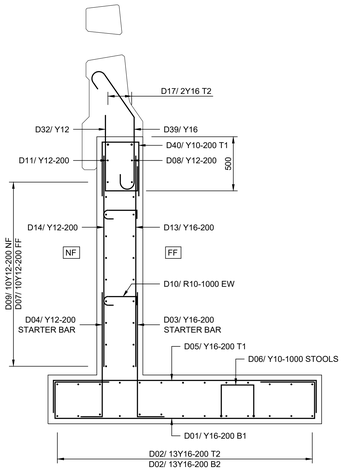
TYPICAL SECTION Q - Q
SCALE 1:25



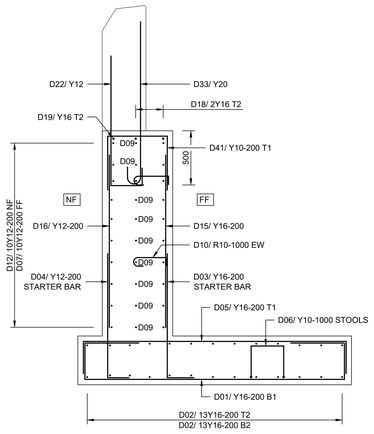
TYPICAL SECTION R - R
SCALE 1:25



ENDBLOCK SUPPORT WALL INSIDE ELEVATION
SCALE 1:25

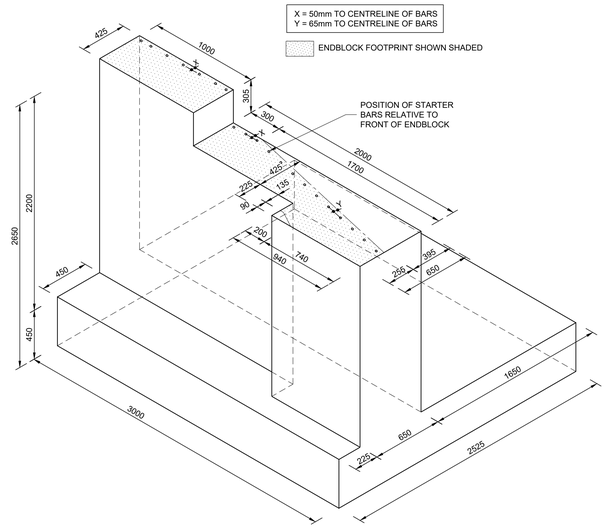


ELEVATION S - S
SCALE 1:20

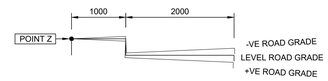


ELEVATION T - T
SCALE 1:20

X = 50mm TO CENTRELINE OF BARS
Y = 65mm TO CENTRELINE OF BARS
ENDBLOCK FOOTPRINT SHOWN SHADED

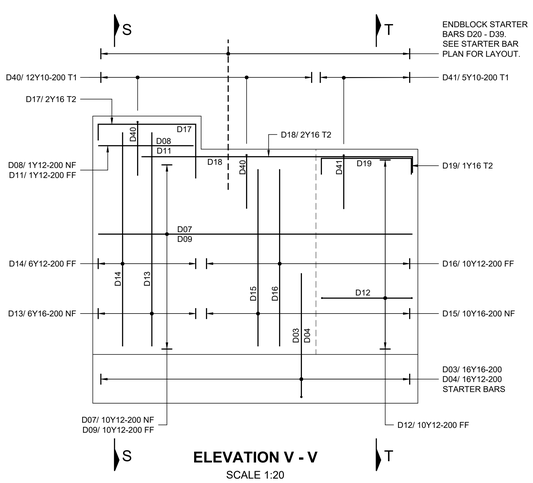


ENDBLOCK SUPPORT WALL ISOMETRIC VIEW
SCALE 1:20

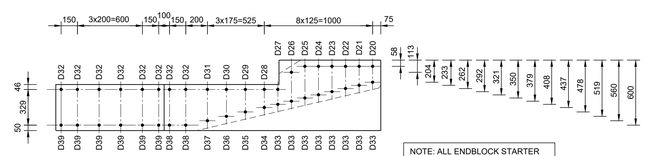


SIDE VIEW OF TOP OF ENDBLOCK SUPPORT WALL
N.T.S

NOTE : TOPS OF SUPPORT WALL, INCLUDING FOR SHADED AND NON-SHADED AREAS, ARE PARALLEL TO THE ADJACENT ROAD GRADE AND ROTATE ABOUT POINT Z



ELEVATION V - V
SCALE 1:20



NOTE: ALL ENDBLOCK STARTER BARS (ITEMS D20 TO D39) TO BE GALVANISED - SEE NOTE 7.

ENDBLOCK SUPPORT WALL PLAN STARTER BAR LAYOUT
SCALE 1:20

No.	DATE	REVISION	CONSULT. ENG.
V2		SCANNED ORIGINAL WITH SIGNATURE	KG MALCOMSON
V1	12/11/2020	ORIGINAL VERSION	KG MALCOMSON

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

SNA CIVIL AND STRUCTURAL ENGINEERS (Pty) LTD
REG NO 2002/006110/07
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11 VLOTTENBURG ROAD
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PRETORIA
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DESIGNED BY	
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Prof. Reg. No.	810242
CHECKED BY	
NAME	KG MALCOMSON
Prof. Reg. No.	880542
DRAWN BY	
NAME	M WATTS

CONSULTANT APPROVAL
Name : KG MALCOMSON
Prof. Reg. No. : 880542
Date : 02 / 12 / 2019

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SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg. No. 1998/00595/30
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

NORTHERN REGION
38 Ida Street
Menlo Park
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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:

MSBBR: REPAIRS TO BRIDGE PARAPETS; R40 NELSPRUIT B0064 AND R33 PIET RETIEF B3297

EMERGENCY REPAIR FOR BRIDGE B3297 ON R033/06N AT km 27.5

ENDBLOCKS 01, 29, 30 & 58 SUPPORT WALLS

SCALE : AS SHOWN | **SHEET 04 OF 10**

PROJECT NUMBER	NRA X.002-063-2018/01-C05	
DRAWING LOCATION DATA	START	END
ROUTE	R033	R033
SECTION	06N	06N
DRAWING km DISTANCE	27.5	27.5
DRAWING TYPE	STRUCTURES-BRIDGES	
BRIDGE/STRUCTURE No.	B3297	
CONSULTANT DRAWING No.	TP1916-2/B3297/04	VER V2
SANRAL DOCUMENT #	18970769	

DRAWING No :- TP1916-2/B3297/04