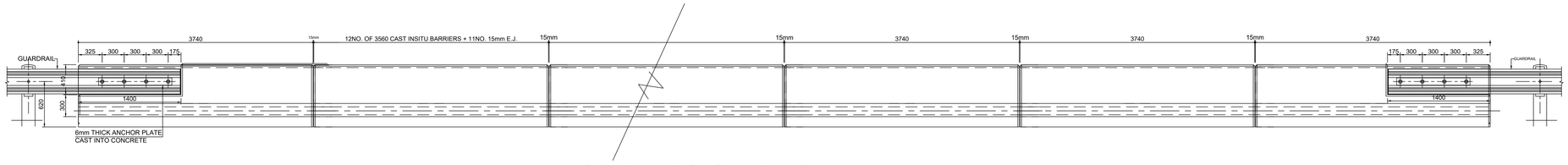
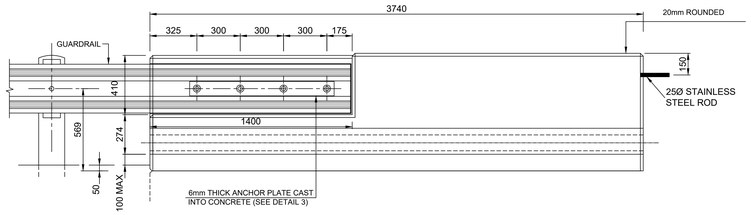


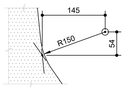
INSIDE ELEVATION OF BARRIER

SCALE 1:25



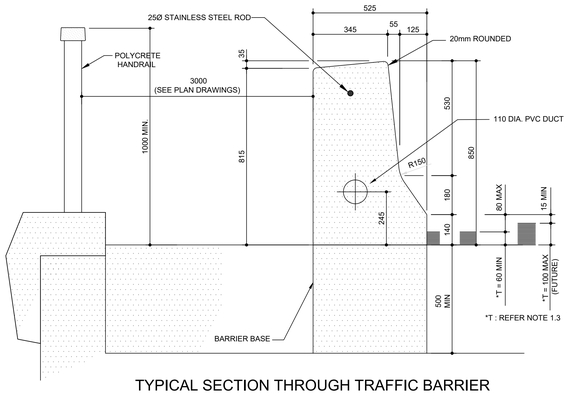
INSIDE ELEVATION OF BARRIER END BLOCK

SCALE 1:15



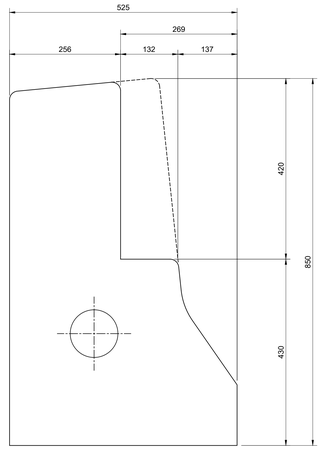
RADIUS DETAIL
SETTING OUT DETAILS

SCALE 1:5



TYPICAL SECTION THROUGH TRAFFIC BARRIER

SCALE 1:10



BARRIER RECESS

SCALE 1:5

NOTES

1. GENERAL

1.1 INSPECTION EYES SHALL BE PROVIDED AT DISTANCES NOT EXCEEDING 50m.

1.2 THE RECESSES FOR EXPANSION JOINT CONSTRUCTION AND THE EXPANSION JOINT COVER PLATES ARE SUBJECT TO THE DETAILS OF THE EXPANSION JOINT SYSTEM FINALLY APPROVED. THE CONTRACTOR SHALL CONFIRM THE DIMENSIONS OF THE RECESSES WITH THE ENGINEER PRIOR TO THE CASTING OF THE BARRIER.

1.3 *T = 60mm MIN (20mm LEVELLING COURSE + 40mm ASPHALT)
OR 100mm MAX (20mm LEVELLING COURSE + 2x40mm ASPHALT)

2. MATERIAL AND FINISHES

2.1 THE MATERIAL AND WORK SHALL COMPLY WITH THE RELEVANT CLAUSES OF eTHEKWINI MUNICIPALITY STANDARD SPECIFICATIONS, THE PROJECT SPECIFICATIONS AND SHALL INCLUDE THE FOLLOWING:

2.2 SERVICE DUCTS : 110 Ø uPVC NORMAL DUTY (SDR 51) PIPES TO SANS 791:2004

2.3 CONCRETE CLASS (MPa/mm) : 40/19)

2.4 SURFACE FINISHES : (EXPOSED FACES)
- CLASS 3(a)
- CLASS 3(a)

2.5 ALL EXPOSED VERTICAL SHARP CORNERS SHALL BE CHAMFERED 20 x 20mm AND ROUNDED 20mm HORIZONTALLY EXCEPT WHERE OTHERWISE INDICATED ON DETAIL DRAWING.

2.6 THE DRAW WIRE PROVIDED IN THE SERVICE DUCTS SHALL BE IN ONE CONTINUOUS LENGTH, EXTENDING NOT LESS THAN 3m BEYOND THE END FACE OF THE ABUTMENT END BLOCKS. THE DRAW WIRE SHALL BE NON CORRODABLE NYLON ROPE OR PVC COATED STEEL WIRE OF NOT LESS THAN 5000N TENSILE STRENGTH.

2.7 CURING
PARAPETS ARE TO BE CURED BY ANY METHOD AS AGREED WITH BY THE ENGINEER.

3. TOLERANCES

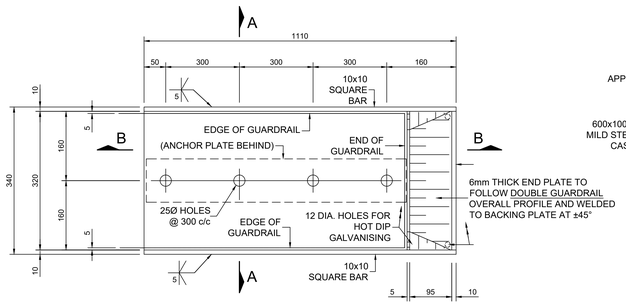
3.1 TOLERANCES APPLICABLE TO ERECTION OF UNITS:

3.1.1 DIMENSION FROM SETTING OUT LINE TO FRONT FACES :
10mm OUTWARDS, 0mm INWARDS

3.1.2 STEPS IN CONCRETE FRONT FACES AT ABUTTING UNITS : 3mm

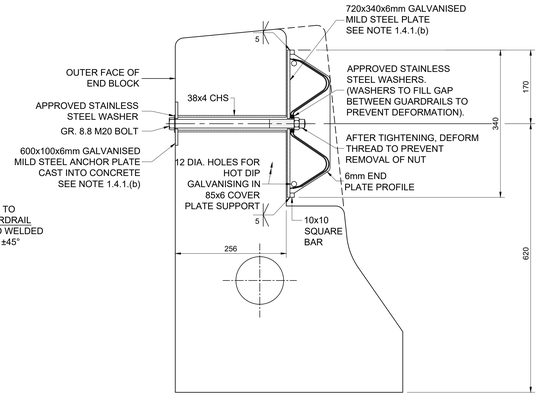
3.1.3 DEVIATION FROM LINE AND LEVEL MEASURED OVER 5m : 5mm

FRONT GUARDRAIL TO ENDBLOCK CONNECTION DETAILS



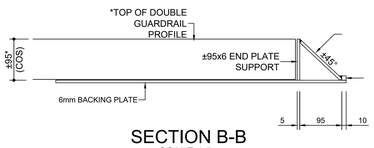
BACKING PLATE DETAIL

SCALE 1:5



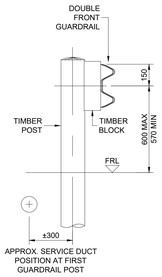
SECTION A-A

SCALE 1:5



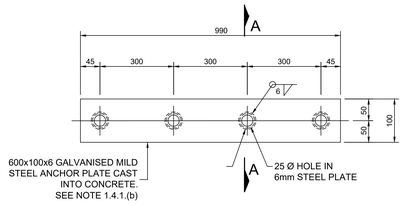
SECTION B-B

SCALE 1:5



GUARDRAIL AND POST DETAIL

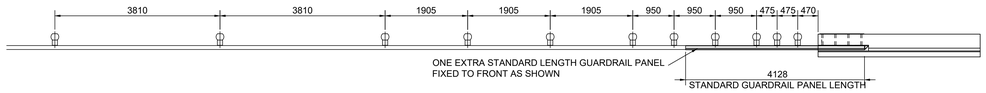
SCALE 1:15



ANCHOR PLATE DETAIL

SCALE 1:5

GUARDRAIL APPROACH & DEPARTURE DETAILS



PLAN

SCALE 1:50

SHOWING POST SPACING AND GUARDRAIL ARRANGEMENT AT BOTH BRIDGE APPROACHES AND DEPARTURES.

NOTES : GUARDRAIL TO ENDBLOCK CONNECTION

1. GENERAL

ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT CLAUSES OF THE STANDARD SPECIFICATIONS, THE PROJECT SPECIFICATIONS AND SHALL INCLUDE THE FOLLOWING:

1.1 STRUCTURAL MILD STEEL SHALL COMPLY WITH THE REQUIREMENTS OF SANS 1431:2005 GRADE 350W.

1.2 M20 FIXING BOLTS, THREADED ANCHOR RODS AND NUTS SHALL BE GRADE 8.8 TO SANS 1700 SET:1996

1.3 WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF BS 5135.

1.4 THE SURFACE PREPARATION AND CORROSION PROTECTION OF THE STRUCTURAL STEEL MEMBERS SHALL BE AS FOLLOWS:

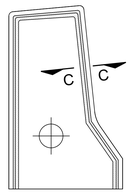
1.4.1. BY MANUFACTURER PRIOR TO DISPATCH TO THE WORKS

(a) DESIGN, FABRICATION AND INSPECTION SHALL COMPLY WITH THE RECOMMENDATIONS OF SANS 121:2000. NOTE THE APPENDIX DEALING WITH THE EFFECT OF CHEMICAL COMPOSITION OF STEEL.

(b) AFTER MANUFACTURE THE COMPLETE ASSEMBLY, INCLUDING FIXING BOLTS, SHALL BE HEAVY DUTY HOT-DIP GALVANIZED IN ACCORDANCE WITH SANS 121:2000 TO A ZINC COAT THICKNESS OF NOT LESS THAN 105 MICRONS.

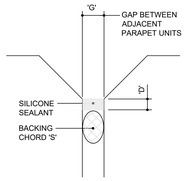
1.4.2. ON SITE

GALVANISING AT HOLES DRILLED FOR FIXING OF GUARDRAIL TO END BLOCK AND CUT ENDS OF GUARDRAILS SHALL BE REPAIRED WITH "ZINCFIX", AVAILABLE FROM THE HOT-DIP GALVANIZERS ASSOCIATION OF SOUTHERN AFRICA.



JOINT DETAILS

SCALE 1:10



SECTION C-C

SCALE 1:1

JOINT DATA					
JOINT SIZE 'G'	5	8	10	15	20
DEPTH 'D'	5	6	8	10	12
CHORD 'S' Ø	6	10	15	20	25

FOR TENDER PURPOSES ONLY

NB: FINISHED CONCRETE LEVELS SUBJECT TO CHANGE

eTHEKWINI MUNICIPALITY

PROCUREMENT AND INFRASTRUCTURE CLUSTER

ENGINEERING UNIT

ROADS PROVISION DEPARTMENT

STRUCTURES BRANCH

REDUCED PLAN USE SCALE BELOW

0 10 20 30 40 50 60 70

70mm ON ORIGINAL PLAN

Revision	Date	Description
V1	05/08/2021	ISSUED FOR TENDER

NOTE: No construction work to commence until land and servitude acquisitions have been completed

Acquisitions completed:

Date Engineer

UNDERGROUND SERVICES CHECKED

SERVICE	DATE	SIGNATURE
S.W DRAINS		
SEWERS		
WATER MAINS		
G.P.O CABLES		
ELECTRIC CABLES		
S.A.R. CABLES		
E.S.C. CABLES		
OIL PIPE LINE		

NOTE:
Only underground services affected by new construction work are shown. Care must be taken during excavations for road foundations, trenches etc. to avoid damage to underground services such as sewers, drains, cables, water mains and connections. Wherever possible these must be located before work proceeds.

Contract No. 1T-47319

Project Title

IRPTN - C3 CORRIDOR: CROSSROADS CONSTRUCTION AND CULVERT WIDENING OVER PIESANG RIVER

Drawing Title

M25 CULVERT EXTENSION OVER PIESANG RIVER

CONCRETE BARRIER DETAILS

SCALES	AS SHOWN	Date:	16/06/2021
Designed:	ENGINEER	Checked:	P. FENTON
Drawn:	HLAKA MBINA	Surveyed:	SURVEY DEPT.

Manager: Structures

Deputy Head : Roads Provision

G. EVANS HEAD : ENGINEERING

Drawing No.	Sheet	of	Rev.
48918	05	06	V1