


NOTES			
LEGEND			
<div><div></div>Project_Area</div> <div><div></div>KZN District Municipalities</div>			
No.	DATE	REVISION	INIT.
CLIENT <div></div>			
FUNDER			
RECOMMENDED		APPROVED:	
DESIGNED	JN	CONTRACT No.:	
DRAWN:	JN	CHECKED:	BFV
ENGINEER:	BFV	DATE:	27/05/2020
VUBA IMAGINEERS CC Engineering GIS and Project Management Consultants <div><div>Offices: PORT SHEPSTONE Phone: +27-39-684-0559 Fax: +27-39-684-0559 QUEENSTOWN Phone: +27-45-838-4391 Fax: +27-45-839-7268</div><div></div></div> <div>Email: baliso@vubaimagineers.co.za</div> <div>Copyright @ Vuba Imagineers CC<div></div></div>			
PROGRAM			
PROJECT CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE PROVINCIAL LAYOUT			
SUB-TITLE			
SCALE	1:1,650,145	DRAWING No.:	C000-1
PROJECT No.:	20-01		



NOTES

LEGEND

Project_Area

Ugu Local Municipalities

KZN District Municipalities

No.	DATE	REVISION	INIT.
CLIENT			
			
FUNDER			
RECOMMENDED		APPROVED:	
DESIGNED	JN	CONTRACT No.:	
DRAWN:	JN	CHECKED:	BFV
ENGINEER:	BFV	DATE:	21/05/2020
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PROGRAM			
PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
DISTRICT MUNICIPALITY LAYOUT			
SUB-TITLE			
SCALE 1:450,000		DRAWING No.: C000-2	
PROJECT No.: 20-01			



NOTES

LEGEND

- Gumedede Bridge & Road
- Umdoni_LM_Wards
- KZN District Municipalities

No.	DATE	REVISION	INIT.

CLIENT



FUNDER

RECOMMENDED		APPROVED:	
DESIGNED	JN	CONTRACT No.:	
DRAWN:	JN	CHECKED:	BFV
ENGINEER:	BFV	DATE:	26/05/2020

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PROGRAM

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE:
WARD 16

DRAWING TITLE

LOCAL MUNICIPALITY LAYOUT

SUB-TITLE

SCALE	1:175,000	DRAWING No.:	C000-3
PROJECT No.:	20-01		



NOTES

LEGEND

Gumede Bridge

Gumede_Bridge_Road

No.	DATE	REVISION	INIT.
CLIENT			
			
FUNDER			
RECOMMENDED		APPROVED:	
DESIGNED	JN	CONTRACT No.:	
DRAWN:	JN	CHECKED:	BFV
ENGINEER:	BFV	DATE:	26/05/2020

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PROGRAM

PROJECT

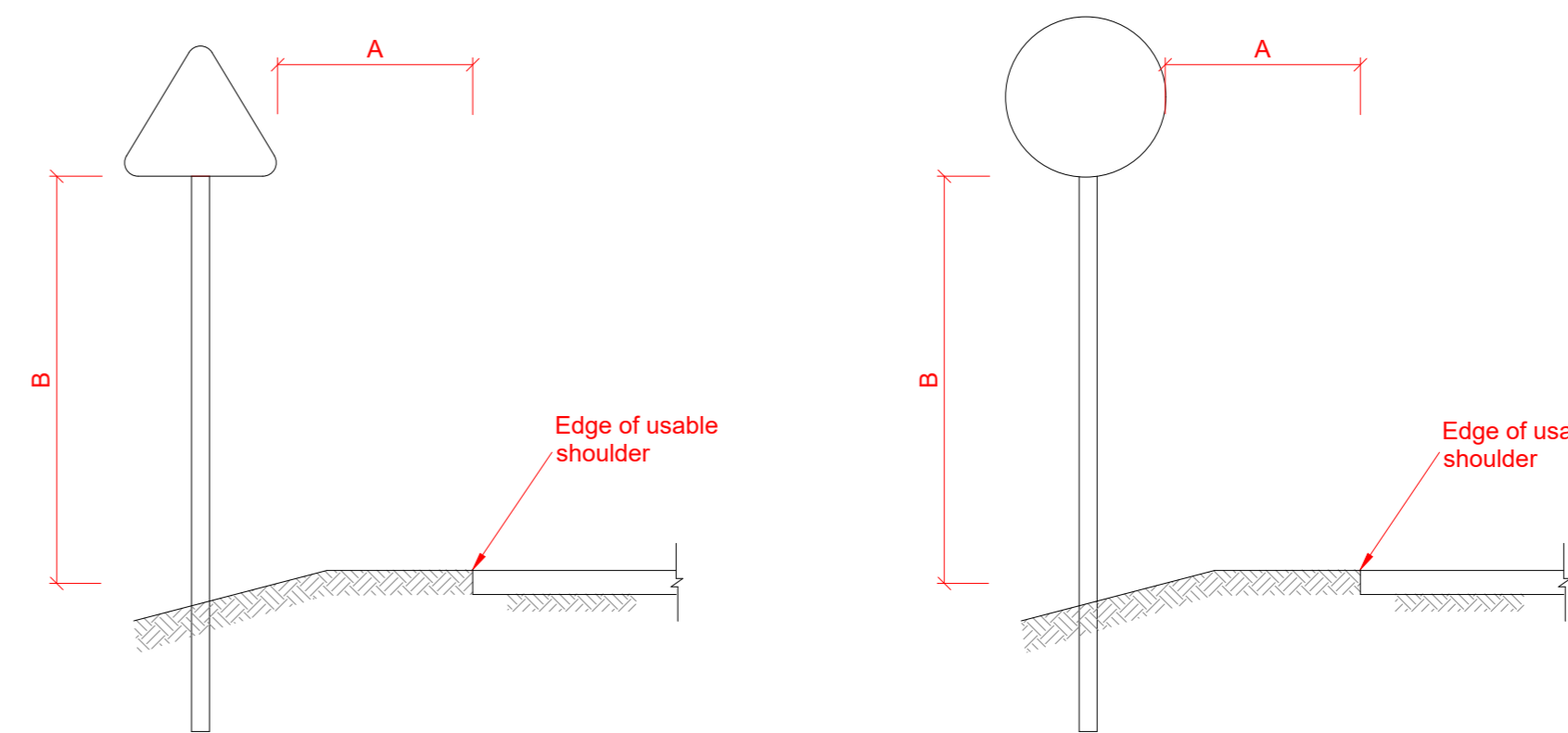
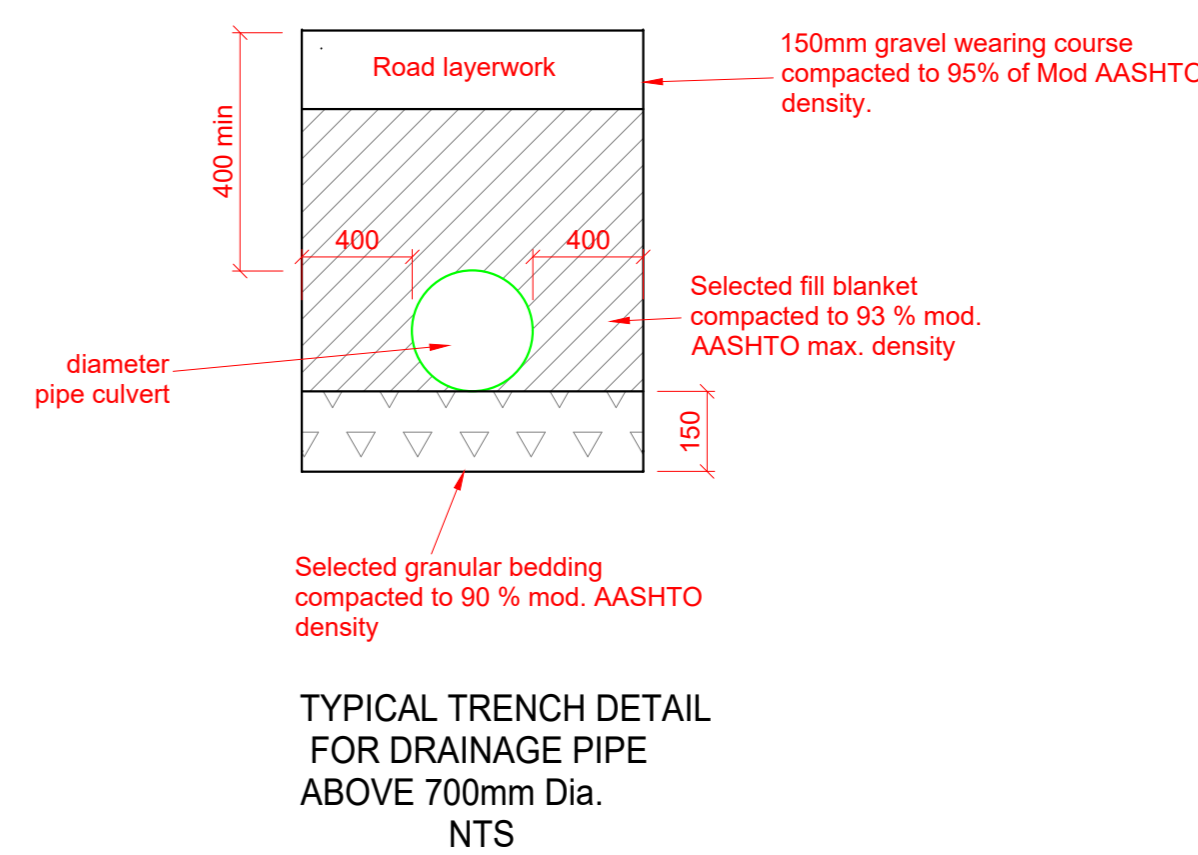
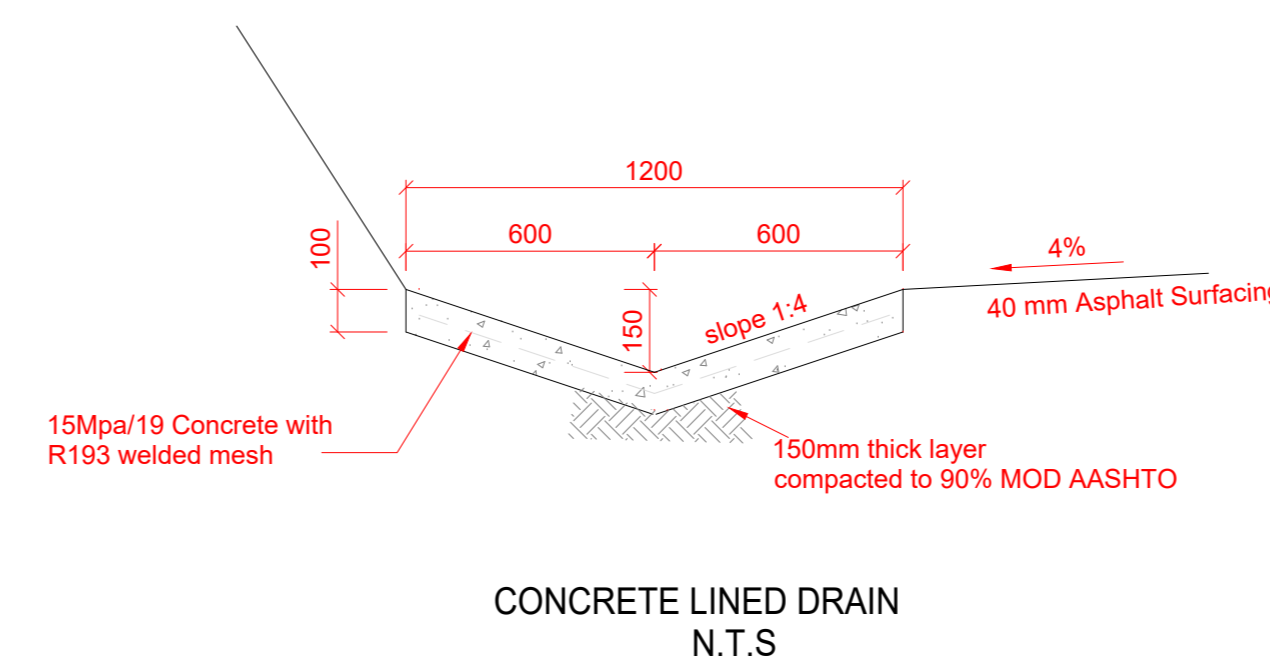
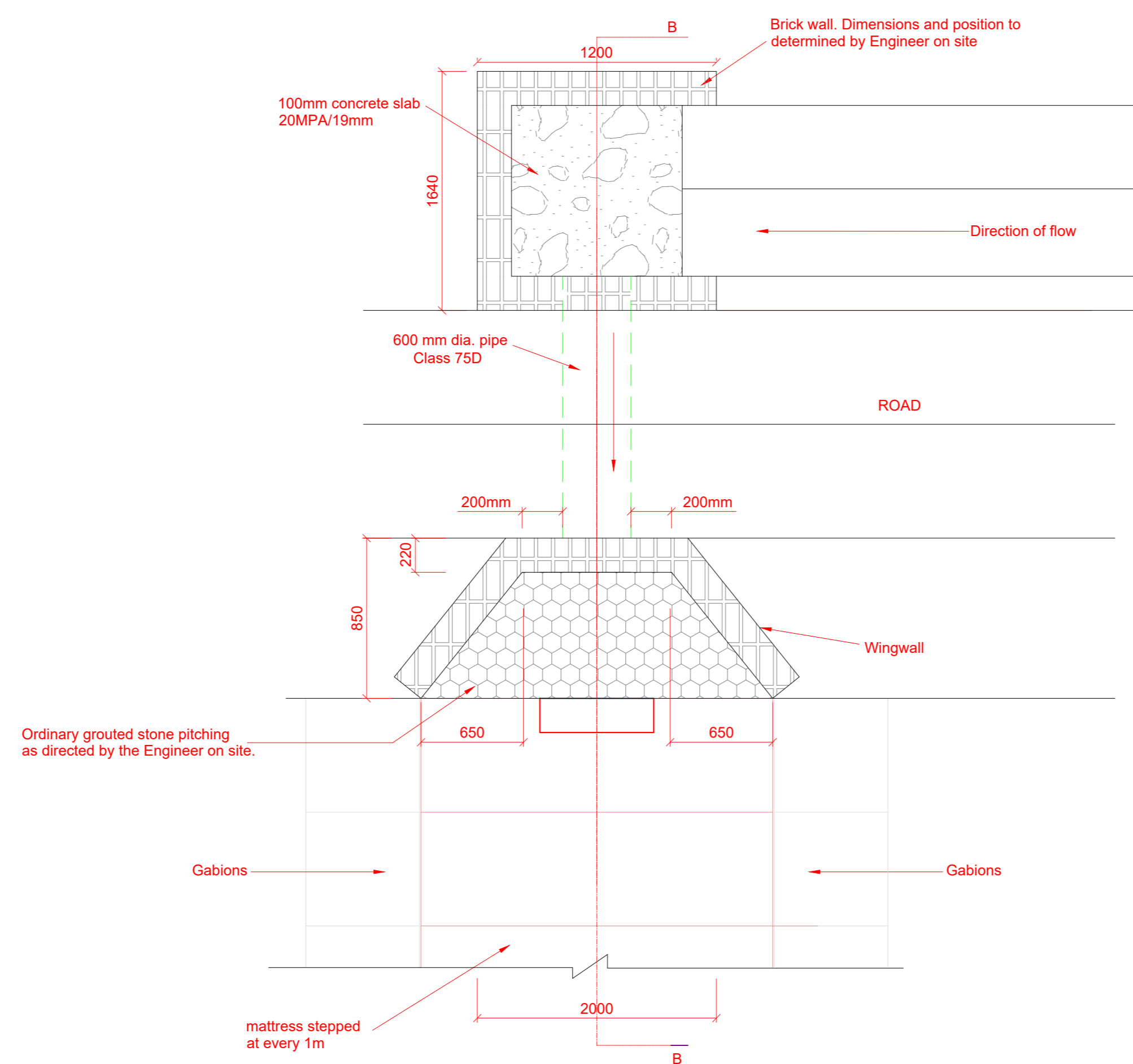
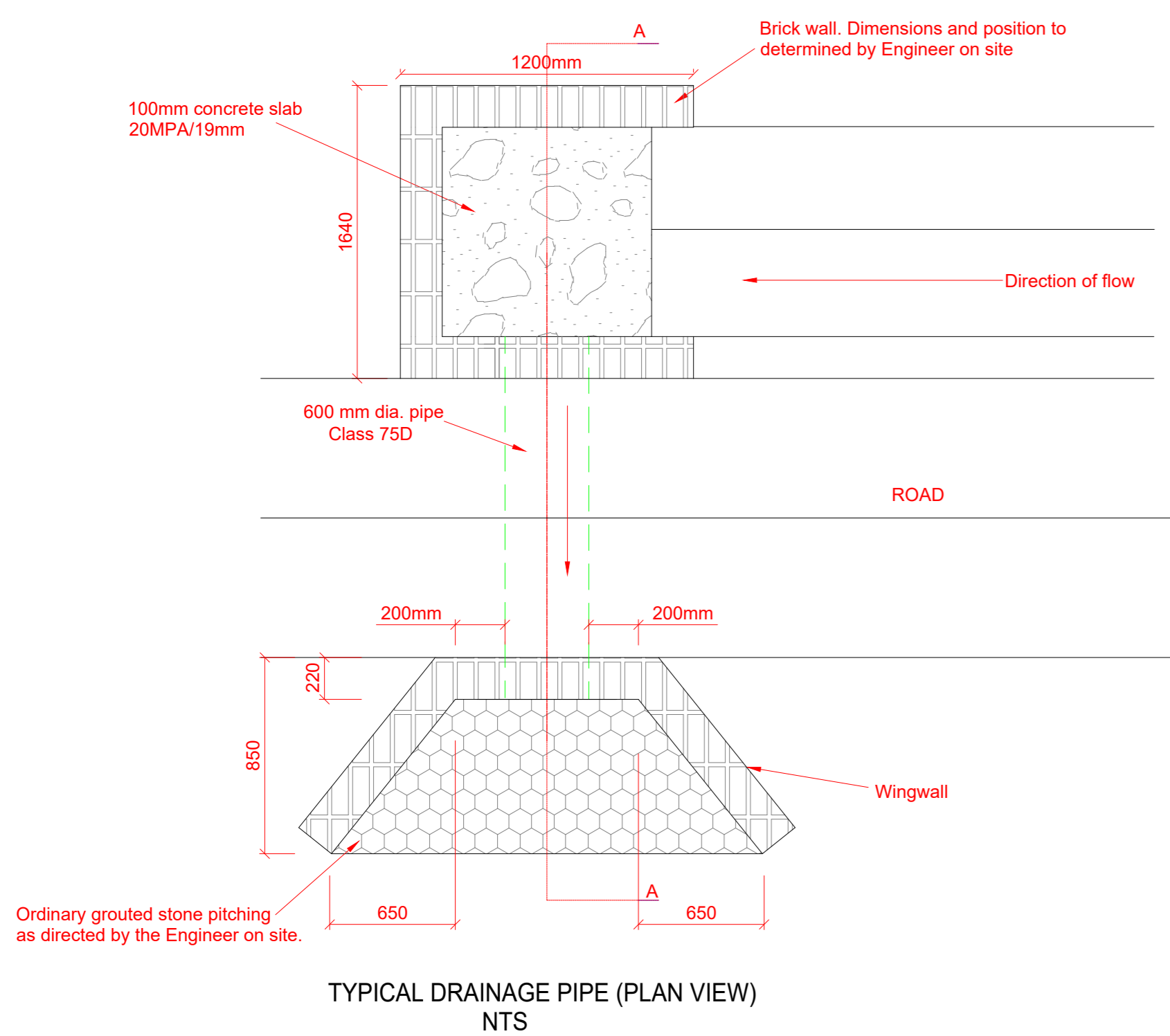
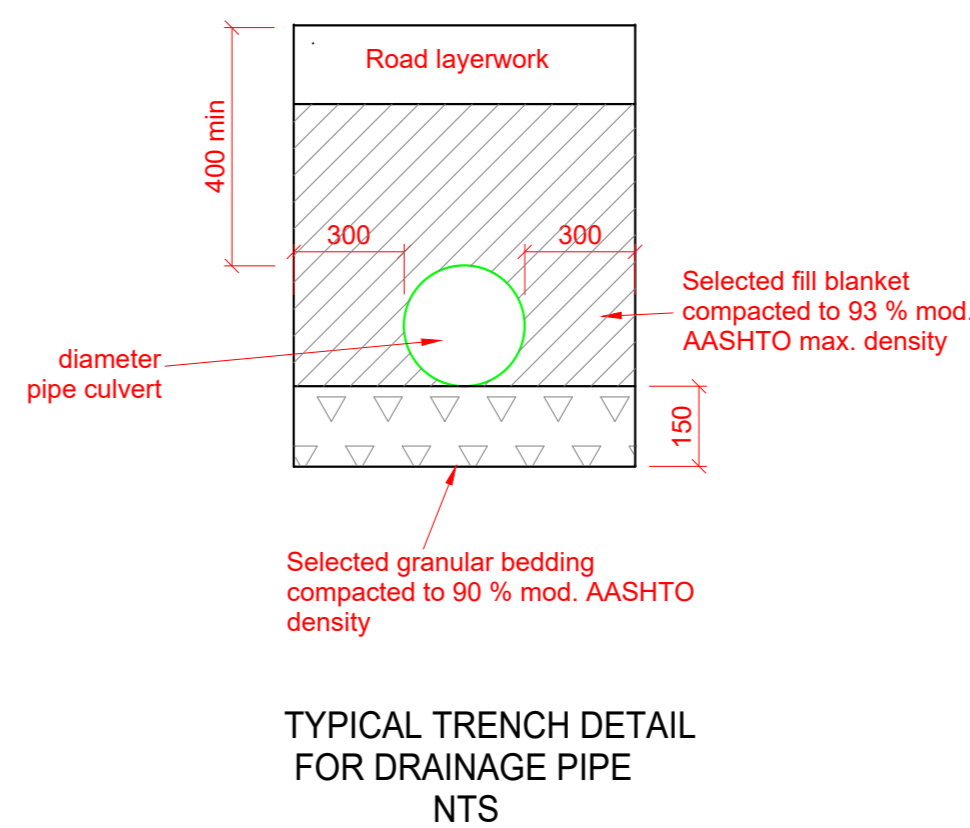
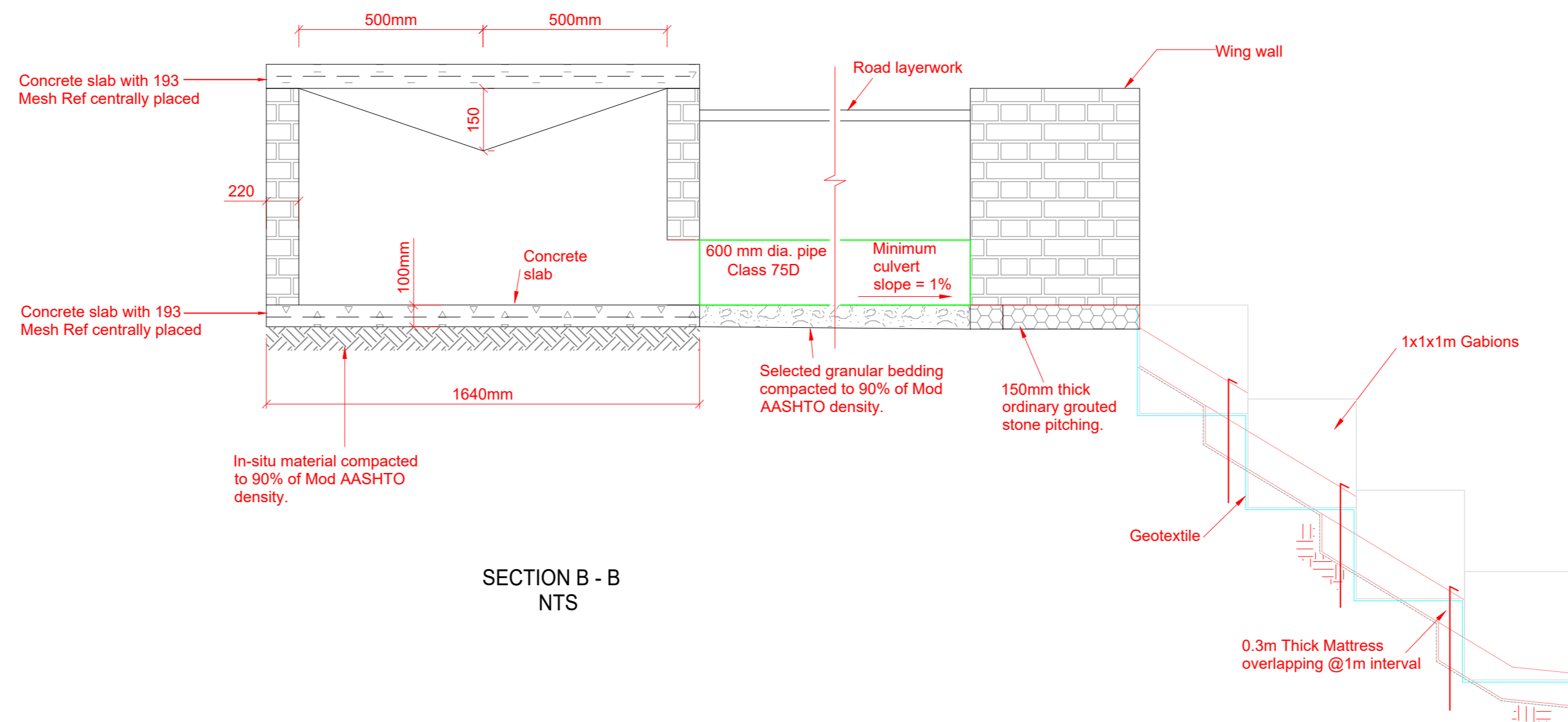
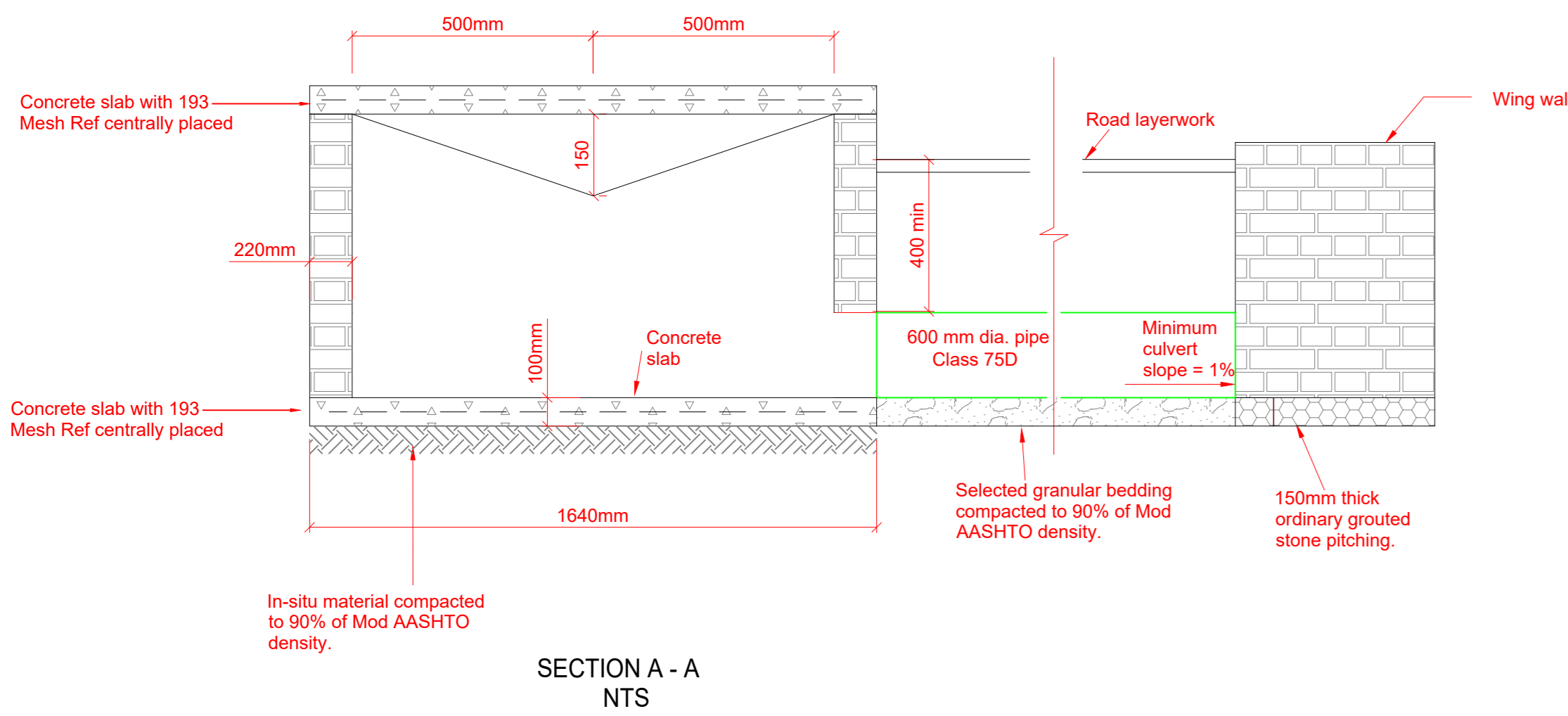
CONSTRUCTION OF GUMEDE BRIDGE:
WARD 16

DRAWING TITLE

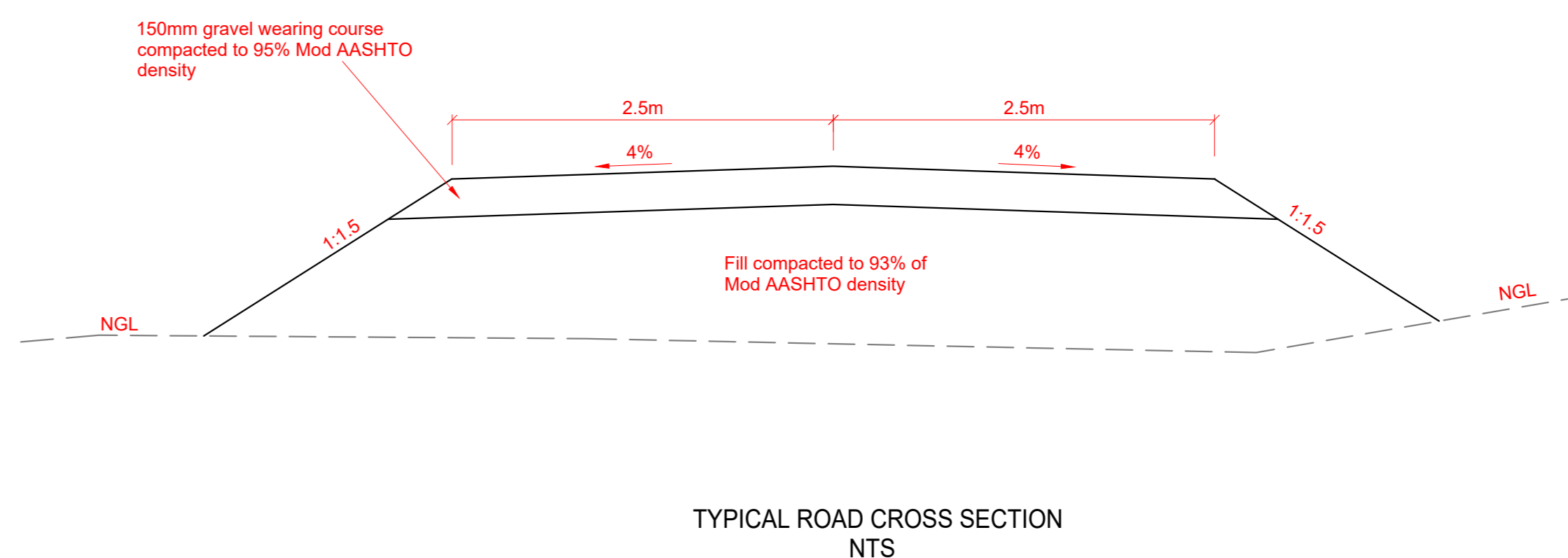
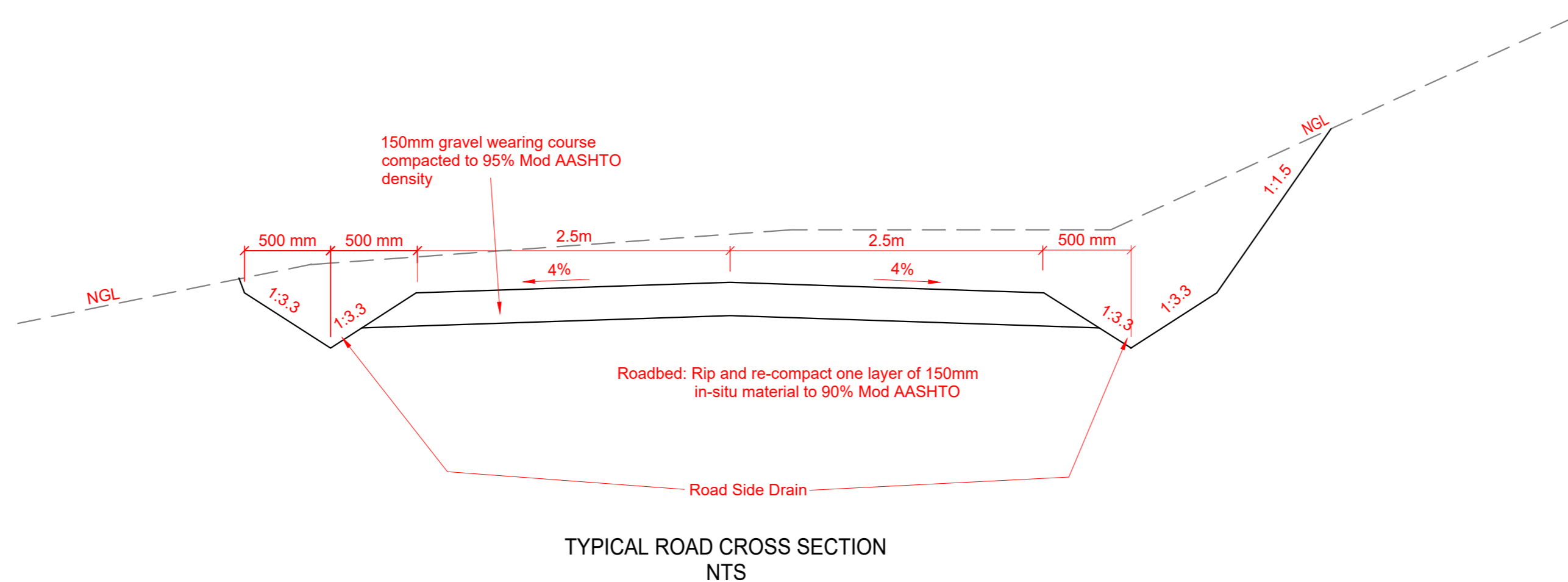
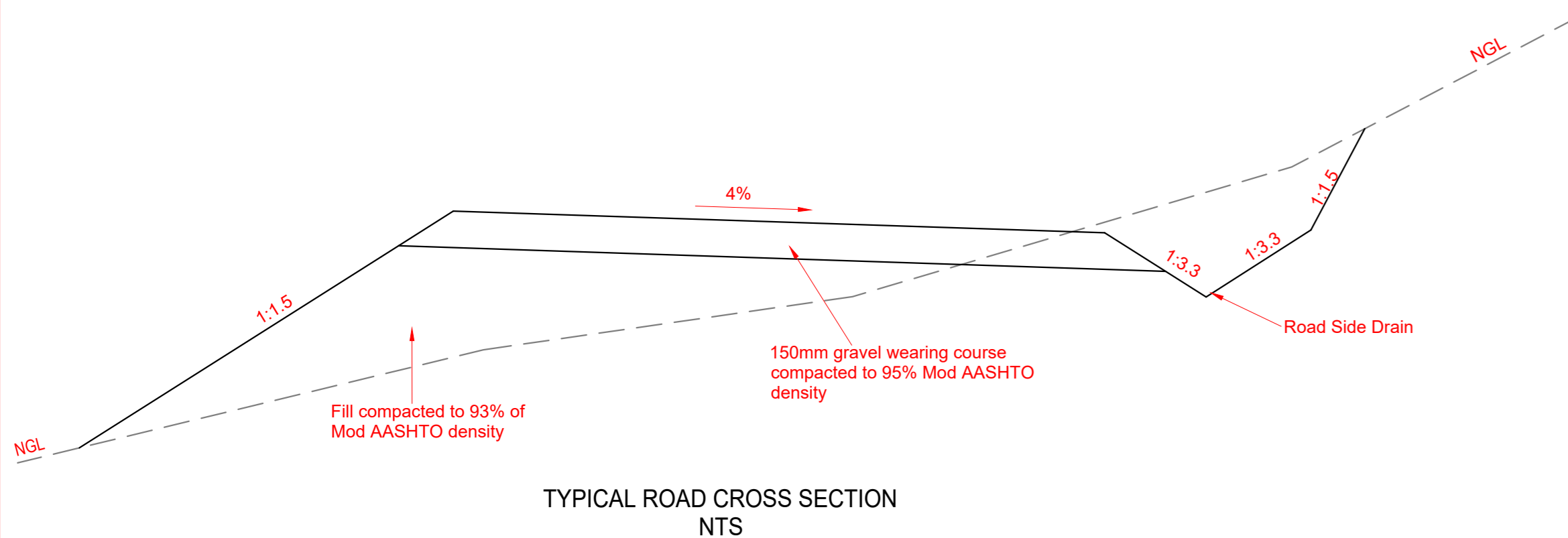
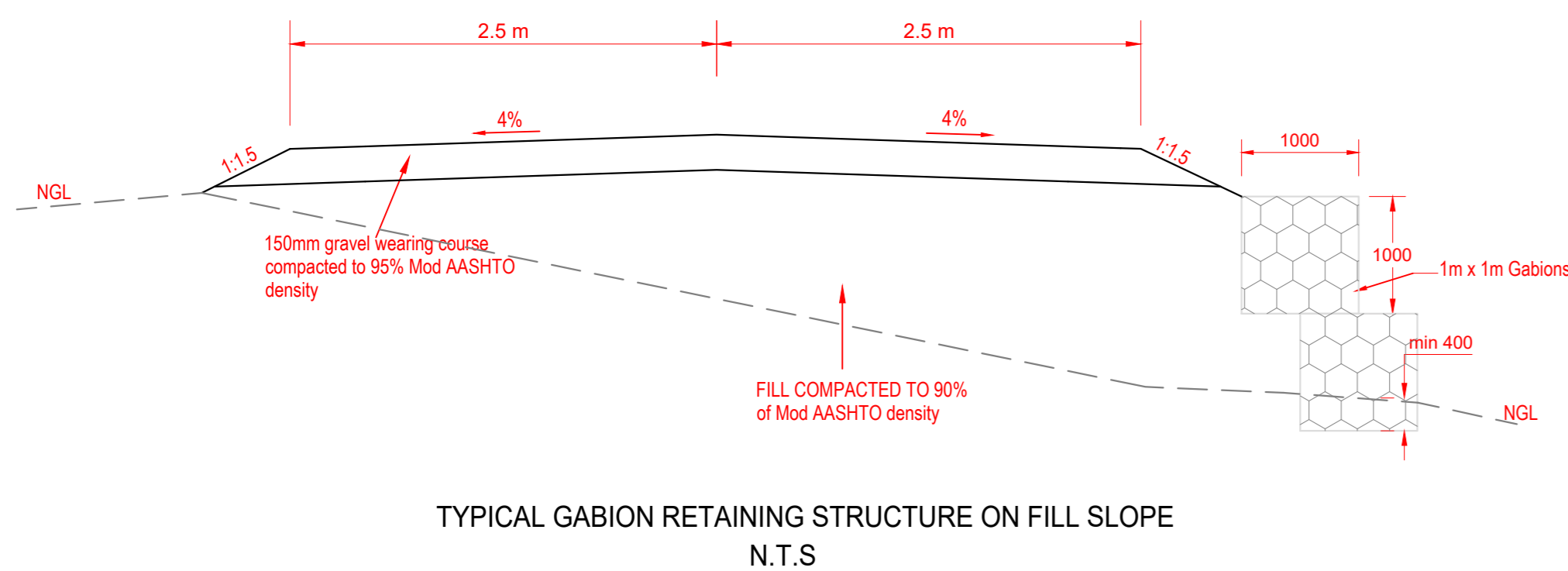
LOCALITY PLAN

SUB-TITLE

SCALE	1:1,500	DRAWING No.:	C000-4
PROJECT No.:	20-01		



PERMANENT SIGN PLACEMENT DIMENSIONS			
POSITIONING	PREFERRED RANGE (mm)	PREFERRED RANGE (mm)	PREFERRED RANGE (mm)
VERTICAL	A	2100	1800-4000
B	2100	750-2500	



NOTES

LEGEND

No: DATE REVISION INIT

CLIENT



FUNDER

CONTRACT No:

DESIGNED: V.S.M

APPROVED

DRAWN: V.S.M

CHECKED: R.C.S

ENGINEER: B.F.V

DATE: 18/05/2020

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PROGRAM

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE
DRAINAGE, SIGNS AND ROAD DETAILS

SCALE: N.T.S

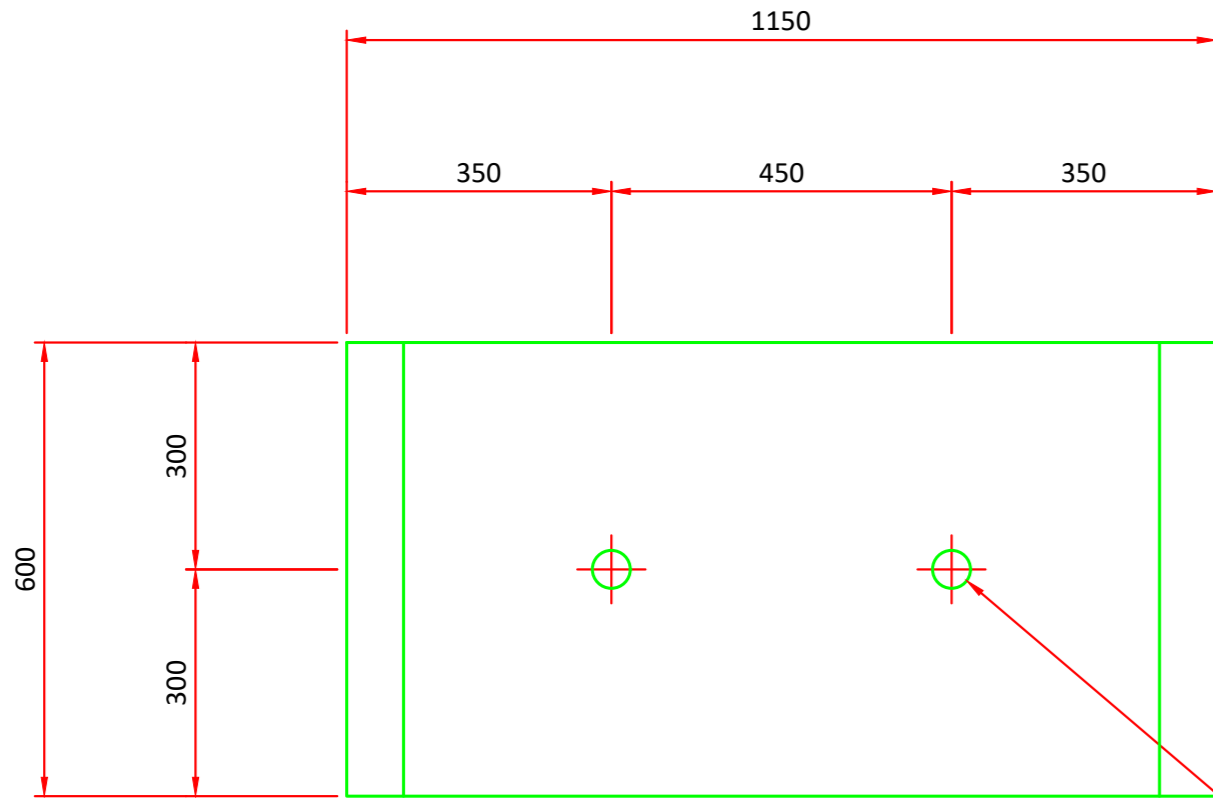
DRAWING No: C100-01

PROJECT No: 20-01

PRE-CAST CONCRETE SLAB REINFORCEMENT											
MEMBER	BAR MARK	TYPE & SIZE	NO OF MEMBERS	NO OF BARS IN EACH MEMBER	TOTAL NO	LENGTH OF EACH BAR	SHAPE CODE	A	B	C	D E/R
SLAB MKD A	01	MESH REF 245	1	PANELS	1	1,070 m x 0,52 m = 0,556 m²					
			No. OF PANELS PER ACCESS		TOTAL No. OF ACCESS						
TYPE/SIZE									TOT		
MESH REF 245			4		2				4.448 m²		
Y											
TOT									4.448 m²		

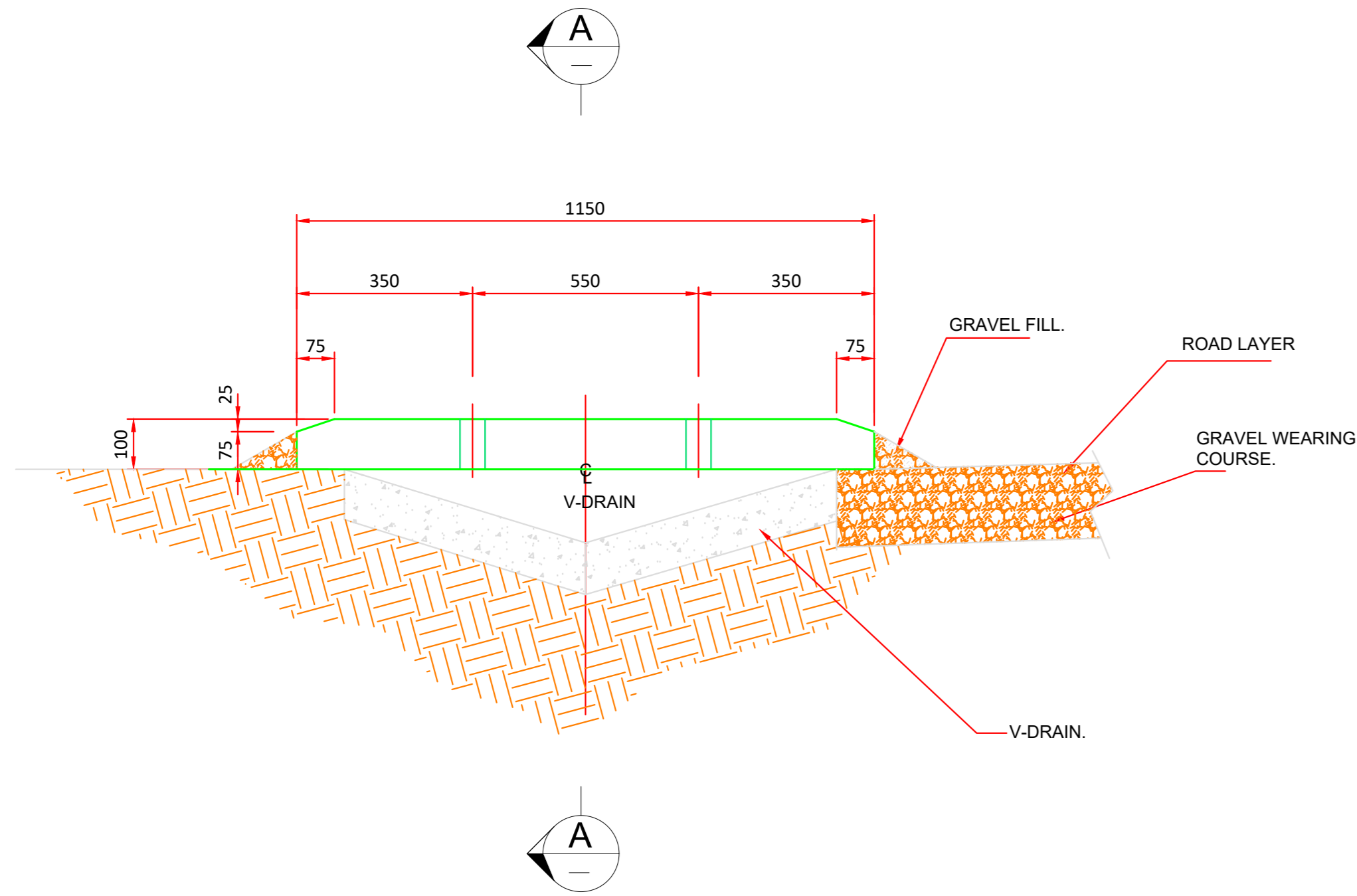
NOTES

- 1 STANDARD SPECIFICATION
SABS-1200
- 2 CONCRETE GRADE
CUBE STRENGTH IN MPA AT 28 DAYS
2.1 MASS 15 MPa/40MM
2.2 BLINDING 15 MPa/19MM
2.3 STRENGTH CONCRETE 30 MPa/19MM
- 3 CONCRETE FINISH
3.1 FORMWORK
A) SMOOTH TO ALL EXPOSED SURFACES
B) CHAMFER 20MM TO ALL EXPOSED EDGES
3.2 FLOAT
A) SMOOTH WOOD TO ALL EXPOSED SURFACES,
APPLY ROUGH FINISH ON WALK WAYS.
- 4 TOLERANCES
SABS-1200 ACCURACY DEGREE 2 (UON)
- 5 STEEL REINFORCEMENT (REBAR)
5.1 REBAR TO BE INSPECTED BY RESPONSIBLE
ENGINEER PRIOR TO CONCRETING
- 6 GROUT GRADE
CEMENTITIOUS, NON-SHRINK, SABS MARK
MINIMUM STRENGTH 40 MPa AT 7 DAYS
- 7 GENERAL INSTRUCTIONS
A) DO NOT SCALE
B) IF IN DOUBT, ASK
C) CONTRACTOR MUST PROVIDE SUITABLE LIFTING LUGS
TO PRECAST SLABS FOR TRANSPORTATION.
- 8 SI UNITS AND REDUCED LEVELS
DIMENSIONS IN MILLIMETRES

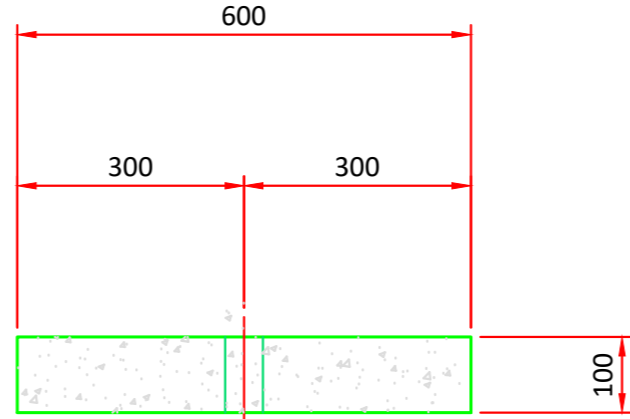


PROVIDE 500 PVC PIPES
AT THE GIVEN CENTERS
TO USE AS LIFTING LUGS.

PLAN ON PRE-CAST SLAB PANEL

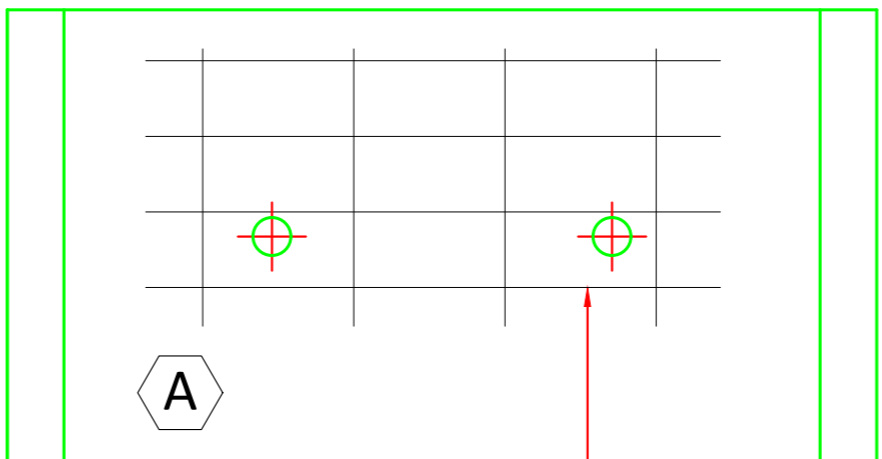


ELEVATION ON PRE-CAST SLAB PANEL



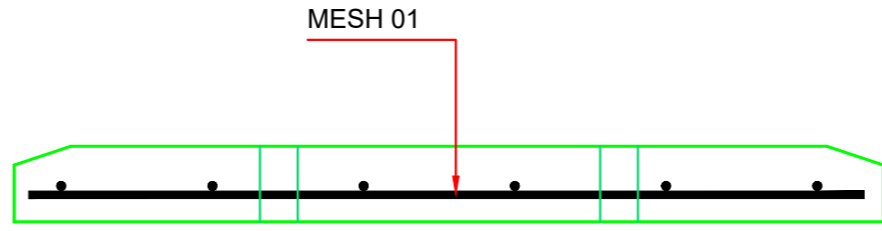
SECTION A

SCALE: 1: 10

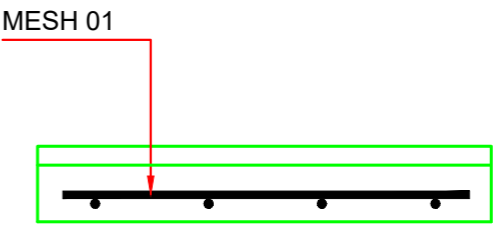


MESH 01
REF 245

PLAN ON PRE-CAST SLAB PANEL
REINFORCEMENT



ELEVATION ON PRE-CAST SLAB PANEL
REINFORCEMENT



STEEL IN SECTION A-A

NOTES

LEGEND

No: DATE REVISION INIT

CLIENT



FUNDER

CONTRACT No:

DESIGNED: V.S.M

APPROVED

DRAWN: V.S.M

CHECKED: R.C.S

ENGINEER: B.F.V

DATE: 18/05/2020

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PROGRAM

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

TYPICAL CONCRETE ACCESS SLAB

SCALE: N.T.S

DRAWING No: C100-02

PROJECT No: 20-01



- ① 125- 150 mm DIA TREATED TIMBER POLE 2400 mm LONG
- ② 100- 125 mm DIA TREATED TIMBER POLE 2000 mm LONG
- ③ 4- CORD STRAINING WIRE
- ④ ANCHOR POST 100 - 125 mm DIA TREATED TIMBER POLE
APPROX. 1200 mm LONG SEE DETAIL A
- ⑤ CLASS 20/19 CONCRETE
- ⑥ STANDARDS EMBEDDED IN CONCRETE
- ⑦ SAND LAYER
- ⑧ 40 mm DIA TREATED TIMBER DROPPER
- ⑨ DIAMOND MESH

LEGEND

FUNDER

CONTRACT No:	
DESIGNED: V.S.M	APPROVED
DRAWN: V.S.M	CHECKED: R.C.S
ENGINEER: B.F.V	DATE: 18/05/2020

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V

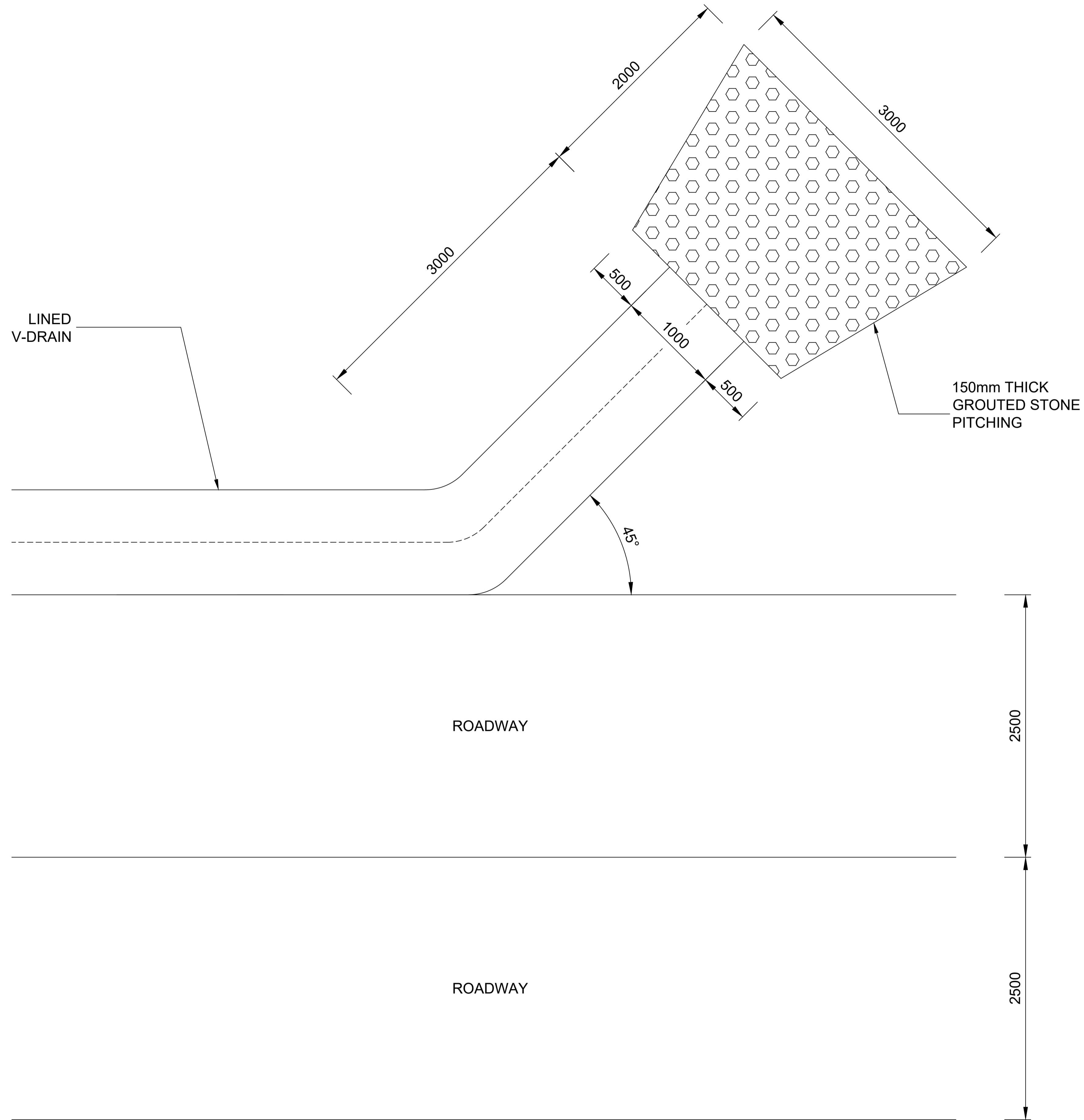
PROGRAM

PROJECT
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

FENCE DETAILS

SCALE: N.T.S	DRAWING No: C100-03
PROJECT No: 20-01	



PLAN ON MITRE DRAINS OUTLET

NOTES			
LEGEND			
No.	DATE	REVISION	INIT
CLIENT			
			
FUNDER			
RECOMMENDED		APPROVED	
DESIGNED	T.M.M		
DRAWN:	V.S.M	CHECKED:	R.C.S
ENGINEER:	B.F.V	DATE:	20/05/2020
VUBA IMAGINEERS CC			
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Email: baliso@vubaimagineers.co.za			
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CONTRACT No.			
PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
TYPICAL MITRE DRAIN DETAILS			
SUB-TITLE			
SCALE	N.T.S	DRAWING No.:	C100-05
PROJECT No.:	20-01		



Curve List						
Road1						
No	Radius	TR.In	TR.Out	TAN.In	TAN.Out	Deflection
0	0.00	0.00	0.00	0.00	0.00	0.00.00
1	22.00	0.00	0.00	13.13	13.13	61.38.51
2	100.00	0.00	0.00	14.85	14.85	16.53.48
3	140.00	0.00	0.00	13.82	13.82	11.16.26
4	0.00	0.00	0.00	0.00	0.00	0.00.00

Road List				
Position	SV	Y-Coord	X-Coord	RR
PI0	0	25695.04	3346107.66	0.00
BCC1	34.87	25671.15	3346082.26	
PI1	46.70	25662.15	3346072.70	22.00
ECC1	58.54	25666.30	3346060.24	
BCC2	112.99	25683.48	3346008.58	
PI2	127.73	25688.17	3345994.48	100.00
ECC2	142.48	25688.56	3345979.63	
BCC3	168.96	25689.26	3345953.16	
PI3	182.73	25689.62	3345939.35	140.00
ECC3	196.50	25687.27	3345925.73	
PI4	237.32	25680.35	3345885.51	

NOTES

LEGEND

No	DATE	REVISION	INIT

CLIENT



FUNDER

RECOMMENDED		APPROVED	
DESIGNED: R.C.S			
DRAWN: V.S.M		CHECKED: B.F.V	
ENGINEER: B.F.V		DATE: 20/5/2020	

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CONTRACT No.

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

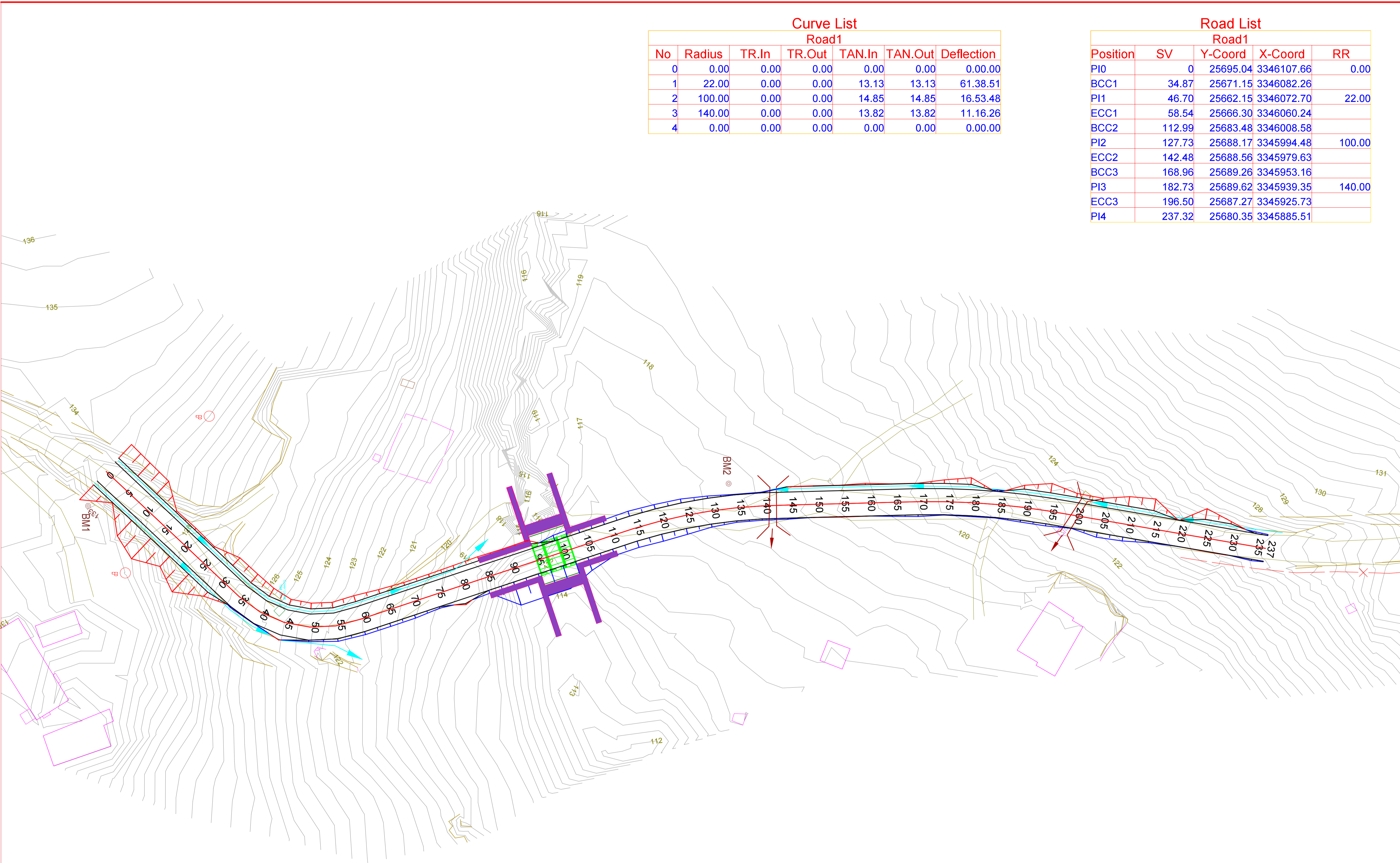
DRAWING TITLE

GUMEDE ACCESS ROAD LAYOUT WITH BACKGROUND IMAGE

SUB-TITLE

Chainage 0 to 237

SCALE	1 : 400	DRAWING No.: C200-01
PROJECT No.: 20-01		



Curve List						
Road1						
No	Radius	TR.In	TR.Out	TAN.In	TAN.Out	Deflection
0	0.00	0.00	0.00	0.00	0.00	0.00.00
1	22.00	0.00	0.00	13.13	13.13	61.38.51
2	100.00	0.00	0.00	14.85	14.85	16.53.48
3	140.00	0.00	0.00	13.82	13.82	11.16.26
4	0.00	0.00	0.00	0.00	0.00	0.00.00


Road List				
Position	SV	Y-Coord	X-Coord	RR
PI0	0	25695.04	3346107.66	0.00
BCC1	34.87	25671.15	3346082.26	
PI1	46.70	25662.15	3346072.70	22.00
ECC1	58.54	25666.30	3346060.24	
BCC2	112.99	25683.48	3346008.58	
PI2	127.73	25688.17	3345994.48	100.00
ECC2	142.48	25688.56	3345979.63	
BCC3	168.96	25689.26	3345953.16	
PI3	182.73	25689.62	3345939.35	140.00
ECC3	196.50	25687.27	3345925.73	
PI4	237.32	25680.35	3345885.51	

NOTES

LEGEND

No	DATE	REVISION	INIT

CLIENT




FUNDER

RECOMMENDED	APPROVED
DESIGNED: R.C.S	
DRAWN: V.S.M	CHECKED: B.F.V
ENGINEER: B.F.V	DATE: 20/5/2020

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CONTRACT No.

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

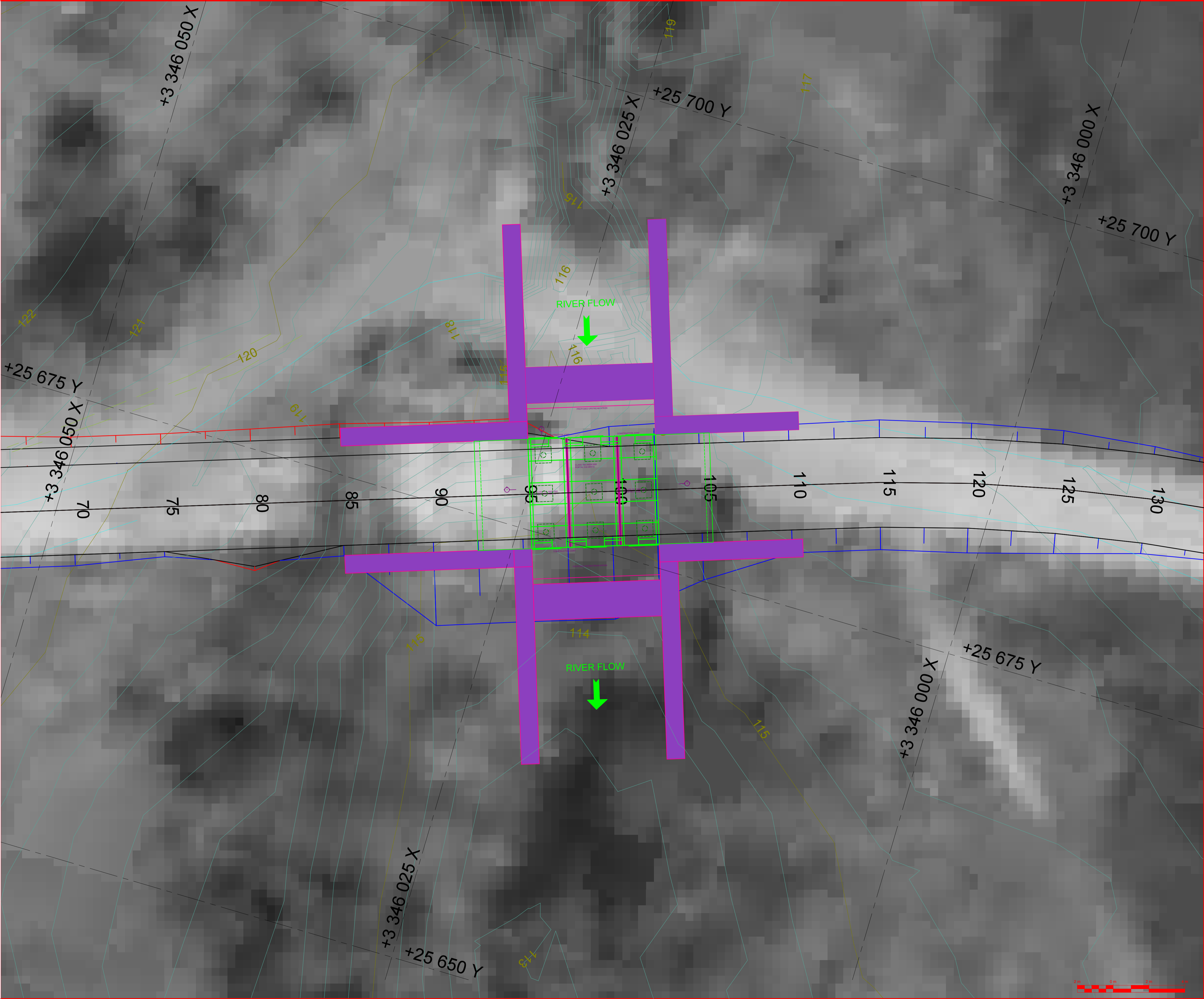
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GUMEDE ACCESS ROAD LAYOUT
WITHOUT BACKGROUND IMAGE

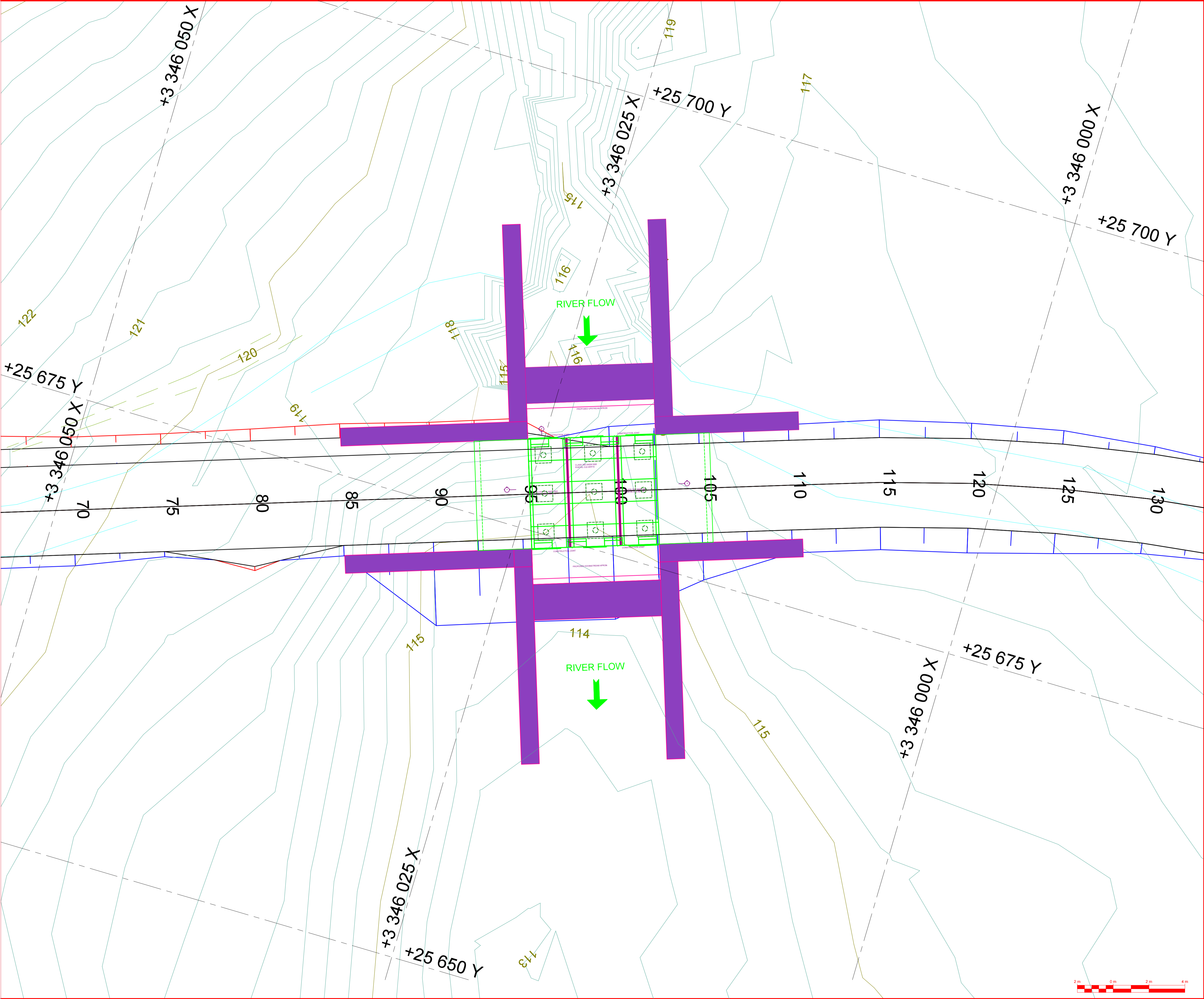
SUB-TITLE







Chainage 0 to 237

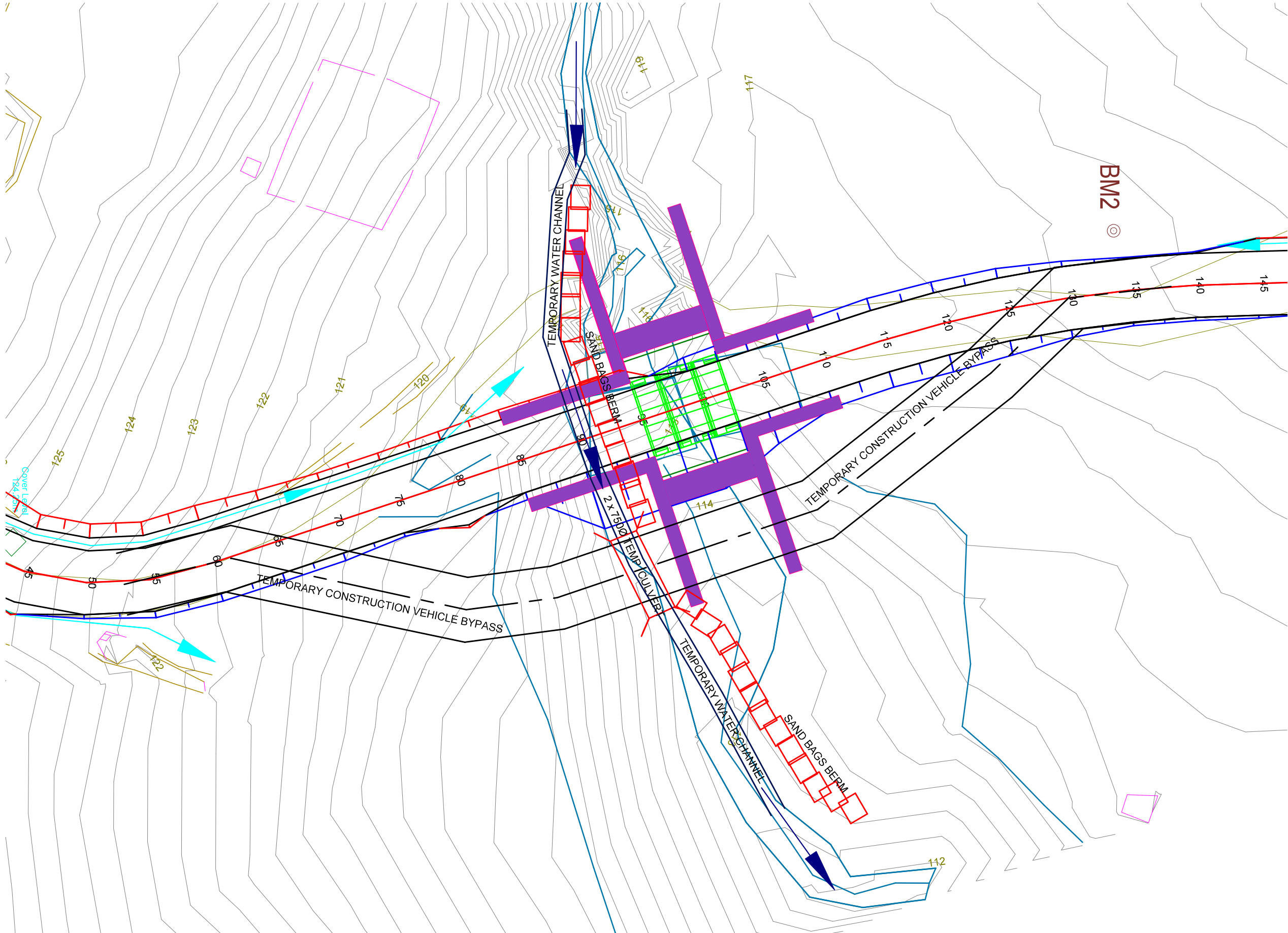
SCALE	1 : 400	DRAWING No.: C200-02
PROJECT No.: 20-01		




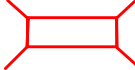






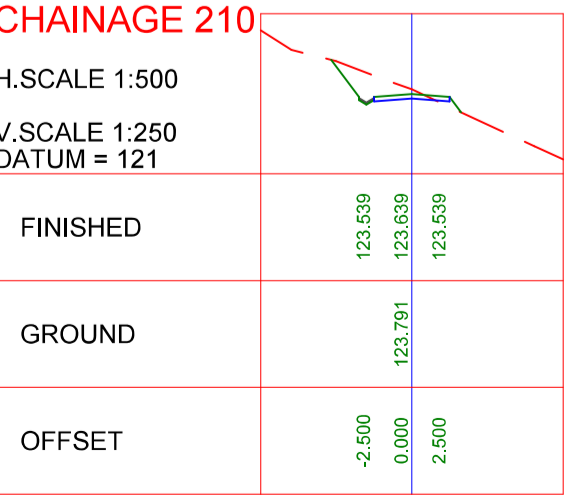
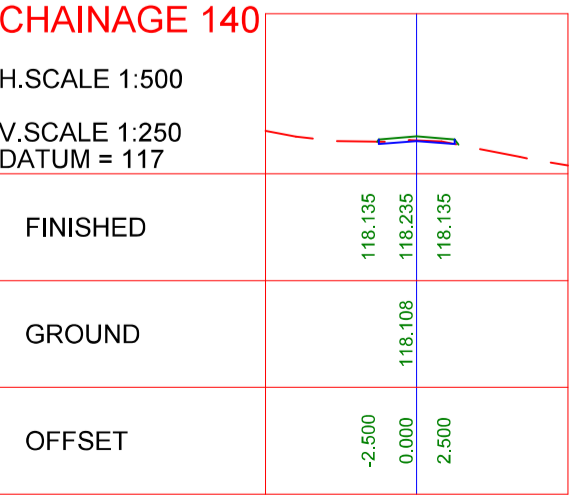
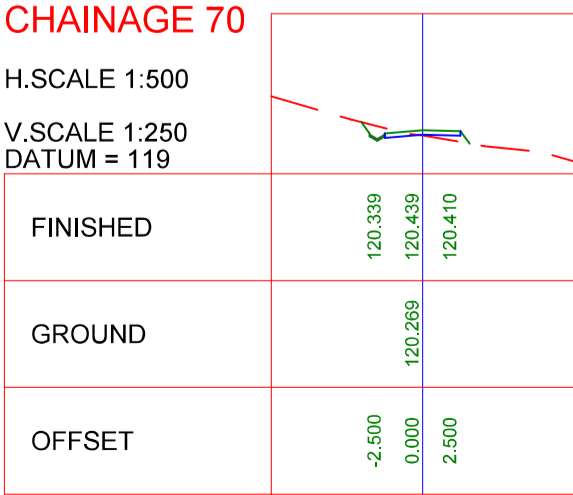
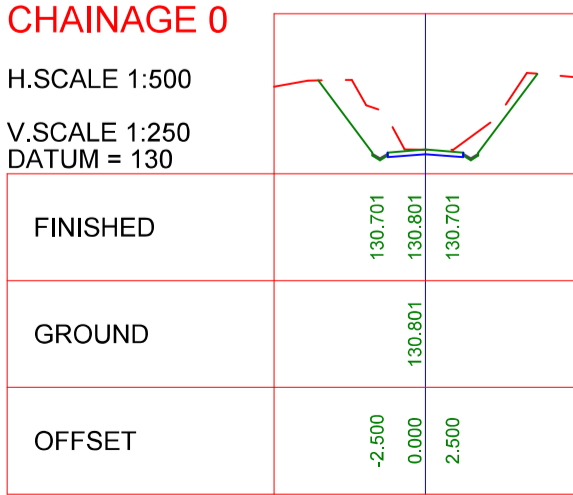
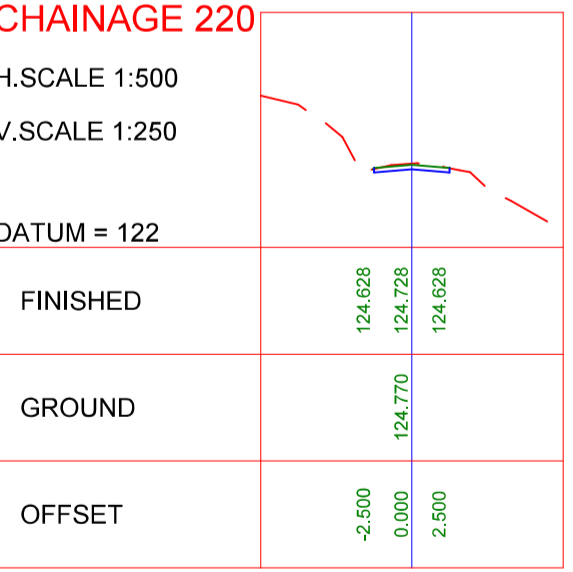
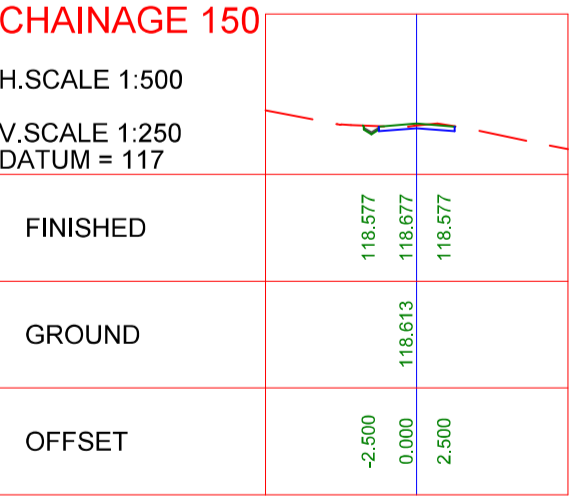
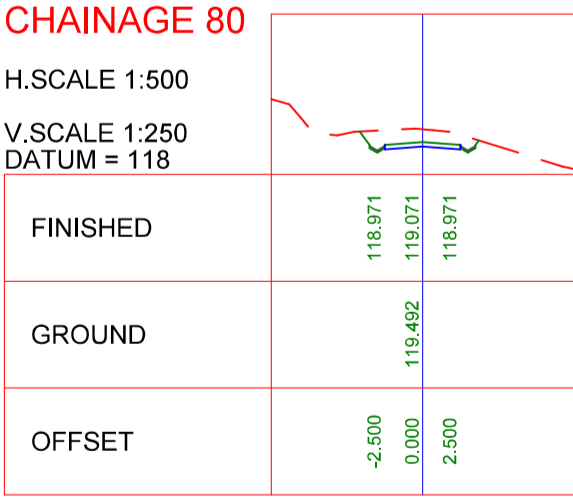
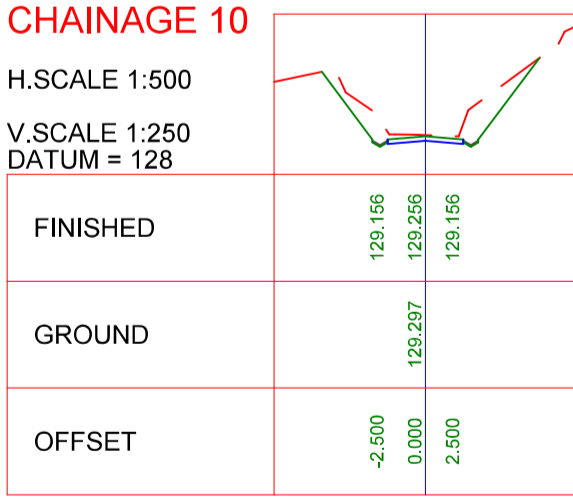
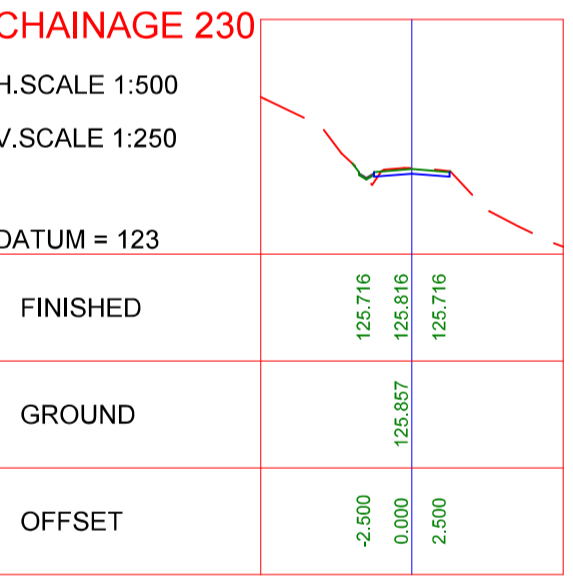
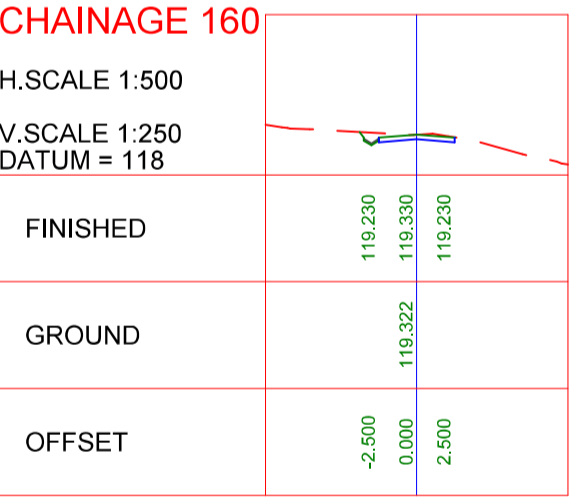
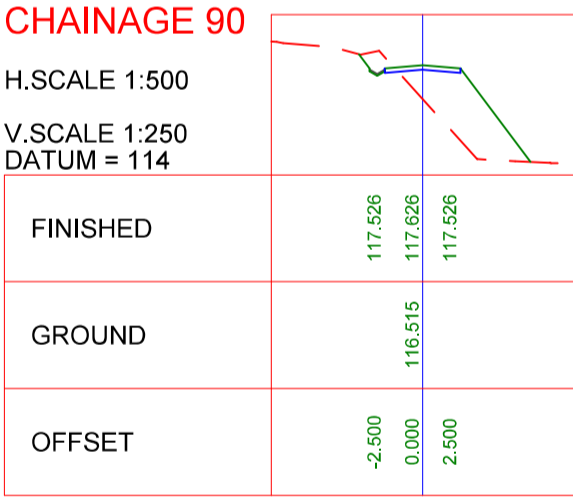
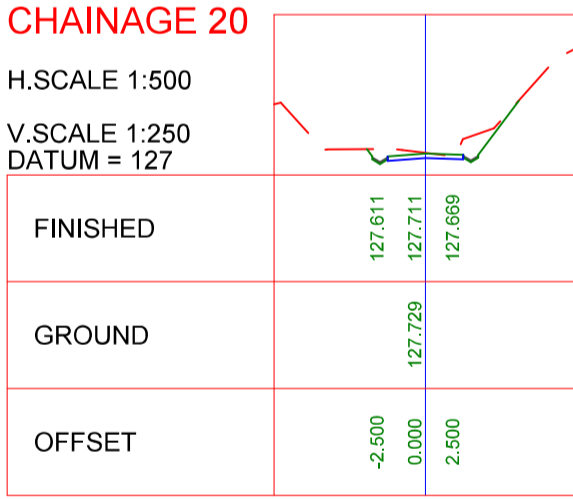
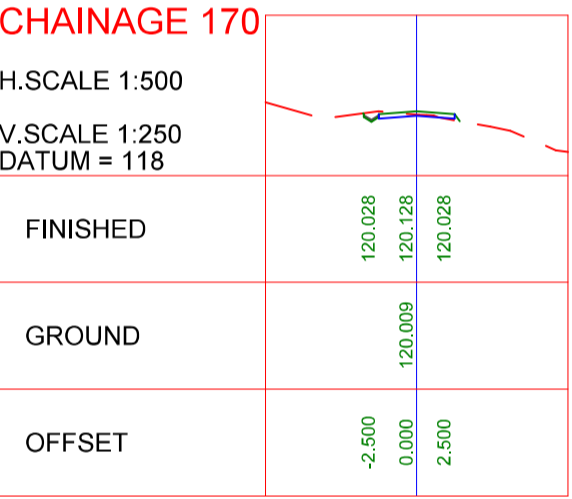
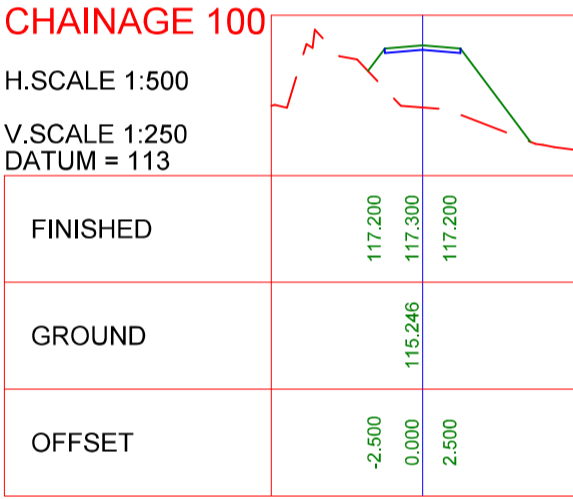
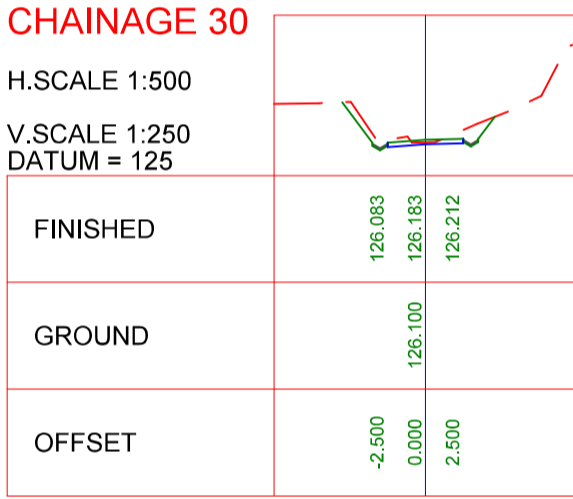
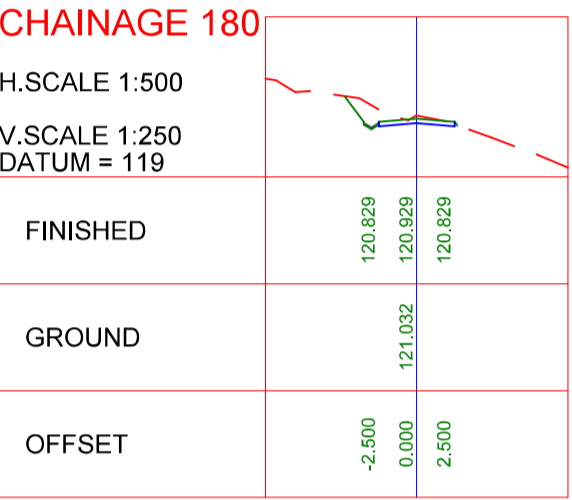
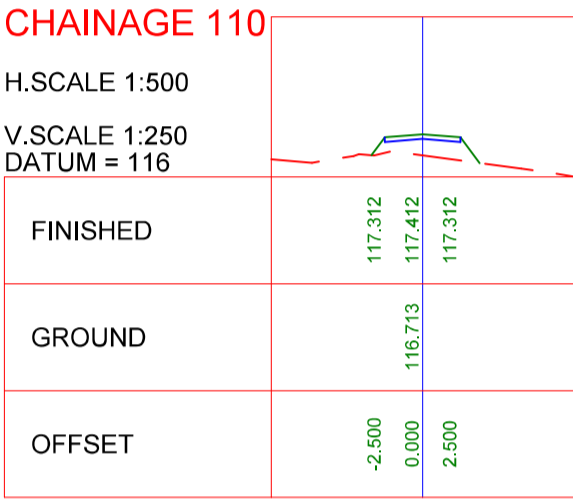
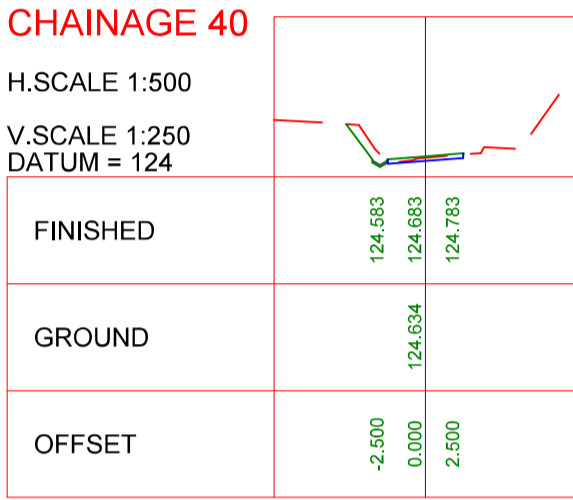
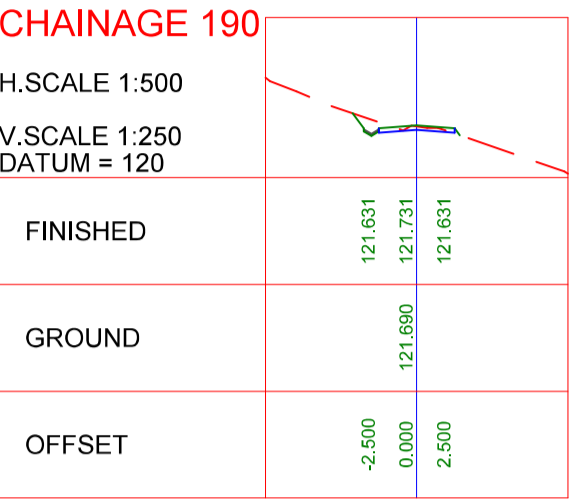
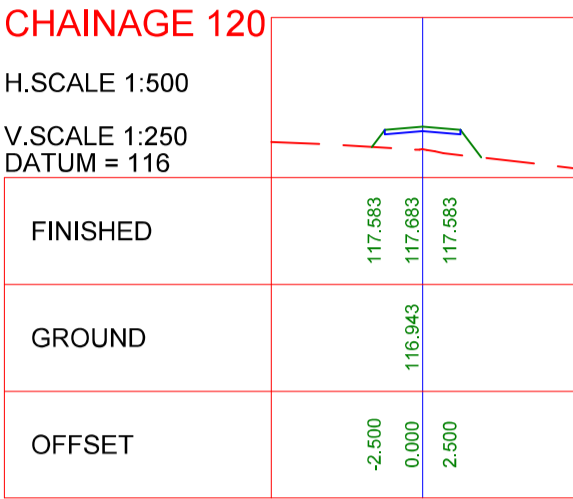
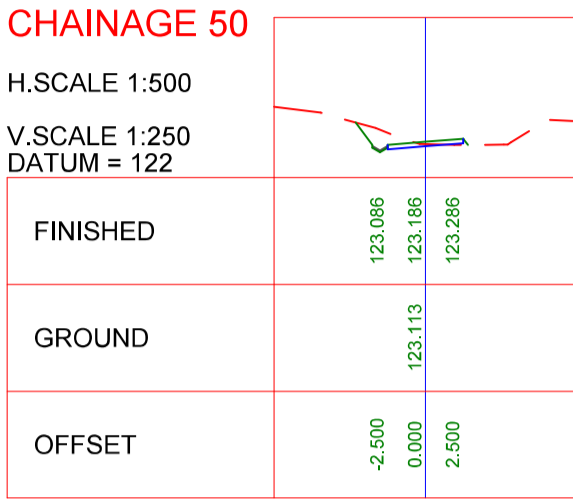
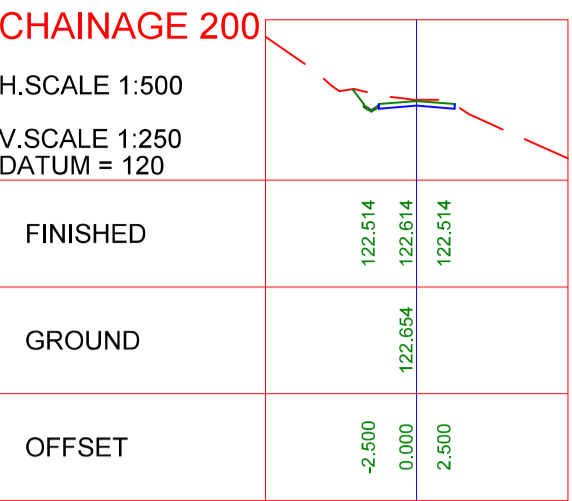
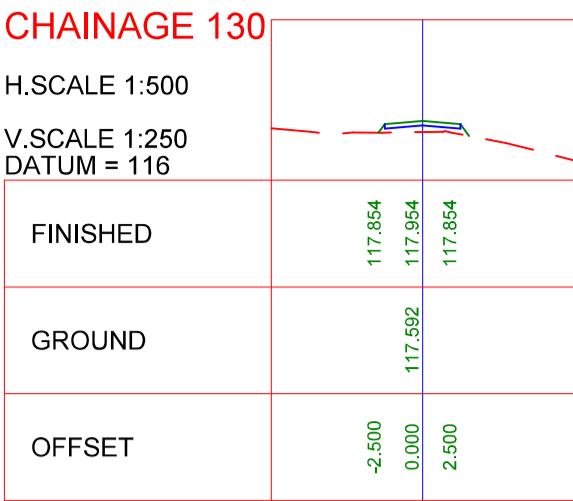
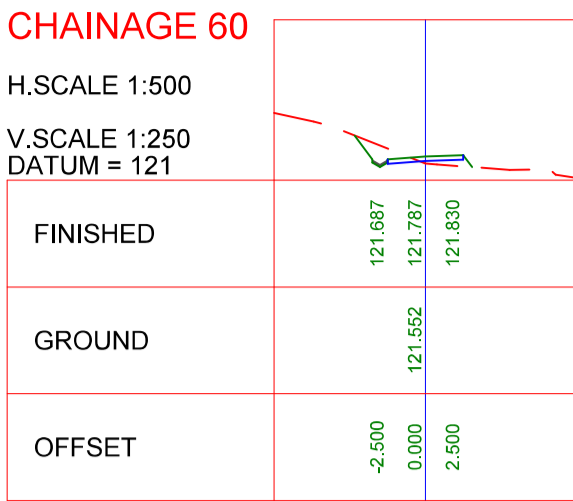
NOTES			
LEGEND			
	CUT TOE LINE		
	FILL TOE LINE		
	GABIONS		
	BRIDGE		
No.	DATE	REVISION	INIT
CLIENT			
			
FUNDER			
RECOMMENDED		APPROVED	
DESIGNED	V.S.M		
DRAWN:	V.S.M	CHECKED:	R.C.S
ENGINEER:	B.F.V	DATE:	24/3/2020
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<div>Offices: PORT SHEPSTONE Phone: +27-39-315-6596 Fax: +27-39-315-6488 QUEENSTOWN Phone: +27-45-838-4391 Fax: +27-45-839-7268</div> 			
Email: baliso@vubaimagineers.co.za			
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CONTRACT No.			
PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
LOCATION OF GUMEDE BRIDGE LAYOUT			
SUB-TITLE			
WITH BACKGROUND IMAGE			
SCALE	1 : 100	DRAWING No.:	C200-03
PROJECT No.:	20-01		



NOTES			
LEGEND			
	CUT TOE LINE		
	FILL TOE LINE		
	GABIONS		
	BRIDGE		
No.	DATE	REVISION	INIT
<div>CLIENT</div> <div></div>			
<div>FUNDER</div>			
RECOMMENDED		APPROVED	
DESIGNED	V.S.M		
DRAWN:	V.S.M	CHECKED:	R.C.S
ENGINEER:	B.F.V	DATE:	24/3/2020
<div>VUBA IMAGINEERS CC</div> <div>Engineering GIS and Project Management Consultants</div> <div></div> <div>Offices: PORT SHEPSTONE Phone: +27-39-315-6596 Fax: +27-39-315-6488 QUEENSTOWN Phone: +27-45-838-4391 Fax: +27-45-839-7268</div> <div>Email: baliso@vubaimagineers.co.za</div> <div>Copyright @ Vuba Imagineers CC</div>			
CONTRACT No.			
PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
LOCATION OF GUMEDE BRIDGE LAYOUT			
SUB-TITLE			
WITHOUT BACKGROUND IMAGE			
SCALE	1 : 100	DRAWING No.:	C200-04
PROJECT No.:	20-01		



NOTES			
LEGEND			
	EXISTING STREAM CHANNEL		
	PROPOSED STREAM DIVERSION CHANNEL		
	PROPOSED BRIDGE		
	PIPE CULVERT		
	GABIONS		
	SAND BAG		
	FLOW DIRECTION		
No.	DATE	REVISION	INIT
CLIENT			
FUNDER			
RECOMMENDED		APPROVED	
DESIGNED: V.S.M			
DRAWN: V.S.M		CHECKED: R.C.S	
ENGINEER: B.F.V		DATE: 30/8/2021	
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PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
TEMPORARY STREAM DIVERSION			
SUB-TITLE			
SCALE 1 : 300		DRAWING No.: C200-05	
PROJECT No.: 20-01			



NOTES

LEGEND

No.	DATE	REVISION	INIT
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DESIGNED: R.C.S		CONTRACT No.:	
DRAWN: V.S.M		CHECKED: R.C.S	
ENGINEER: B.F.V		DATE: 21/05/2020	

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PROGRAM

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

GUMEDE ROAD CROSS SECTIONS

SUB-TITLE

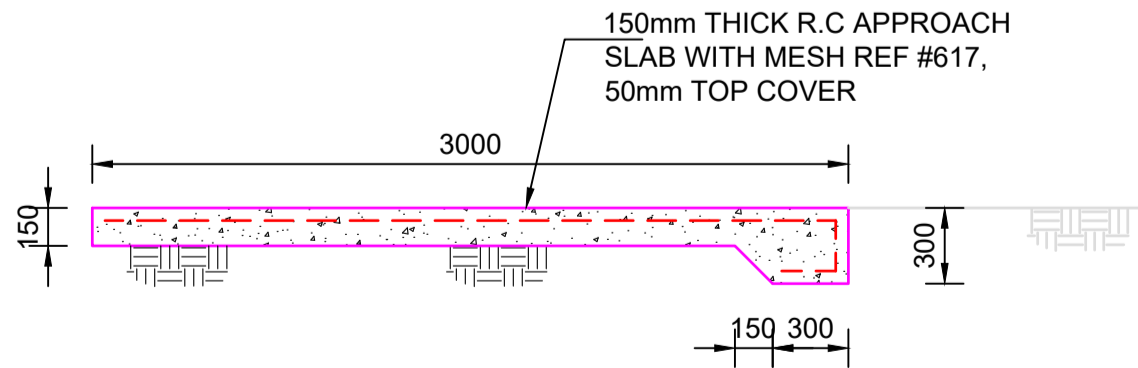
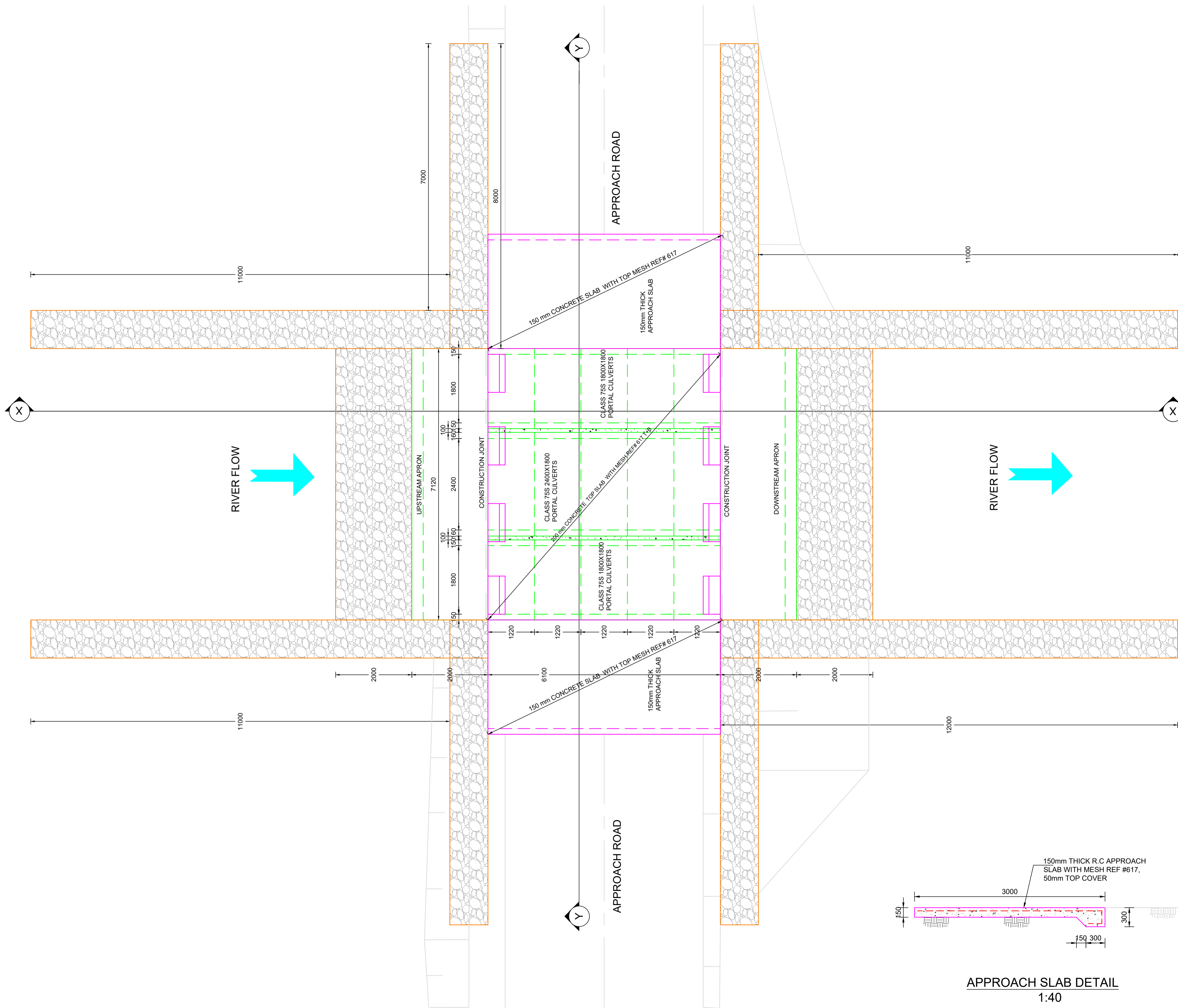
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SCALE 1 : 1000 DRAWING No.: C300-01

PROJECT No.: 20-01



DRAWING CHECKED: R.C.S	VUBA IMAGINEERS CC Engineering GIS and Project Management Consultant  Offices: PORT SHEPSTONE Phone: +27-39-315-6596 Fax: +27-39-315-6688 QUEENSTOWN Tel: +27-45-838-4191 Fax: +27-45-839-7268 Email: baliso@vubaimagineers.co.za	No.	REVISIONS	DRAWN	APPROVED	DATE	GUMEDE ACCESS ROAD LONG SECTION : CHAINAGE 0 - 237	CLIENT: UMDONI MUNICIPALITY	SCALES
DRAWN BY: V.S.M						5/14/2020		CONTRACT No.:	Horizontal Scale : 1 : 500 Vertical Scale : 1 : 250
DESIGN CHECKED: B.F.V								FUNDER:	PROJECT No.: 20-01
DESIGNED BY: R.C.S								PROGRAM:	DRAWING No.: C400-01



APPROACH SLAB DETAIL
1:40

BRIDGE LAYOUT PLAN
SCALE 1:60

NOTES

1. THIS DRAWING IS READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND CONTRACT SPECIFICATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE IMPLEMENTATION.
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6. THE CONTRACTOR SHOULD IDENTIFY, EXPOSE AND PROTECT ALL UNDERGROUND SERVICES ON SITE AND OTHER RELEVANT PLACES AS PER CONTRACT SPECIFICATIONS OR SABS 1200.
7. WHEN THE ENGINEER IS REQUIRED ON SITE A 48 HOUR NOTICE SHOULD BE GIVEN
8. THE DEPTH AND WIDTH OF FILL BELOW FOOTING SHALL GENERALLY BE TAKEN AS 1.5 TIMES THE WIDTH OF THE FOOTING.
9. S.S.L-STRUCTURAL SLAB LEVEL.

CONCRETE NOTES :

1. CONCRETE GRADES TO BE AS FOLLOWS:
FOUNDATIONS - 30MPa
COLUMNS - 30 MPa
WALLS - 30 MPa
SLABS - 30 MPa
2. ALL REBAR TO BE SUPPORTED ON PURPOSE MADE CONCRETE SPACERS OR PLASTIC SPACERS. STOOLS SHOULD SIT ON "B1" MAT OF STEEL NOT ON SHUTTERING
3. THE CONTRACTOR IS TO ENSURE THAT CUBES ARE CAST WITH THE ELEMENT THAT THEY ARE INTENDED TO REPRESENT. NO CUBE TEST DONE AFTER CONCRETE HAS BEEN CAST OR FROM A BATCH OF CONCRETE NOT TO BE USED FOR THAT PARTICULAR ELEMENT WILL BE ACCEPTED.
4. THE CONTRACTOR IS TO CURE THE CONCRETE WITH AN APPROVED METHOD OF MOISTURE RETENTION. THE CONTRACTOR IS RESPONSIBLE FOR CONCRETE WHICH IS REJECTED DUE TO POOR CURING METHODS OR LACK THEREOF
5. CONCRETE COVER TO BE AS FOLLOWS:
FOUNDATIONS - 50mm
SLAB - 50mm

No.	DATE	REVISION	INIT

CLIENT



FUNDER

RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	23/03/2020

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CONTRACT No.

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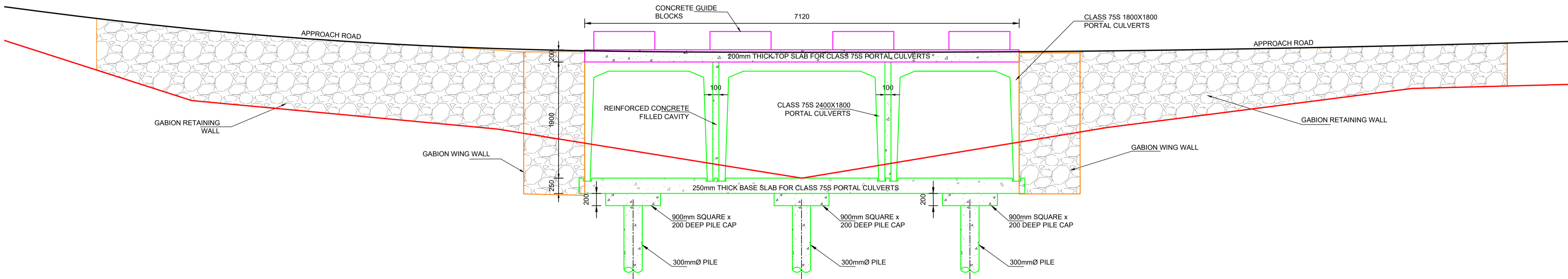
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

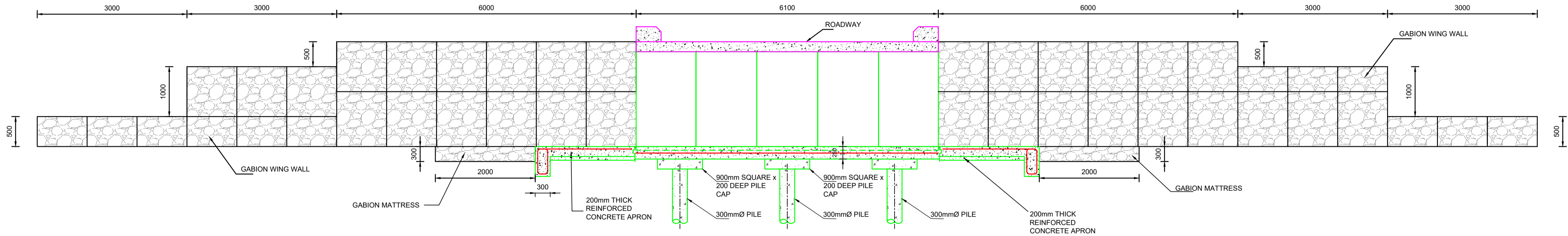
PORTAL CULVERT BRIDGE LAYOUT

SUB-TITLE

SCALE	AS SHOWN	DRAWING No.: C600-01
PROJECT No.:	20-01	



SECTION Y-Y
SCALE 1:40



SECTION X-X
SCALE 1:50

NOTES

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- S.S.L-STRUCTURAL SLAB LEVEL.

CONCRETE NOTES:

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 - COLUMNS - 30 MPa
 - WALLS - 30 MPa
 - SLABS - 30 MPa
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- CONCRETE COVER TO BE AS FOLLOWS:
 - FOUNDATIONS - 50mm
 - SLAB - 50mm

No.	DATE	REVISION	INIT
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CLIENT



FUNDER

RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	23/03/2020

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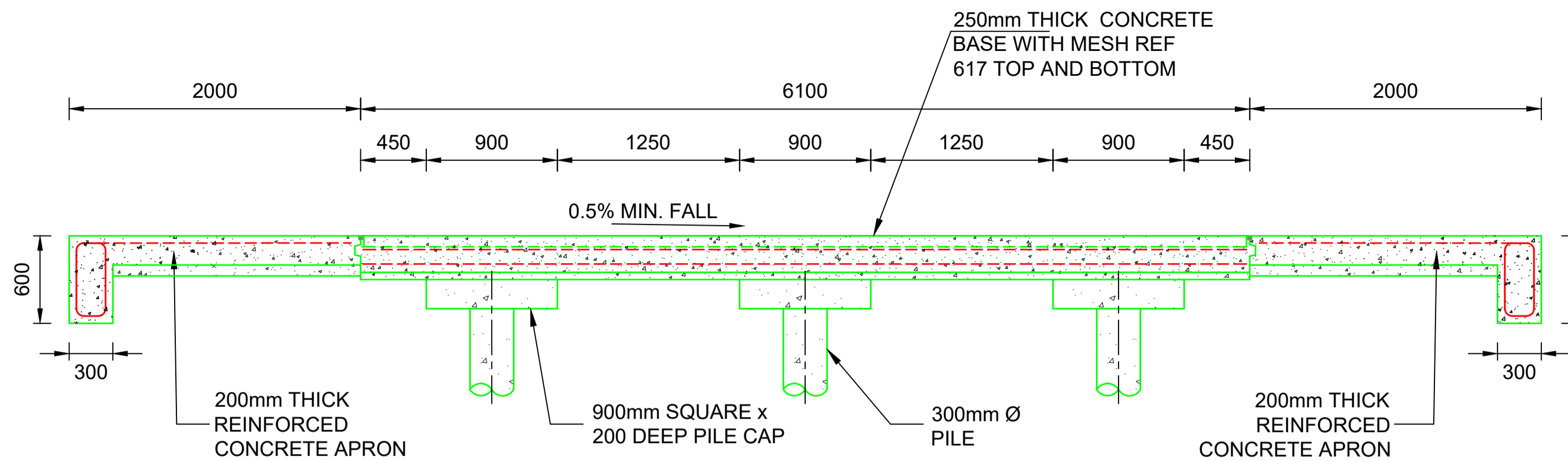
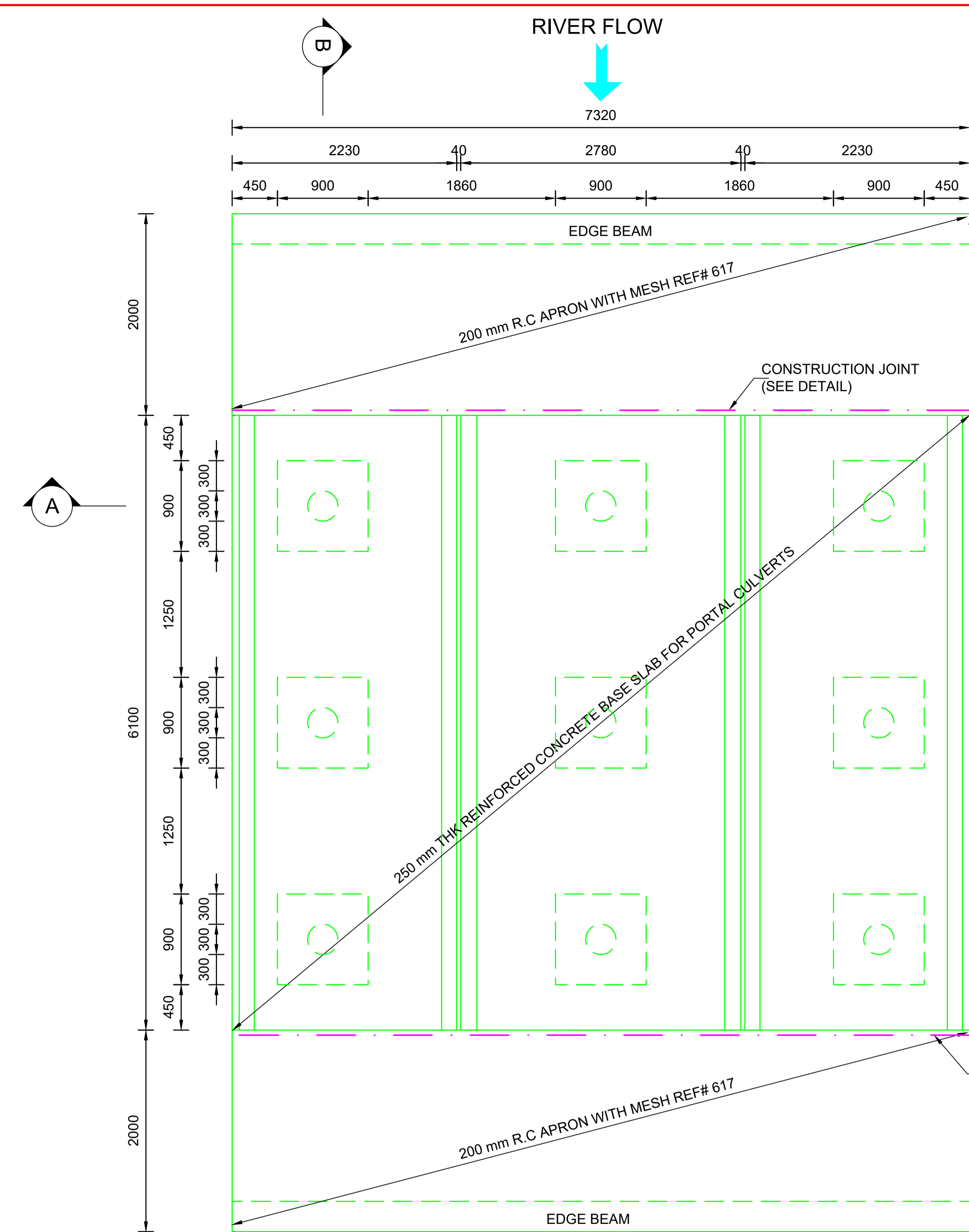
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

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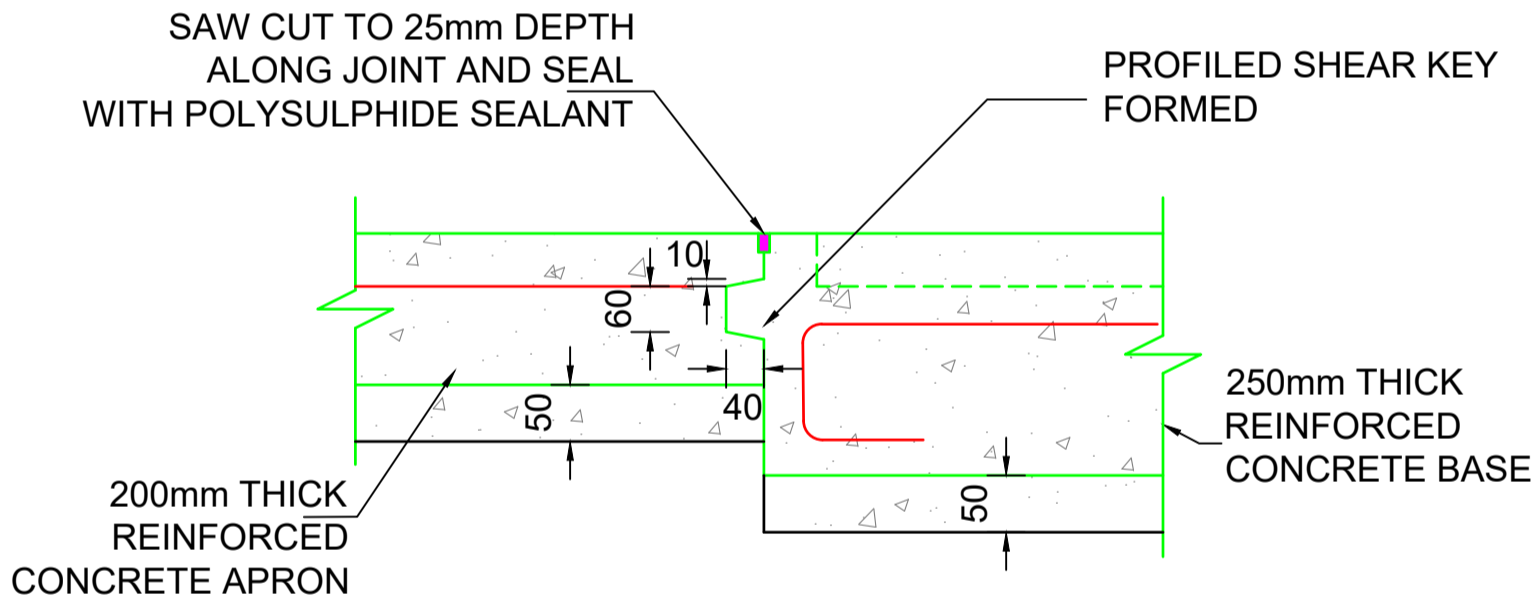
PORTAL CULVERT BRIDGE SECTIONS

SUB-TITLE

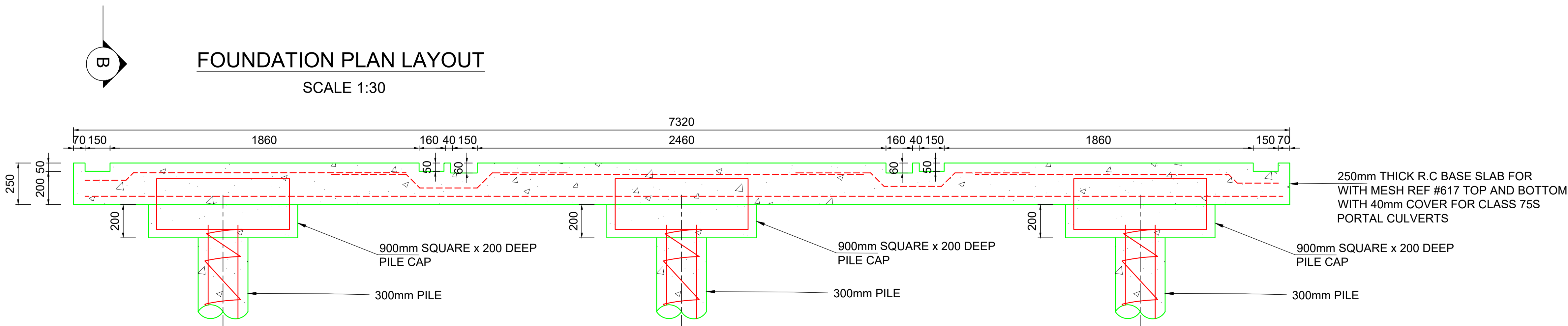
SCALE	AS SHOWN	DRAWING No.:	C600-02
PROJECT No.:	20-01		



SECTION B-B
SCALE 1:15



CONSTRUCTION JOINT (CJ)
SCALE 1:10



SECTION A-A
SCALE 1:15

NOTES

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- S.S.L-STRUCTURAL SLAB LEVEL.

CONCRETE NOTES :

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FOUNDATIONS - 30MPa
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WALLS - 30 MPa
SLABS - 30 MPa
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- CONCRETE COVER TO BE AS FOLLOWS:
FOUNDATIONS - 50mm
SLAB - 50mm

No. DATE REVISION INIT

CLIENT



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RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	23/03/2020

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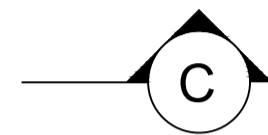
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

PORTAL CULVERT BRIDGE FOUNDATION DETAILS

SUB-TITLE

SCALE	AS SHOWN	DRAWING No.: C600-03
PROJECT No.:	20-01	




CLASS 75S 1800X1800 PORTAL CULVERTS

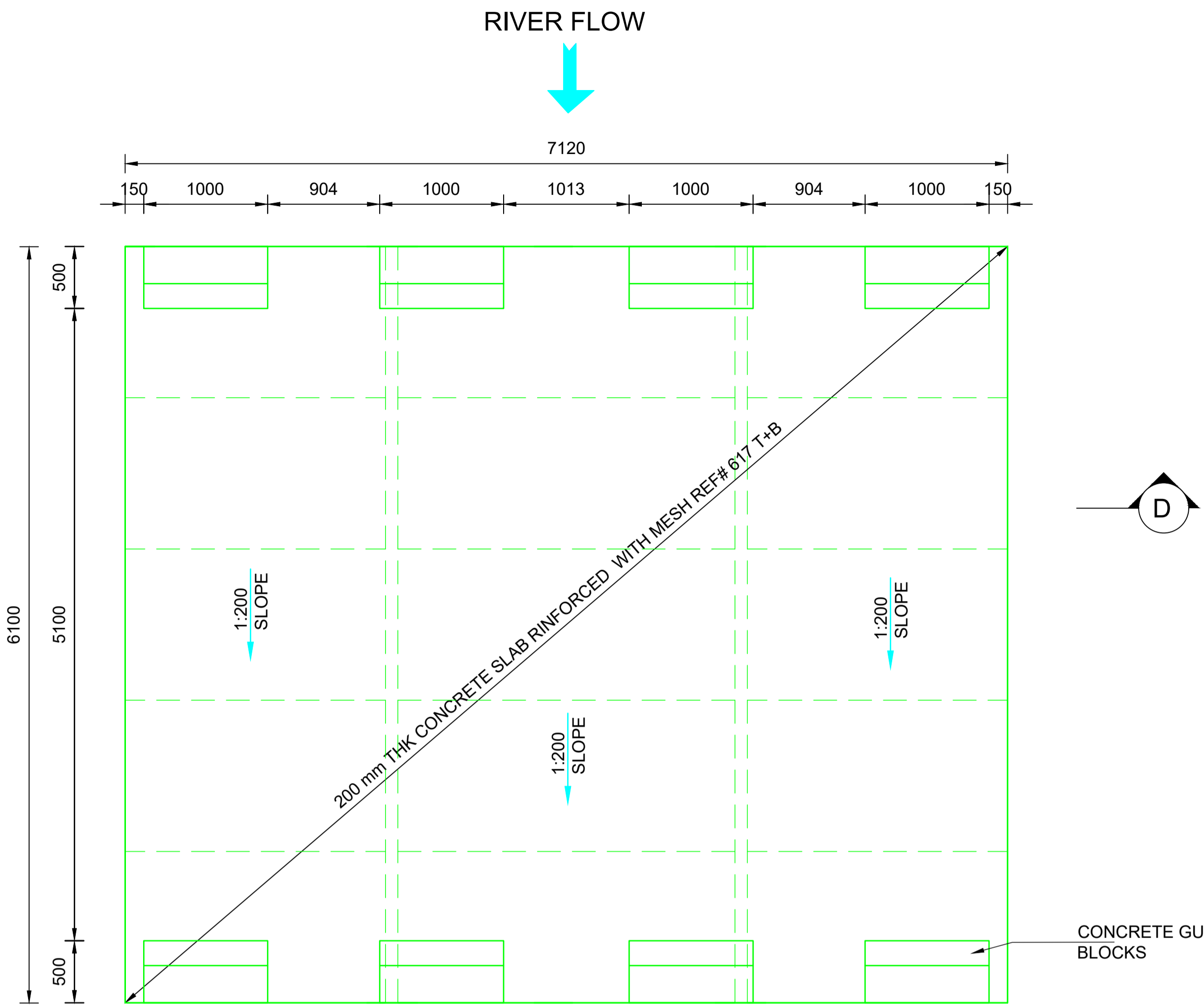
CLASS 75S 2400X1800 PORTAL CULVERTS

CAVITY TO BE FILLED WITH 30MPa CONCRETE AFTER PLACING CULVERTS

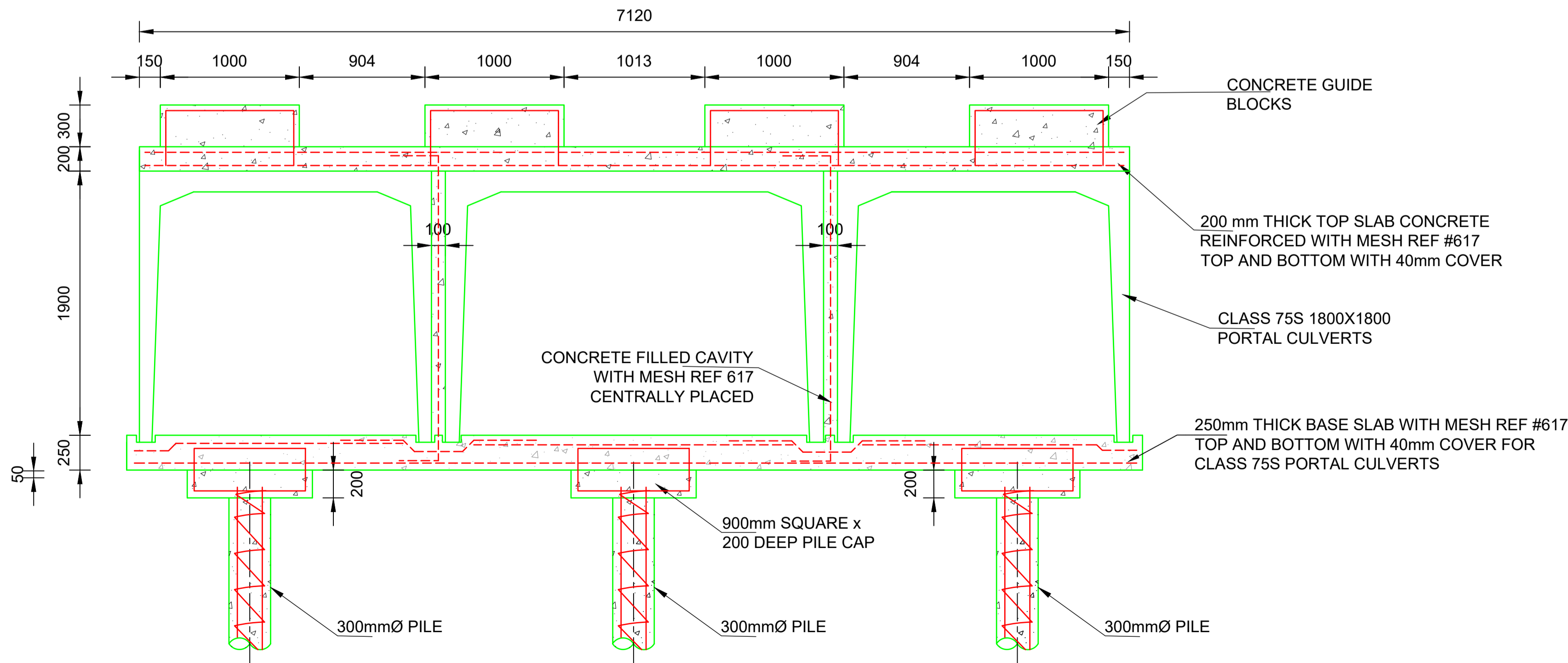
250mm BASE SLAB

Technical drawing of a bridge pier cross-section. The drawing shows three portal culverts, each labeled "CLASS 75S 1800X1800 PORTAL CULVERTS". The central culvert is labeled "CLASS 75S 2400X1800 PORTAL CULVERTS". The culverts are supported by a "250mm THICK R.C BASE SLAB FOR WITH MESH REF #617 TOP AND BOTTOM WITH 40mm COVER FOR CLASS 75S PORTAL CULVERTS". The base slab is supported by three "300mmØ PILE" and a "900mm SQUARE x 200 DEEP PILE CAP". The drawing includes dimensions: 2100, 100, 2720, 100, 2100 for the horizontal span; 1900, 250 for the vertical height; and 200 for the pile cap height. A detail callout "DETAIL A" points to a section of the base slab. A note at the top indicates "100mm REINFORCED CONCRETE FILLED CAVITY BETWEEN CULVERTS".

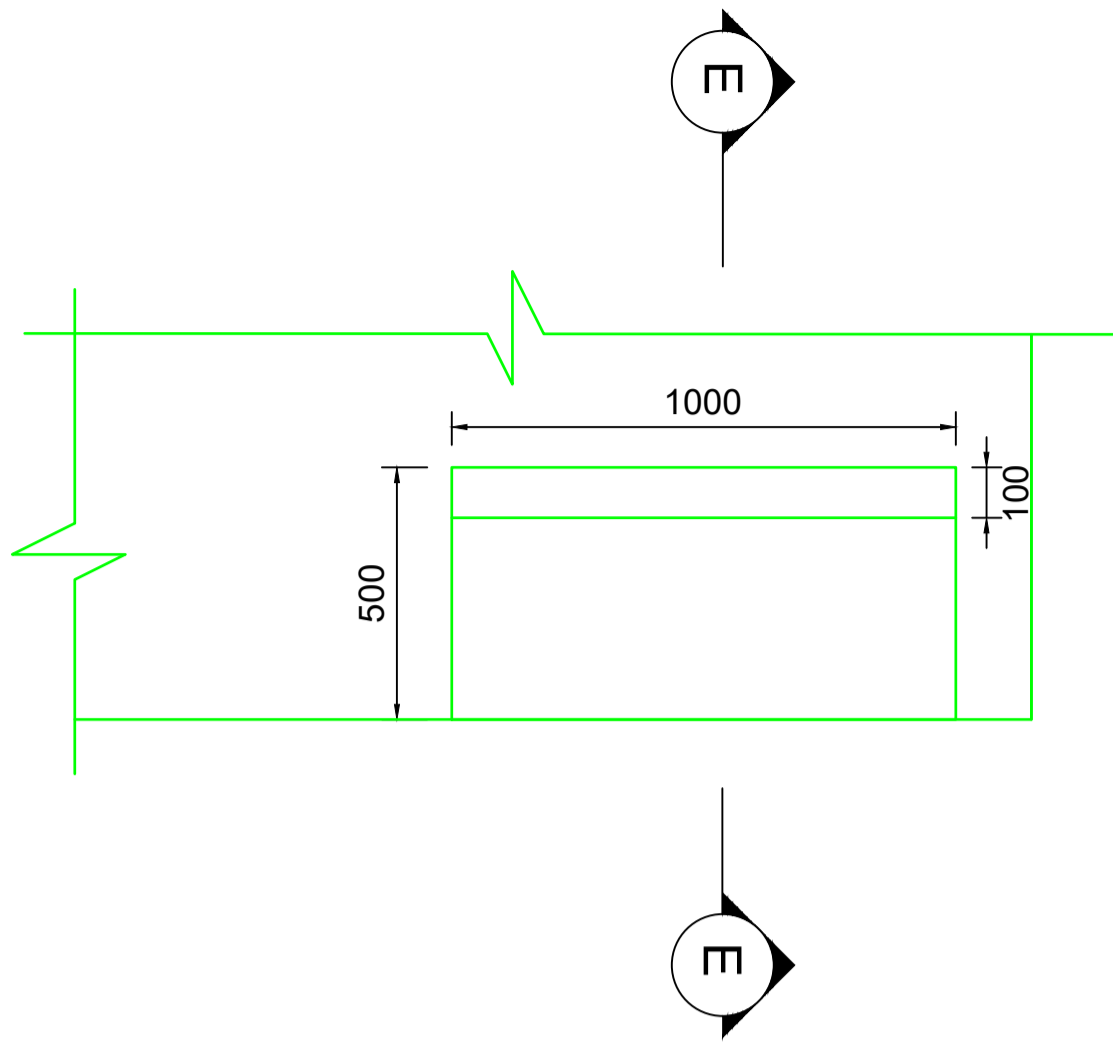
<div>NOTES</div> <div><div>1. THIS DRAWING IS READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND CONTRACT SPECIFICATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE IMPLEMENTATION.</div><div>2. THE CONTRACTOR SHOULD KEEP A FULL SET OF DRAWINGS ON SITE.</div><div>3. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT SETTING OUT OF BUILDINGS ON SITE WITH PARTICULAR ATTENTION TO BOUNDARIES AND BUILDING LINES.</div><div>4. THE CONTRACTOR SHOULD VERIFY ALL LEVELS AND DIMENSIONS ON SITE.</div><div>5. SCALING OF DRAWINGS IS NOT PERMITTED. USE FIGURED DIMENSIONS ONLY.</div><div>6. THE CONTRACTOR SHOULD IDENTIFY, EXPOSE AND PROTECT ALL UNDERGROUND SERVICES ON SITE AND OTHER RELEVANT PLACES AS PER CONTRACT SPECIFICATIONS OR SABS 1200.</div><div>7. WHEN THE ENGINEER IS REQUIRED ON SITE A 48 HOUR NOTICE SHOULD BE GIVEN</div><div>8. THE DEPTH AND WIDTH OF FILL BELOW FOOTING SHALL GENERALLY BE TAKEN AS 1.5 TIMES THE WIDTH OF THE FOOTING.</div><div>9. S.S.L-STRUCTURAL SLAB LEVEL.</div></div>			
<div>CONCRETE NOTES :</div> <div><div>1. CONCRETE GRADES TO BE AS FOLLOWS:<div><div>FOUNDATIONS</div><div>-</div><div>30MPa</div></div><div><div>COLUMNS</div><div>-</div><div>30 MPa</div></div><div><div>WALLS</div><div>-</div><div>30 MPa</div></div><div><div>SLABS</div><div>-</div><div>30 MPa</div></div></div><div>2. ALL REBAR TO BE SUPPORTED ON PURPOSE MADE CONCRETE SPACERS OR PLASTIC SPACERS. STOOLS SHOULD SIT ON "B1" MAT OF STEEL NOT ON SHUTTERING</div><div>3. THE CONTRACTOR IS TO ENSURE THAT CUBES ARE CAST WITH THE ELEMENT THAT THEY ARE INTENDED TO REPRESENT. NO CUBE TEST DONE AFTER CONCRETE HAS BEEN CAST OR FROM A BATCH OF CONCRETE NOT TO BE USED FOR THAT PARTICULAR ELEMENT WILL BE ACCEPTED.</div><div>4. THE CONTRACTOR IS TO CURE THE CONCRETE WITH AN APPROVED METHOD OF MOISTURE RETENTION. THE CONTRACTOR IS RESPONSIBLE FOR CONCRETE WHICH IS REJECTED DUE TO POOR CURING METHODS OR LACK THEREOF.</div><div>5. CONCRETE COVER TO BE AS FOLLOWS:<div><div>FOUNDATIONS</div><div>-</div><div>50mm</div></div><div><div>SLAB</div><div>-</div><div>50mm</div></div></div></div>			
No.	DATE	REVISION	INT
<div>CLIENT</div> <div><div></div></div>			
<div>FUNDER</div>			
RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	23/03/2020
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<div>CONTRACT No.</div>			
<div>PROJECT</div> <div>CONSTRUCTION OF GUMEDE BRIDGE: WARD 16</div>			
<div>DRAWING TITLE</div> <div>PORTAL CULVERT BRIDGE DETAILS</div>			
<div>SUB-TITLE</div>			
SCALE	AS SHOWN	DRAWING No.:	C600-04
PROJECT No.:	20-01		



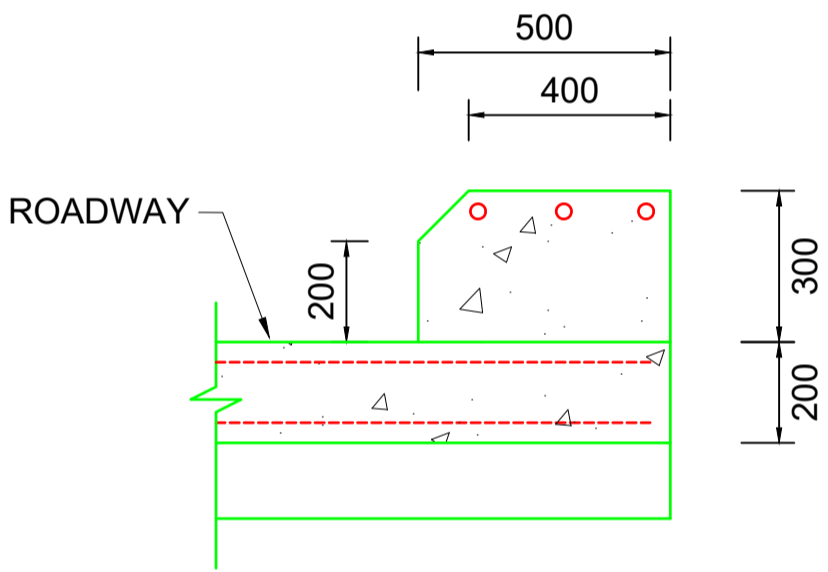
PLAN ON TOP SLAB
SCALE 1:30




SECTION D-D
SCALE 1:25

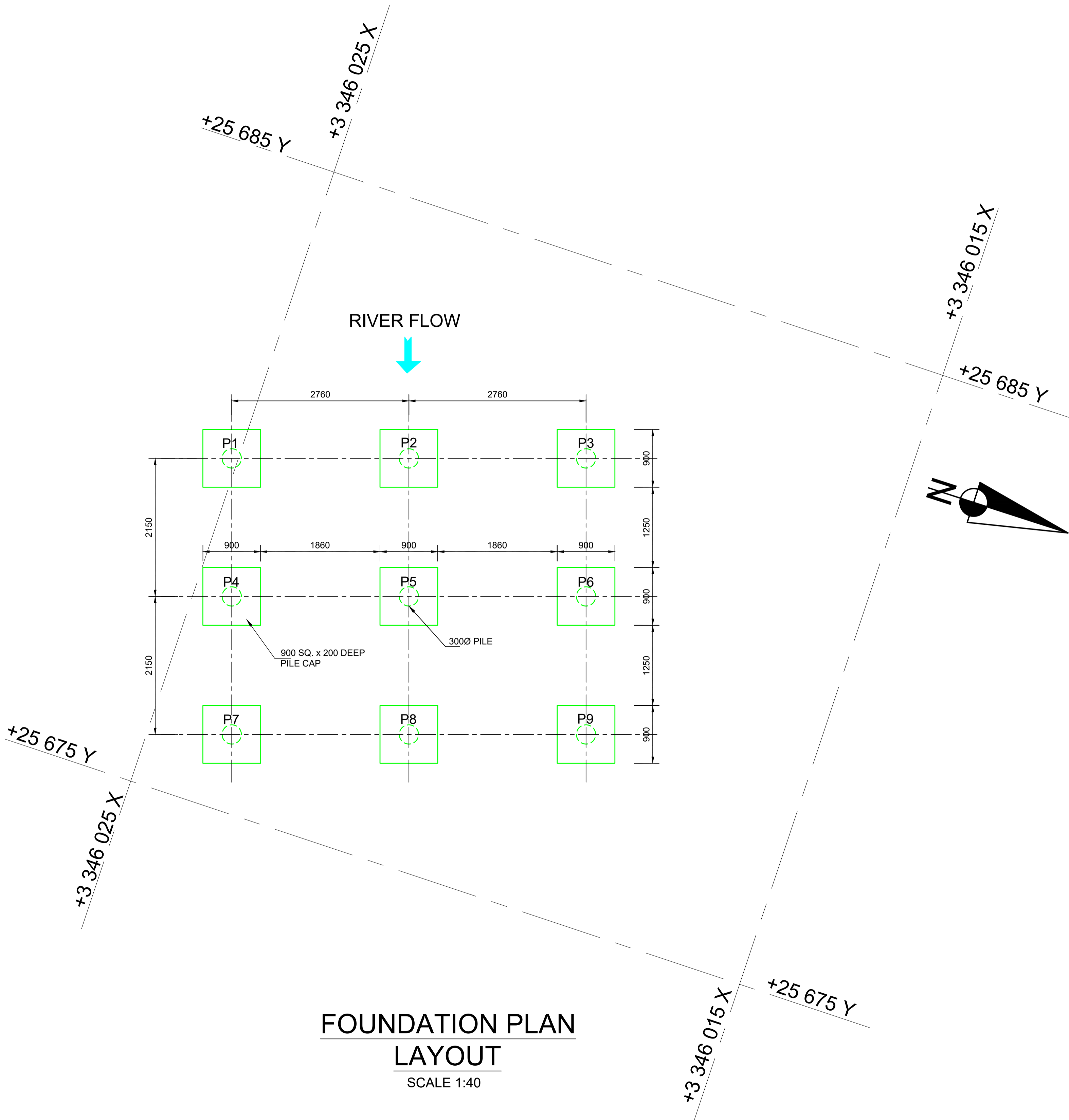


GUIDE BLOCK PLAN
SCALE 1:15



SECTION E-E
SCALE 1:15

NOTES			
<div>1. THIS DRAWING IS READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND CONTRACT SPECIFICATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE IMPLEMENTATION.</div> <div>2. THE CONTRACTOR SHOULD KEEP A FULL SET OF DRAWINGS ON SITE.</div> <div>3. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT SETTING OUT OF BUILDINGS ON SITE WITH PARTICULAR ATTENTION TO BOUNDARIES AND BUILDING LINES.</div> <div>4. THE CONTRACTOR SHOULD VERIFY ALL LEVELS AND DIMENSIONS ON SITE.</div> <div>5. SCALING OF DRAWINGS IS NOT PERMITTED. USE FIGURED DIMENSIONS ONLY.</div> <div>6. THE CONTRACTOR SHOULD IDENTIFY, EXPOSE AND PROTECT ALL UNDERGROUND SERVICES ON SITE AND OTHER RELEVANT PLACES AS PER CONTRACT SPECIFICATIONS OR SABS 1200.</div> <div>7. WHEN THE ENGINEER IS REQUIRED ON SITE A 48 HOUR NOTICE SHOULD BE GIVEN.</div> <div>8. THE DEPTH AND WIDTH OF FILL BELOW FOOTING SHALL GENERALLY BE TAKEN AS 1.5 TIMES THE WIDTH OF THE FOOTING.</div> <div>9. S.S.L-STRUCTURAL SLAB LEVEL.</div>			
CONCRETE NOTES :			
<div>1. CONCRETE GRADES TO BE AS FOLLOWS:</div> <div>FOUNDATIONS - 30MPa</div> <div>COLUMNS - 30 MPa</div> <div>WALLS - 30 MPa</div> <div>SLABS - 30 MPa</div>			
<div>2. ALL REBAR TO BE SUPPORTED ON PURPOSE MADE CONCRETE SPACERS OR PLASTIC SPACERS. STOOLS SHOULD SIT ON "B1" MAT OF STEEL NOT ON SHUTTERING</div> <div>3. THE CONTRACTOR IS TO ENSURE THAT CUBES ARE CAST WITH THE ELEMENT THAT THEY ARE INTENDED TO REPRESENT. NO CUBE TEST DONE AFTER CONCRETE HAS BEEN CAST OR FROM A BATCH OF CONCRETE NOT TO BE USED FOR THAT PARTICULAR ELEMENT WILL BE ACCEPTED.</div> <div>4. THE CONTRACTOR IS TO CURE THE CONCRETE WITH AN APPROVED METHOD OF MOISTURE RETENTION. THE CONTRACTOR IS RESPONSIBLE FOR CONCRETE WHICH IS REJECTED DUE TO POOR CURING METHODS OR LACK THEREOF.</div> <div>5. CONCRETE COVER TO BE AS FOLLOWS:</div> <div>FOUNDATIONS - 50mm</div> <div>SLAB - 50mm</div>			
No.	DATE	REVISION	INIT
CLIENT			
			
FUNDER			
RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	23/03/2020
VUBA IMAGINEERS CC			
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CONTRACT No.			
PROJECT			
CONSTRUCTION OF GUMEDE BRIDGE: WARD 16			
DRAWING TITLE			
PORTAL CULVERT TOP SLAB DETAILS			
SUB-TITLE			
SCALE	AS SHOWN	DRAWING No.:	C600-05
PROJECT No.:	20-01		



Coordinate List

Name	Y-Coord	X-Coord
P1	25680.266	3346025.098
P2	25681.140	3346022.480
P3	25682.013	3346019.862
P4	25678.227	3346024.418
P5	25679.100	3346021.800
P6	25679.974	3346019.182
P7	25676.187	3346023.737
P8	25677.061	3346021.119
P9	25677.935	3346018.501

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No.	DATE	REVISION	INIT

CLIENT



FUNDER

RECOMMENDED		APPROVED	
DESIGNED	R.C.S		
DRAWN:	V.S.M	CHECKED:	B.F.V
ENGINEER:	B.F.V	DATE:	15/12/2020

VUBA IMAGINEERS CC

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CONTRACT No.

PROJECT

CONSTRUCTION OF GUMEDE BRIDGE: WARD 16

DRAWING TITLE

FOUNDATION PLAN AND SETTING OUT DETAILS

SUB-TITLE

SCALE	AS SHOWN	DRAWING No.: C600-06
PROJECT No.:	20-01	