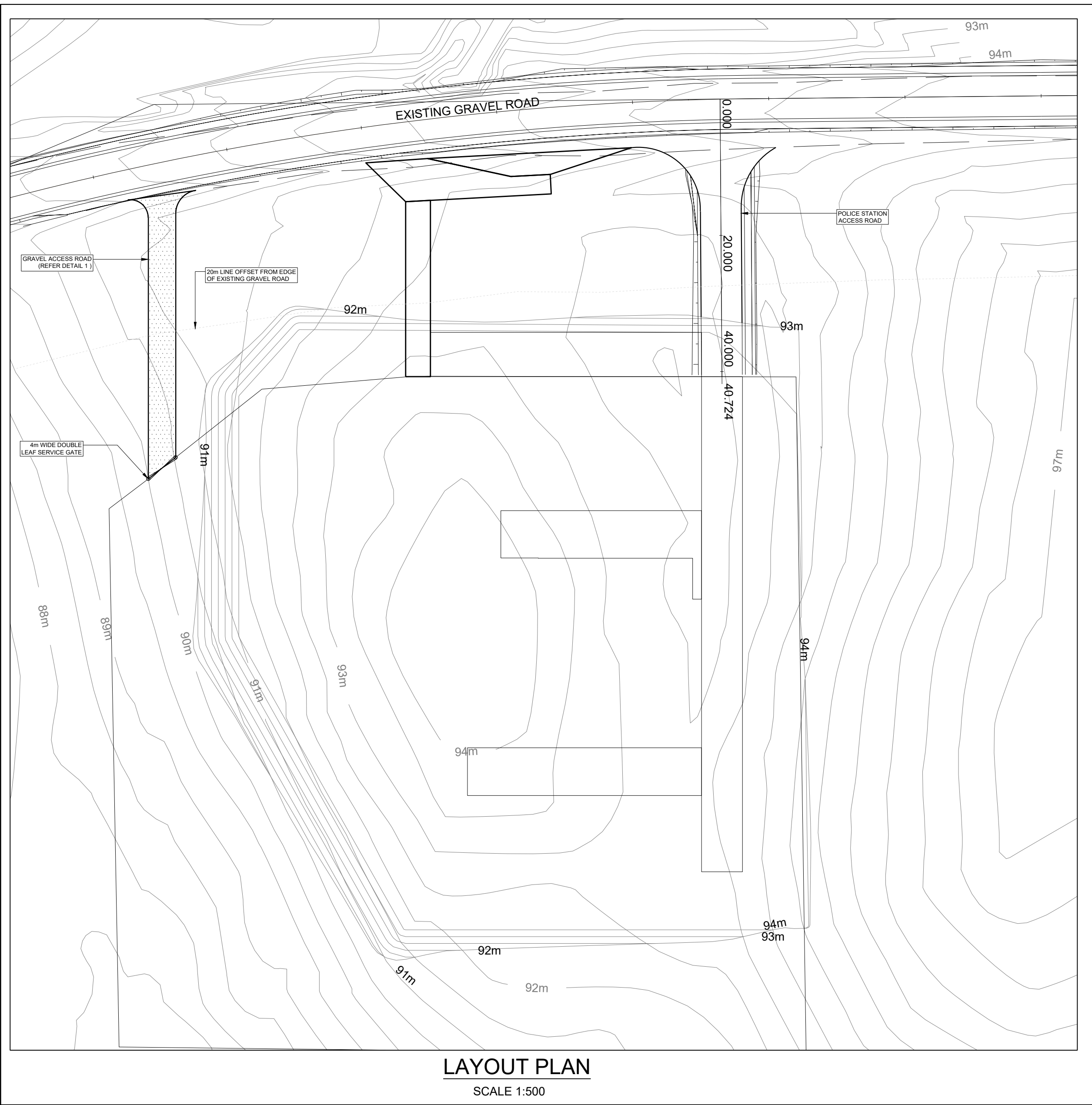
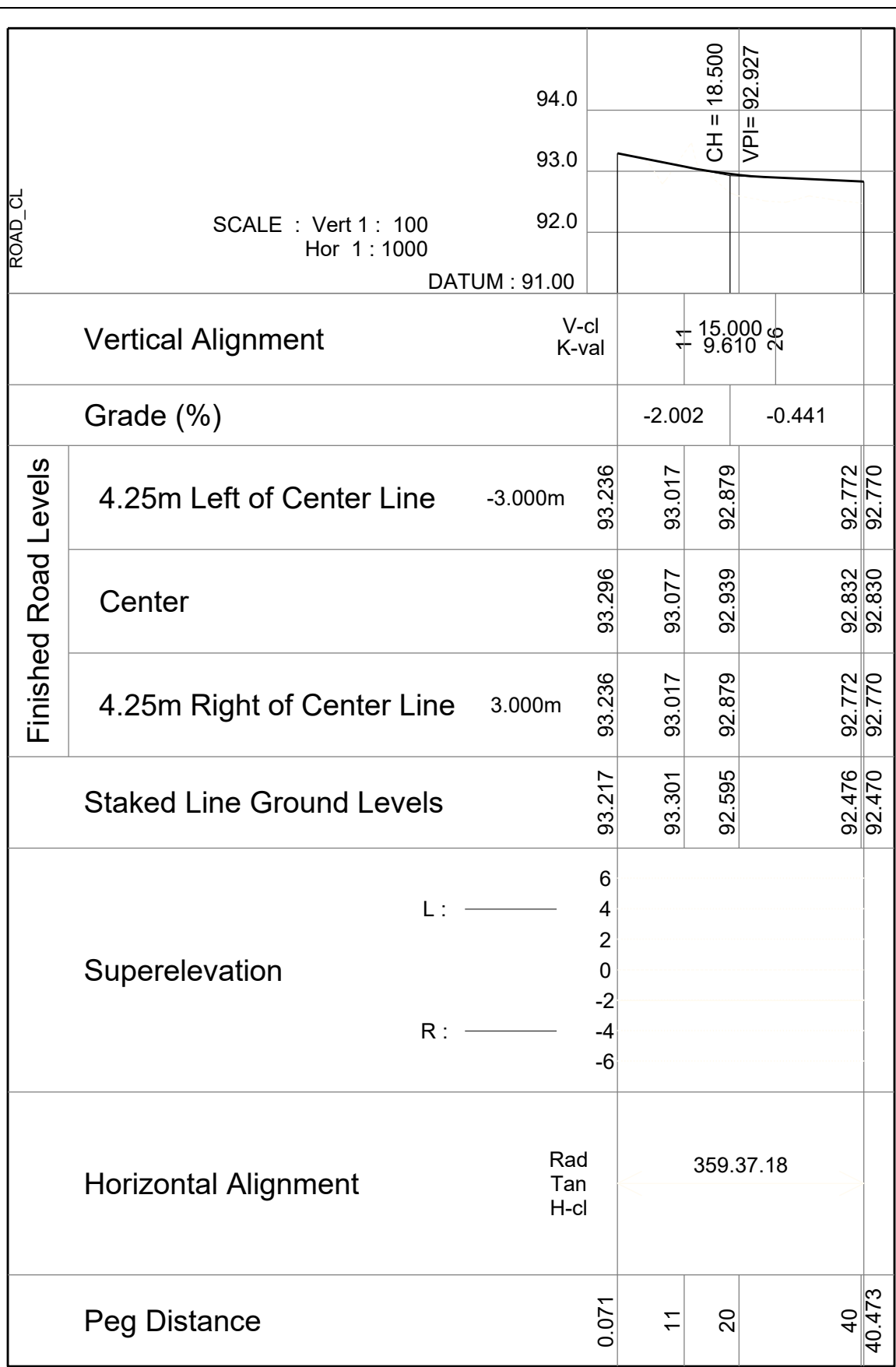


CIVIL DRAWINGS

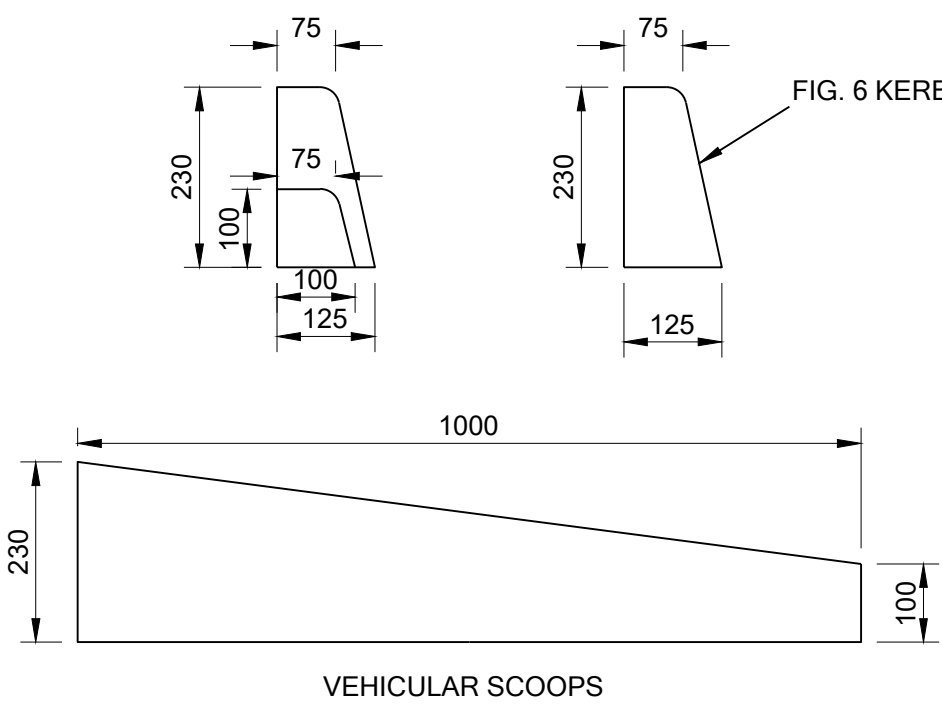


LAYOUT PLAN
SCALE 1:500



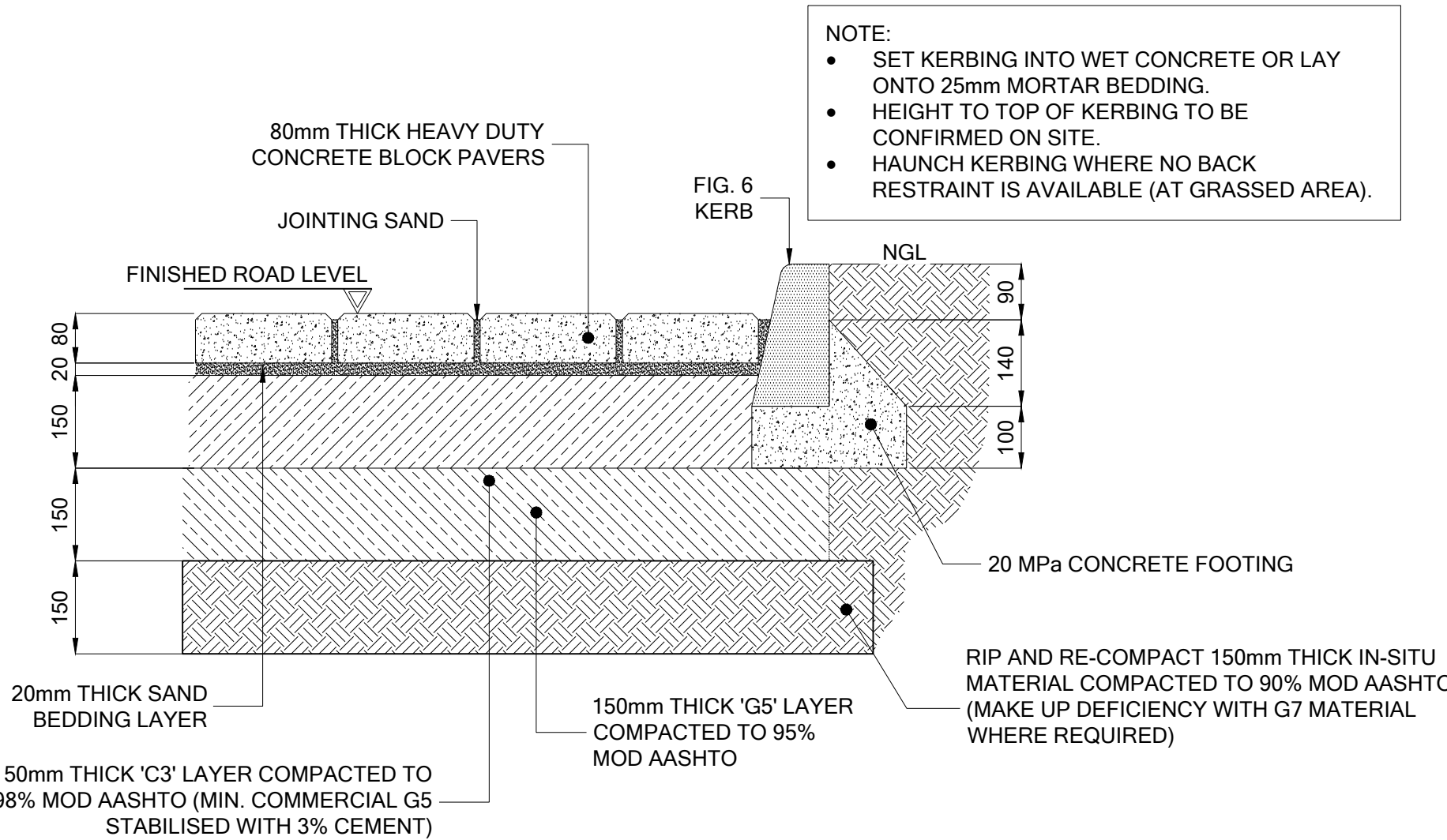
LONGSECTION ACCESS ROAD
FROM 0.000 TO 40.473

SCALE AS SHOWN



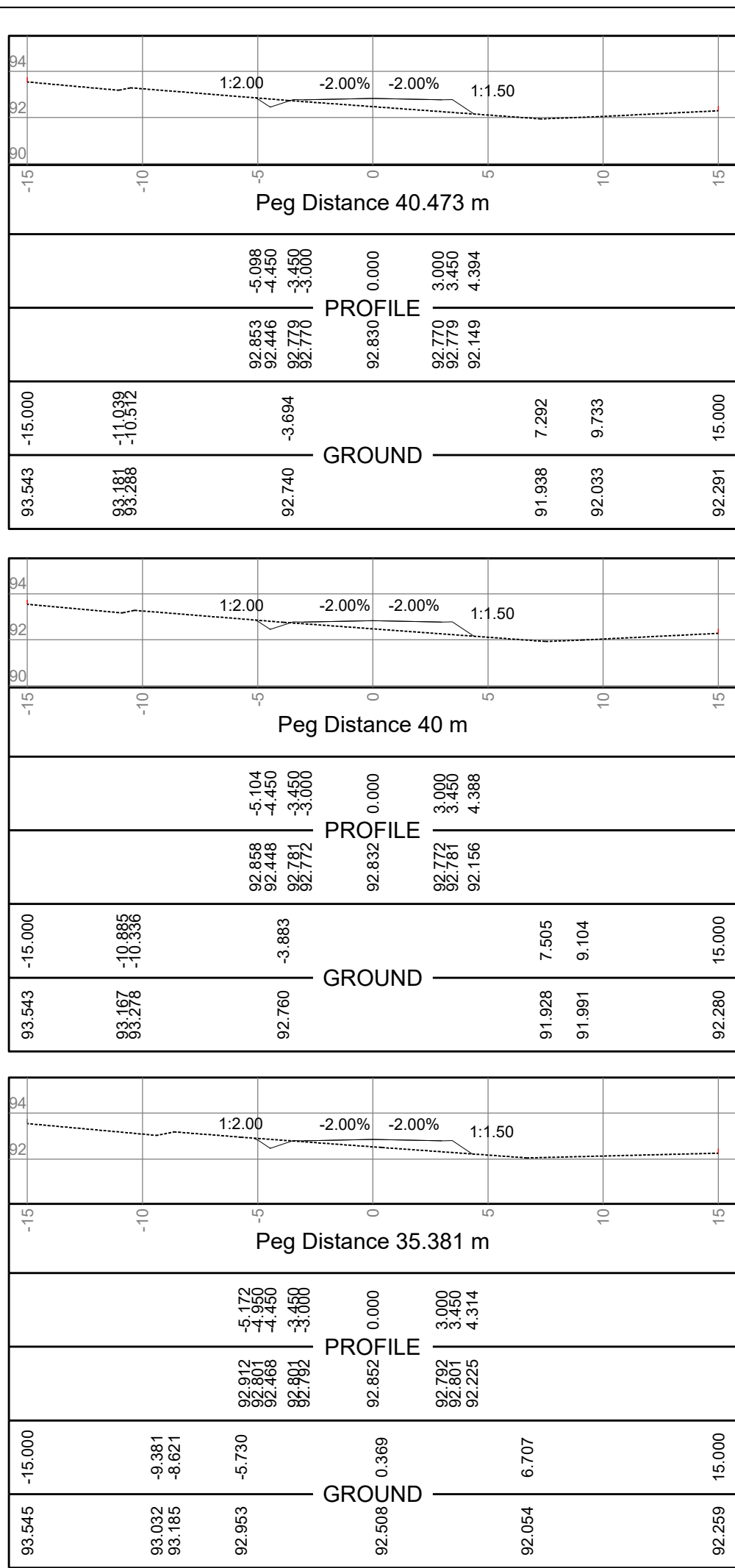
DETAIL 3: KERB AND
VEHICULAR SCOOP DETAILS

SCALE 1:10



DETAIL 2: PAVED ROAD

SCALE 1:250



ACCESS ROAD CROSS SECTIONS
FROM CHAINAGE 0.000 TO 40.473

SCALE 1:250

REVISIONS

REV	DATE	DESCRIPTION	BY
A	2023/10	ISSUED FOR INFORMATION	A.G.
B	2024/04	ISSUED FOR INFORMATION - Change in building platform and civil services details	A.G.
0	2024/07	ISSUED FOR TENDER	A.G.

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.

2. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.

3. REINFORCING TO BE CHECKED BY THE ENGINEER.

4. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i)MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPA

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPA

5. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.

6. STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.

7. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-3250	1/1	SEWER STANDARD DETAILS

Consultant :

NAIDU CONSULTING

1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATUREDATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

CIVIL

Drawing Title :

ACCESS ROAD SECTION AND DETAILS

Drawing Number :

D848-52-2500

Rev No.

0

Scale :

AS SHOWN

Drawing Size :

A1

Date :

04-10-2023

Design :

K. WOOLGANATHAN

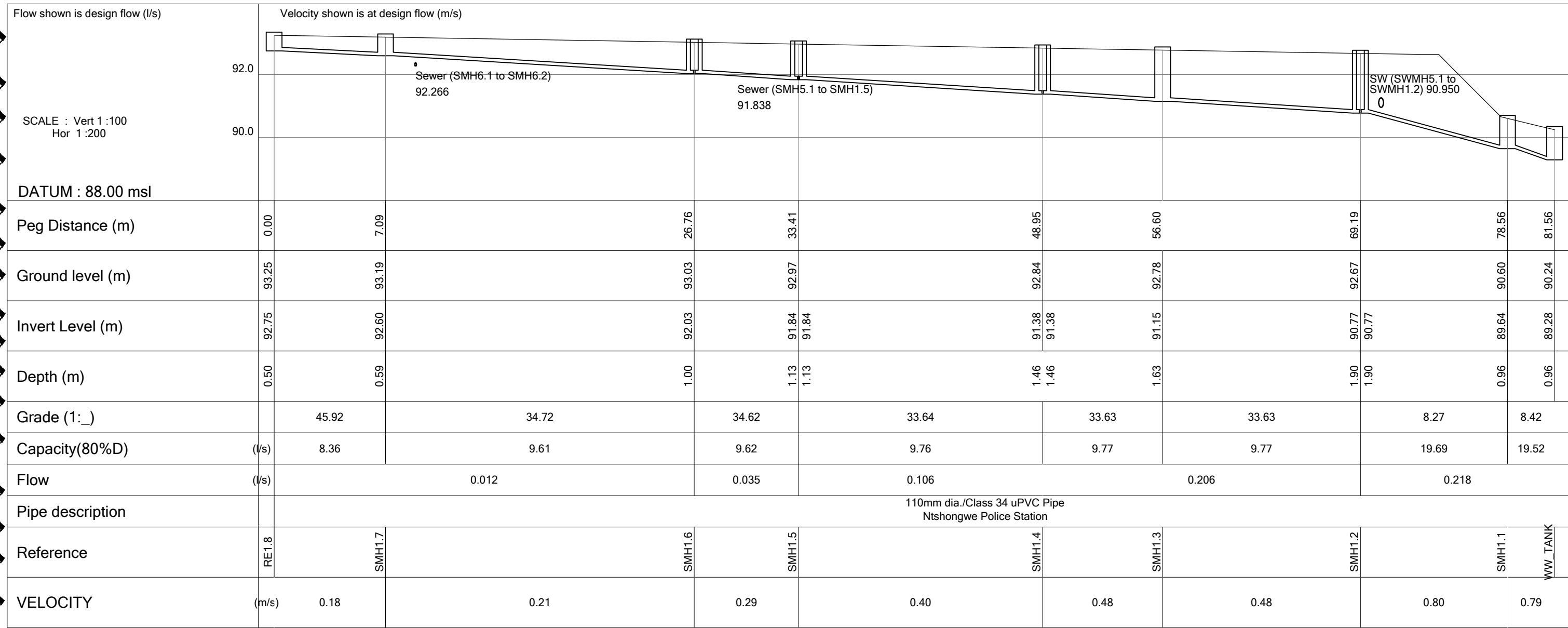
Drawn :

N. MPUNGOSE

Checked :

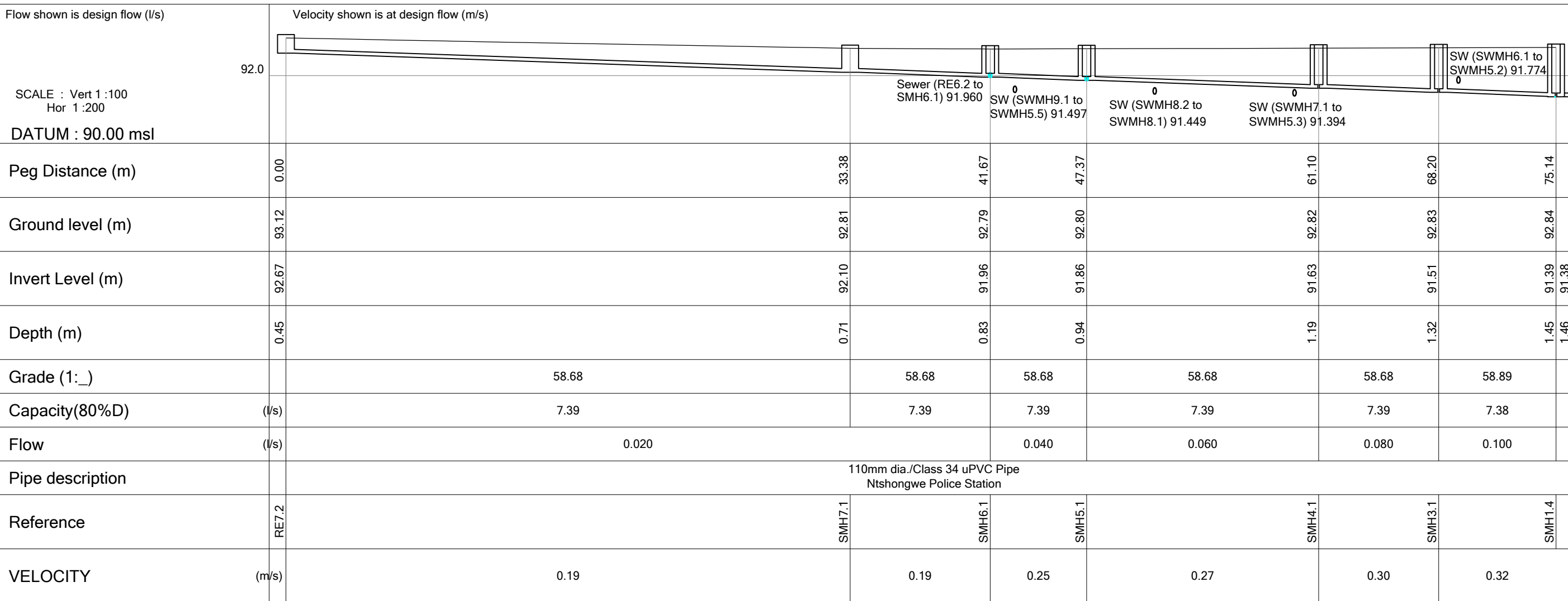
A. GOORUN

FOR TENDER



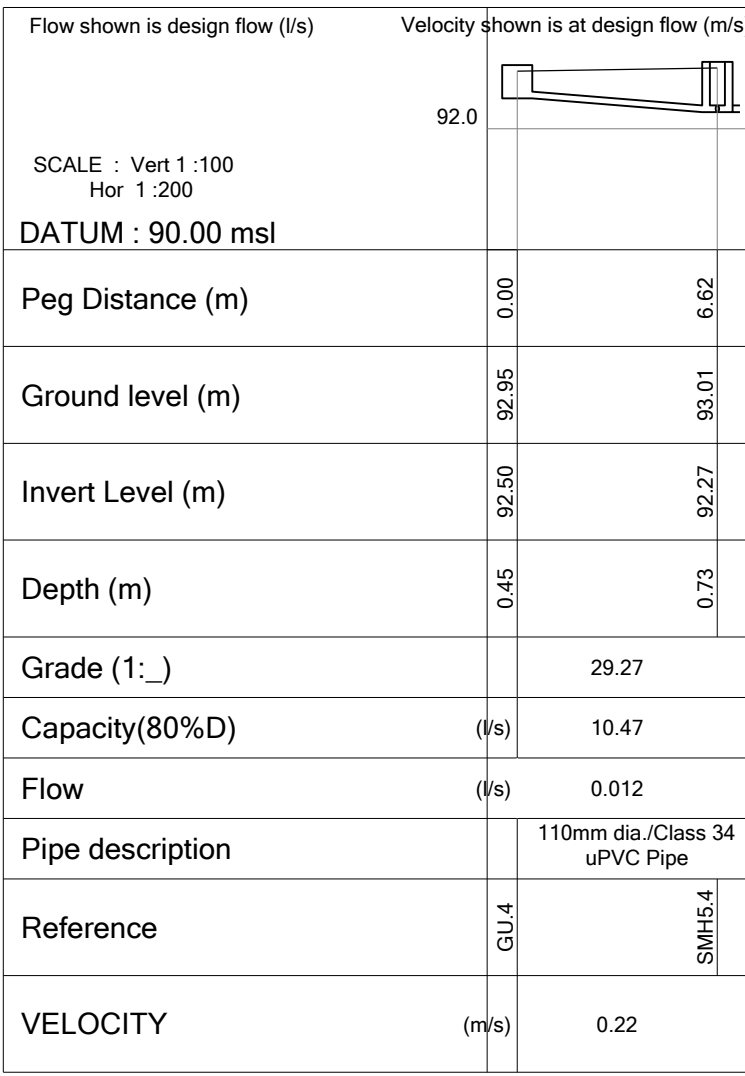
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SCALE: HOR 1: 200
VER 1: 100



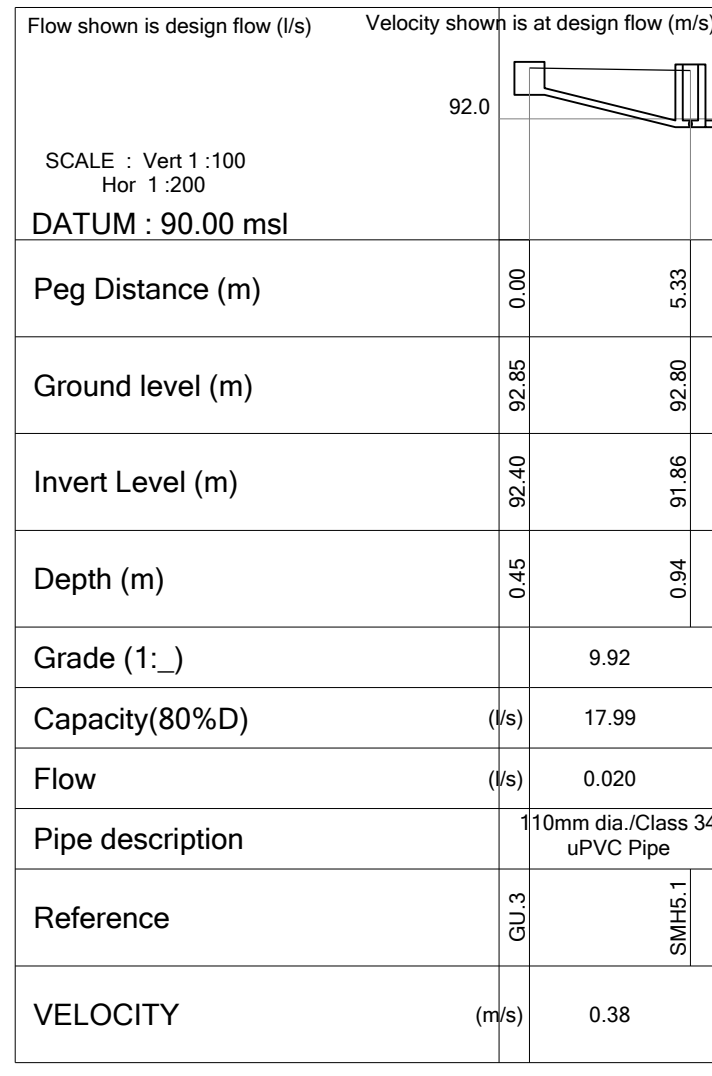
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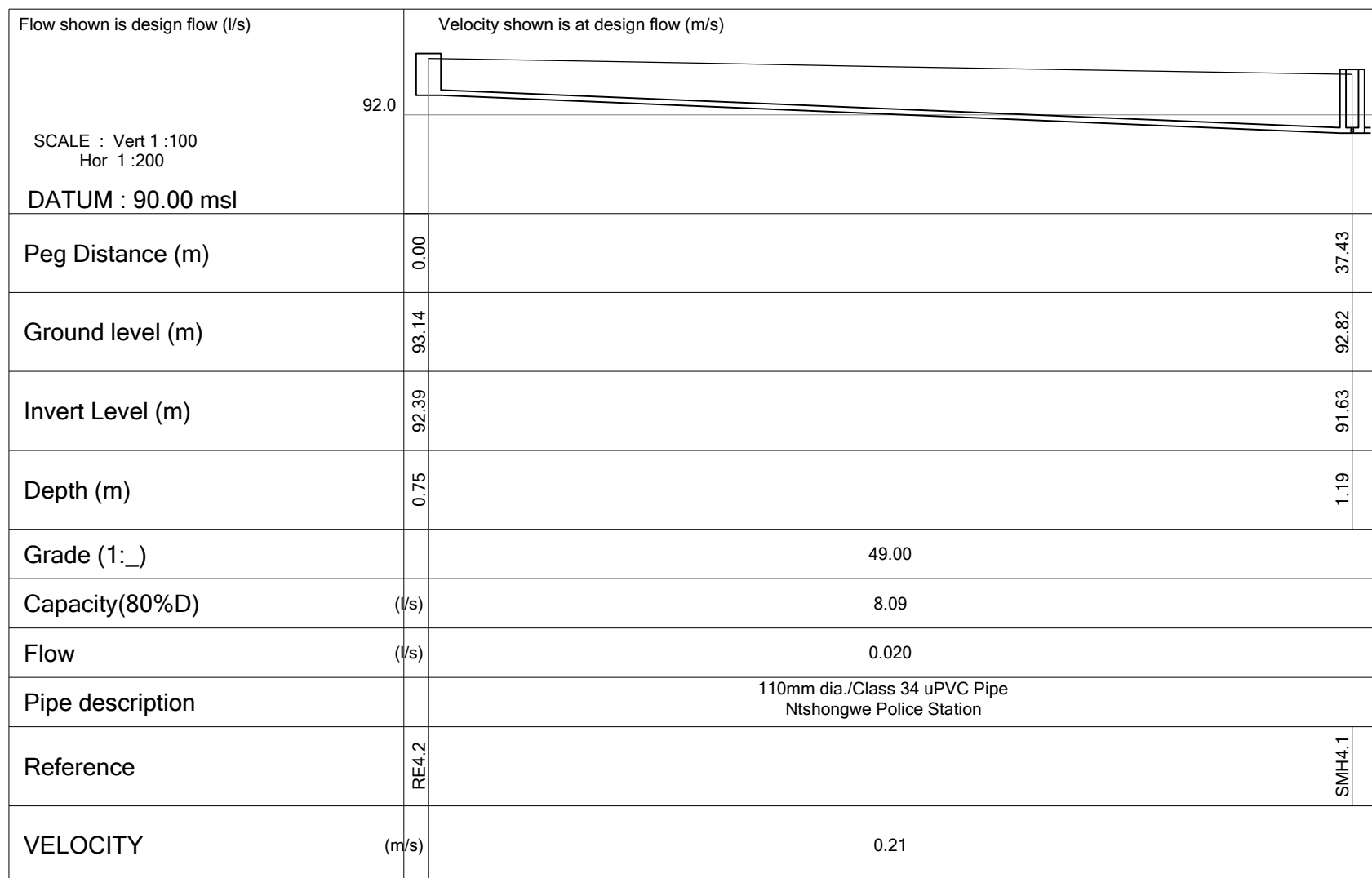
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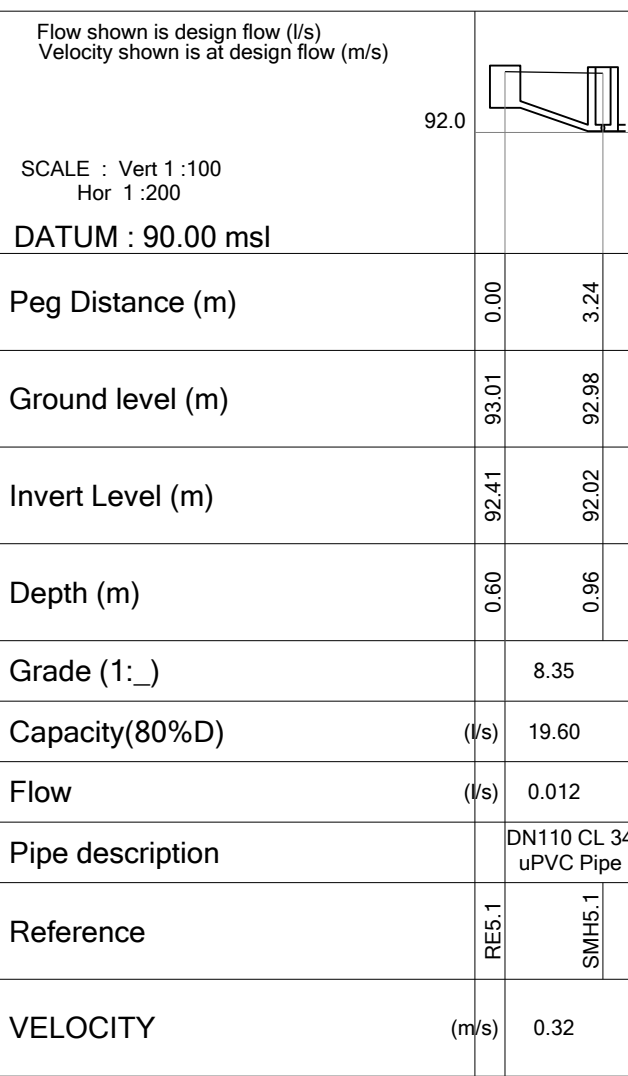
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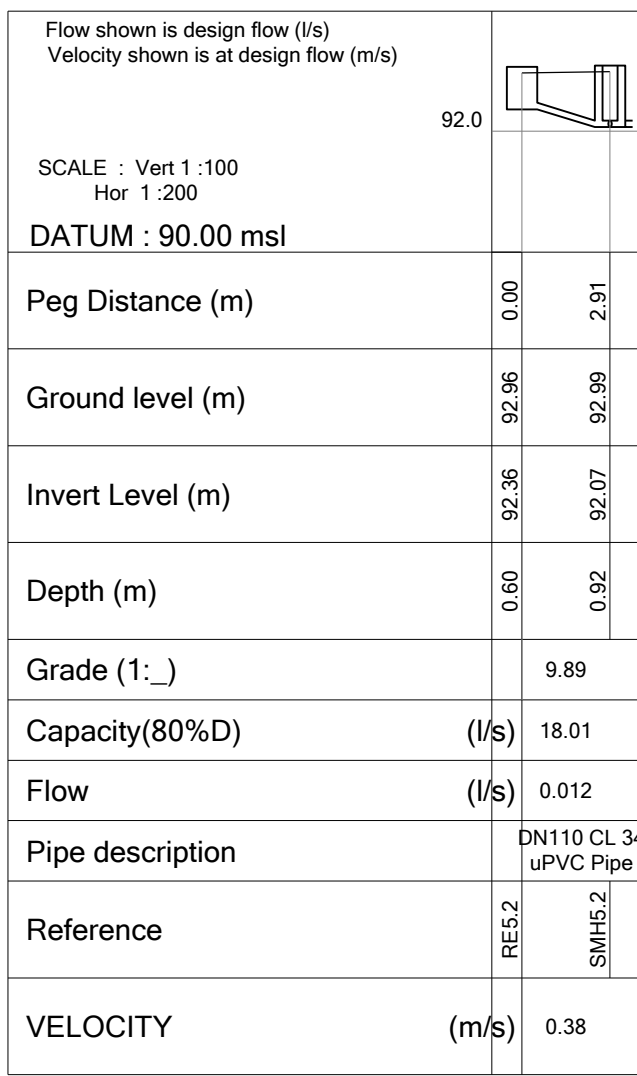
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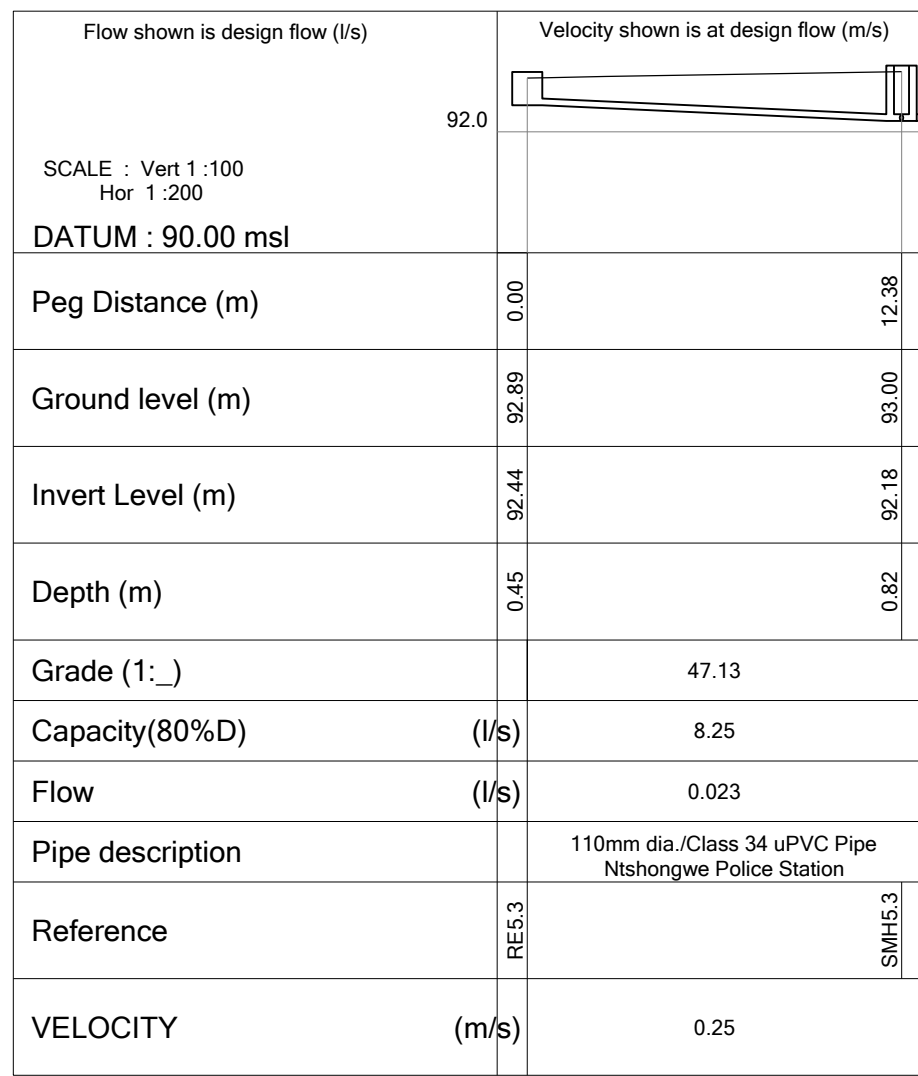
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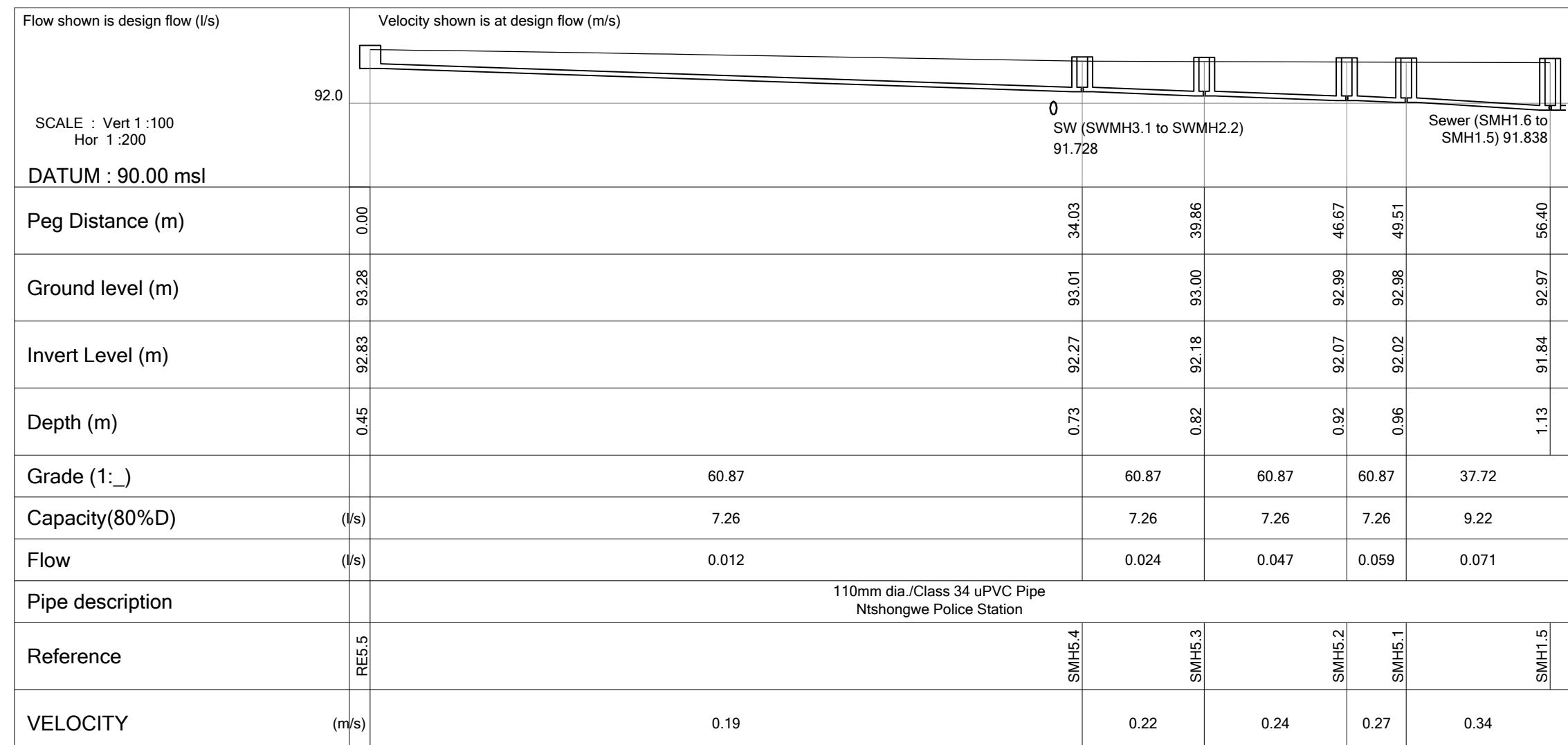
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VER 1: 100



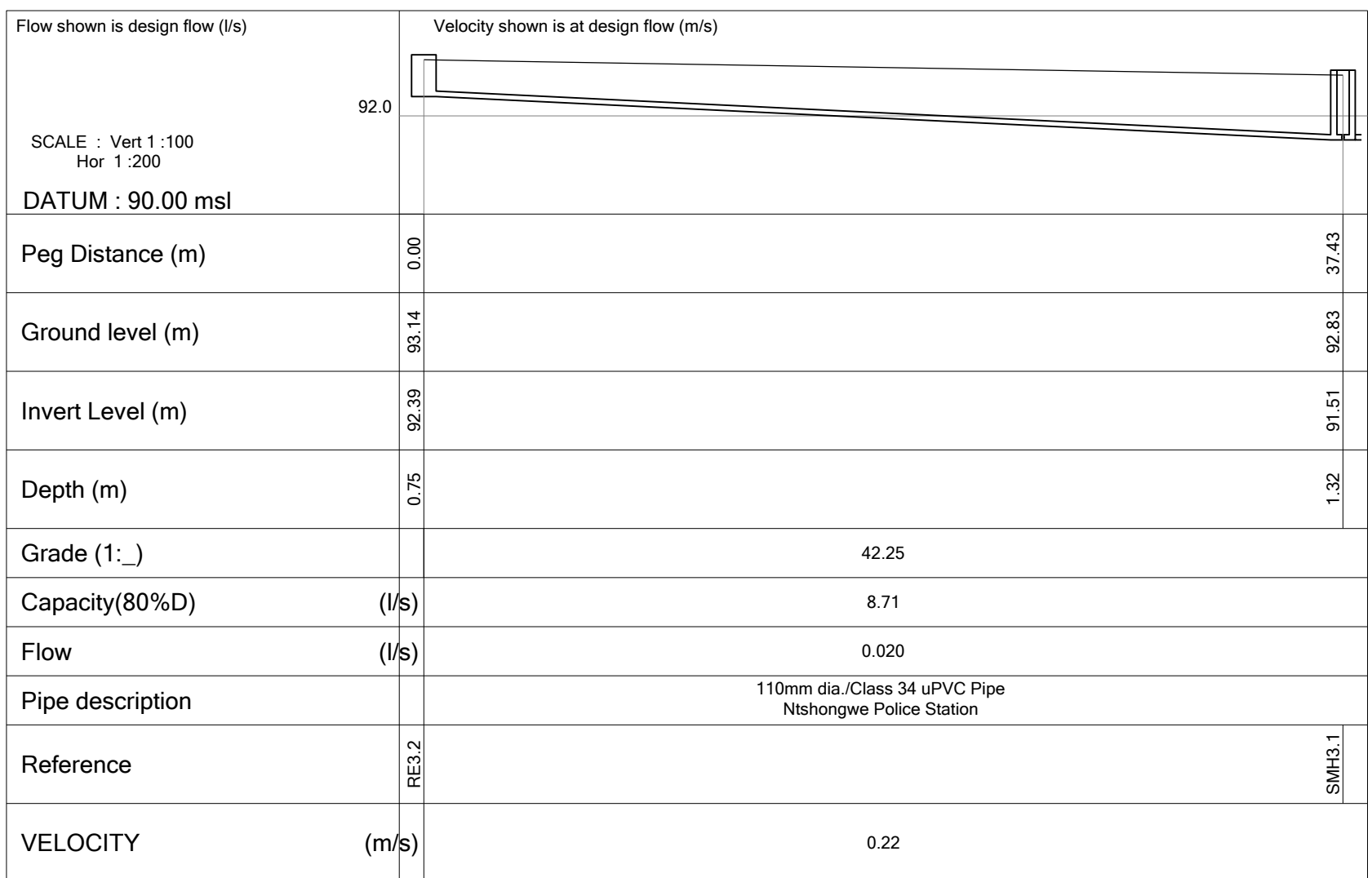
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VER 1: 100



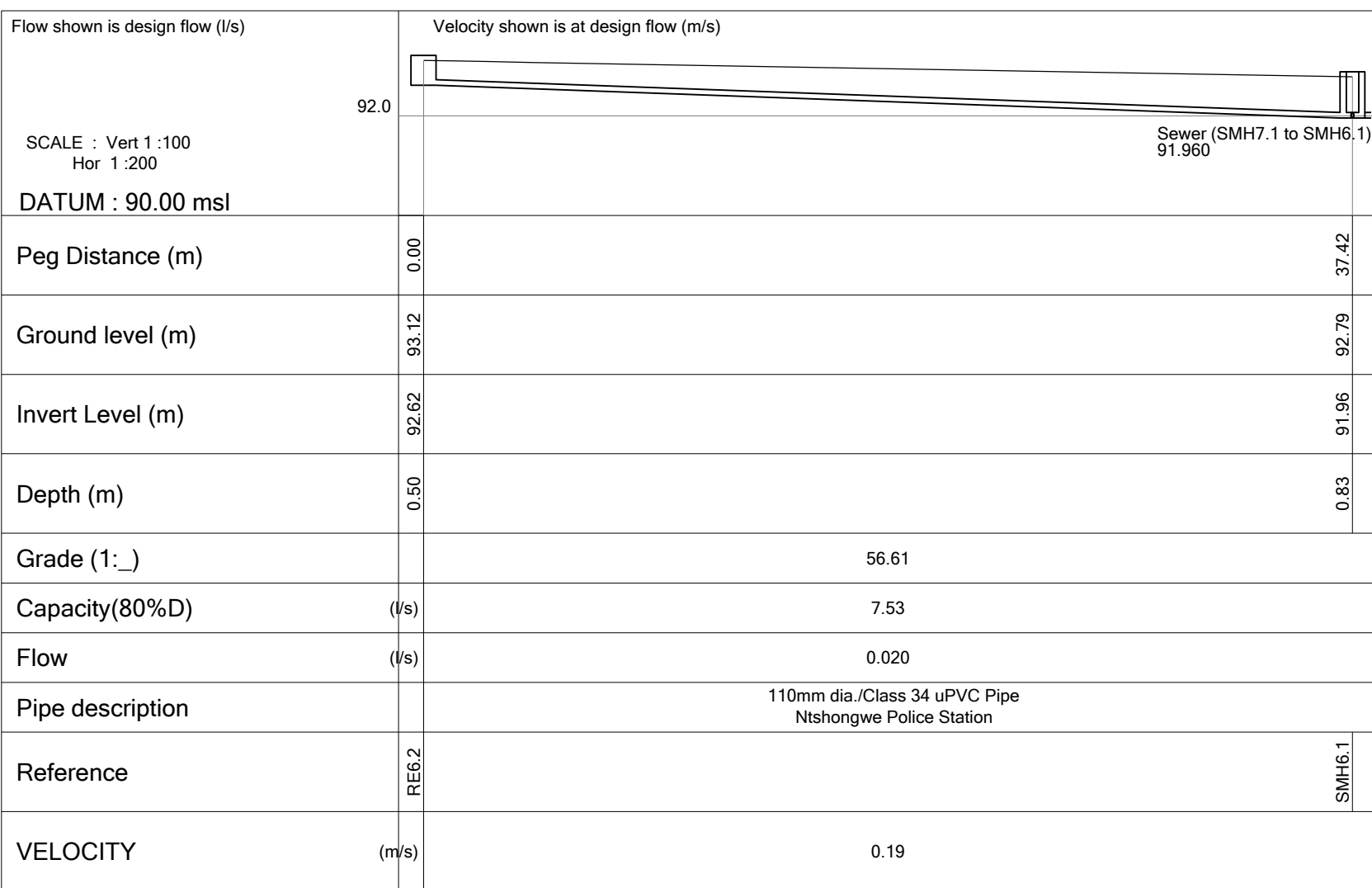
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VER 1: 100



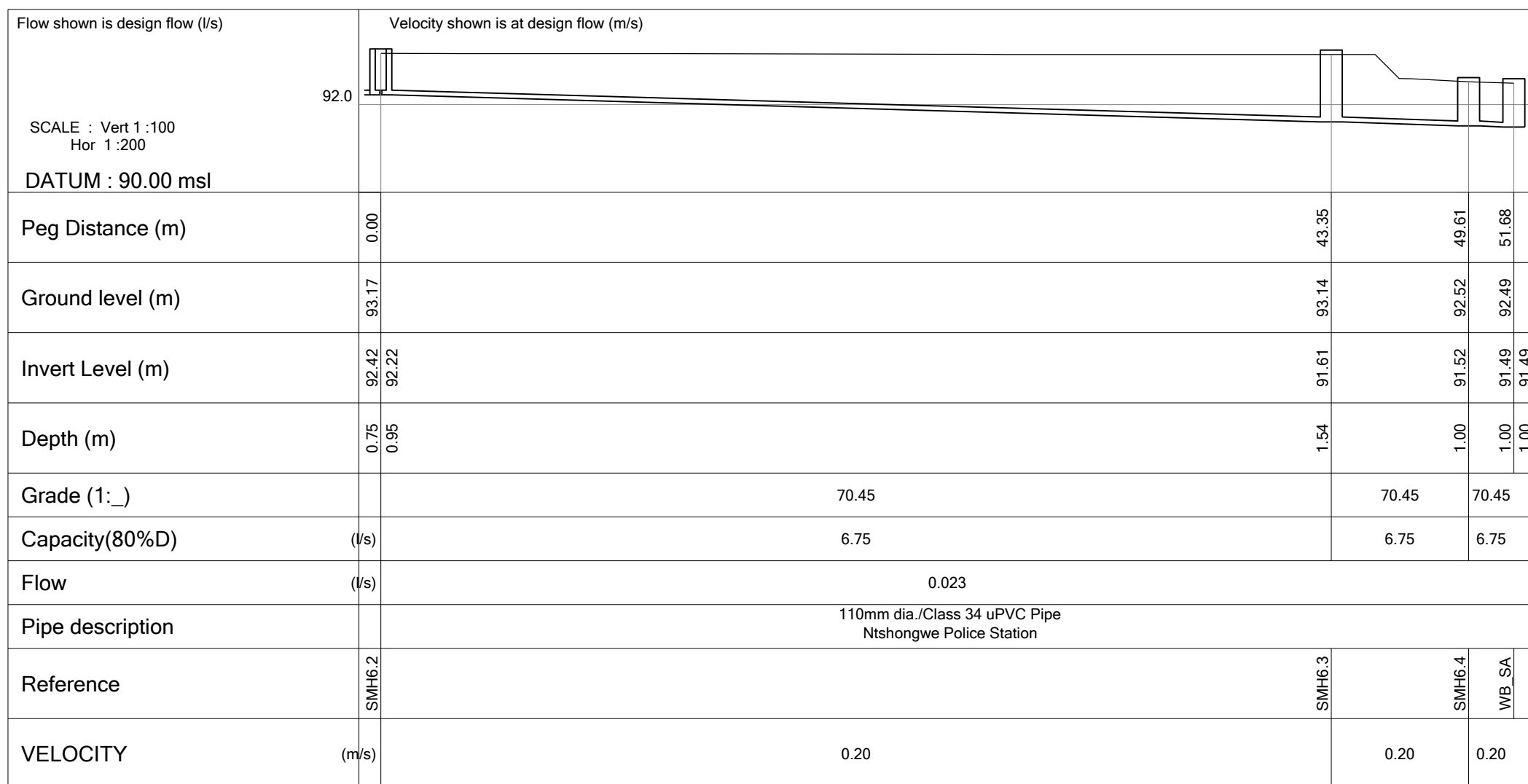
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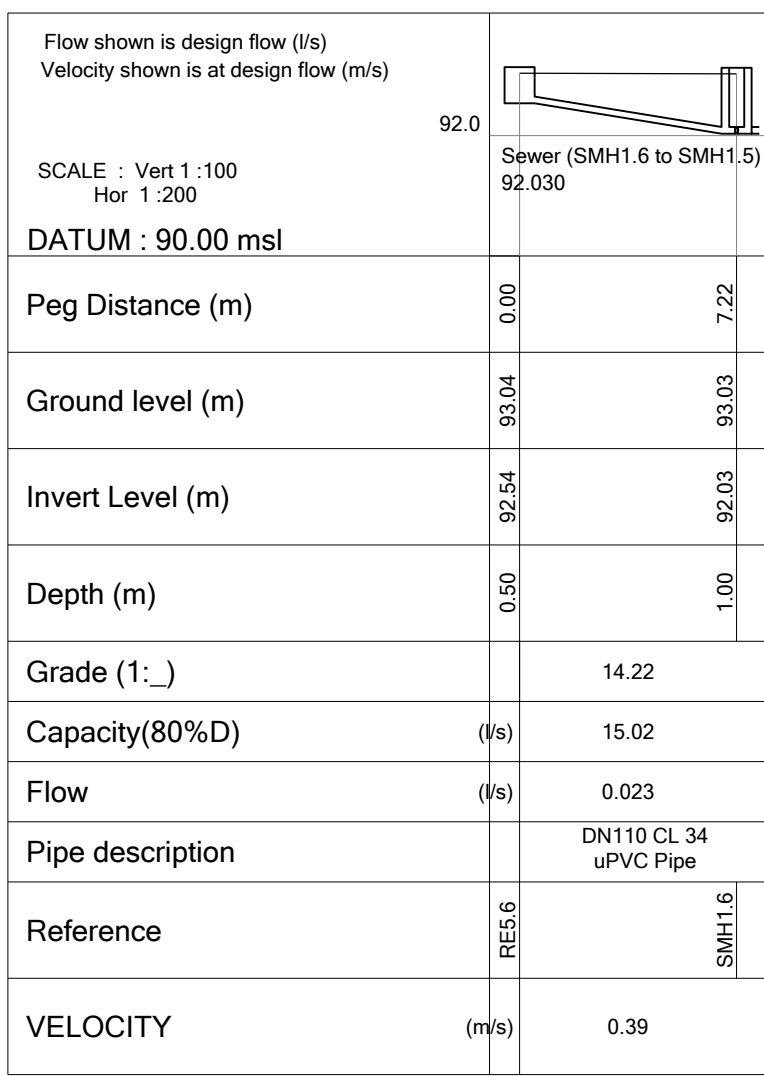
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VER 1: 100



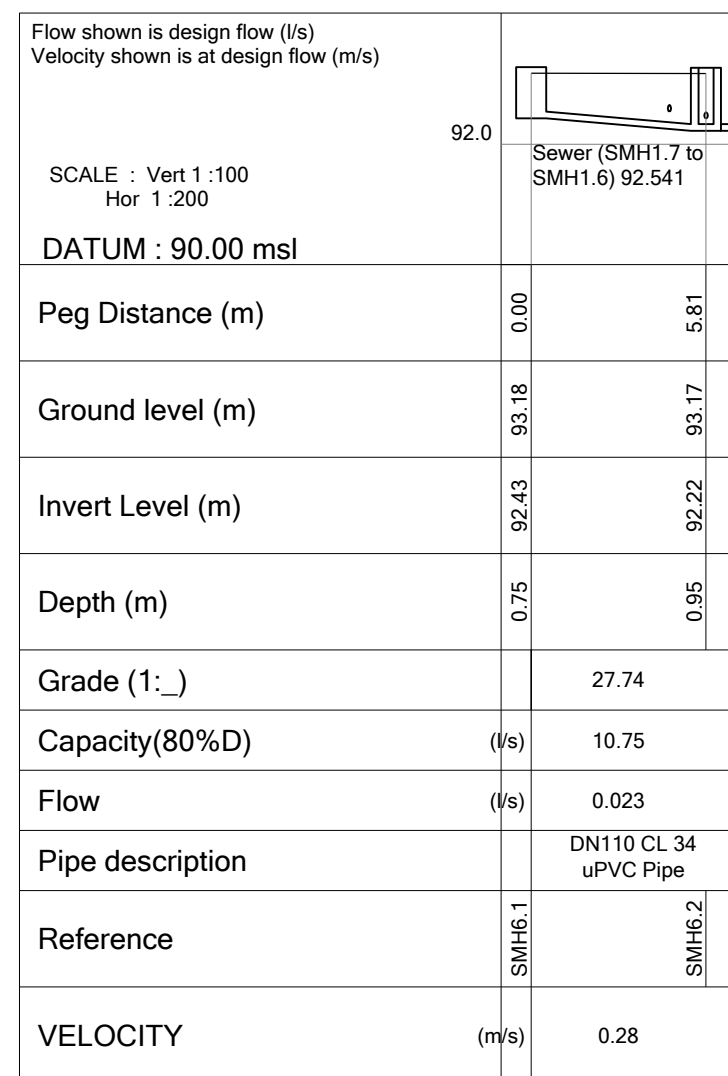
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SCALE: HOR 1: 200
VER 1: 100



LONGITUDINAL SECTION

SCALE: HOR 1: 200
VER 1: 100



LONGITUDINAL SECTION

SCALE: HOR 1: 200
VER 1: 100

REVISIONS

NO.	DATE	DESCRIPTION	BY
A	04-07-2024	ISSUED FOR INFORMATION	A.G.
0	11-07-2024	ISSUED FOR TENDER	A.G.
0	05-08-2024	ISSUED FOR TENDER - Revised sewer routing.	A.G.

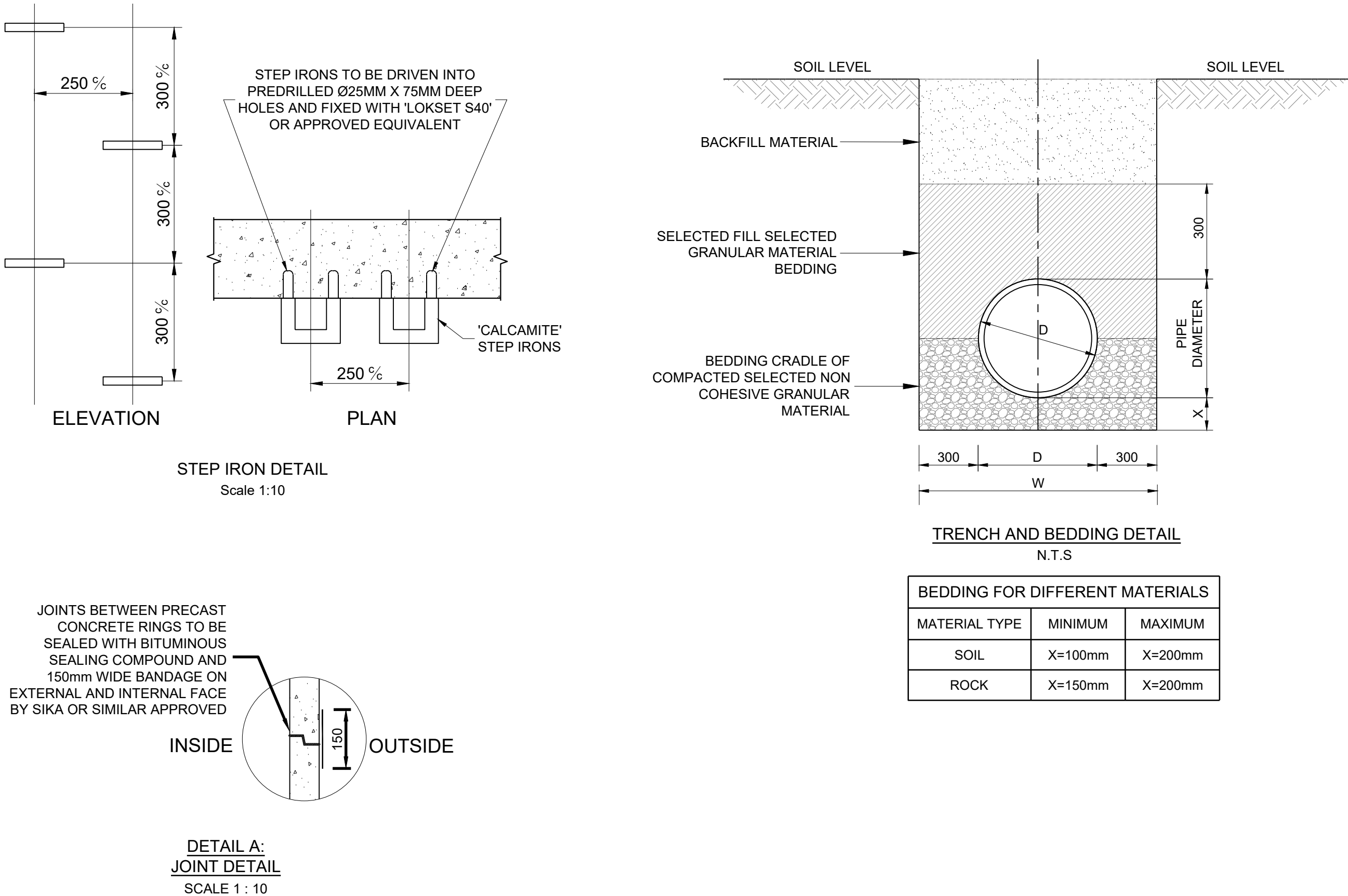
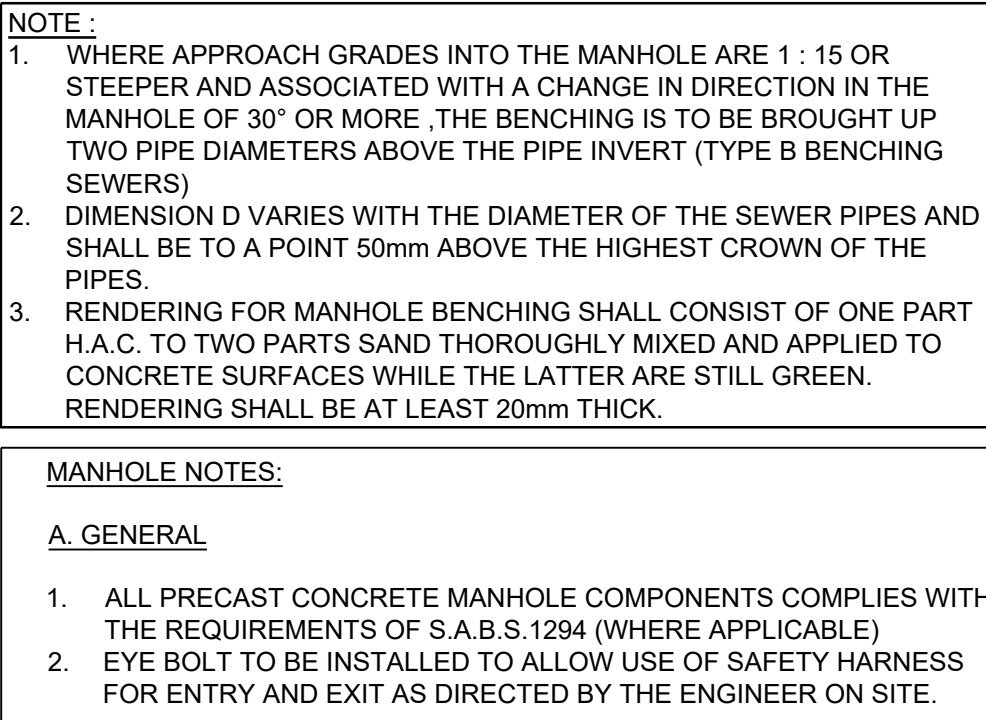
GENERAL NOTES:

- ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
- DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
- DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
- REINFORCING TO BE CHECKED BY THE ENGINEER.
- REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa
ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
- ALL LAYER WORKS TO BE READ IN CONJUNCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.

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Ref	Dwg.	Sh. No.	DESCRIPTION
D848-S2-2500	1/1		ACCESS ROAD LONG SECTION, CROSS SECTION AND STANDARD DETAILS
D848-S2-3250	1/1		SEWER STANDARD DETAILS
D848-S2-4001	1/1		STORMWATER DETAILS (SHEETS 1 TO 3)
D848-S2-5100	1/1		PLATFORM AND EARTHWORKS SECTIONS
D848-S2-5250	1/1		ELEVATED TANK AND PIPEWORK DETAILS
D848-S2-5401	1/1		ELEVATED WATER FRENCH DRAIN DETAILS
D848-6000-007	1/1		SEPTIC TANK DETAILS
D848-S1-4000	1/1		STORMWATER LONG



GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
3. REINFORCING TO BE CHECKED BY THE ENGINEER.
4. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa
 - ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa
5. MINIMUM SPLICE LENGTH - $45 \times \text{BAR DIA}$. EXCEPT WHERE OTHERWISE SHOWN.
6. STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
7. ALL SHARP EXPOSED EDGES TO BE CHAMFERED $25 \times 25 \text{ mm}$.

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Ref Dwg.	Sht No.	DESCRIPTION
0848-52-5000	1/1	SITE PLAN LAYOUT
0848-52-4001	1/1	STORMWATER DETAILS

Consultant :



NAIDU
CONSULTING

1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE	DATE
-----------	------



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :
CIVIL

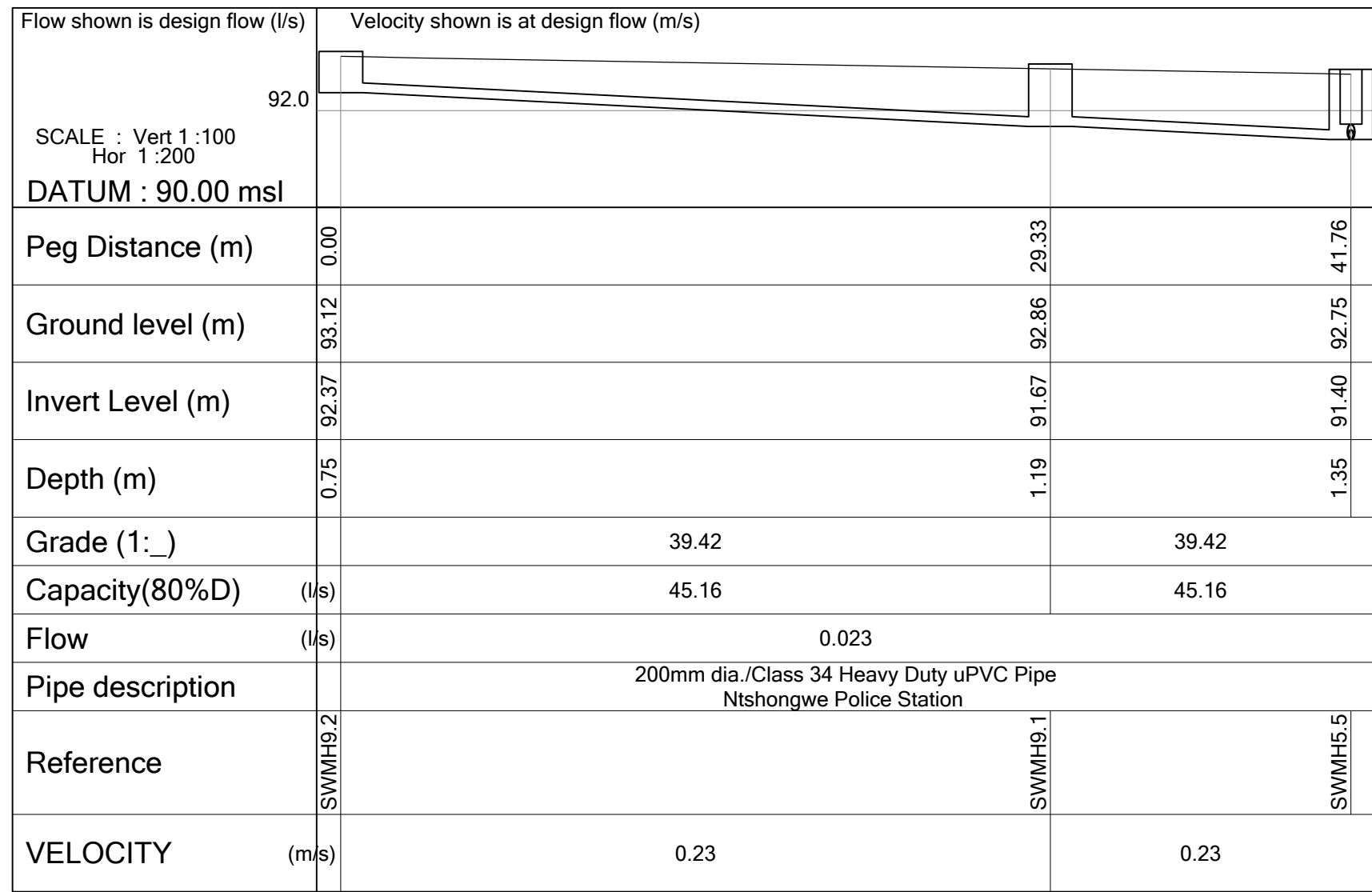
Drawing Title :

SEWER STANDARD DETAILS

Drawing Number : **D848-52-3250**

Scale : AS SHOWN	Design : N. MPUNGOSE
Drawing Size : A1	Drawn : N. MPUNGOSE
Date : 04-10-2023	Checked : A. GOORUN

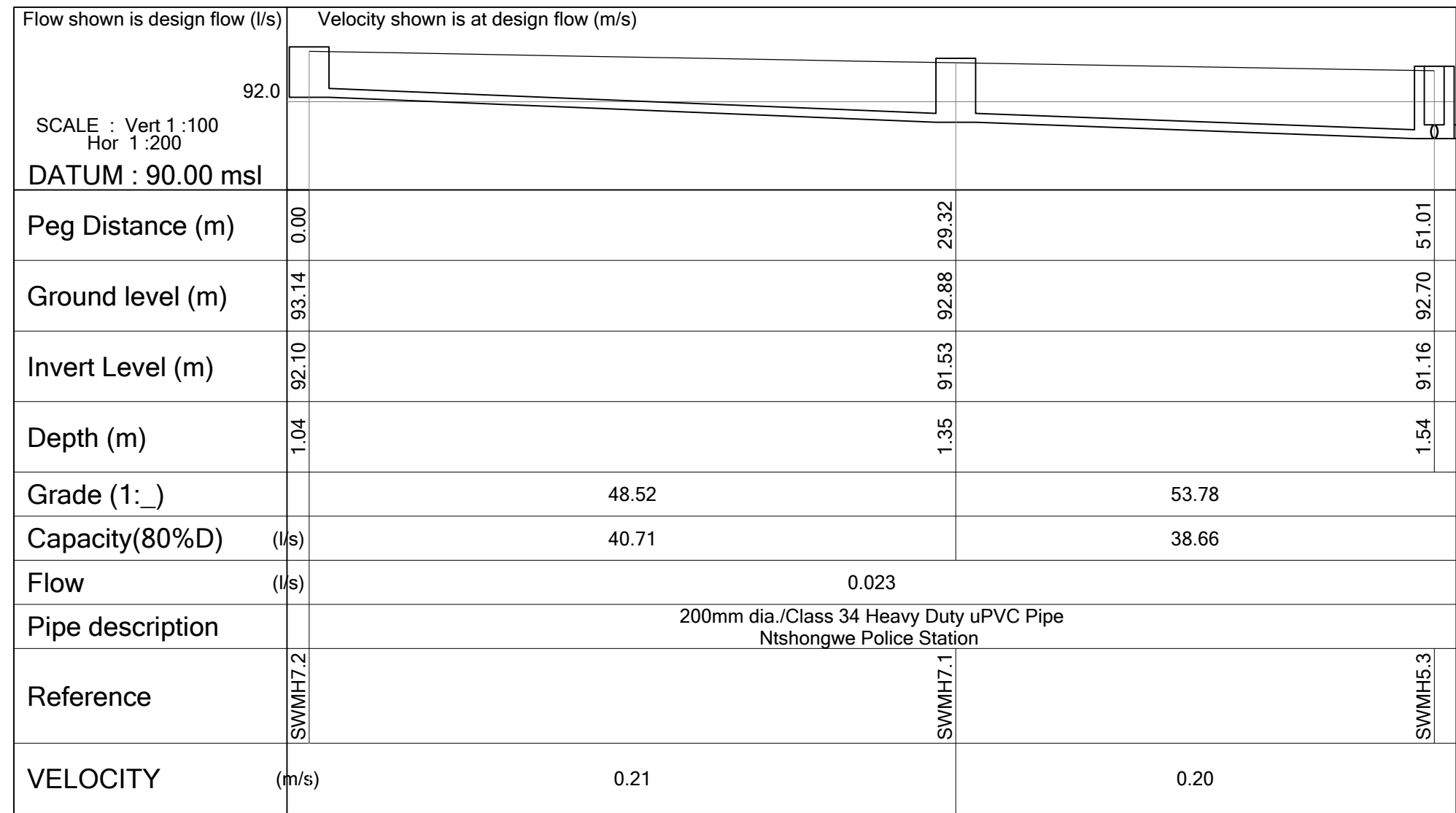
FOR TENDER



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

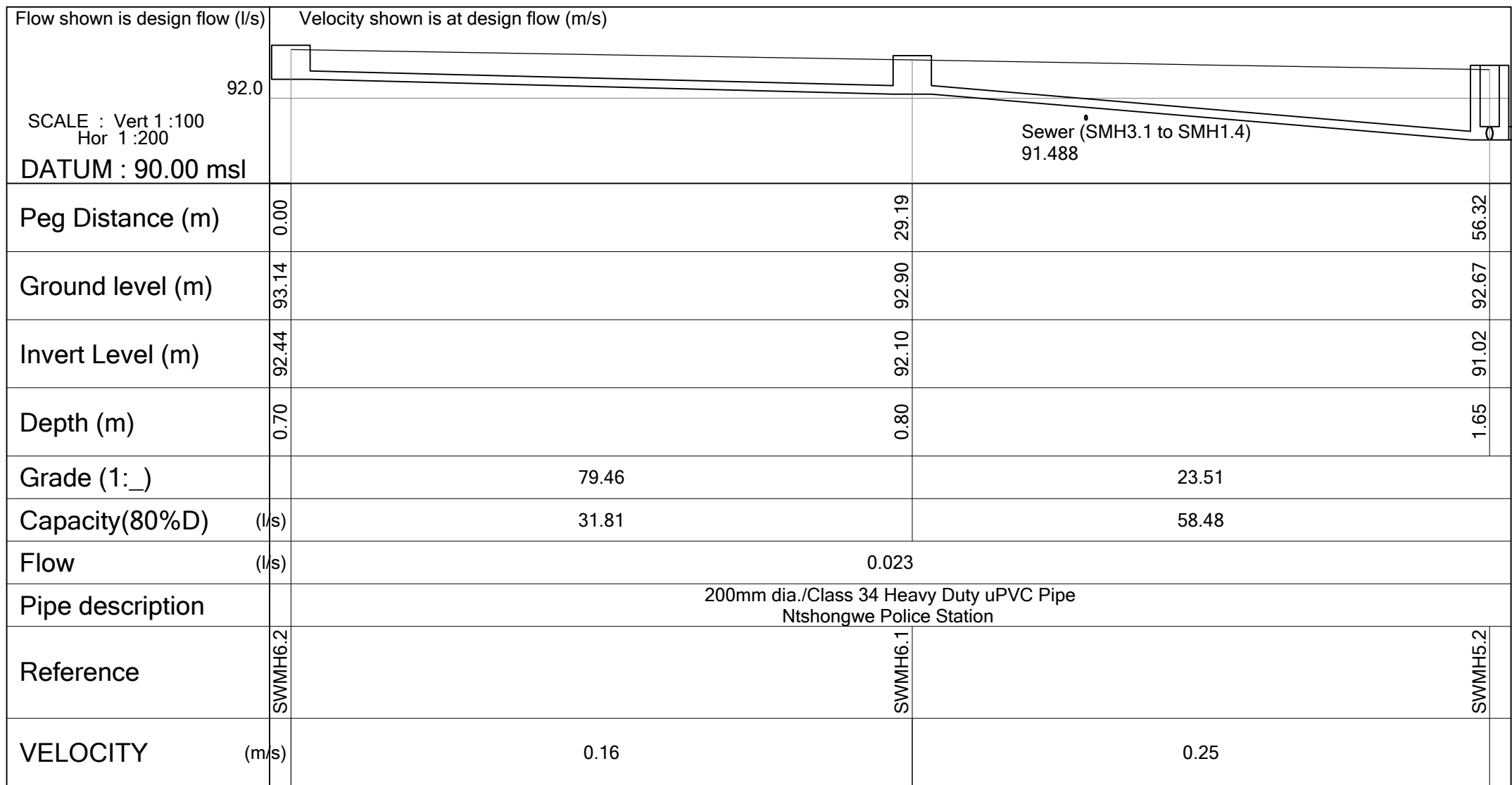
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH9.2	- SWMH9.1	29.330	29.338	SWMH9.2	61243.835	3035672.141	92.372	92.372	0.750
SWMH9.1	- SWMH5.5	12.433	12.433	SWMH9.1	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

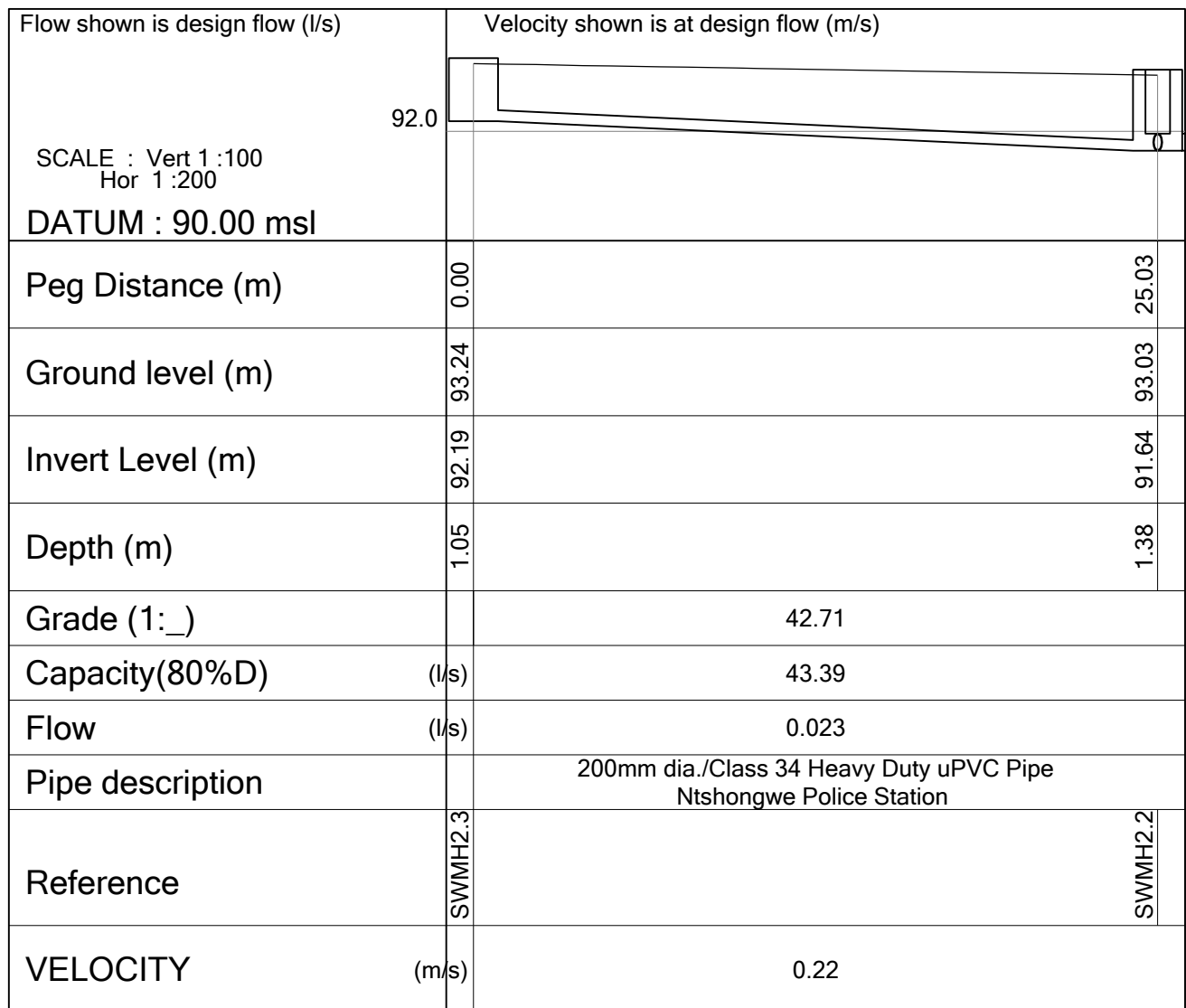
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH7.2	- SWMH7.1	29.320	29.325	SWMH7.2	61243.835	3035672.141	92.372	92.372	0.750
SWMH7.1	- SWMH5.3	21.690	21.693	SWMH7.1	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

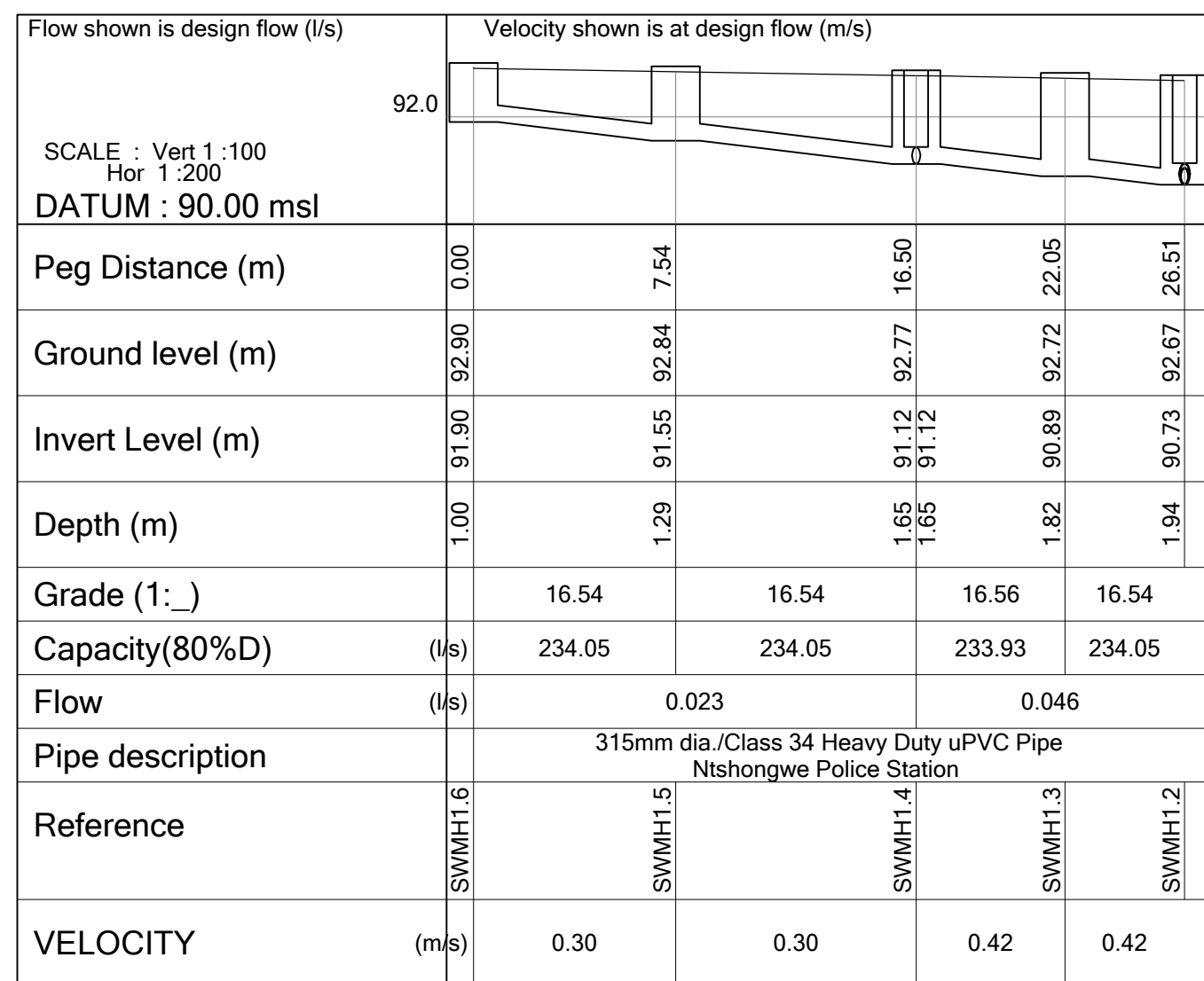
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH6.2	- SWMH6.1	29.190	29.192	SWMH6.2	61243.835	3035672.141	92.372	92.372	0.750
SWMH6.1	- SWMH5.2	27.130	27.151	SWMH6.1	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

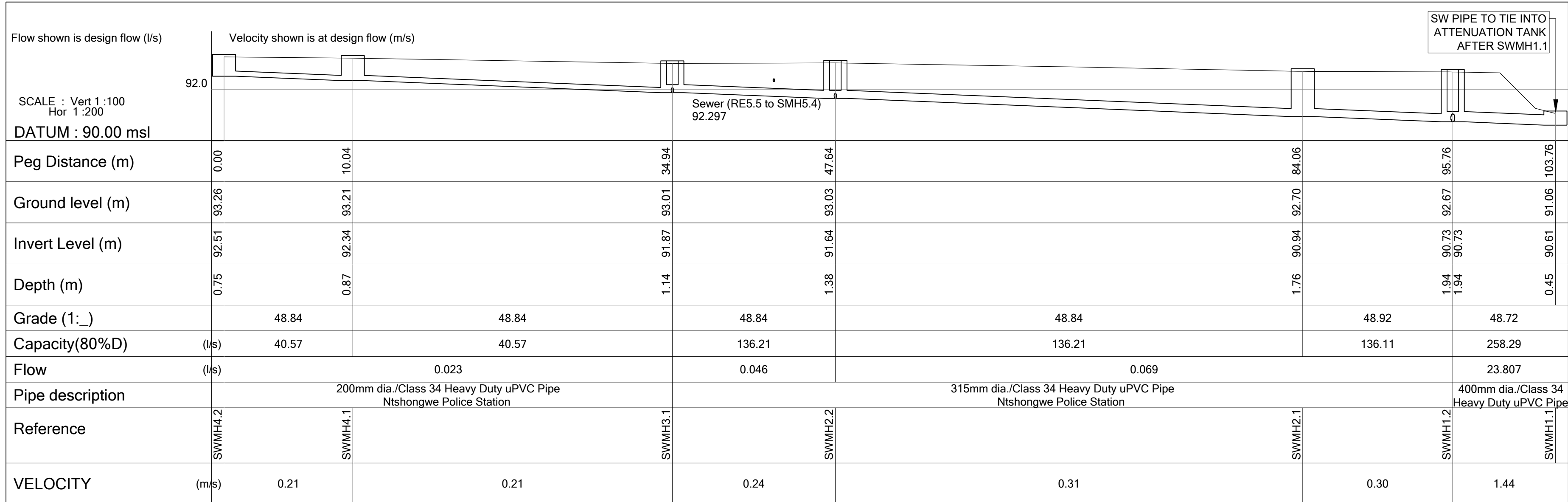
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH2.3	- SWMH2.2	25.029	25.035	SWMH2.3	61243.835	3035672.141	92.372	92.372	0.750
SWMH2.2	- SWMH2.1	25.029	25.035	SWMH2.2	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

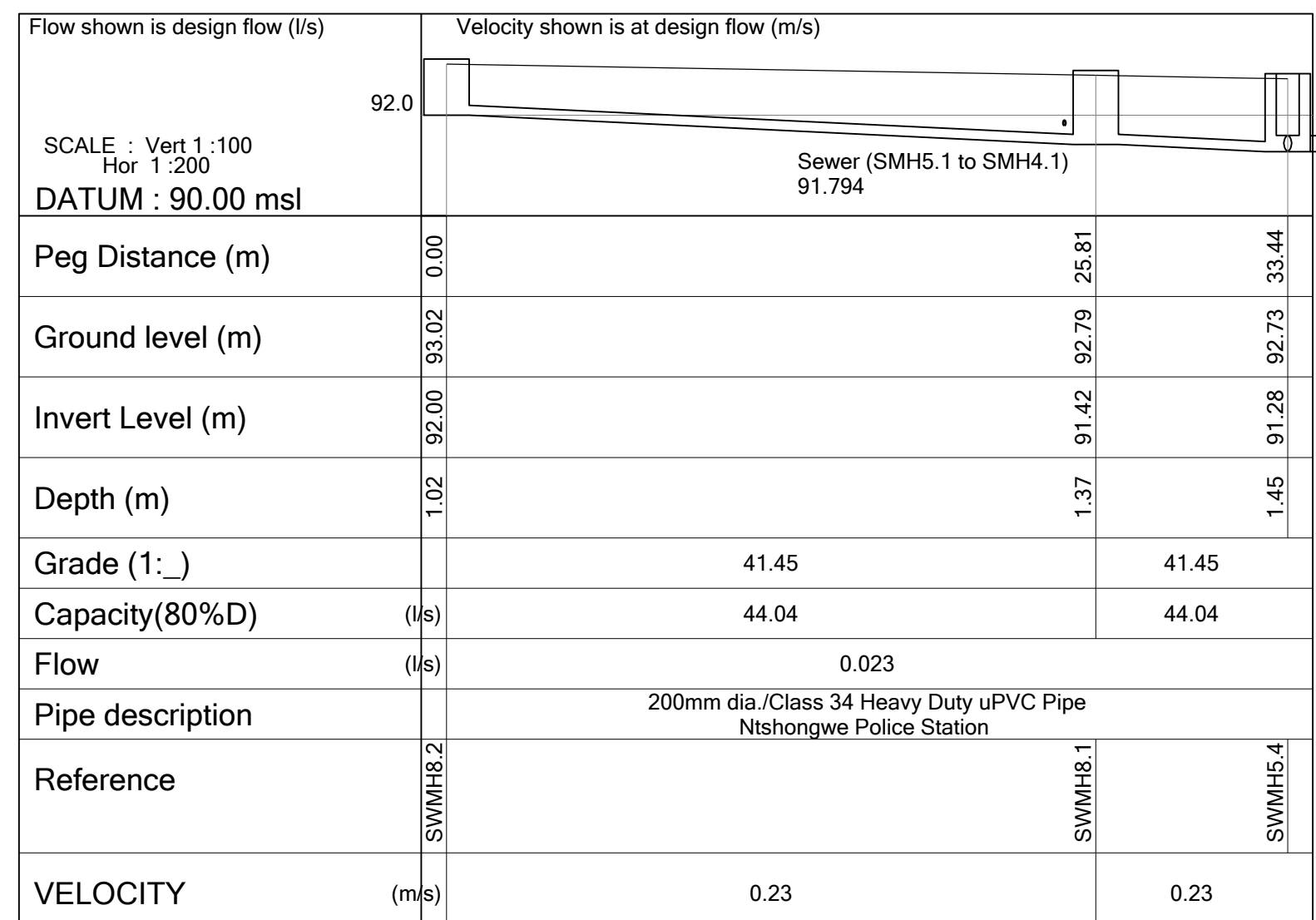
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH1.6	- SWMH1.5	7.535	7.543	SWMH1.6	61243.835	3035672.141	92.372	92.372	0.750
SWMH1.5	- SWMH1.4	8.965	8.975	SWMH1.5	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

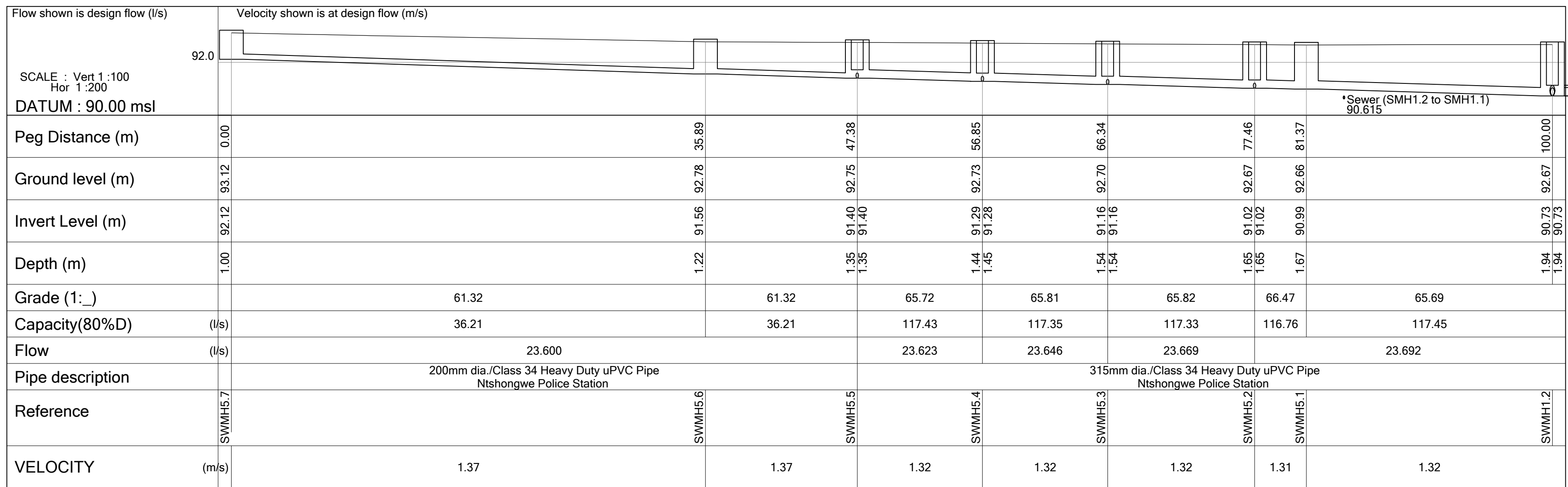
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH4.2	- SWMH4.1	10.036	10.037	SWMH4.2	61243.835	3035672.141	92.372	92.372	0.750
SWMH4.1	- SWMH4.0	24.807	24.807	SWMH4.1	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

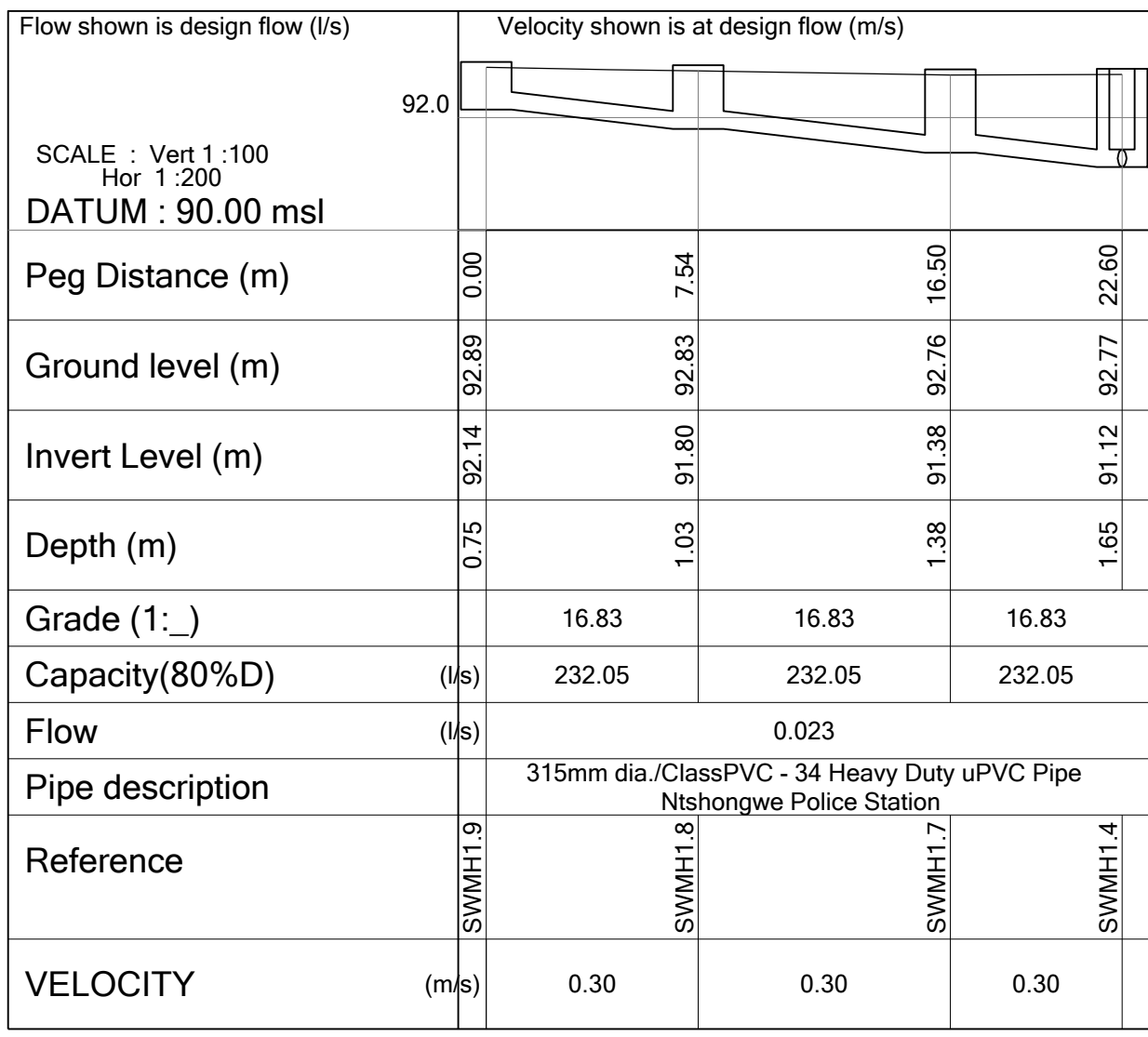
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH2.3	- SWMH2.2	25.810	25.816	SWMH2.3	61243.835	3035672.141	92.372	92.372	0.750
SWMH2.2	- SWMH2.1	7.634	7.632	SWMH2.2	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

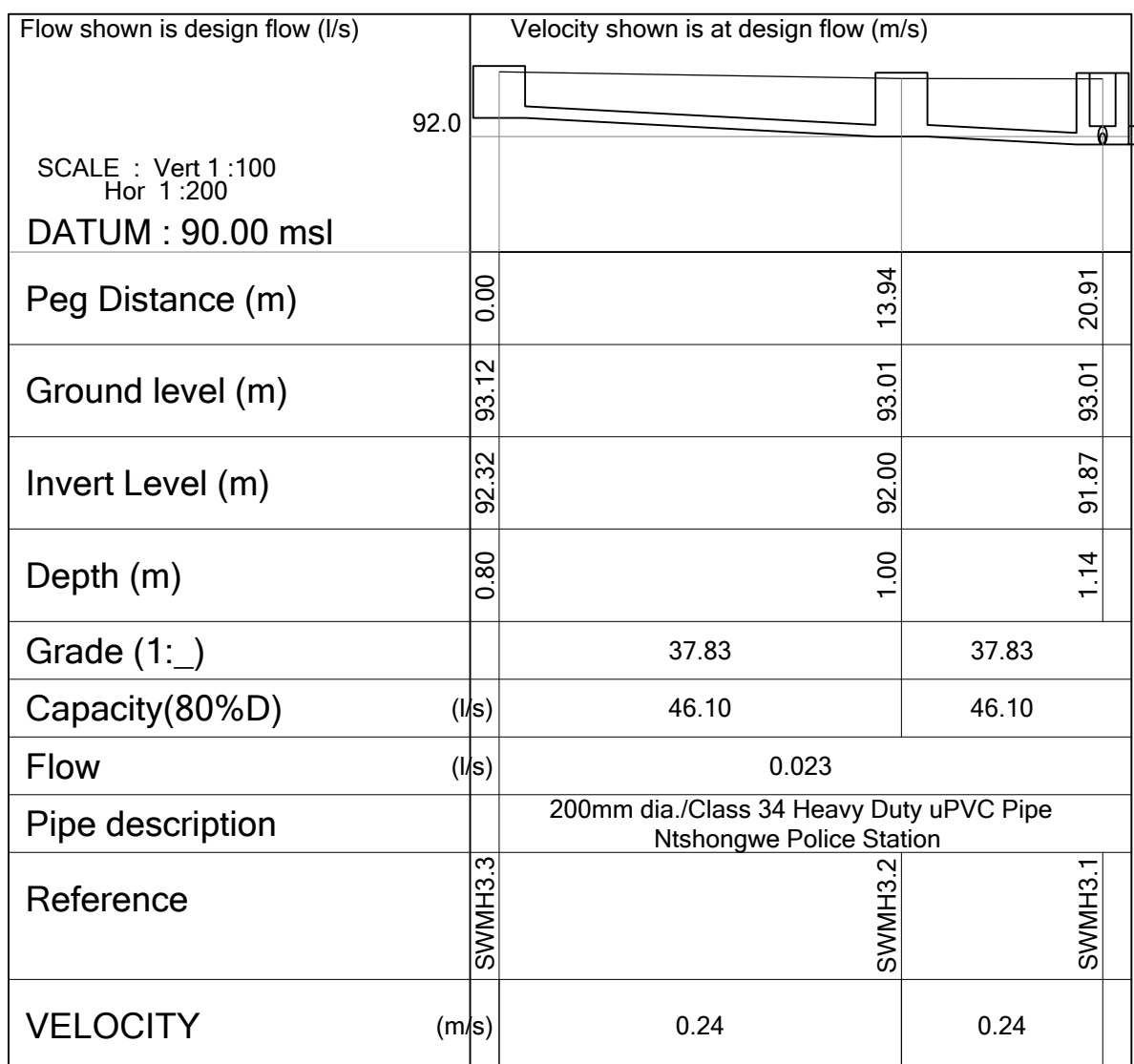
Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
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SWMH5.6	- SWMH5.5	11.486	11.487	SWMH5.6	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH1.9	- SWMH1.8	7.535	7.543	SWMH1.9	61243.835	3035672.141	92.372	92.372	0.750
SWMH1.8	- SWMH1.7	8.965	8.975	SWMH1.8	61273.165	3035672.141	91.674	91.674	1.190



LONGITUDINAL SECTION

SCALE: HOR 1:250
VER 1:100

Pipe lengths (m)			SETTING OUT DATA (WGS84 LO33)						
Reference	Horiz	Slope	Reference	Y	X	IL in	IL out	D in	D out
SWMH3.3	- SWMH3.2	13.335	13.338	SWMH3.3	61243.835	3035672.141	92.372	92.372	0.750
SWMH3.2	- SWMH3.1	6.974	6.975	SWMH3.2	61273.165	3035672.141	91.674	91.674	1.190

REVISIONS

NO.	DATE	DESCRIPTION	BY
A	04-07-2024	ISSUED FOR INFORMATION	A.G.
0	11-07-2024	ISSUED FOR TENDER	A.G.
0	05-08-2024	ISSUED FOR TENDER - Revised stormwater routing	A.G.

GENERAL NOTES:

- ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
- DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
- DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
- REINFORCING TO BE CHECKED BY THE ENGINEER.
- REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa
 - HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
- ALL LAYER WORKS TO BE READ IN CONJUNCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS

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Ref	Dwg.	Sh. No.	DESCRIPTION
D848-52-2500	1/1		ACCESS ROAD LONG SECTION, CROSS SECTION AND STANDARD DETAILS
D848-52-3250	1/1		SEWER STANDARD DETAILS
D848-52-4000	1/1		STORMWATER DETAILS (SHEETS 1 TO 3)
D848-52-5100	1/1		PLATFORM AND EARTHWORKS SECTIONS
D848-52-5250	1/1		ELEVATED TANK AND PIPEWORK DETAILS
D848-52-5401	1/1		WASTE WATER FRENCH DRAIN DETAILS
D848-6000-007	1/1		SEPTIC TANK DETAILS
D848-52-3000	1/1		SEWER LONG SECTION

Consultant:

NAIDU CONSULTING

1st Floor
No 5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATUREDATE

Client:



SOUTH AFRICAN POLICE SERVICE
Department of Police

Project:

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline:

CIVIL

Drawing Title:

LONG SECTION: STORMWATER

Drawing Number:

D848-52-4000 (1/1)

Rev No.

0

Scale:

AS SHOWN

Design:

N. MPUNGOSE
N. ADAMS

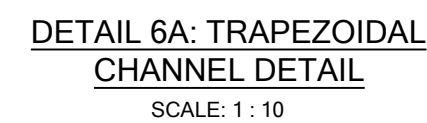
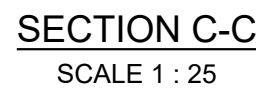
Date:

04-07-2024

Checked:

A. GOORUN

FOR TENDER



1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
3. REINFORCING TO BE CHECKED BY THE ENGINEER.
4. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - i) MILD STEEL - PLAIN ROLLED - MINIMUM CHARACTERISTIC STRENGTH 250 MPa
 - ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa
5. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
6. STRIPPING OF FORMWORK:
CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
7. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-3250	1/1	SEWER STANDARD DETAILS

Consultant :



1st Floor Tel : +27 (0) 31 265 6007
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West Way Office Park E-mail : info@naiduconsulting.com
Westville, Durban

SIGNATURE

Client :



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline
CIVIL

Drawing Title :

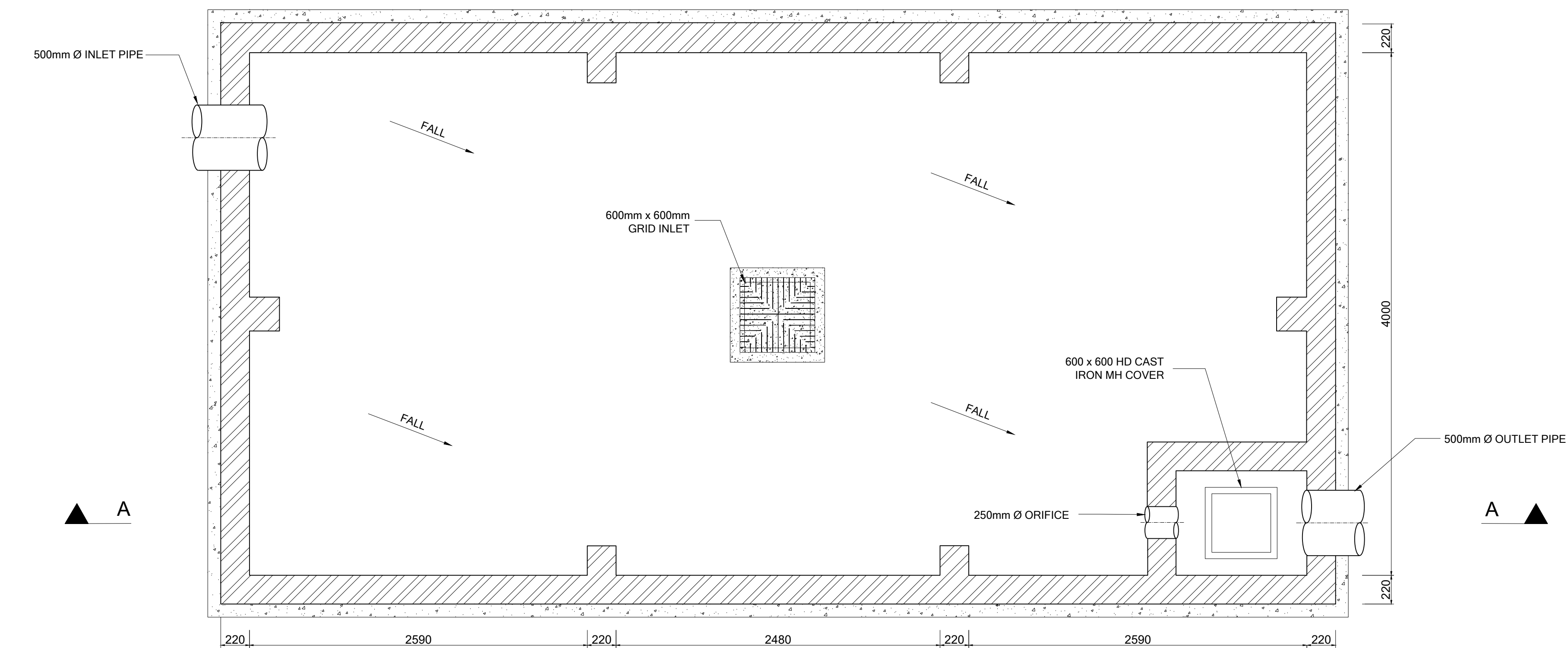
STORM WATER DETAILS

Drawing Number :

D848-52-4001 (1 / 3)

Scale : AS SHOWN	Design : N. MPUNGOSE
Drawing Size : A1	Drawn : N. MPUNGOSE
Date : 04-10-2023	Checked : A. GOORUN

FOR TENDER

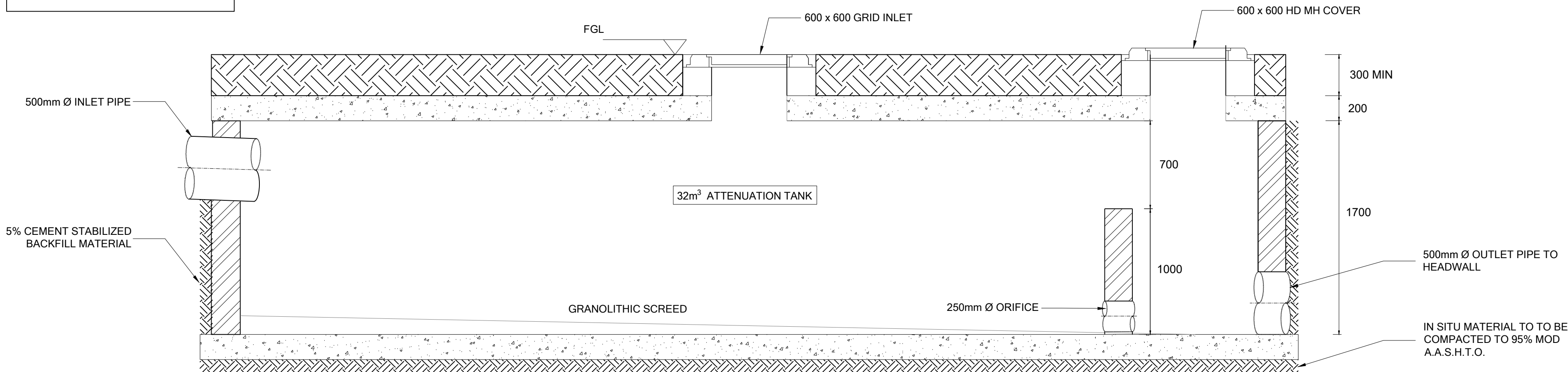


DETAIL 8: PLAN OF ATTENUATION TANK

SCALE 1:25

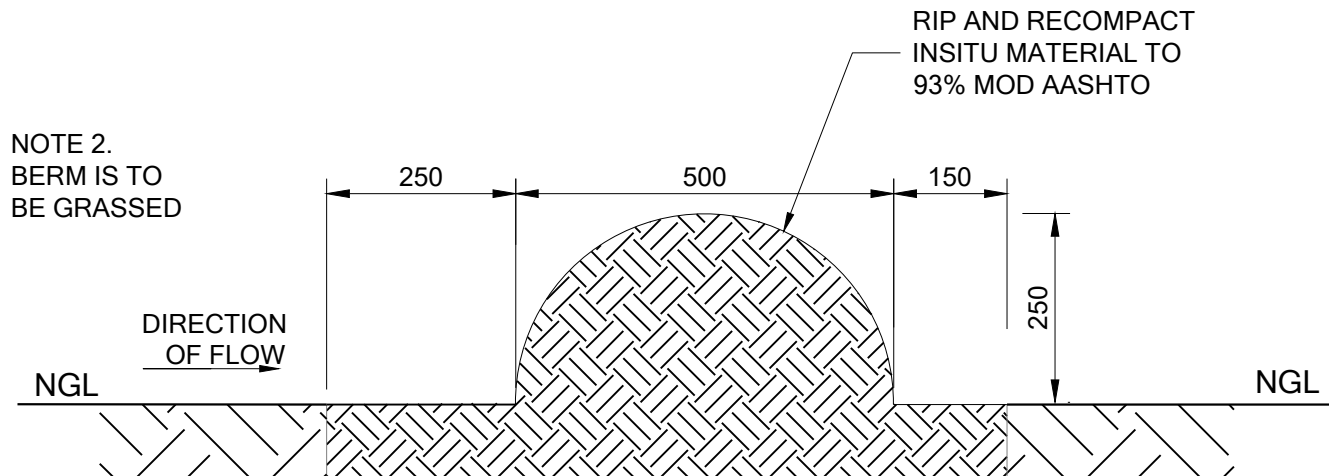
NOTES

1. ATTENUATION TANK TO STRUCTURAL ENGINEERS DETAILS.



SECTION A-A

SCALE 1:25



DETAIL 7 : GRASSED EARTH BERM DETAIL

SCALE: 1:10

REVISIONS

REV	DATE	DESCRIPTION	BY
A	2023/10	ISSUED FOR INFORMATION	A.G.
B	2024/04	ISSUED FOR INFORMATION - Change in building platform and civil services details	A.G.
0	2024/07	ISSUED FOR TENDER	A.G.

GENERAL NOTES:

- ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
- DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
- REINFORCING TO BE CHECKED BY THE ENGINEER.
- REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPA
 - HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPA
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-3250	1/1	SEWER STANDARD DETAILS

Consultant :



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West Way Office Park E-mail : info@naiduconsulting.com
Westville, Durban

SIGNATURE

DATE

Client :



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

CIVIL

Drawing Title :

STORM WATER DETAILS

Drawing Number :

D848-52-4001 (2 /3)

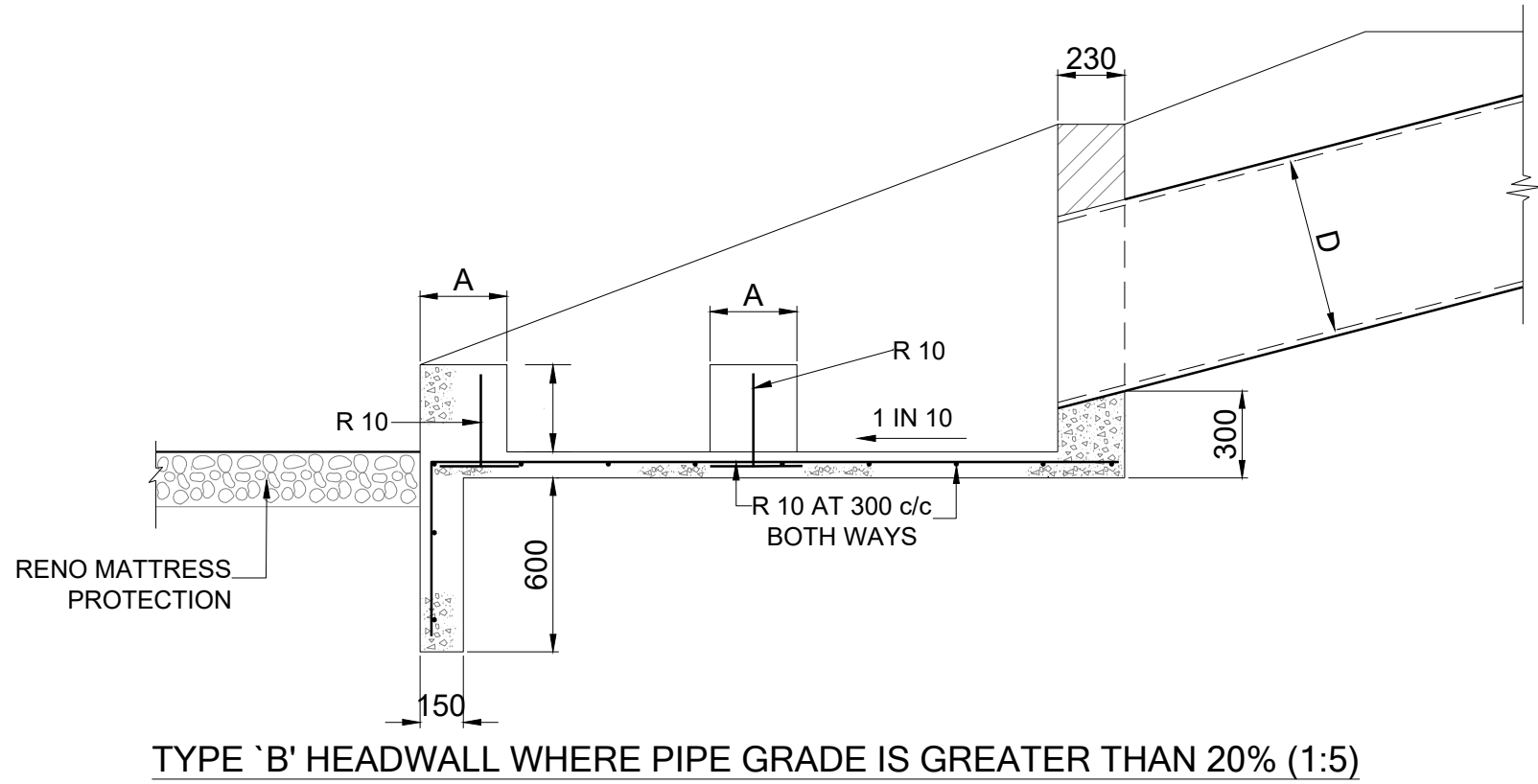
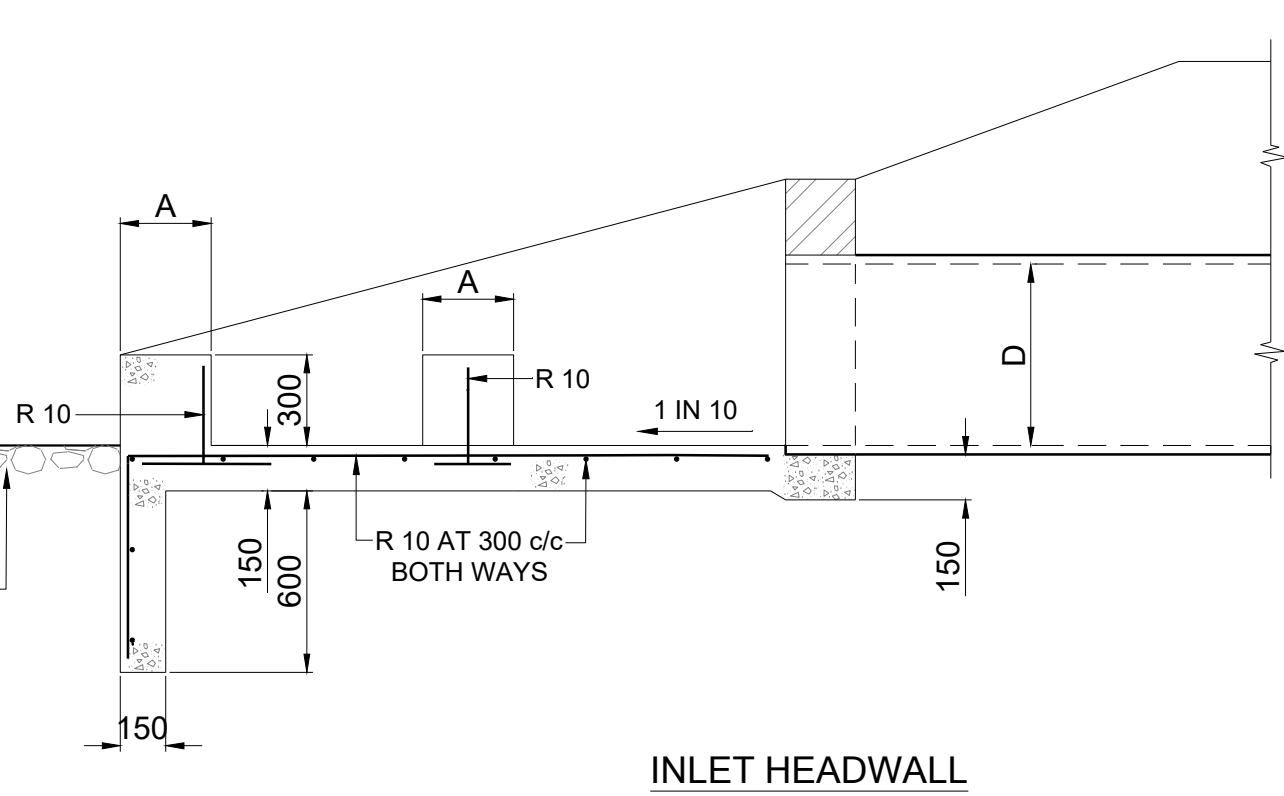
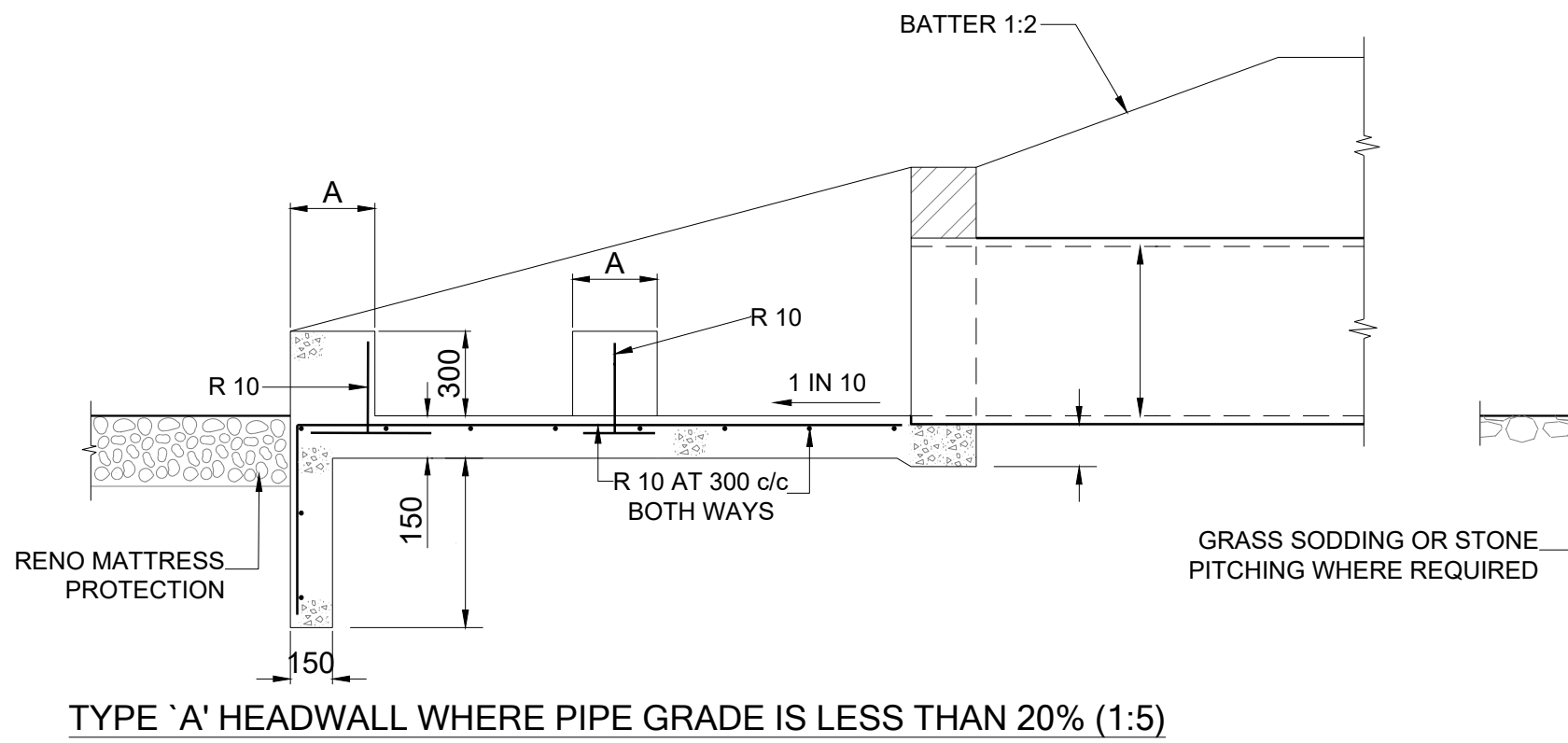
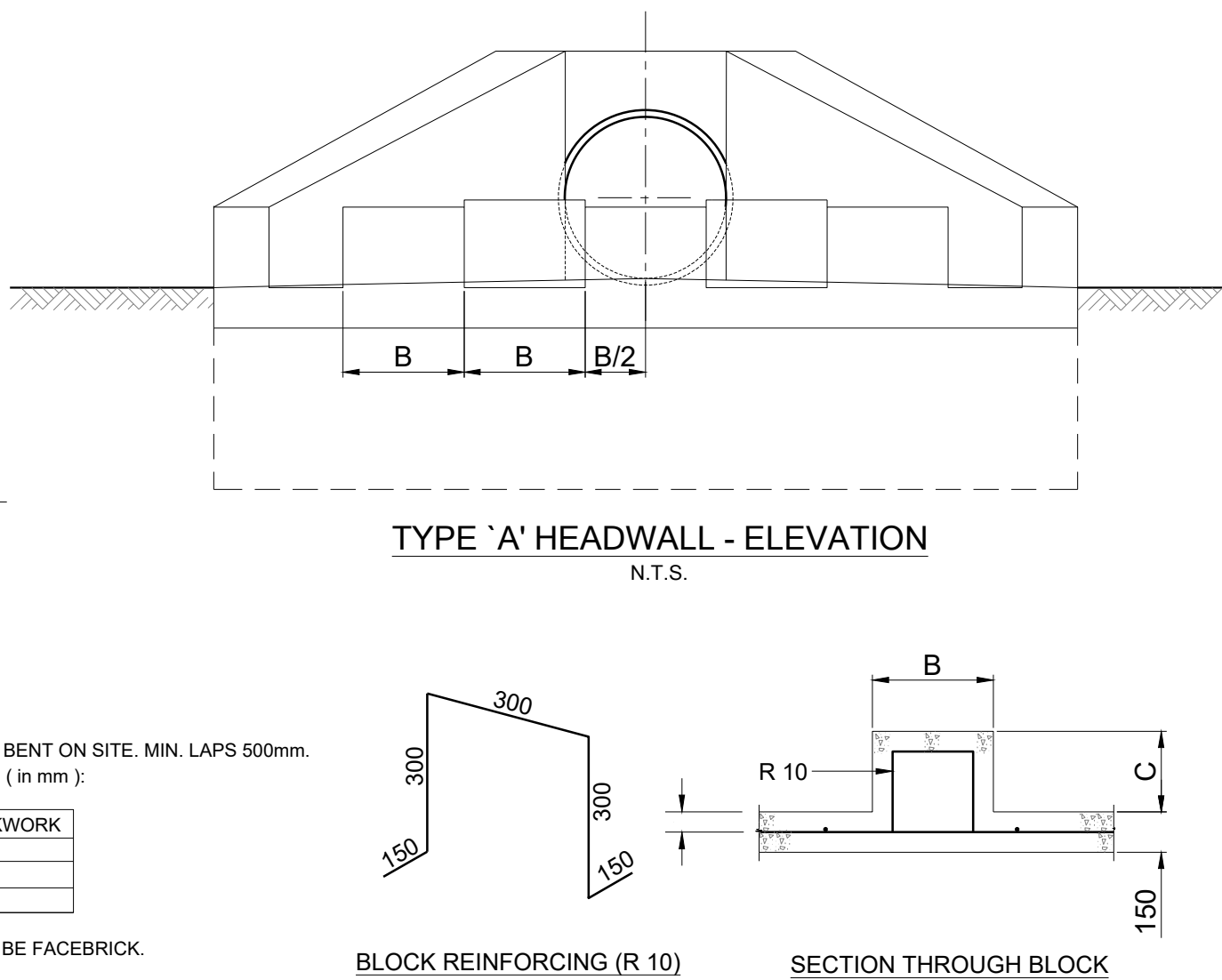
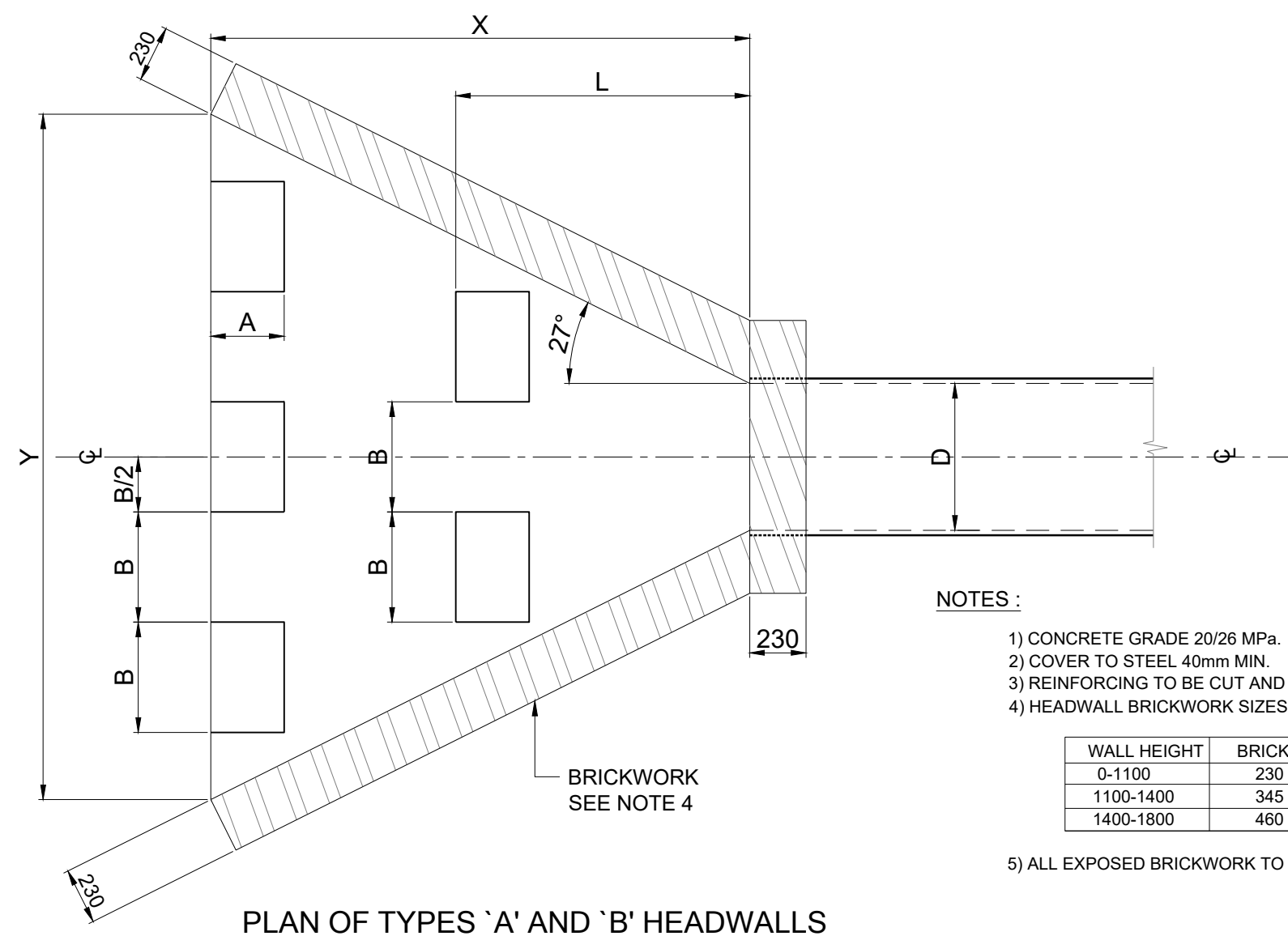
Rev No.

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Scale :
AS SHOWN
Drawing Size :
A1
Date :
04-10-2023

Design :
N. MPUNGOSE
Drawn :
N. MPUNGOSE
Checked :
A. GOORUN

FOR TENDER



NOM. PIPE DIA.	DIMENSIONS (mm)					
	D	A	B	C	L	X
375	245	350	250	980	1800	2175
450	245	360	250	980	1800	2250
525	250	375	250	1050	2000	2525
600	300	450	300	1200	2200	2800
750	300	450	300	1500	2400	3150
825	300	450	300	1650	2600	3425
900	300	450	300	1800	2800	3700
1050	300	450	300	2100	3000	4050
1200	300	450	300	2400	3200	4400

DETAIL 9: HEADWALL DETAILS
(FOR PIPES UP TO DN1200)
SCALE 1:25

REVISIONS

REV	DATE	DESCRIPTION	BY
A	2023/10	ISSUED FOR INFORMATION	A.G.
B	2024/04	ISSUED FOR INFORMATION - Change in building platform and civil services details	A.G.
0	2024/07	ISSUED FOR TENDER	A.G.

GENERAL NOTES:

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 - MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPA
 - HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPA
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-3250	1/1	SEWER STANDARD DETAILS

Consultant :



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No.5 The Boulevard
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Westville, Durban
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Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

CIVIL

Drawing Title :

STORM WATER DETAILS

Drawing Number :

D848-52-4001 (3 /3)

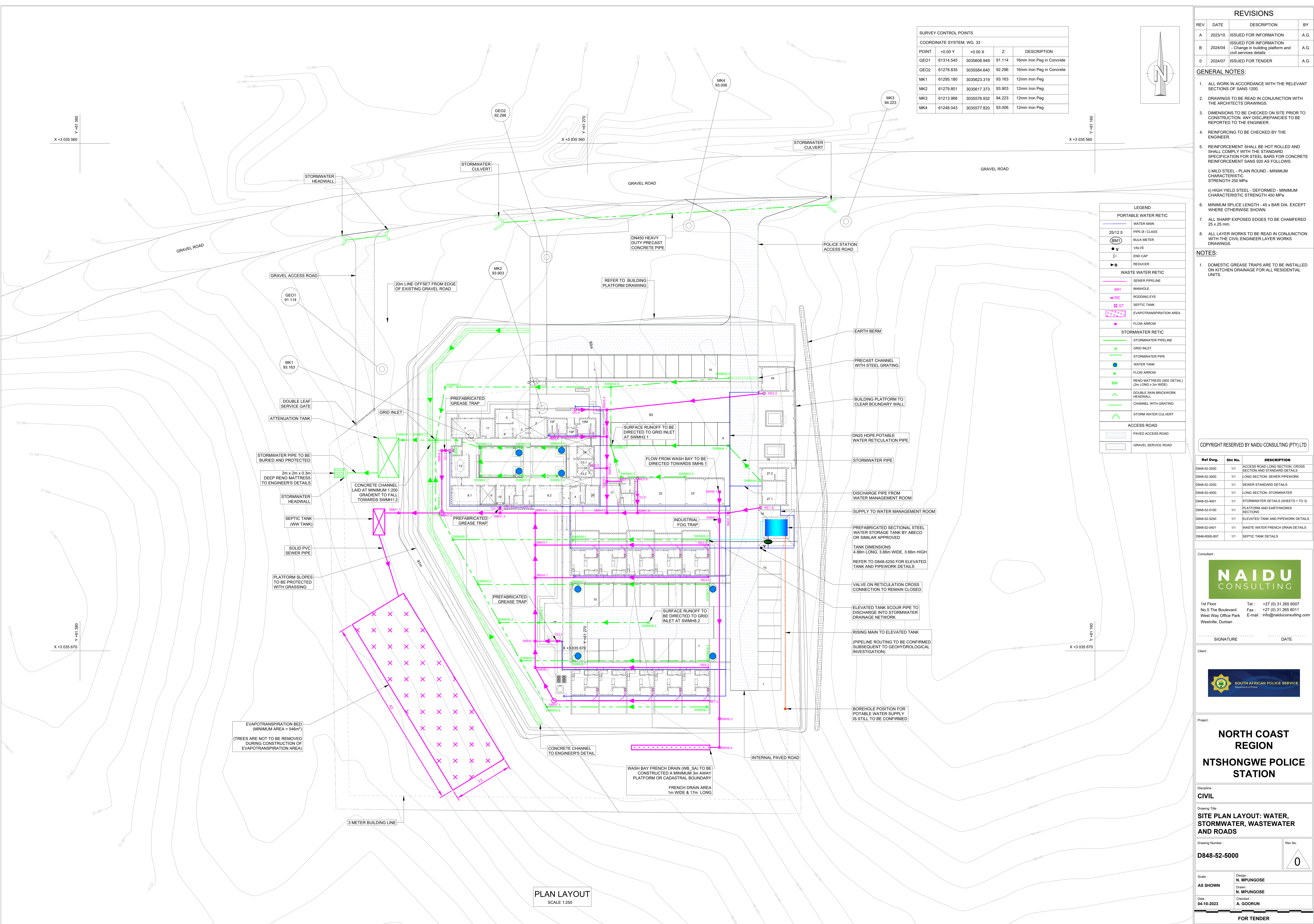
Rev No.

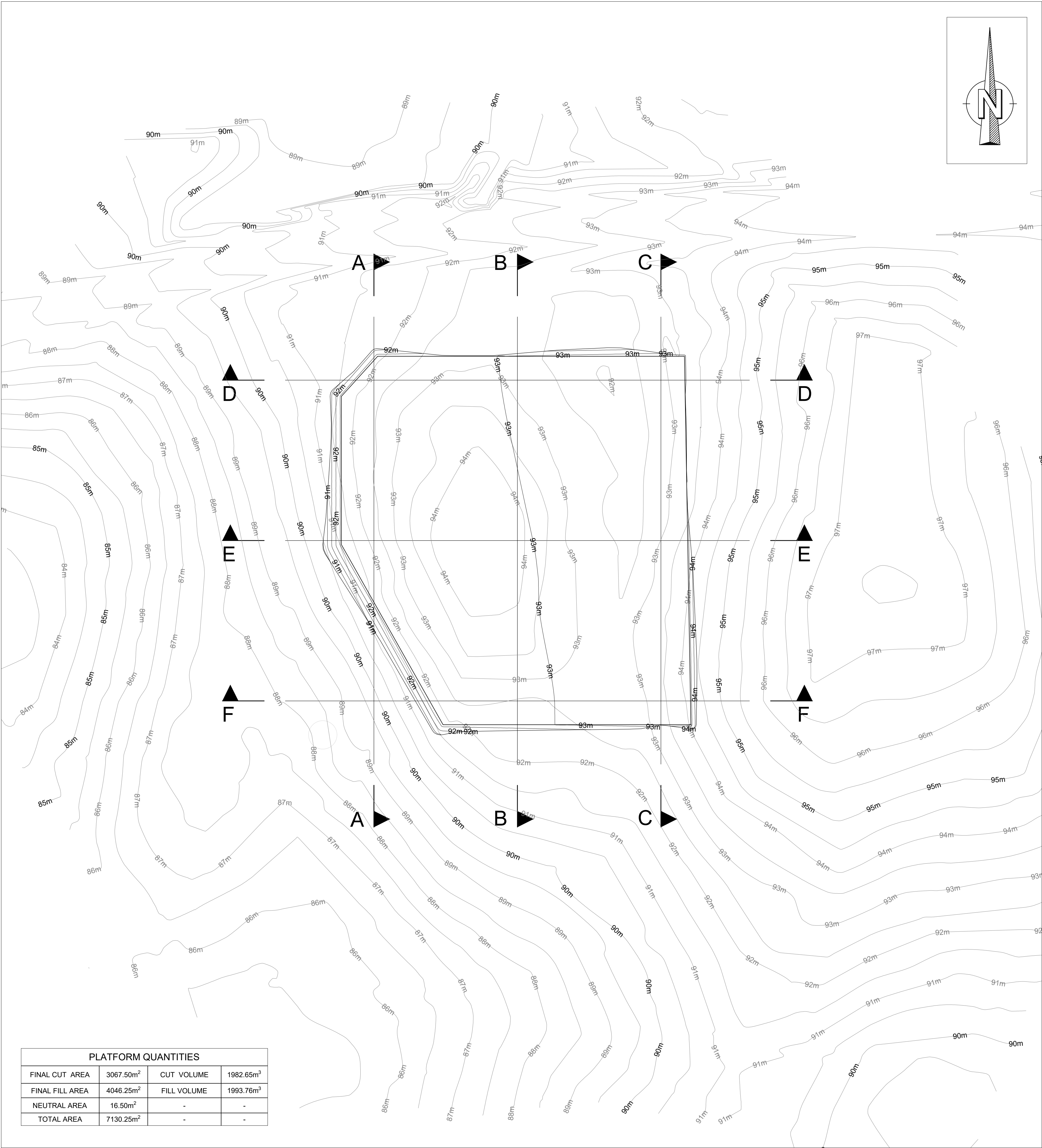
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Scale :
AS SHOWN
Drawing Size :
A1
Date :
04-10-2023

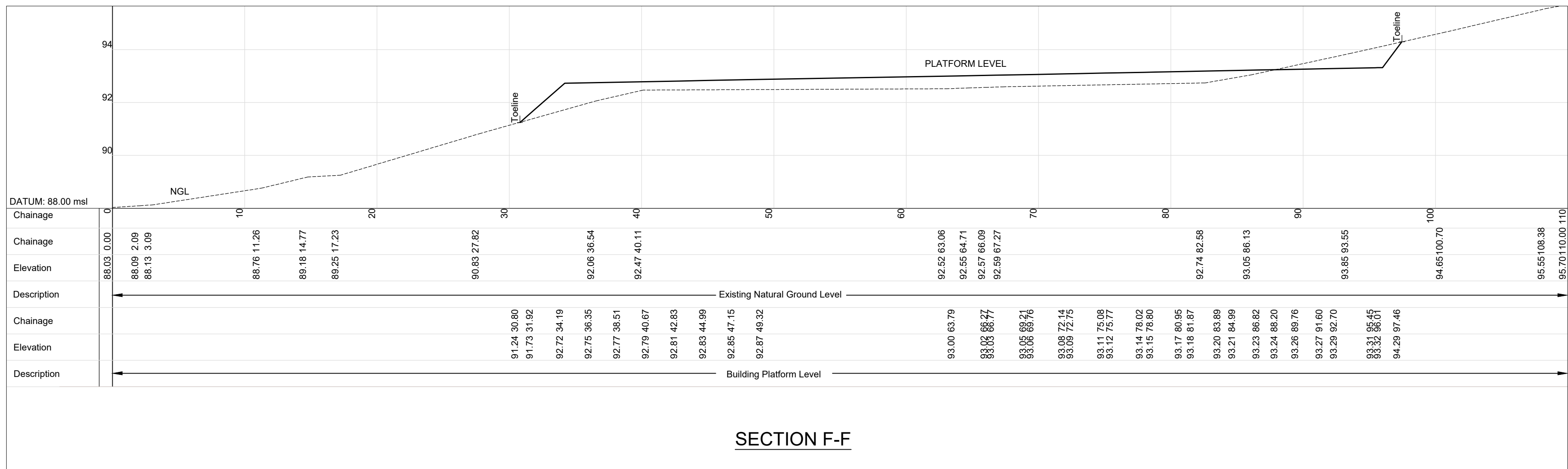
Design :
N. MPUNGOSE
Drawn :
N. MPUNGOSE
Checked :
A. GOORUN

FOR TENDER



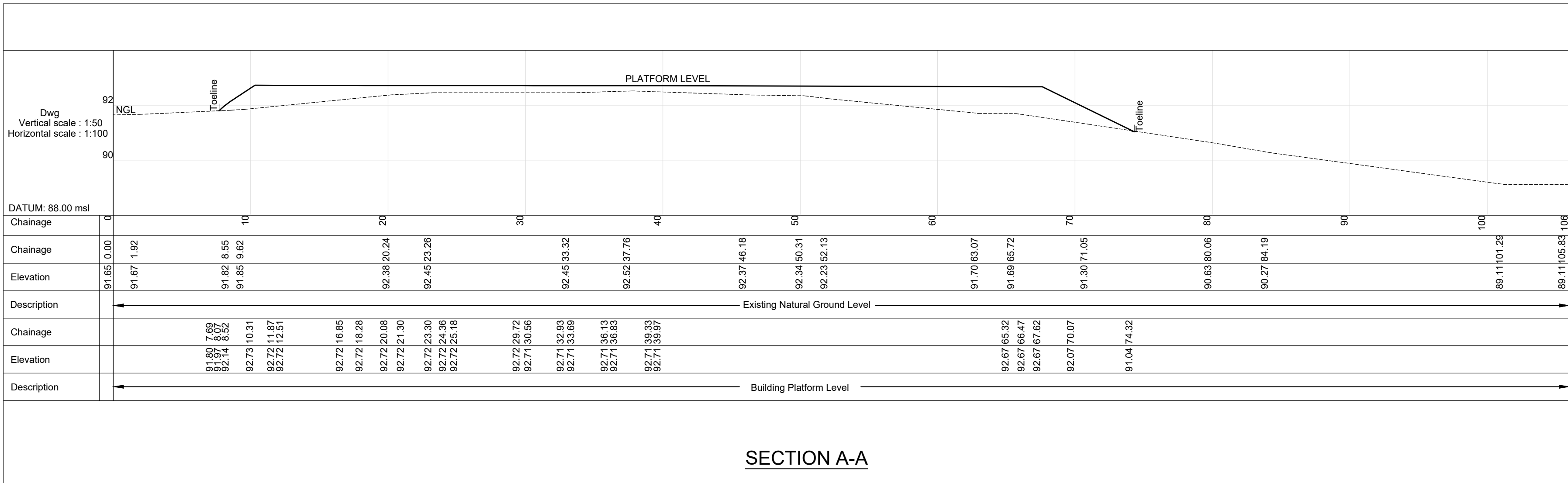


PLAN LAYOUT
SCALE 1:500

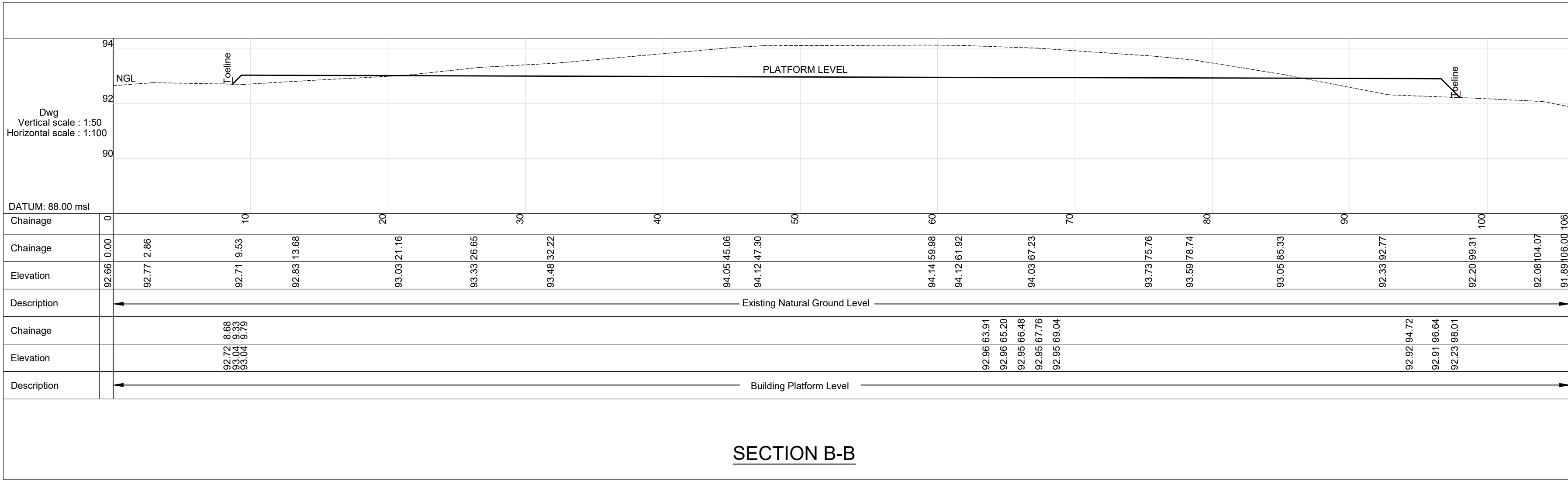


SECTION F-F

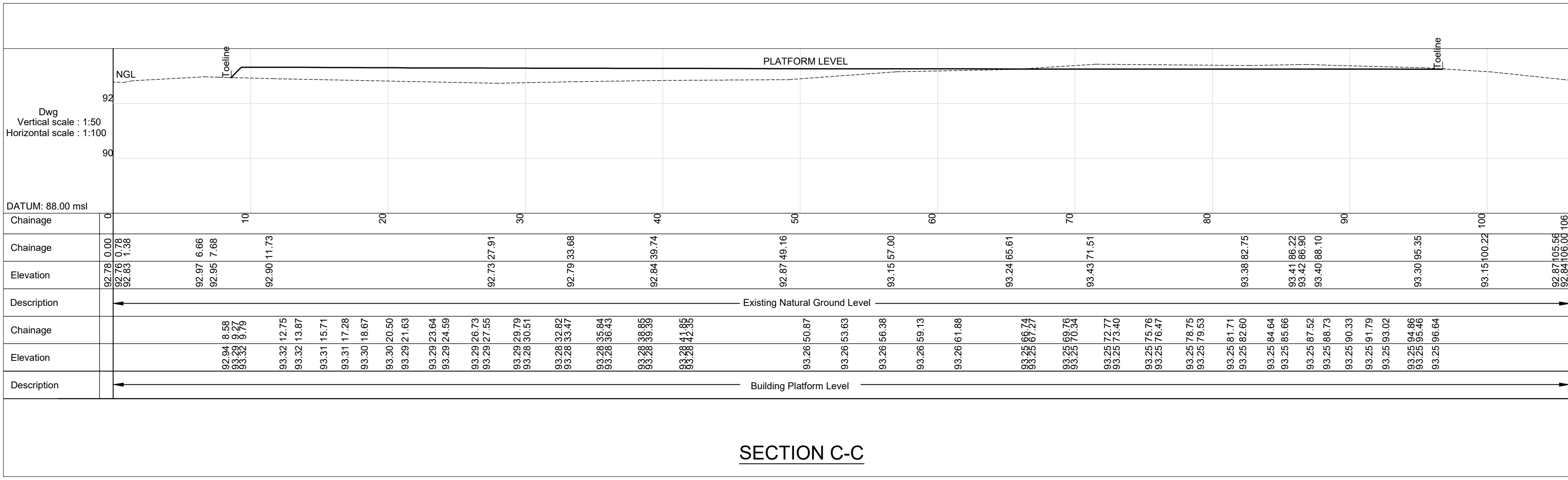
PLATFORM CROSS SECTIONS
SCALE 1:250



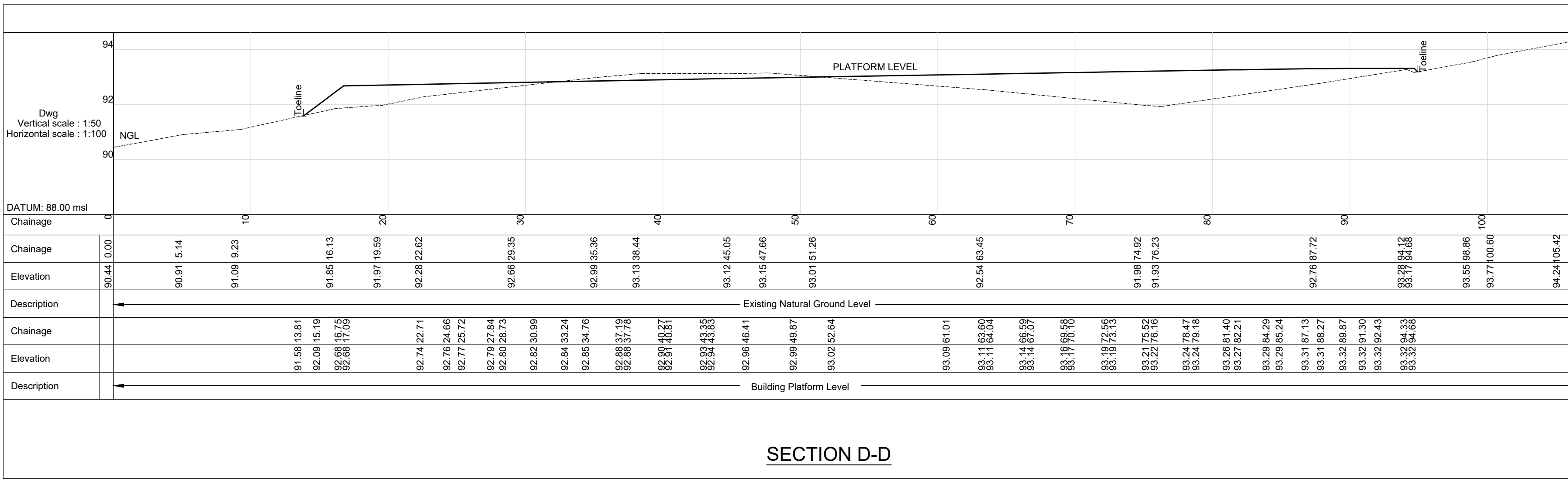
SECTION A-A



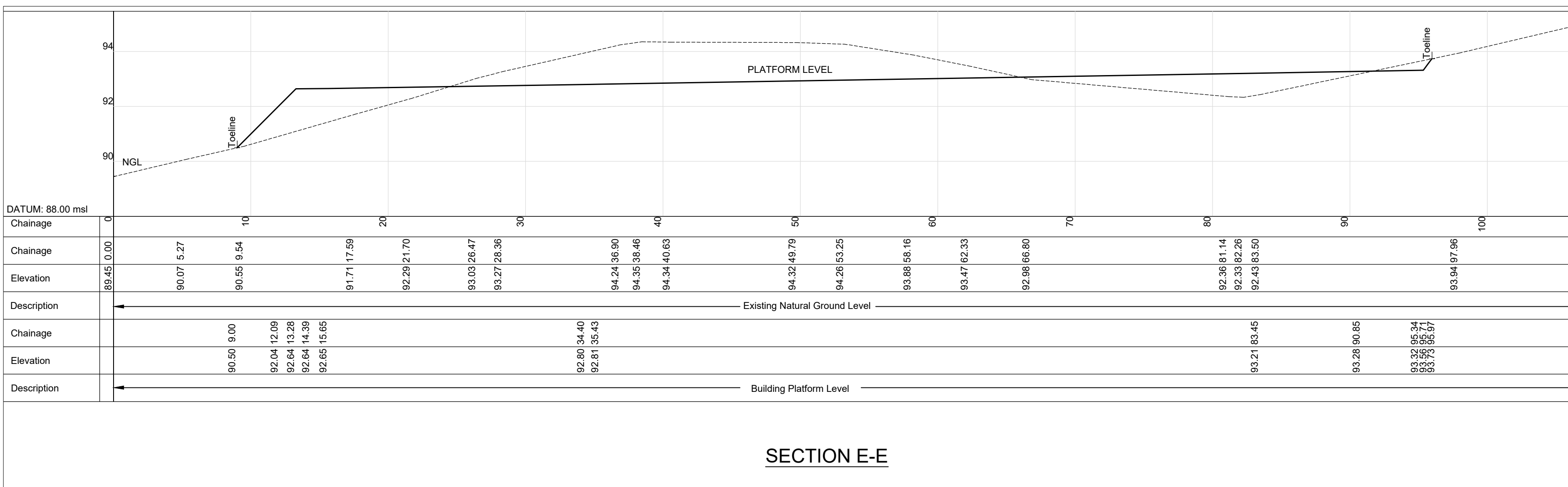
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

REVISIONS		
REV	DATE	DESCRIPTION
A	2023/10	ISSUED FOR INFORMATION
B	2024/04	ISSUED FOR INFORMATION • Change in building platform and civil services details
0	2024/07	ISSUED FOR TENDER

GENERAL NOTES:

- ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
- DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
- DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
- REINFORCING TO BE CHECKED BY THE ENGINEER.
- REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa
 - ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

EARTHWORKS NOTES:

- ALL EMBANKMENT ARE TO BE MINIMUM 1:2 (VERTICAL : HORIZONTAL).

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-4001	1/1	STORMWATER DETAILS

Consultant:

NAIDU CONSULTING

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Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE _____ DATE _____

Client:

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project:

**NORTH COAST REGION
NTSHONGWE POLICE STATION**

Discipline:

CIVIL

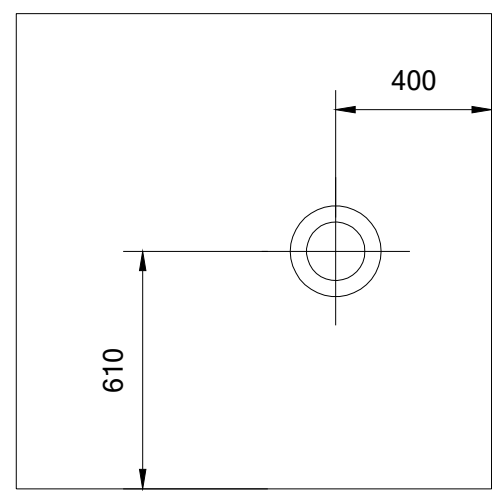
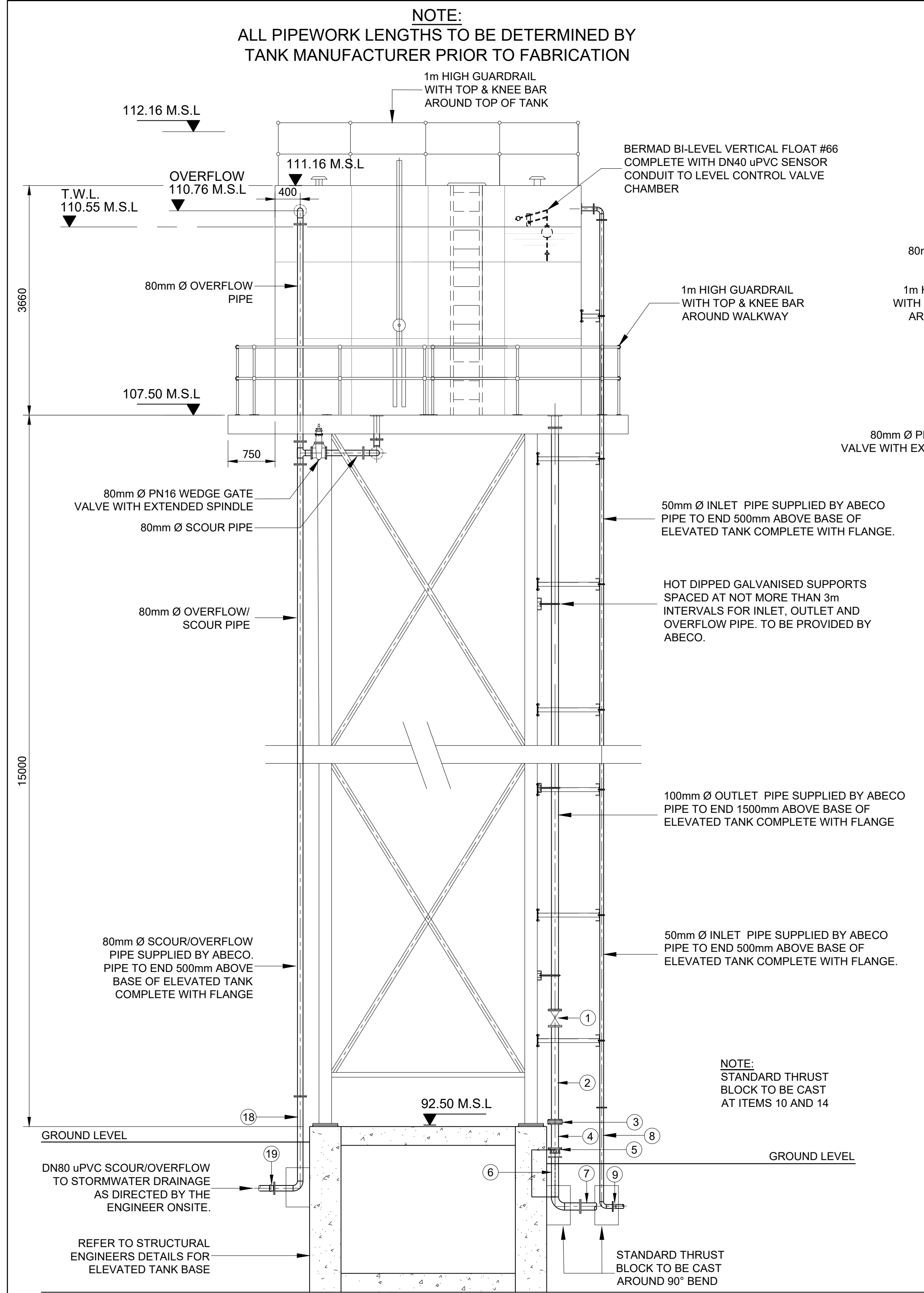
Drawing Title:

PLATFORM AND EARTHWORKS SECTIONS

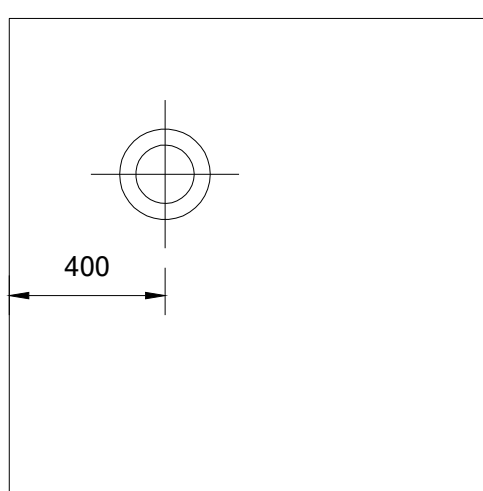
Drawing Number:	Rev No.
D848-52-5100	0

Scale:	Design:
AS SHOWN	N. MPUNGOSE
Date:	Drawn:
04-10-2023	N. MPUNGOSE
	Checked:
	A. GORUN

FOR TENDER

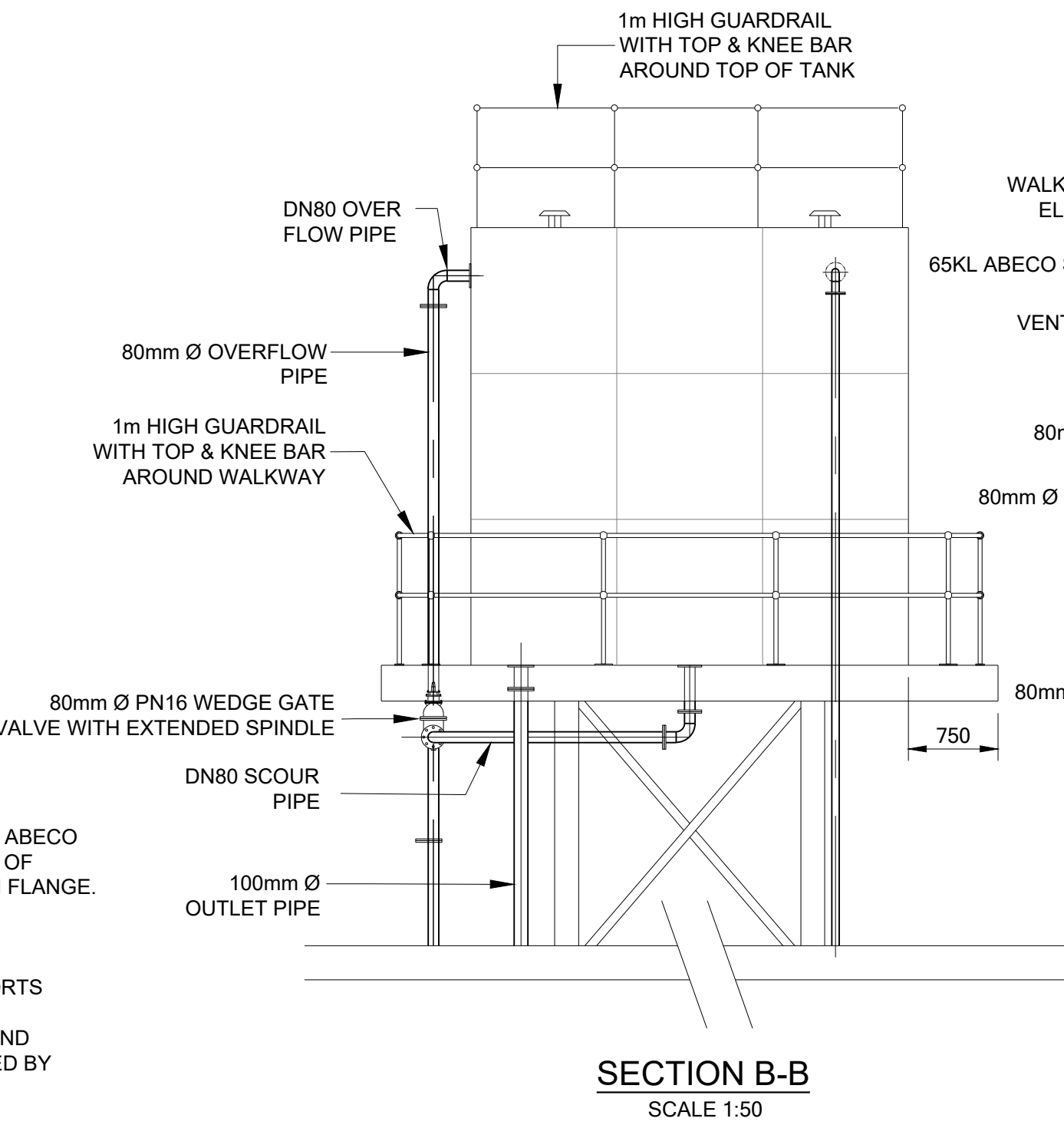


PANEL A PLAN VIEW
SCALE 1:20



PANEL C FRONT VIEW
SCALE 1:20

POSITIONS OF INLET AND SCOUR IN PANELS B AND C CAN BE CENTRALLY PLACED.
ABOVE DIMENSIONS ARE TO ENSURE PIPE MISSES REINFORCED CONCRETE BASE
AND MAY BE MOVED BY ABECO.

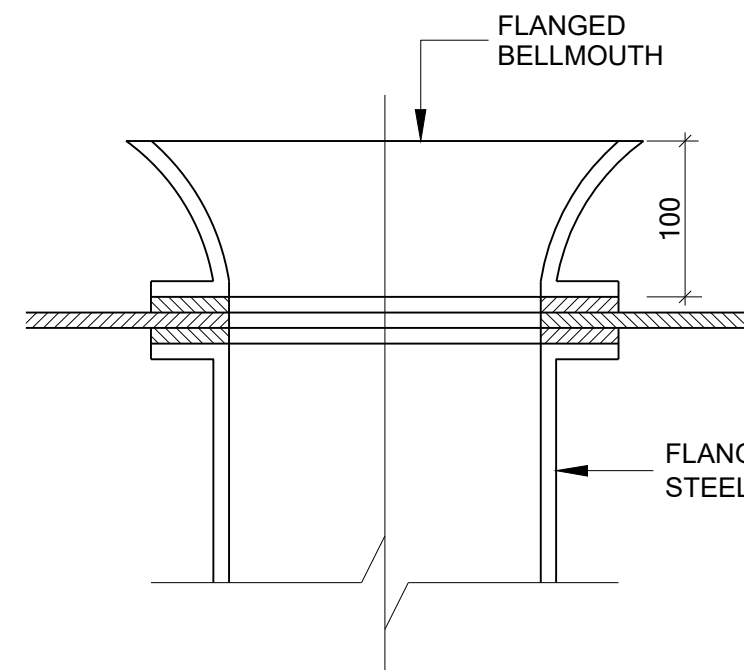
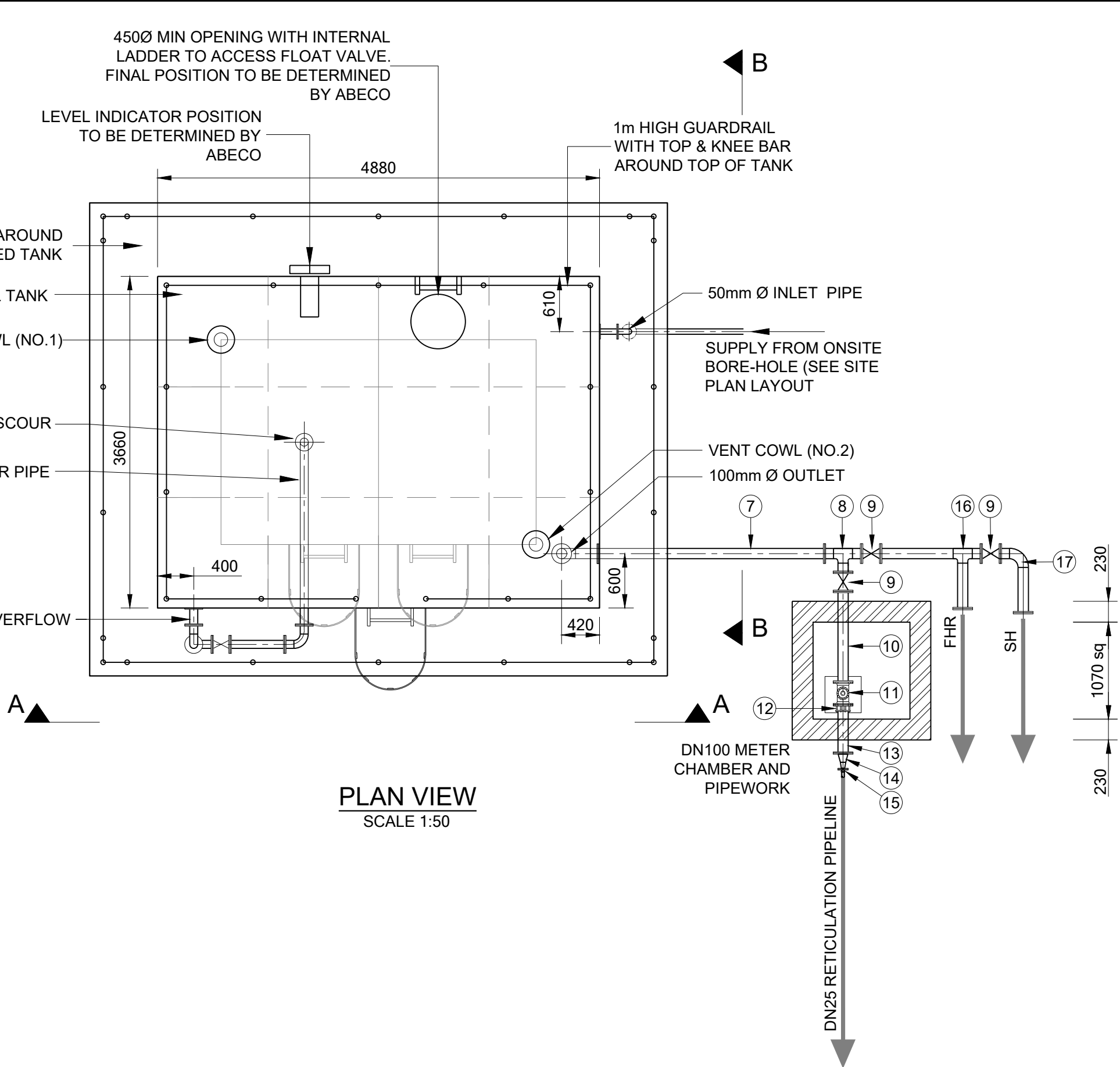


NOTES:

1. REFER TO PARTICULAR SPECIFICATION PART : S13A FOR SPECIFICATIONS FOR PRESSED STEEL SECTIONAL TANK AND STAND
2. EXTERNAL ACCESS LADDER, SAFETY CAGE AND INTERMEDIATE LANDINGS TO COMPLY WITH THE PROVISIONS OF THE RELEVANT CLAUSES OF THE MACHINERY AND OCCUPATIONAL SAFETY ACT.
3. ALL PIPEWORK TO BE HOT DIPPED MEDIUM DUTY GALVANISED MILD STEEL TO SABS 62 FOR SIZES UP TO DIA 150mm.
4. TANK, STAND AND LADDERS TO BE HOT DIPPED HEAVY DUTY GALVANISED, 150 MICRONS FFT.
5. FINISH TO LEVEL INDICATOR AS ADVISED BY MANUFACTURER TO APPROVAL OF ENGINEER.
6. CONTRACTOR TO SUBMIT DESIGN AND WORKSHOP DRAWINGS FOR STAND AND FOUNDATIONS TO ENGINEER FOR APPROVAL.
7. ALL GATE VALVES TO BE RESILIENT SEAL CLASS 16 TO SABS 664, NON-RISING SPINDLE.
8. PIPE SUPPORT SUBMERGED IN WATER, ALL ELEMENTS TO BE SS316.
9. PIPE SUPPORTS NOT IN WATER, ALL ELEMENTS EXCEPT HILTI ANCHORS, TO BE HOT DIP GALVANISED MILD STEEL.
10. ALL SS FASTENERS TO BE FASTENED WITH COPPER SLIP OR EQUAL.

ADDITIONAL PIPEWORK NOTES

1. ALL FLANGES & STEEL PIPEWORK TO SANS 1123 TABLE 1600 (UNLESS OTHERWISE SPECIFIED)
2. CONTRACTOR TO CHECK AND CONFIRM DIMENSIONS OF PIPEWORK AND FLANGE DRILLING OF EXISTING PIPE WORK BEFORE THE FABRICATION OF PIPEWORK
3. IF FACE TO FACE OF FITTINGS SHOWN DIFFERS TO ACTUAL THE CONTRACTOR MUST INFORM ENGINEER PRIOR TO PIPE FABRICATION/ INSTALLATION.
4. ALL STEEL AND SPECIALS FABRICATED BY CONTRACTOR TO BE FACTORY COATED AND LINED WITH COPON HYCOTE 162 OR SIMILAR APPROVED TO A TOTAL MINIMUM DRY FILM THICKNESS OF 300 MICRONS.
5. ALL STEEL AND SPECIALS FABRICATED BY ABECO TO BE HOT DIPPED GALVANISED.
6. WHERE FABRICATION AND OR CUTTING ON SITE IS NECESSARY, THE COATING SHALL BE MADE GOOD WITH COPON HYCOTE 162 OR SIMILAR APPROVED EPOXY COATING.
7. ALL THREADS TO BE BRITISH STANDARD PIPE (BSP) THREADS. THREADS TO BE PROTECTED WITH STAG.
8. ALL STEEL COMPONENTS, BOLTS, NUTS & WASHERS TO BE HOT DIP GALVANISED TO ISO 1461 : 2009
9. ALL PIPEWORK PASSING THROUGH BRICKWORK/ MORTAR TO BE WRAPPED IN "DENSO" ULTRAFLEX 1250 WHERE IN CONTACT WITH BRICKWORK / MORTAR.
10. ALL BURIED FITTINGS AND PIPES TO BE PROTECTED BY "DENSO" IN ACCORDANCE WITH PROJECT SPECIFICATIONS.



PIPEWORK AND FITTINGS SCHEDULE							
ALL FITTINGS TO PN16, FLANGES TO SANS 1123 1600/3 & PIPEWORK TO X42/ SANS 719 Grade C							
ITEM NO	NOM DIA	DESCRIPTION	WALL THK	LINING	COATING	FACE TO FACE	No. OF
1	DN100	RSV VALVE, PN 16	--	SFE	SFE	254	1
2	DN100	SPOOL PIECE B.E.F.	--	SFE	SFE	1500	1
3	DN100	NON RETURN VALVE	--	H.D.G	H.D.G	216	1
4	DN100	SPOOL PIECE, B.E.F.	--	SFE	SFE	400	1
5	DN100	DN100 KLAMFLEX DISMANTLING JOINT	--	--	SFE	185	1
6	DN100	SPECIAL: 90° BEND WITH 750mm LONG SPOOL PIECE ON ONE END & A 250mm LONG SPOOL PIECE ON THE OTHER END, B.E.F. (FINAL LENGTH OF 750mm LONG SPOOL PIECE TO BE DETERMINED ON SITE)	--	SFE	SFE	--	1
7	DN100	SPOOL PIECE, B.E.F. (FINAL LENGTH TO BE DETERMINED ON SITE)	--	SFE	SFE	2500	1
8	DN100	EQUAL TEE WITH 100mm SPOOL PIECE EACH END, F.A.R.		SFE	SFE		1
9	DN100	RSV VALVE, PN 16		SFE	SFE	254	3
10	DN100	SPOOL PIECE, B.E.F.		SFE	SFE	1000	1
11	DN100	MECHANICAL FLOW METER. "MEISTREAM". METER CONNECTED TO SCADA SYSTEM		SFE	SFE	250	1
12	DN100	DN100 KLAMFLEX DISMANTLING JOINT			SFE		1
13	DN100	SPOOL PIECE, B.E.F.		SFE	SFE	1000	1
14	DN100	REDUCER		SFE	SFE	180	1
15	DN100	FLANGED ADAPTOR TO SUIT DN25 uPVC PIPE			SFE		1
16	DN100	EQUAL TEE WITH 900mm SPOOL PIECE ON ONE END AND A 500mm SPOOL PIECE OTHER, B.E.F.		SFE	SFE		1
17	DN100	SPECIAL: 90° BEND WITH 100mm LONG SPOOL PIECE ON ONE END & A 300mm LONG SPOOL PIECE ON THE OTHER END, B.E.F.					
18	DN50	FLANGED ADAPTOR TO SUIT DN100 uPVC PIPE	--	--	SFE	--	1
19	DN80	SPECIAL: 90° BEND WITH 1350mm LONG SPOOL PIECE ON ONE END & A 300mm LONG SPOOL PIECE ON THE OTHER END, B.E.F. (FINAL LENGTH OF 1350mm LONG SPOOL PIECE TO BE DETERMINED ON SITE)	--	SFE	SFE	--	1

REVISIONS

REV	DATE	DESCRIPTION	BY
A	2024/04	ISSUED FOR INFORMATION	A.G.
0	2024/07	ISSUED FOR TENDER	A.G.

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
3. REINFORCING TO BE CHECKED BY THE ENGINEER.
4. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPA
 - ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPA
5. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
6. STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
7. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-4001	1/1	STORMWATER DETAILS
M693/F/03	1/1	MECHANICAL ENGINEERS DRAWING: FIRE STORAGE AND PUMP SCHEMATIC

Consultant :



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No.5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
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SIGNATURE DATE

Client :



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

CIVIL

Drawing Title :

ELEVATED TANK AND PIPEWORK DETAILS

Drawing Number :

D848-52-5250

Rev No.

0

Scale :

AS SHOWN

Drawing Size :

A1

Date :

04-10-2023

Design :

N. MPUNGOSE

Drawn :

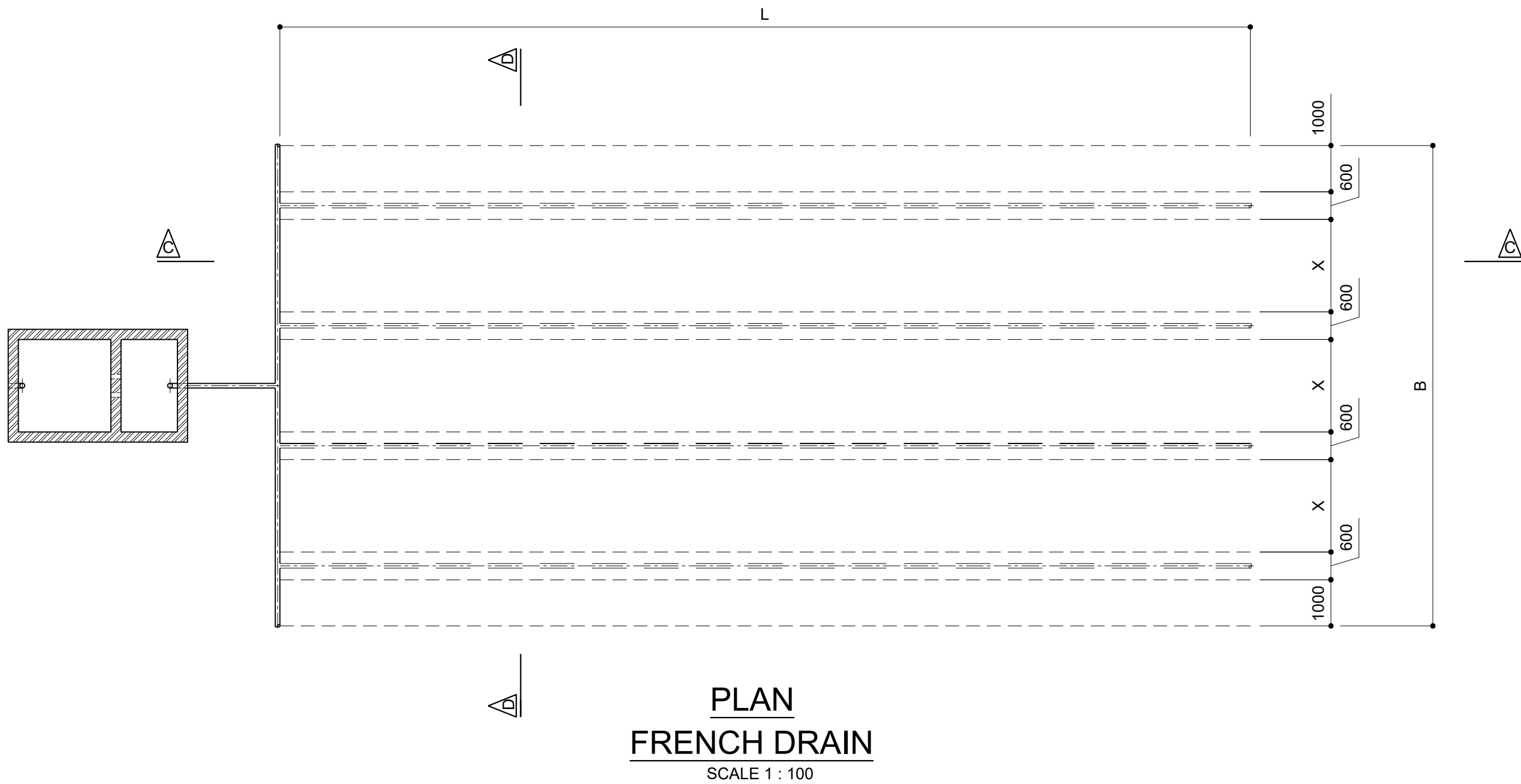
N. MPUNGOSE

Checked :

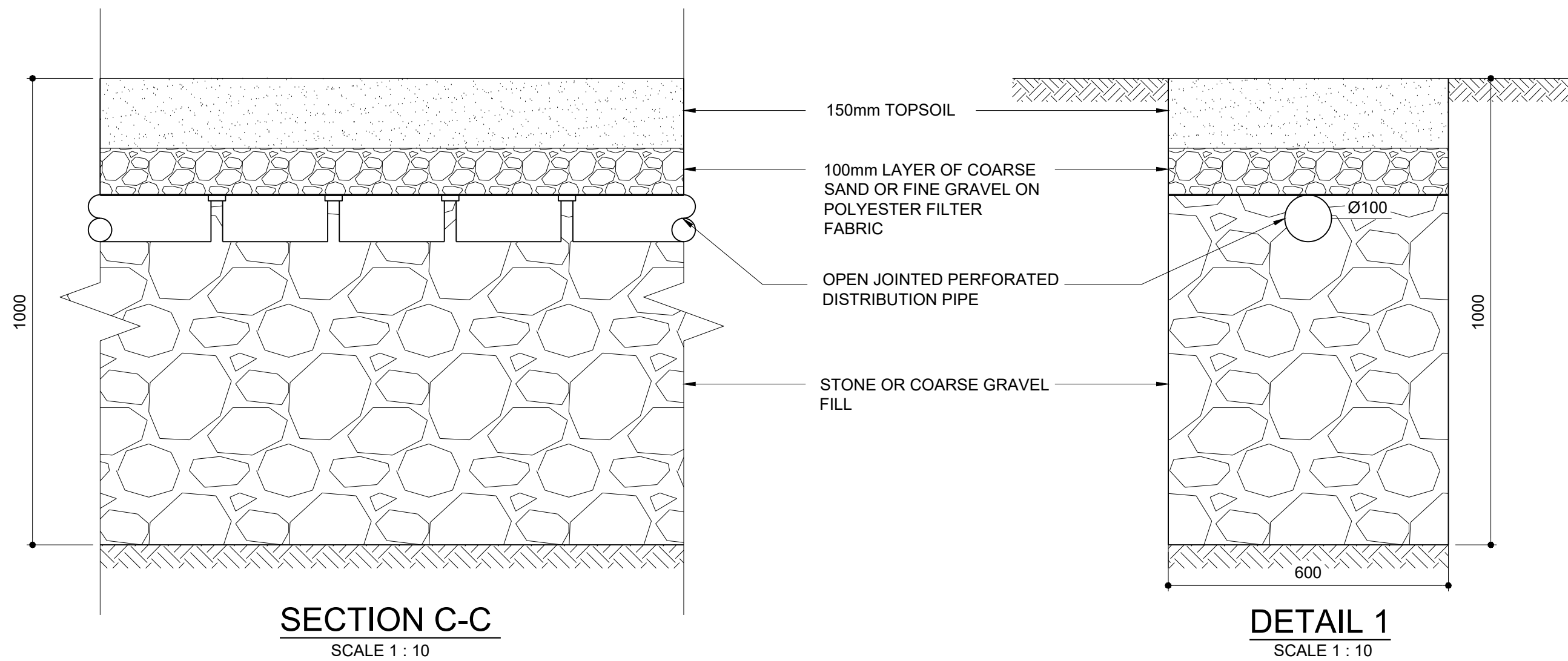
A. GOORUN

FOR TENDER

French drain details based on SANS 10400 - P: 2010 4.8.10			
Description	French Drain Length (m)	French Drain Area	
		L (m)	B (m)
Ntshongwe Police Station	40	42	13

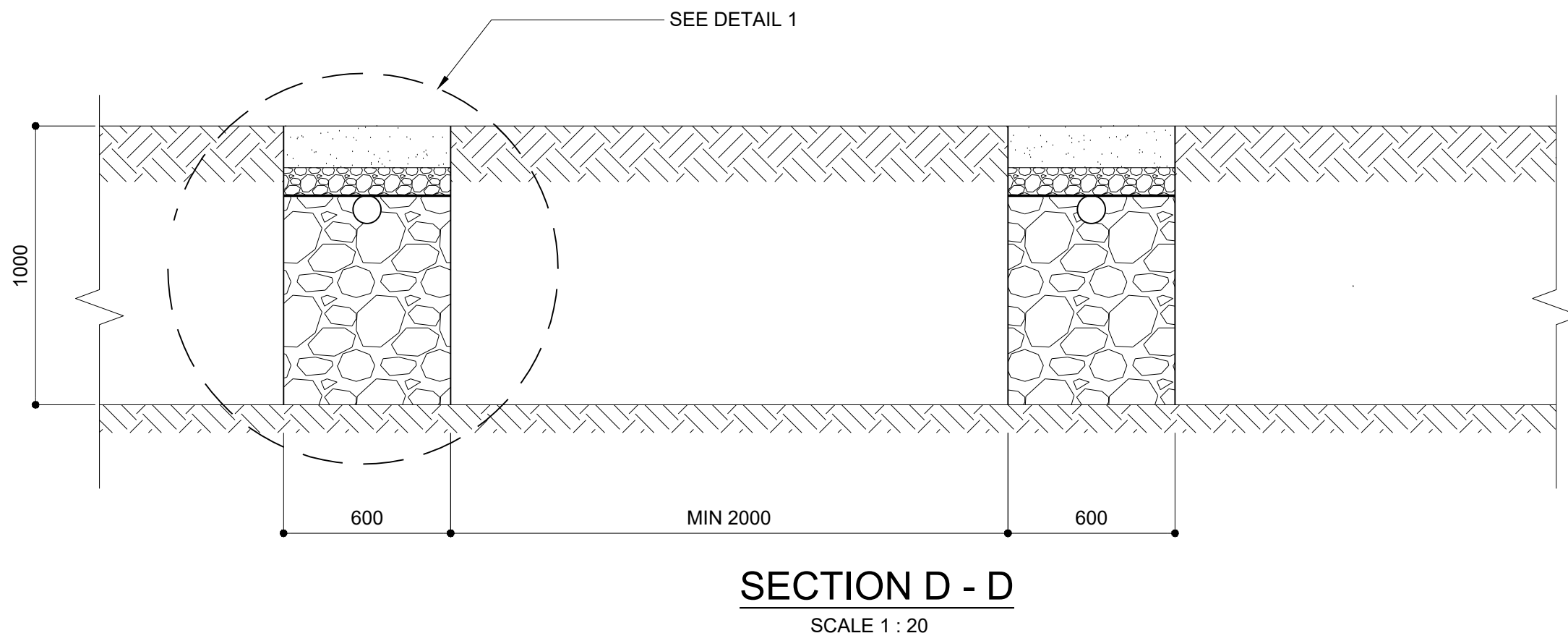


PLAN
FRENCH DRAIN
SCALE 1 : 100



SECTION C-C
SCALE 1 : 10

DETAIL 1
SCALE 1 : 10



SECTION D - D
SCALE 1 : 20

REVISIONS

REV	DATE	DESCRIPTION	BY
A	2023/10	ISSUED FOR INFORMATION	A.G.
B	2024/04	ISSUED FOR INFORMATION - Removed septic tank details	A.G.
0	2024/07	ISSUED FOR TENDER	A.G.

GENERAL NOTES:

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- DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
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- REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:
 - MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPA
 - HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPA
- MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
- STRIPPING OF FORMWORK: CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
- ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.

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Ref Dwg.	Sht No.	DESCRIPTION
D848-52-5000	1/1	SITE PLAN LAYOUT
D848-52-3250	1/1	SEWER STANDARD DETAILS
D848-6000-007	1/1	SEPTIC TANK DETAILS

Consultant :



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West Way Office Park
Westville, Durban

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Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE

DATE

Client :



Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :
CIVIL

Drawing Title :
**FRENCH DRAIN DETAILS
(EVAPOTRANSPIRATION AREA)**

Drawing Number :

D848-52-5401

Rev No.

0

Scale :
AS SHOWN
Drawing Size :
A1

Design :
N. MPUNGOSE
Drawn :
N. MPUNGOSE

Date :
04-10-2023

Checked :
A. GOORUN

FOR TENDER