



The Republic of Uganda
MINISTRY OF WATER AND ENVIRONMENT
Directorate of Water Development
Rural Water and Sanitation Department

In Financial Cooperation with  **THE WORLD BANK**
IBRD • IDA

Bid For

ALA - ORA WATER SUPPLY & SANITATION SYSTEM

LOAN No.: _____
PROJECT ID No.: _____

LOT 2: CONSTRUCTION OF NYAGAK WATER SUPPLY AND SANITATION SYSTEM

MWE/WRKS/22-23/.....

BIDDING DOCUMENTS

VOLUME 4 – BOOK OF DRAWINGS

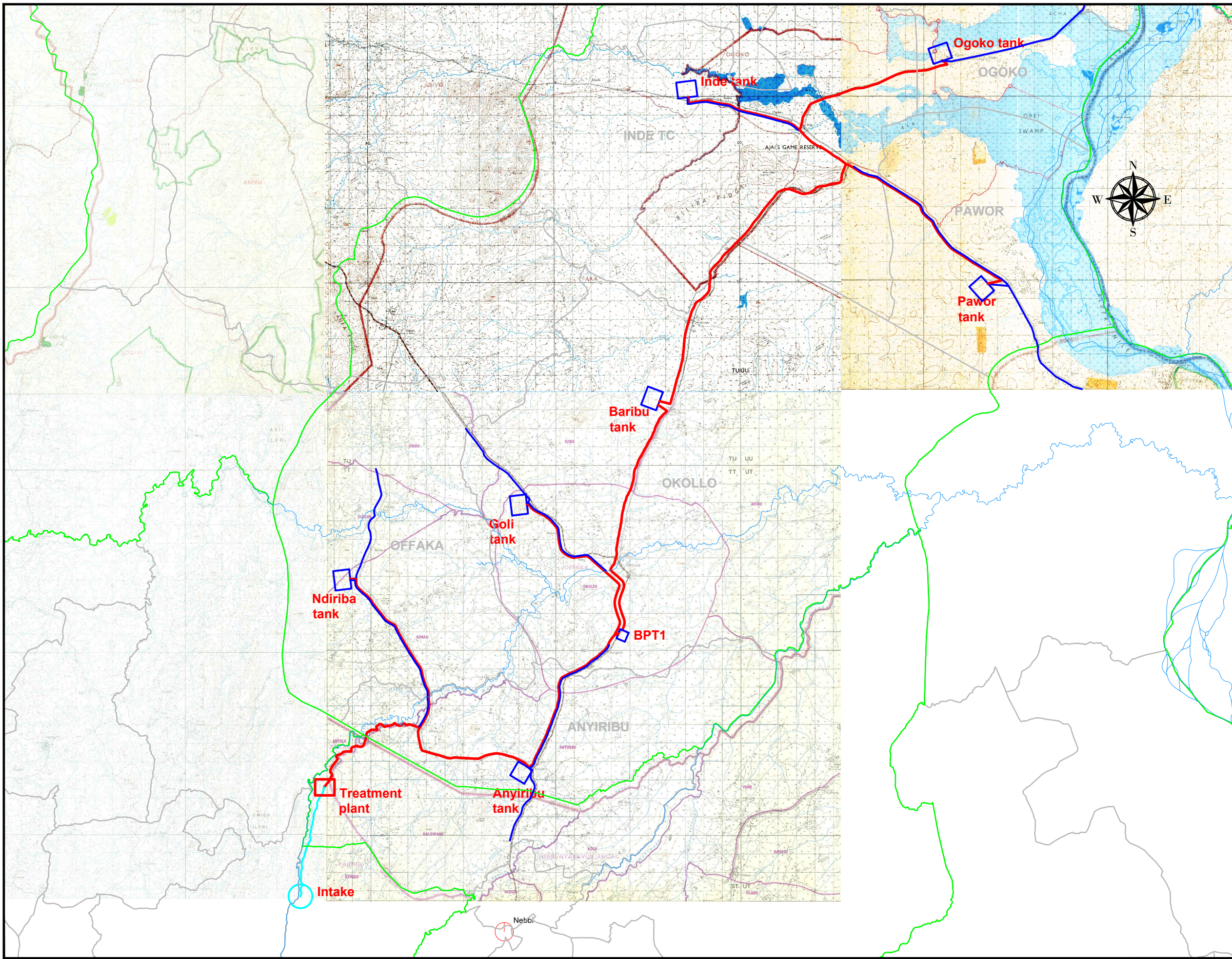
ISSUED ON: JANUARY 2023

CONSTRUCTION OF NYAGAK WATER SUPPLY AND SANITATION SCHEME-LOT 2
BOOK OF DRAWINGS CONTENT

ITEM	DESCRIPTION	DWG. NO.	SHEETS
	Nyagak Project General Layout	NYA-GL-001	2
Gravity Transmission Main 2	Anyiribu Tee (Ch. 15+370) to BPT Ch. 23+500	NYA-GTM-002	16
BREAK PRESSURE TANK (TRANSMISSION MAIN 2 -CH 23 +500)			
Break Pressure Tank at CH 23 + 500	10m ³ BPT Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-BPT-009	2
Gravity Transmission Main 3	Ch. 23+500 (BPT) to 56+360 (Ipfe Tee)		66
BARIBU SUPPLY AREA			
Gravity Transmission Main 3	Ch.37+940 to Baribu Reservoir	NYA-GTM-003	1
Baribu Reservoir	15m ³ Baribu Reservoir Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-BAR-004	3
GOLI SUPPLY AREA			
Gravity Transmission Main 2	BPT Ch. 23+500 to Goli Reservoir		24
Goli Reservoir	50m ³ Goli Reservoir Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-GOL-003	3
INDE SUPPLY AREA			
Gravity Transmission Main 4	Ipfe Tee Ch. 56+350 To Inde Reservoir	NYA-GTM-004	20
Inde Reservoir	158m ³ Inde Reservoir Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-IND-006	3
PAWOR SUPPLY AREA			
Gravity Transmission Main 3	GTM 3 -Ipfe Tee Ch. 56+360 to Pawor Reservoir	NYA-GTM-003	23
Pawor Reservoir	175m ³ Pawor Reservoir Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-PAW-005	3
OGOKO SUPPLY AREA			
Gravity Transmission Main 5	Ogoko Tee Ch. 59+510 (TM 4) To Ogoko Reservoir	NYA-GTM-005	20
Ogoko Reservoir	84m ³ Ogoko Reservoir Site Layout, Plan, Sections and Fittings Schedule	NYA-RES-OGO-007	3
Scheme Nodes	Nodes	NYA-ND-001	4
STRUCTURAL DRAWINGS			
Reservoirs	175m ³ Reservoir	AR/WSASS/NY/STR/014	2
	15m ³ Reservoir	AR/WSASS/NY/STR/015	2
	50m ³ Reservoir	AR/WSASS/NY/STR/016	2
	84m ³ Reservoir	AR/WSASS/NY/STR/017	2
	158m ³ Reservoir	AR/WSASS/NY/STR/018	2

STANDARD DRAWINGS			
ITEM	DESCRIPTION	DWG. NO.	SHEETS
0	General Notes	ALA-ORA-SD-000	1
1	Sign Board	ALA-ORA-SD-001	1
2	Gate Valve & Surface Box	ALA-ORA-SD-002	1
3	Fire Hydrant Chamber & Pipework	ALA-ORA-SD-003	1
4	Air Valve Chamber & Pipework	ALA-ORA-SD-004	1
5	Wash Out Details, Chamber & Outfall Structure	ALA-ORA-SD-005	1
6	Anchor Block Details	ALA-ORA-SD-006	3
7	Trenching, Road Crossing ,Backfilling, Pipe Protection and Pipe Sleeving details	ALA-ORA-SD-007	2
8	Reinforcement Details for Washout/ Valve Chamber.	ALA-ORA-SD-008	1
9	Step Iron & Flexible Pipe Joint Details	ALA-ORA-SD-009	1
10	Precast Chamber Cover Slab and Section	ALA-ORA-SD-010	1
11	Marker Post & Pipe Support Details	ALA-ORA-SD-011	2
12	Fence Details	ALA-ORA-SD-012	2
13	Road Works	ALA-ORA-SD-013	1
14	Yard Tap	ALA-ORA-SD-014	1
15	Stand Post	ALA-ORA-SD-015	1
16	Water Office - Type 1	ALA-ORA-SD-016A	5
18	Septic Tank	ALA-ORA-SD-017	1
19	Manhole Details & Soak pit details	ALA-ORA-SD-018	1
20	Lightning Conductor	ALA-ORA-SD-019	1
21	Pipe Bridge ≤ 10m	ALA-ORA-SD-020	3
22	Pipe Bridge ≤ 15m	ALA-ORA-SD-021	3
23	Pipe Bridge ≤ 20m	ALA-ORA-SD-022	3
24	Pipe Bridge ≤ 35m	ALA-ORA-SD-023	3


SANITATION FACILITIES			
ITEM	DESCRIPTION	DWG. NO.	SHEETS
1	Public Waterborne Toilet	ALA-ORA-SAN-001	5
2	Institutional VIP for Gents	ALA-ORA-SAN-002	3
3	Institutional VIP for Ladies	ALA-ORA-SAN-003	3
4	Incinerator Details	ALA-ORA-SAN-004	1
5	Elevated Water Tank	ALA-ORA-SAN-005	1
6	Septic Tank	ALA-ORA-SAN-006	1
7	Soak Pit Details	ALA-ORA-SAN-007	1



LEGEND


- Raw water main
- Gravity transmission Main
- Pumped transmission main
- Distribution Main
- Intake
- Water Treatment Plant
- Reservoirs
- District boundary
- Subcounty boundary

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

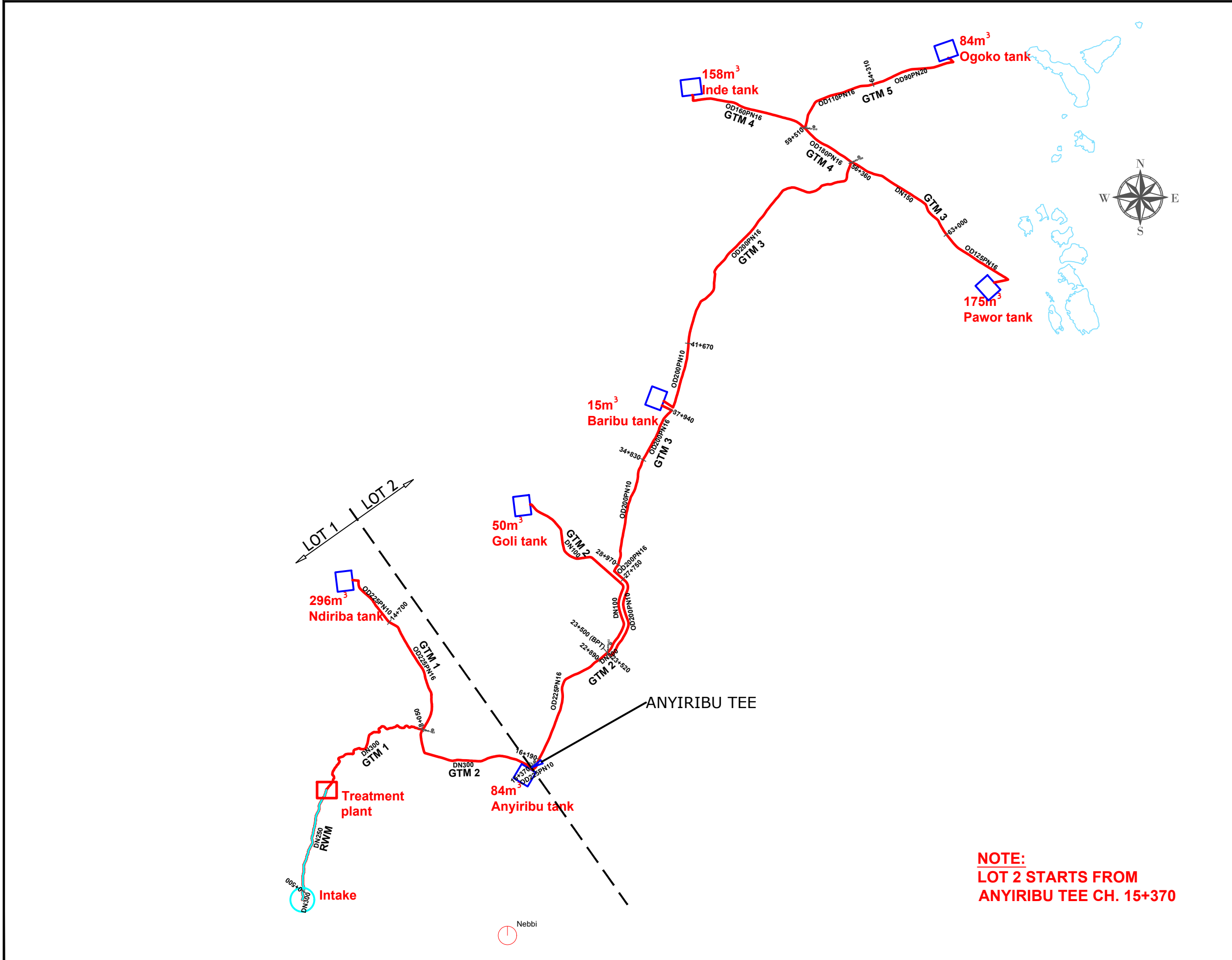
REVISIONS :

No	Date	Description

DRAWING TITLE :

GENERAL SCHEME LAYOUT


Surveyed by:	R.K
Drawn by:	J.B
Designed by:	W.G.M
Checked by:	J.K.K
Date:	FEBRUARY 2023
DRG. No.:	NYA-GL-001
Scale:	N.T.S
Sheet No.:	1 of 1



LEGEND


- Raw water main
- Gravity transmission Main
- Pumped transmission main
- Distribution Main
- Intake
- Water Treatment Plant
- Reservoirs
- District boundary
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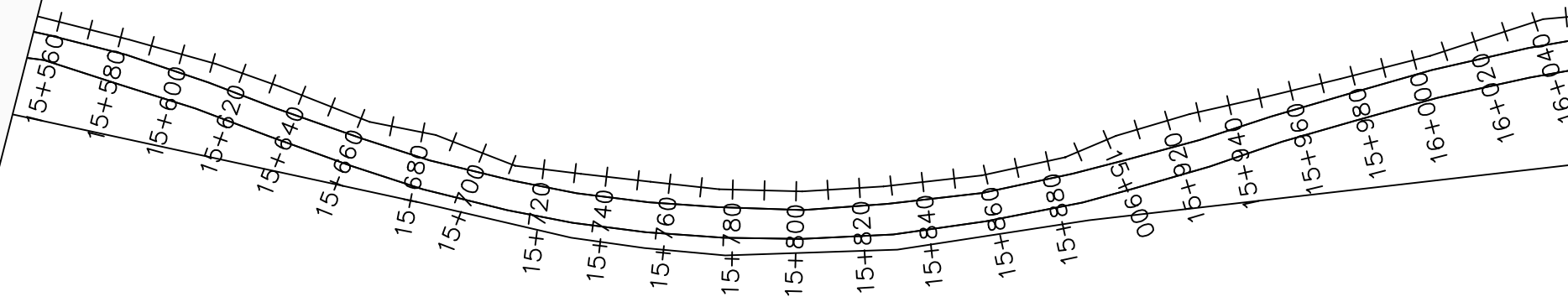
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DRAWING TITLE :

GENERAL SCHEME LAYOUT

Surveyed by:	R.K
Drawn by:	J.B
Designed by:	W.G.M
Checked by:	J.K.K
Date:	JANUARY 2023
DRG. No.:	NYA-GL-001
Scale:	N.T.S
Sheet No.:	1 of 1

NOTE:
LOT 2 STARTS FROM ANYIRIBU TEE CH. 15+370



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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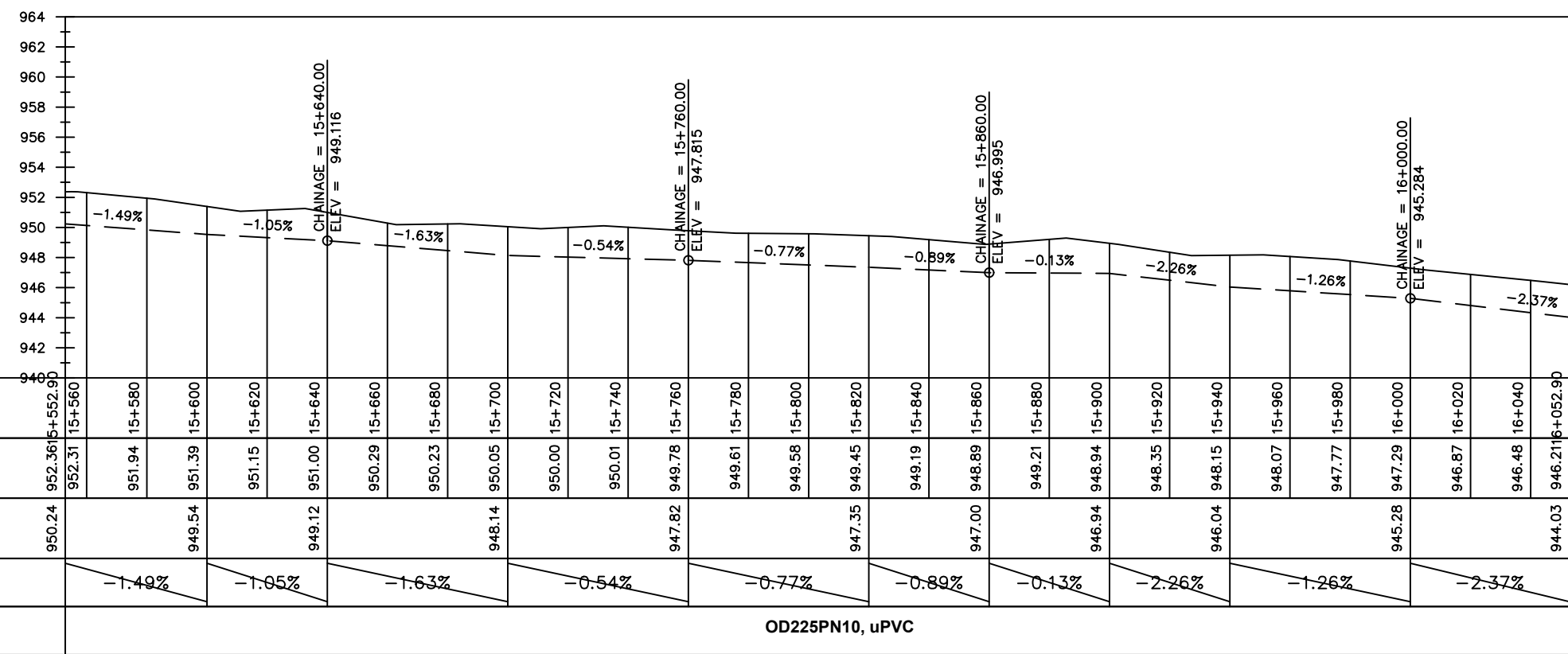
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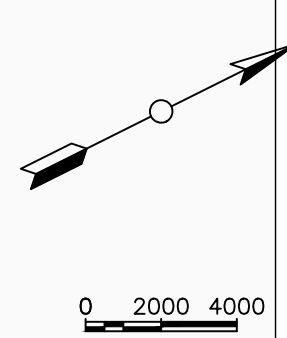
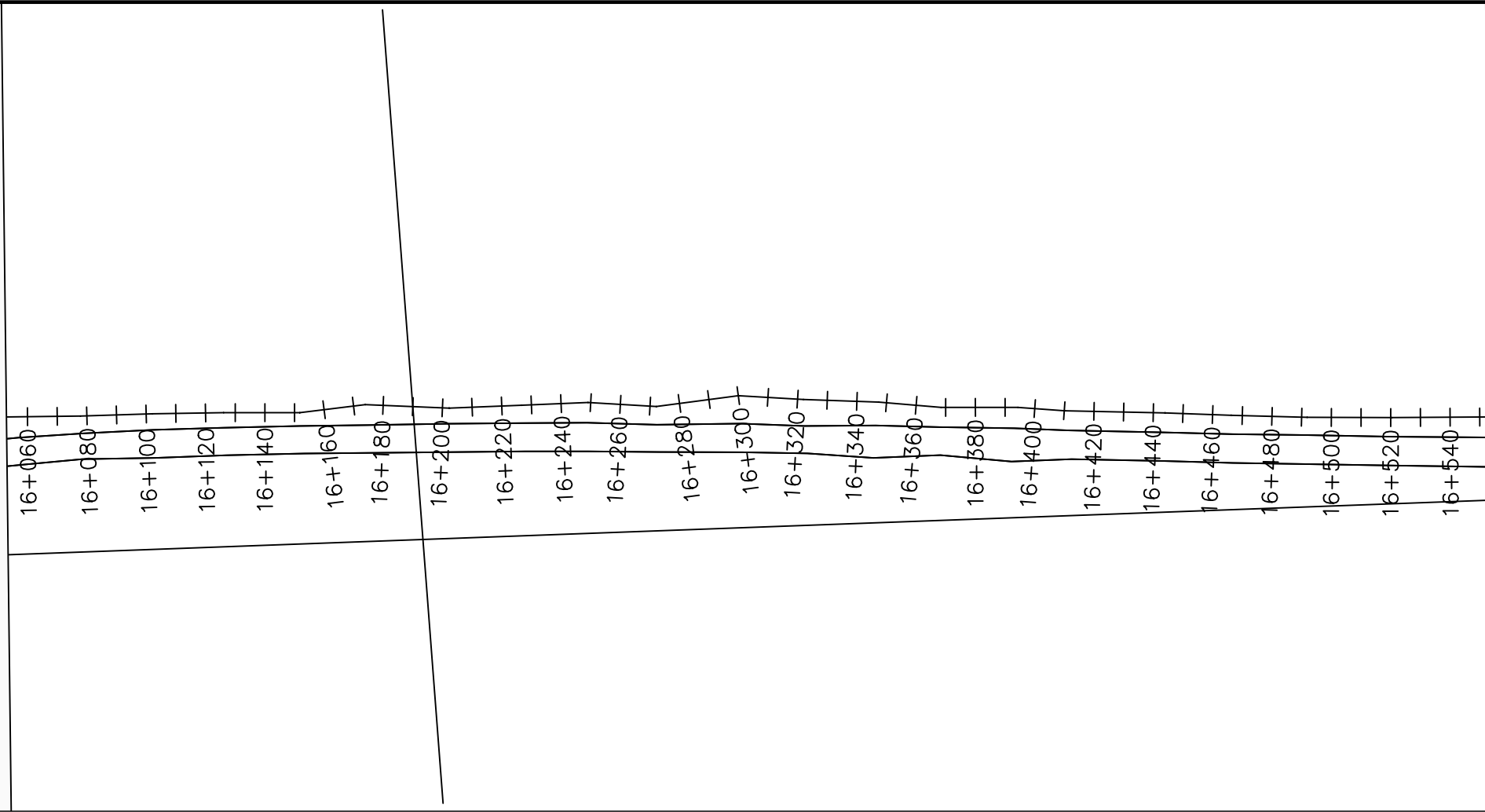
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
15+552.9 - 16+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	16 of 54





LEGEND

Plan

- Transmission Main
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- Road
- Building
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Profile

- Ground Level
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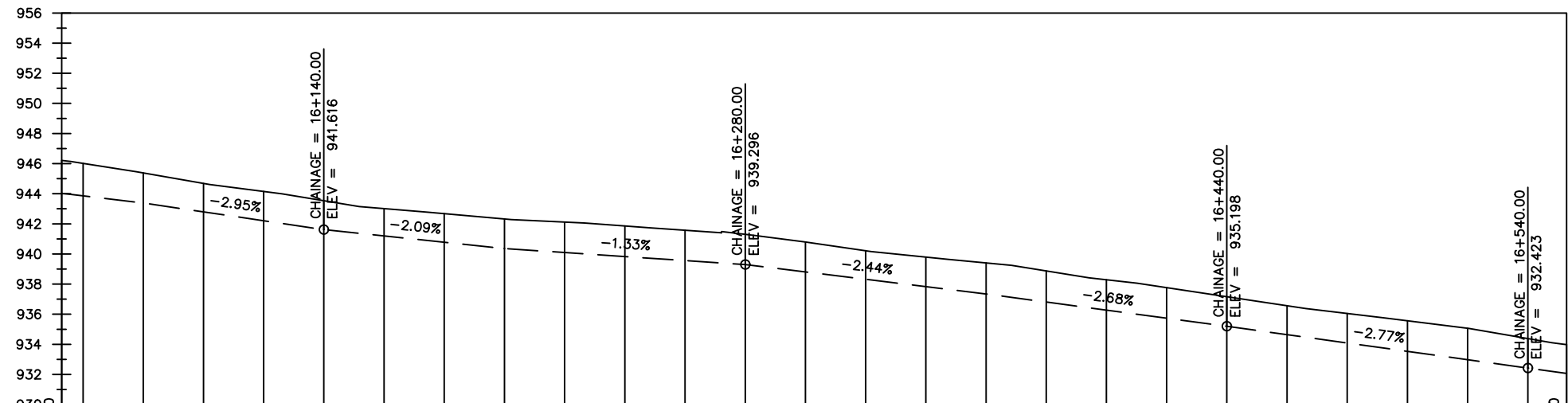
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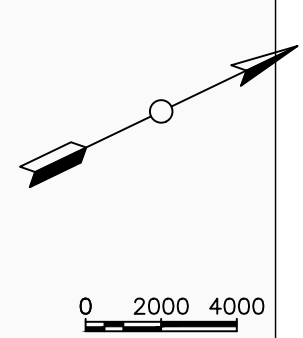
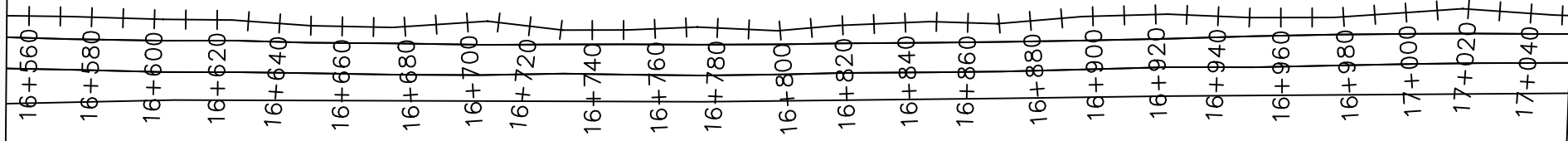
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
16+052.9 - 16+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	17 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
16+060	946.21	944.03	-2.37%	OD225PN10, uPVC
16+080	945.38	943.38	-2.95%	
16+100	944.68	941.62	-2.09%	OD225PN16, uPVC
16+120	944.15		-1.33%	
16+140	943.54	941.62	-2.44%	OD225PN16, uPVC
16+160	943.02	940.36	-2.68%	
16+180	942.68	939.30	-2.77%	OD225PN16, uPVC
16+200	942.32		-2.74%	
16+220	942.12	937.34	-2.74%	OD225PN16, uPVC
16+240	941.86		-2.74%	
16+260	941.57	935.20	-2.74%	OD225PN16, uPVC
16+280	941.30		-2.74%	
16+300	940.80	932.42	-2.74%	OD225PN16, uPVC
16+320	940.22		-2.74%	
16+340	939.79	932.07	-2.74%	OD225PN16, uPVC
16+360	939.40		-2.74%	
16+380	938.88	932.07	-2.74%	OD225PN16, uPVC
16+400	938.29		-2.74%	
16+420	937.77	932.07	-2.74%	OD225PN16, uPVC
16+440	937.17		-2.74%	
16+460	936.56	932.07	-2.74%	OD225PN16, uPVC
16+480	936.05		-2.74%	
16+500	935.56	932.07	-2.74%	OD225PN16, uPVC
16+520	935.06		-2.74%	
16+540	934.38	932.07	-2.74%	OD225PN16, uPVC
16+552.9	933.98	932.07	-2.74%	OD225PN16, uPVC



LEGEND

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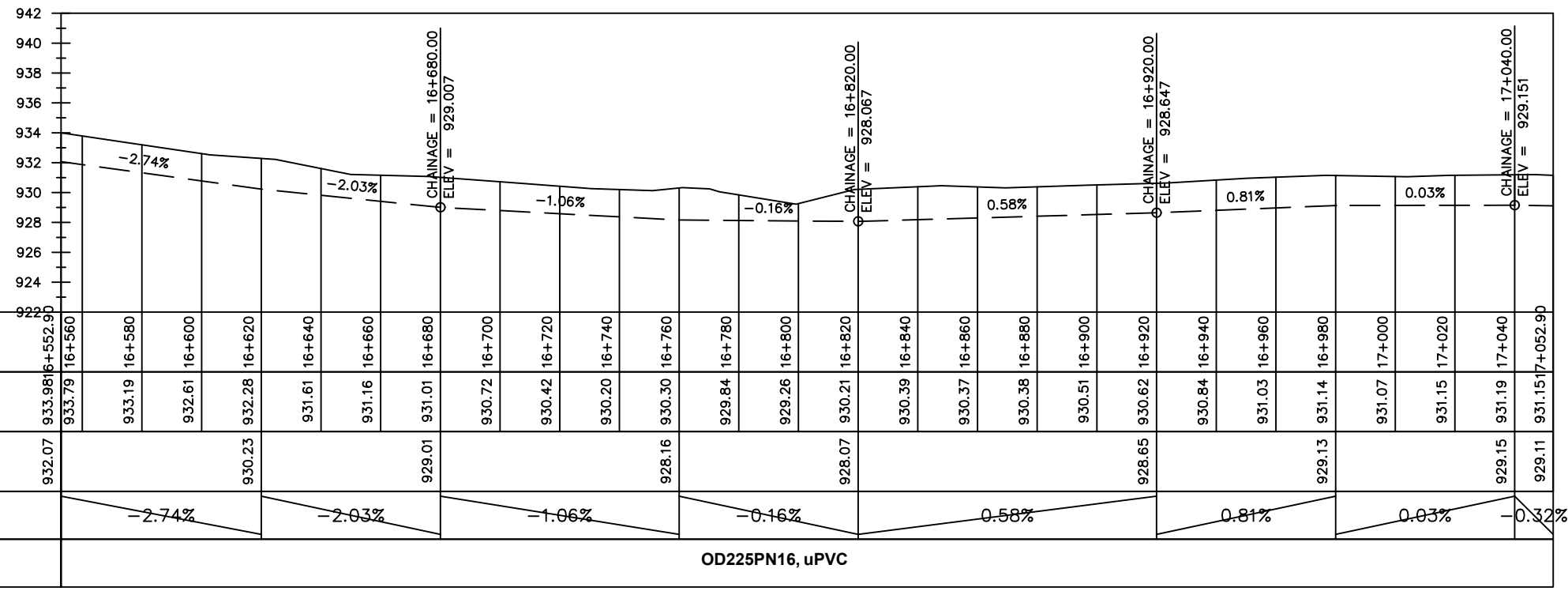
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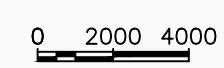
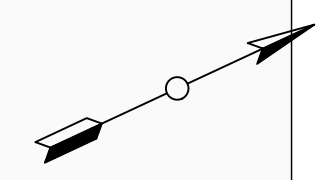
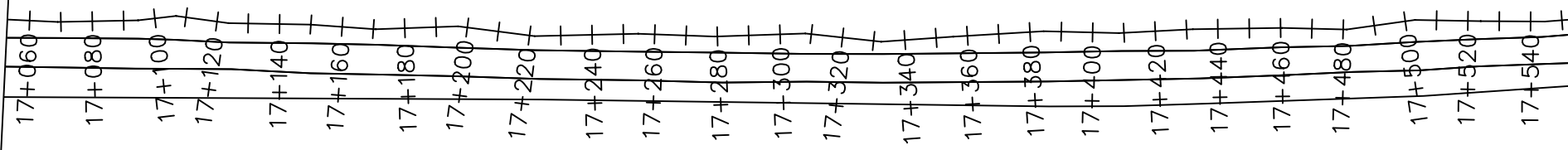
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
16+552.9 - 17+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Sheet No.:	18 of 54






LEGEND


- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - AV Air Valve
 - WO Washout
 - Node detail No.

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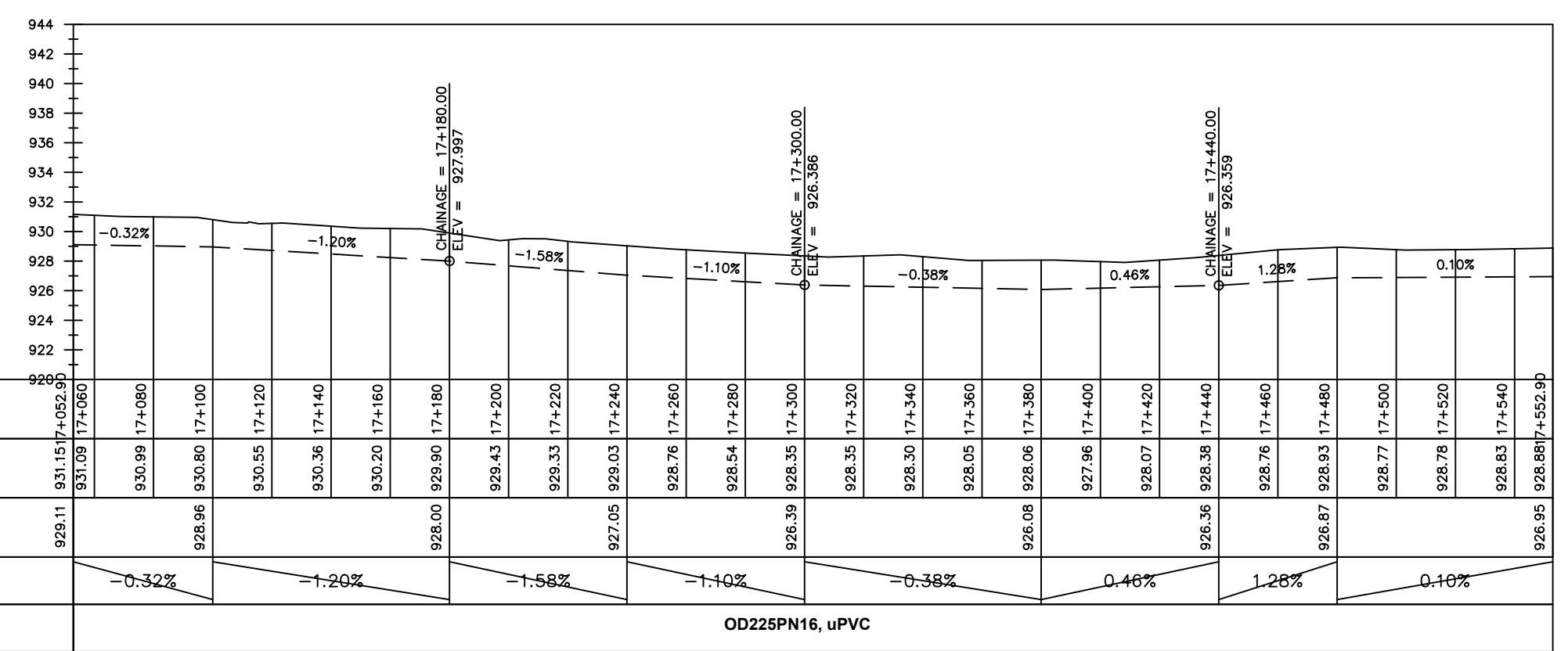
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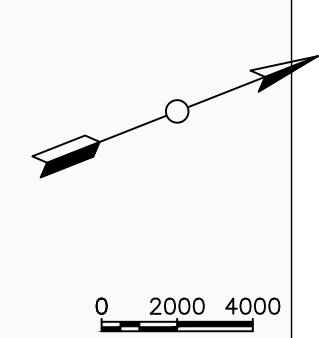
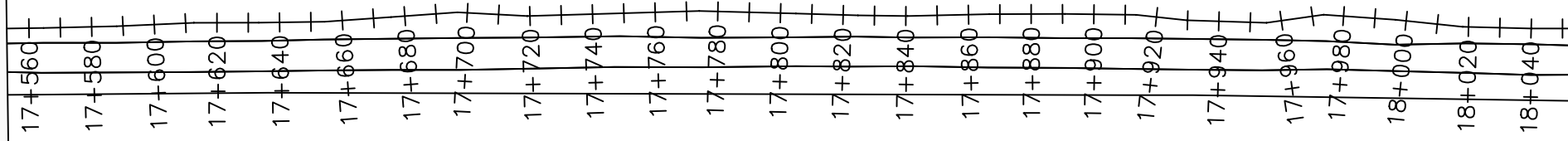
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TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
17+052.9 - 17+552.9

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OD225PN16, uPVC



LEGEND

Plan

- Transmission Main
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- Road
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Profile

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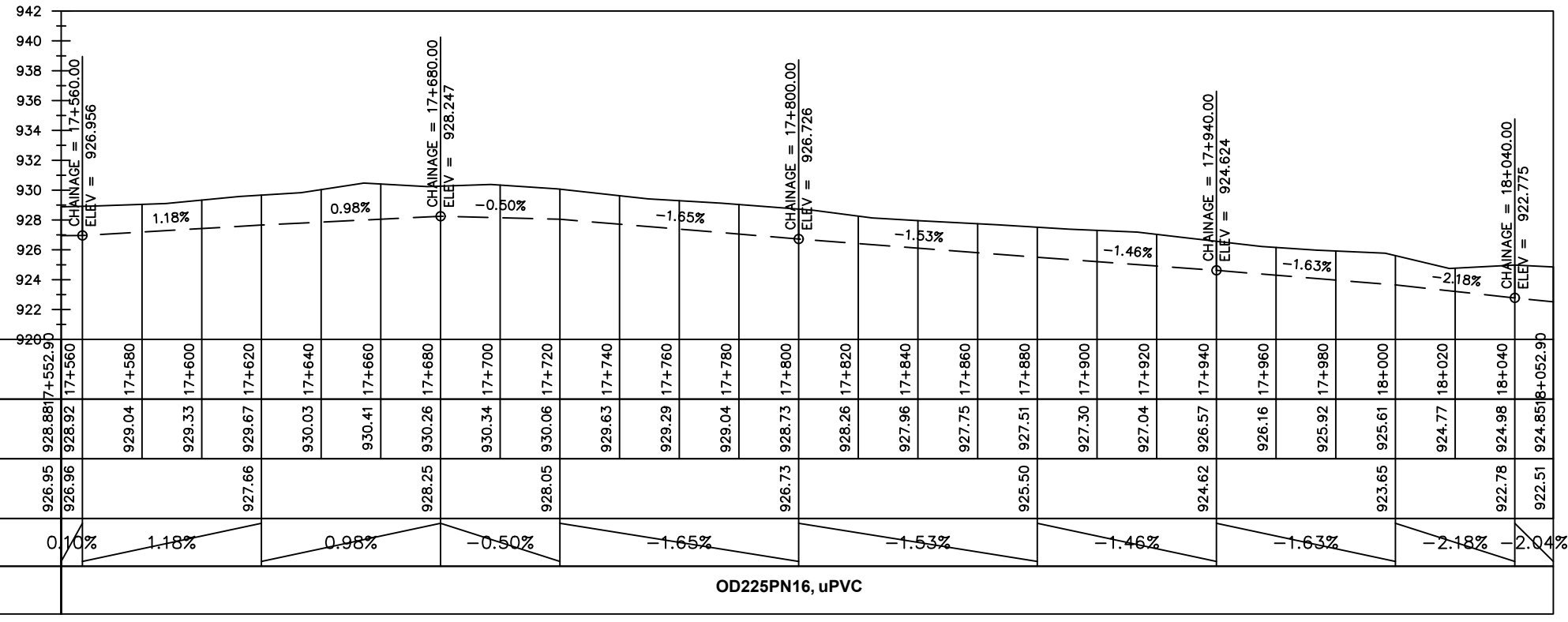
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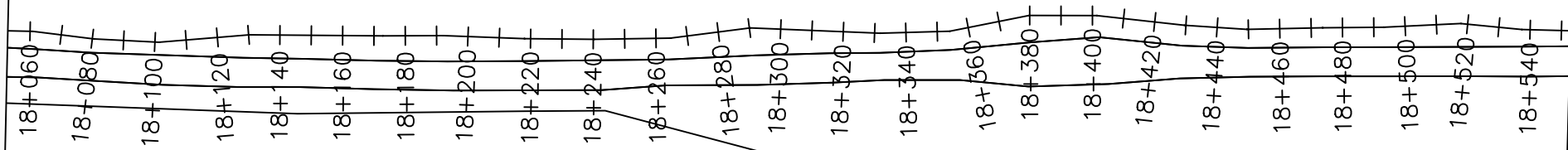
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TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
17+552.9 - 18+052.9

Surveyed by:	R.K
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LEGEND


- Plan**
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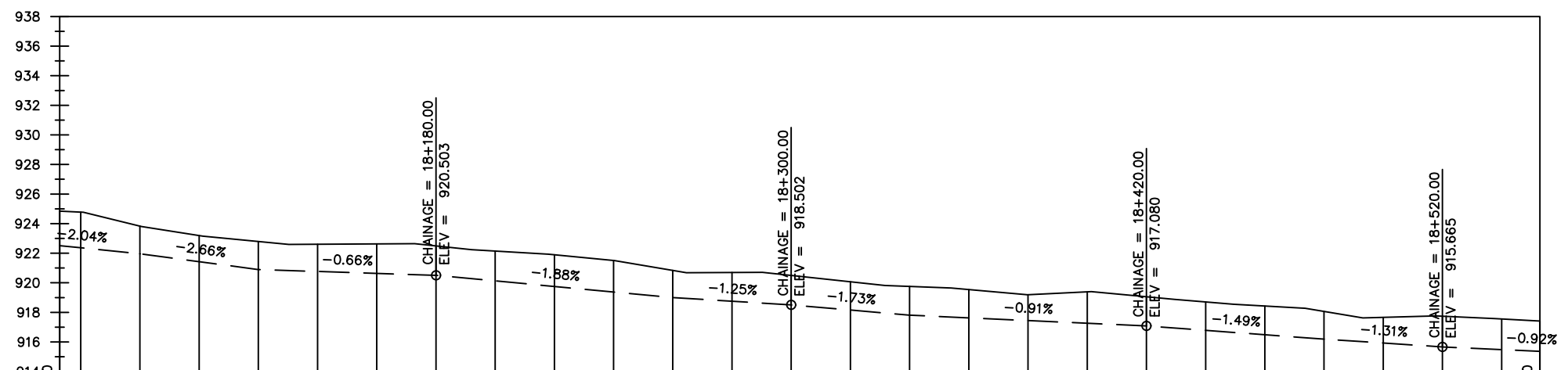
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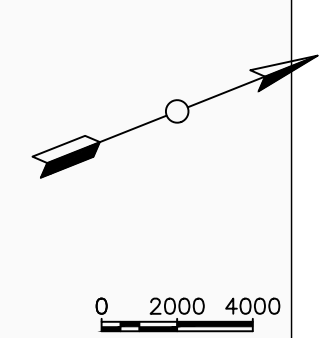
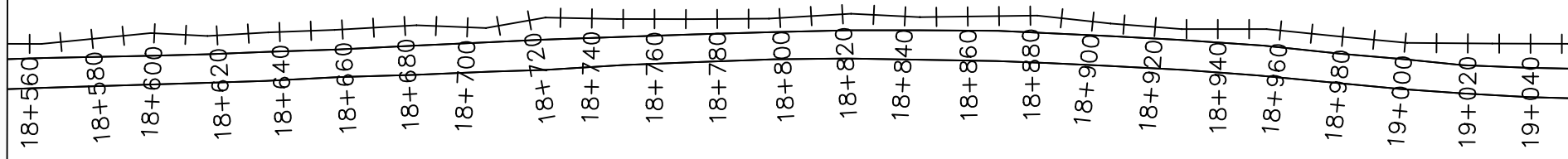
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
18+052.9 - 18+552.9

Surveyed by:	R.K
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Date:	January 2023
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Scale:	1:2000
Sheet No.:	21 of 54



Chainages (m)	18+060	18+080	18+100	18+120	18+140	18+160	18+180	18+200	18+220	18+240	18+260	18+280	18+300	18+320	18+340	18+360	18+380	18+400	18+420	18+440	18+460	18+480	18+500	18+520	18+540	18+552.90		
Ground Levels (masl)	924.85	924.78	923.83	923.20	922.79	922.60	922.63	922.49	922.14	921.89	921.51	920.84	920.70	920.50	920.07	919.76	919.54	919.19	919.39	919.05	918.70	918.43	918.07	917.66	917.74	917.55	917.41	
Invert Levels (masl)	922.51	921.96	920.90	920.50	919.00	918.50	917.81	917.08	916.19	915.66	915.36																	
Slope (%)	-2.04%	-2.66%	-0.66%	-1.88%	-1.25%	-1.73%	-0.91%	-1.49%	-1.31%	-0.92%																		
Pipe Details	OD225PN16, uPVC																											



LEGEND

Plan

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- Road
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Profile

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- Node detail No.

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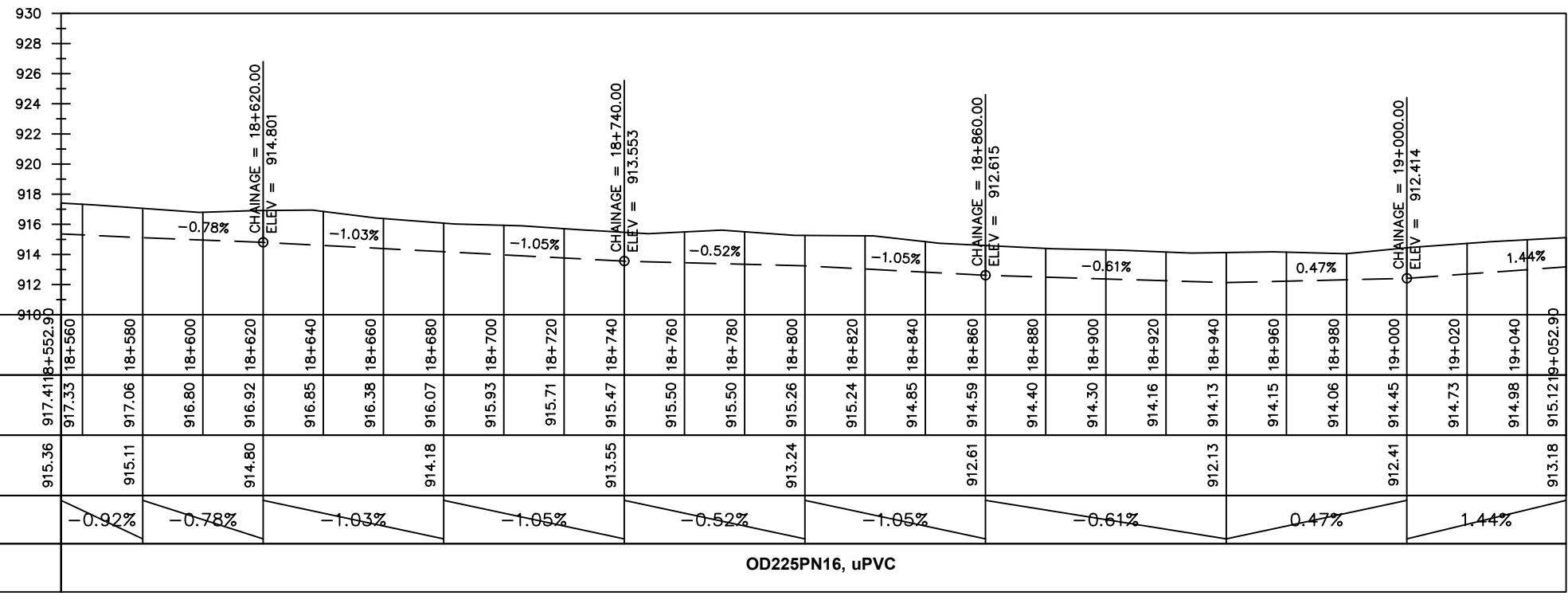
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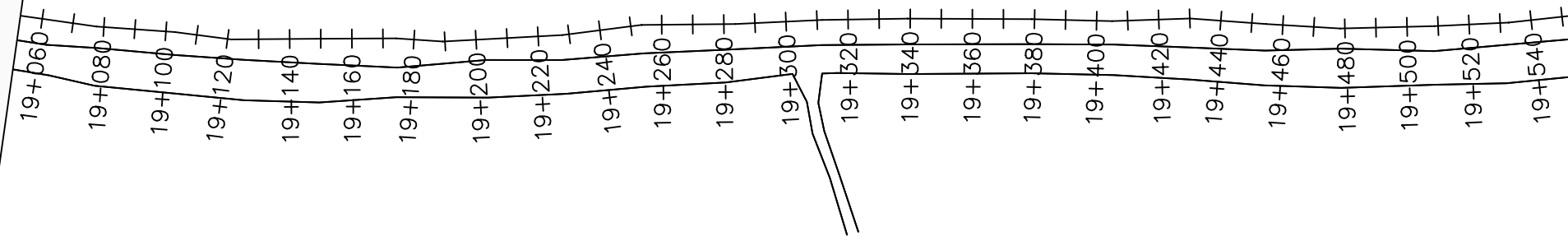
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DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
18+552.9 - 19+052.9

Surveyed by:	R.K
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Designed by:	W.G.M
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Date:	January 2023
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Sheet No.:	22 of 36





LEGEND

Plan

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- Distribution Main
- Road
- Building
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Profile

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- Invert Level
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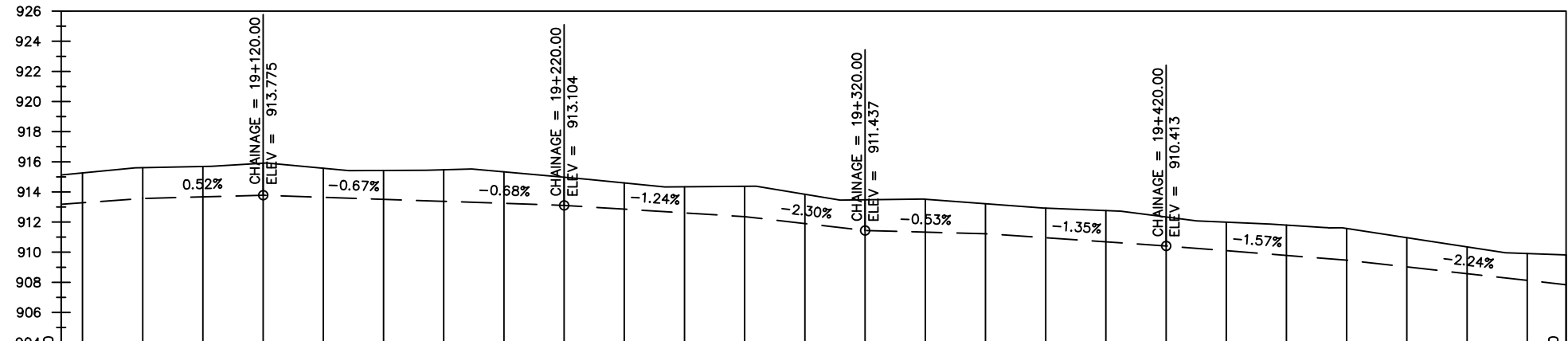
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No	Date	Description

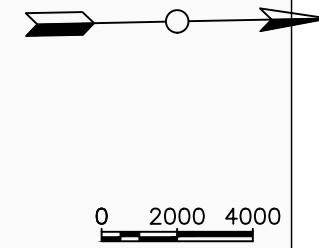
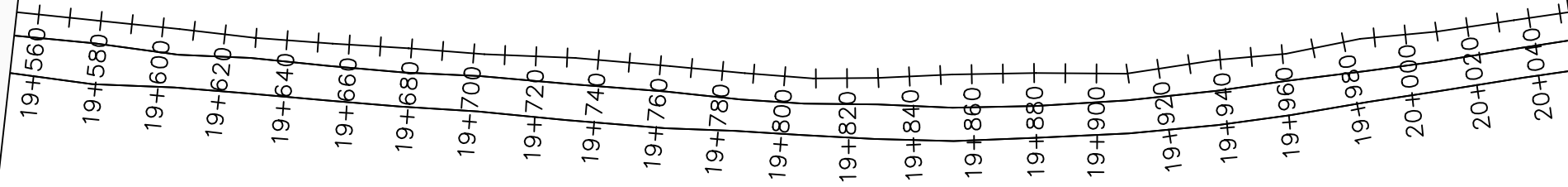
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TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
19+052.9 - 19+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	23 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
19+060	915.26	913.18	1.44%	OD225PN16, uPVC
19+080	915.61	913.57	0.52%	
19+100	915.69	913.78	-0.67%	
19+120	915.91	913.37	-0.68%	
19+140	915.57	913.10	-1.24%	
19+160	915.42	912.36	-2.30%	
19+180	915.47	911.44	-0.53%	
19+200	915.33	911.22	-1.35%	
19+220	914.98	910.41	-1.57%	
19+240	914.60	909.47	-2.24%	
19+260	914.34	909.81		
19+280	914.37	907.84		
19+300	913.84			
19+320	913.48			
19+340	913.51			
19+360	913.21			
19+380	912.92			
19+400	912.76			
19+420	912.34			
19+440	911.99			
19+460	911.79			
19+480	911.57			
19+500	910.96			
19+520	910.35			
19+540	909.91			
19+552.90	909.81			



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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IBRD • IDA | WORLD BANK GROUP

CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

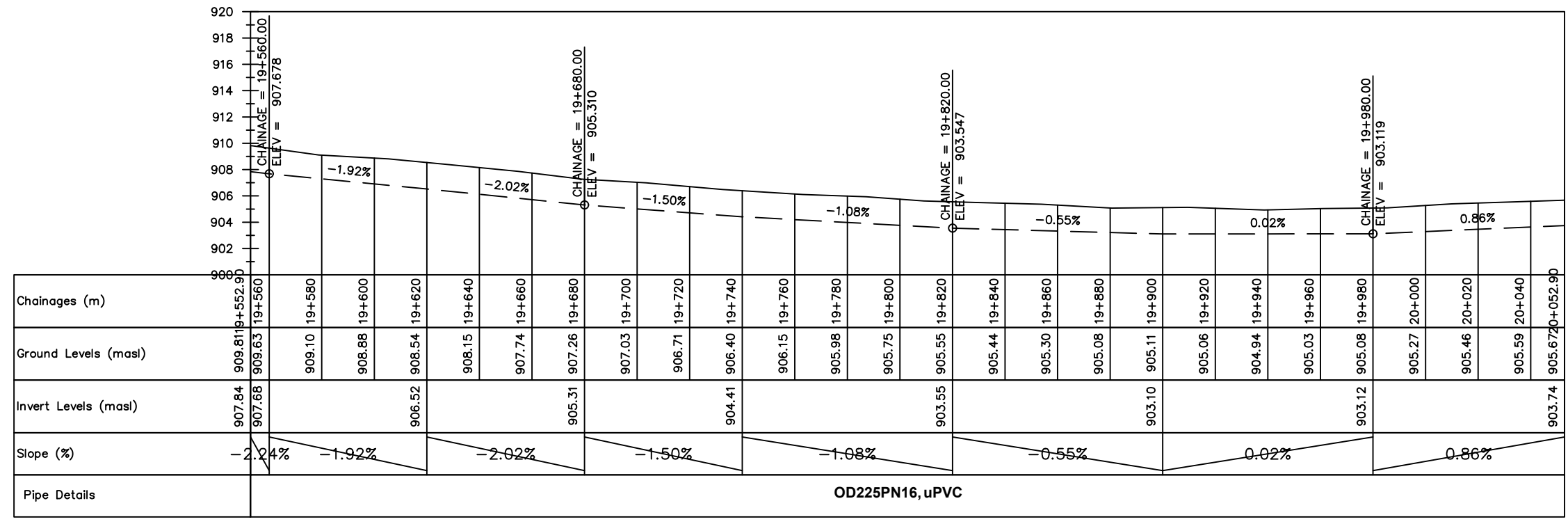
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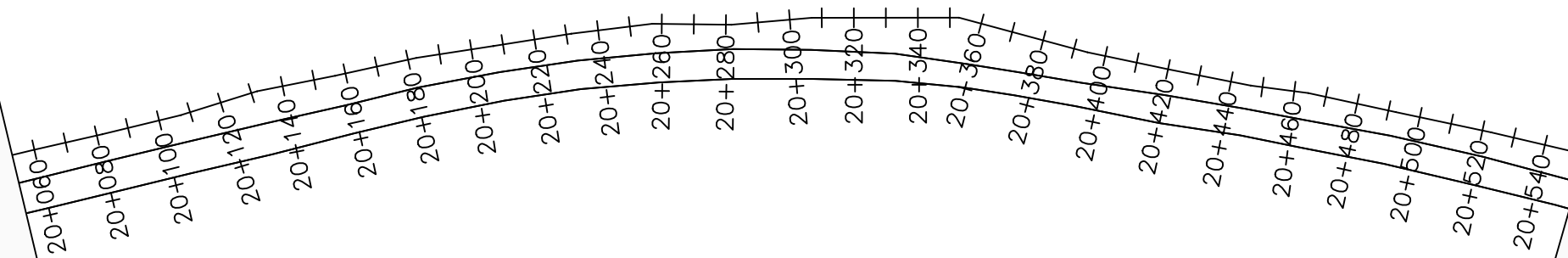
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
19+552.9 - 20+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	24 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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In Association with

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

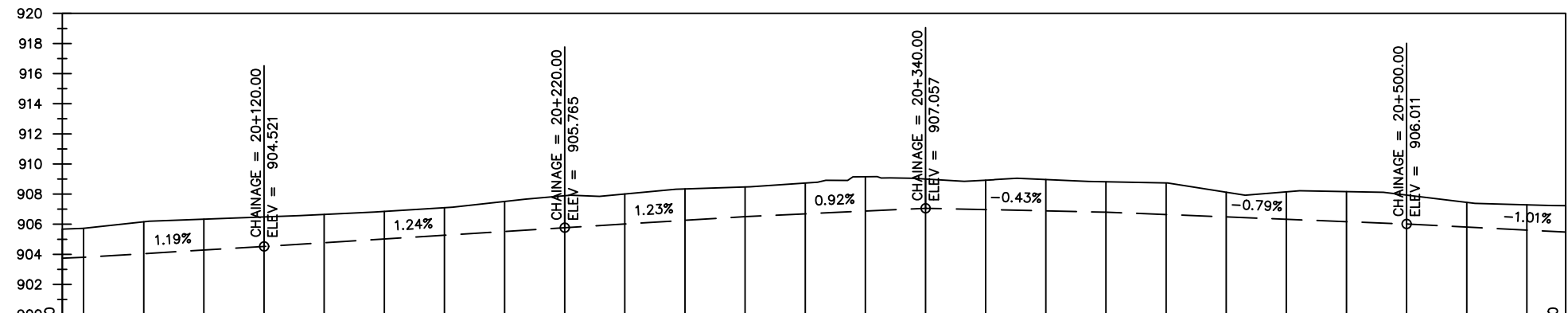
REVISIONS :

No	Date	Description

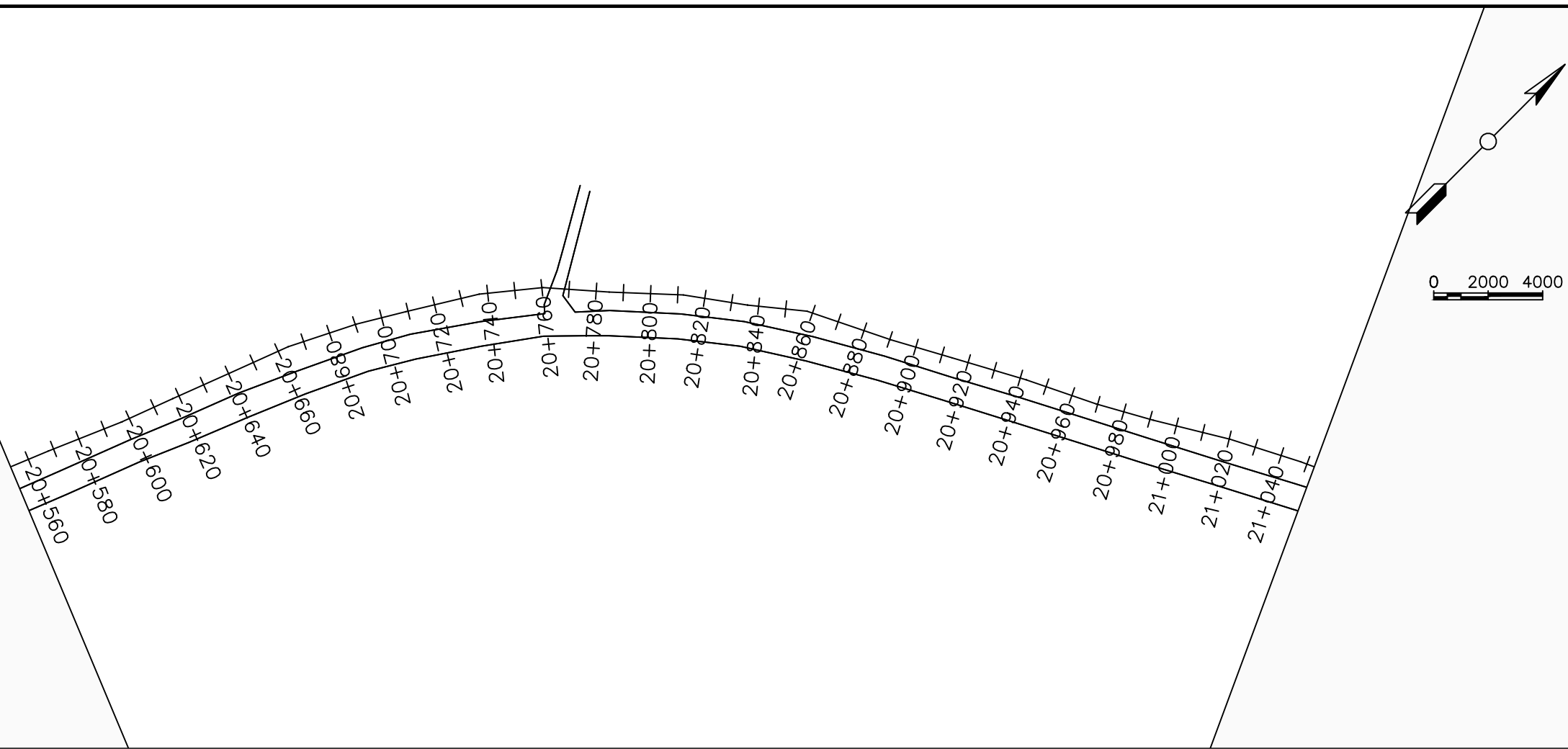
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
20+052.9 - 20+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	25 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
20+052.9	905.67	903.74	0.96%	OD225PN16, uPVC
20+060	905.72	903.80	1.19%	
20+080	906.16			
20+100	906.33			
20+120	906.48	904.52	1.24%	
20+140	906.65			
20+160	906.85			
20+180	907.10			
20+200	907.51			
20+220	907.89	905.77	1.23%	
20+240	908.01			
20+260	908.34			
20+280	908.48			
20+300	908.73			
20+320	909.15		0.92%	
20+340	909.00	907.06	-0.43%	
20+360	908.92			
20+380	908.97			
20+400	908.82			
20+420	908.74			
20+440	908.12			
20+460	908.15		-0.79%	
20+480	908.16			
20+500	907.93	906.01	-1.01%	
20+520	907.45			
20+540	907.29			
20+552.9	907.23	905.48		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

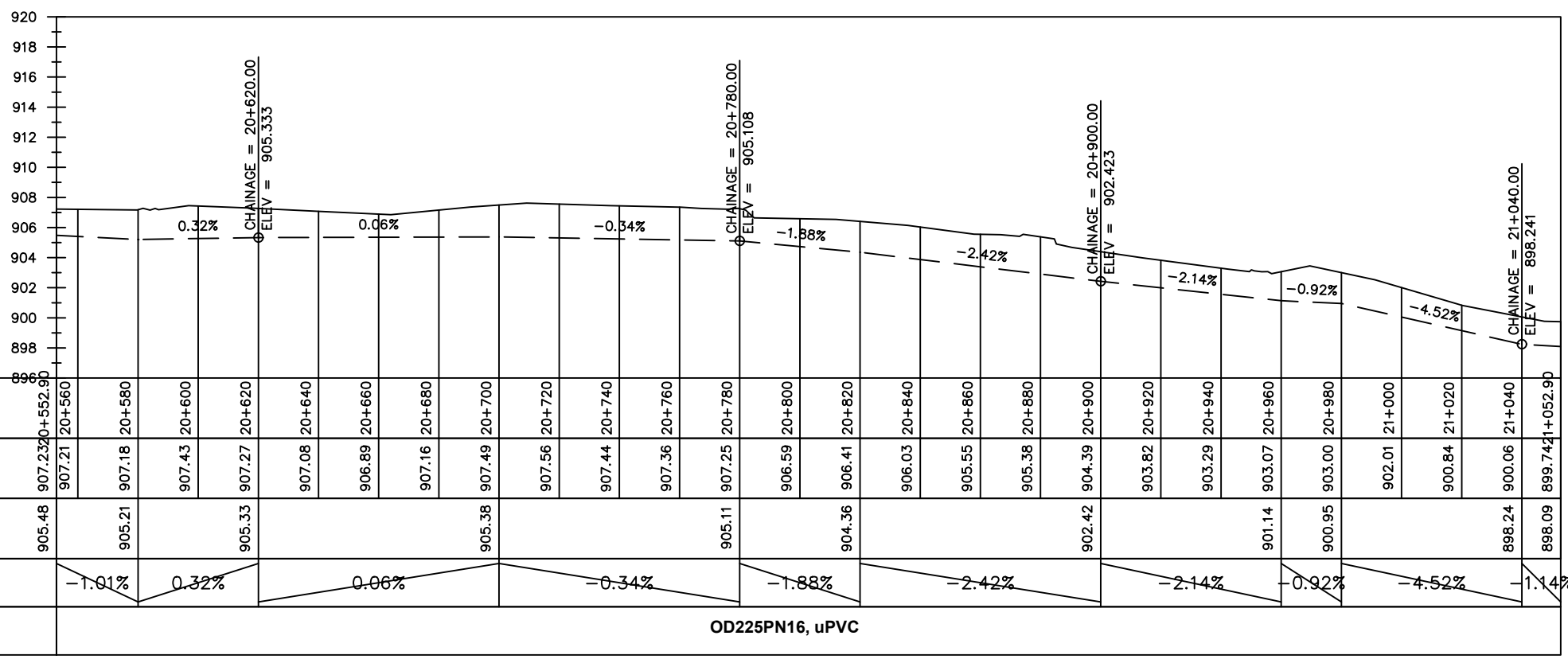
REVISIONS :

No	Date	Description

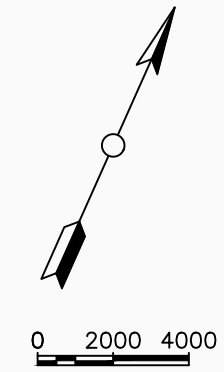
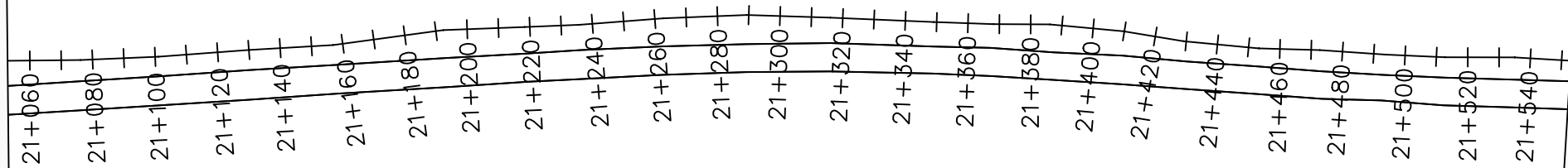
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
20+552.9 - 21+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	26 of 54



Chainages (m)	905.48	905.21	905.33	905.38	905.11	904.36	902.42	903.82	903.29	903.07	900.95	898.24	898.09															
Ground Levels (masl)	907.23	907.18	907.43	907.27	907.08	906.89	907.16	907.49	907.56	907.44	907.36	907.25	906.59	906.41	906.03	905.55	905.38	904.39	903.82	903.29	903.07	902.01	900.84	900.06	899.74			
Invert Levels (masl)	905.48	905.21	905.33	905.38	905.11	904.36	902.42	903.82	903.29	903.07	900.95	898.24	898.09															
Slope (%)	-1.01%	0.32%	0.06%	-0.34%	-1.88%	-2.42%	-2.14%	-0.92%	-4.52%	-1.14%																		
Pipe Details	OD225PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

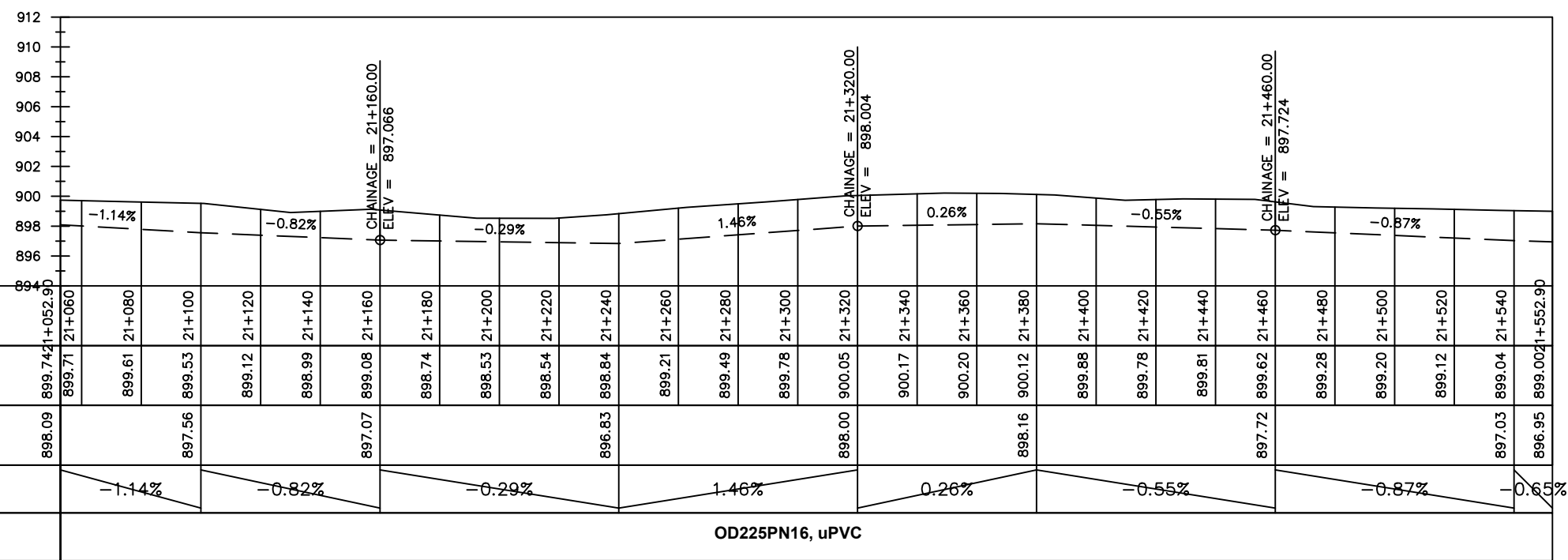
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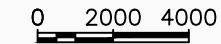
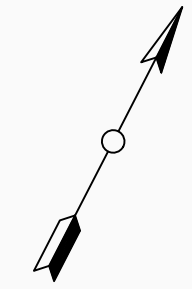
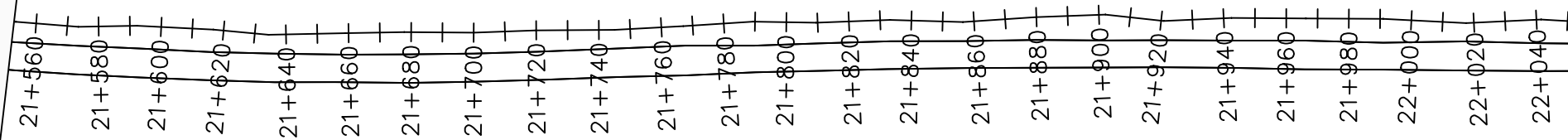
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
21+052.9 - 21+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	27 of 54





LEGEND

- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - AV Air Valve
 - WO Washout
 - Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

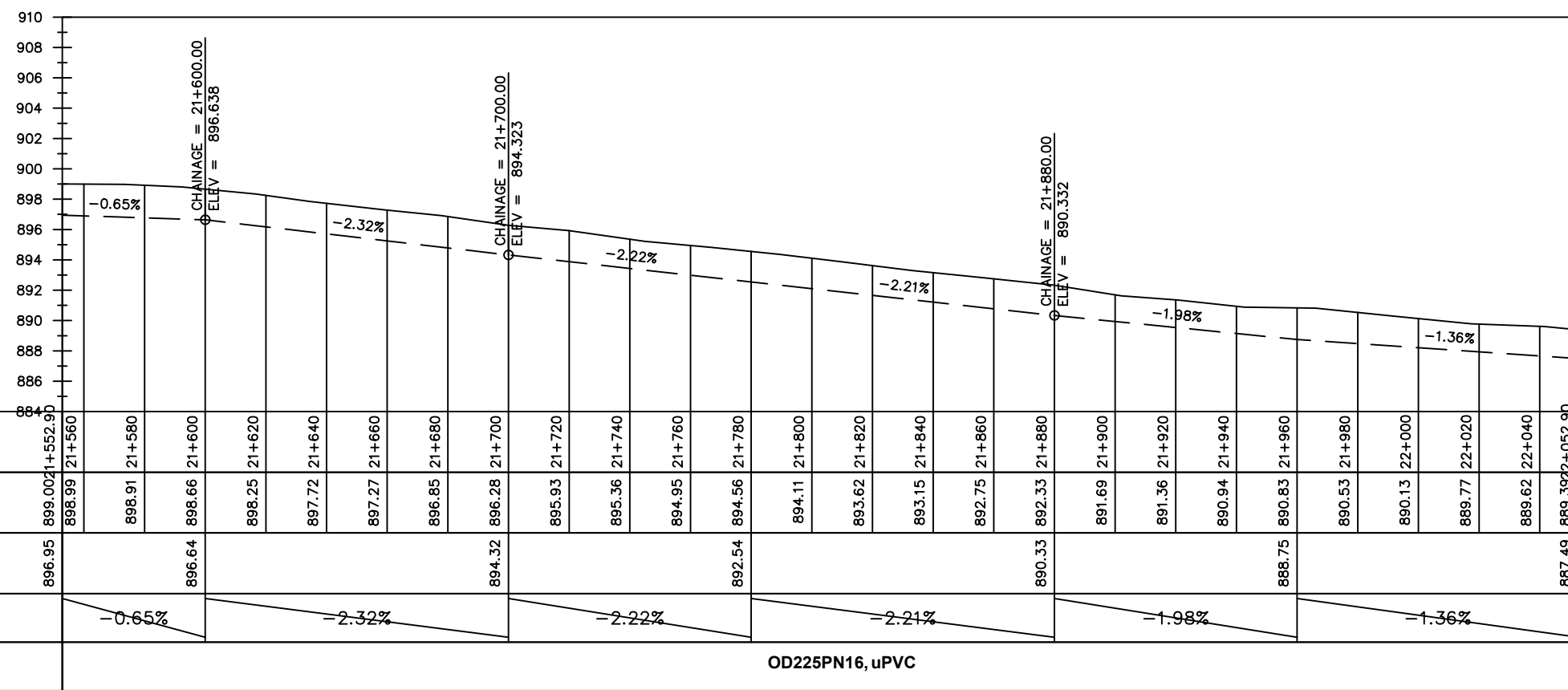
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No	Date	Description

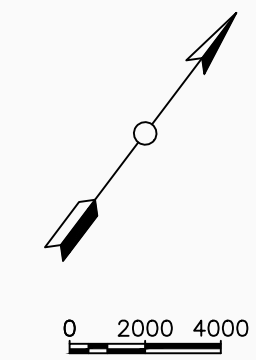
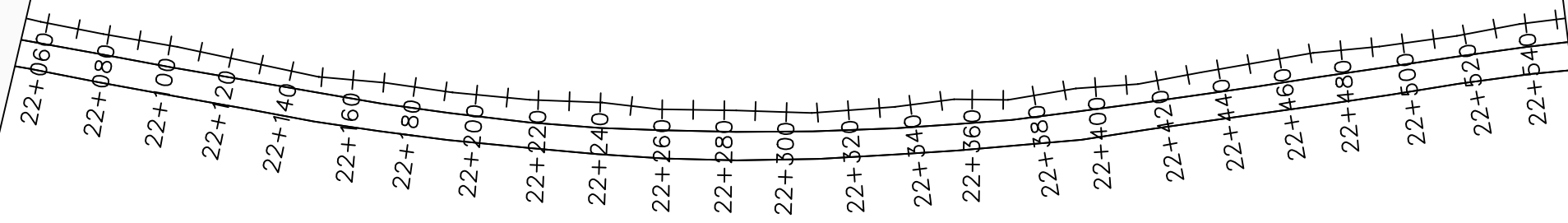
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
21+552.9 - 22+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	28 of 54



OD225PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

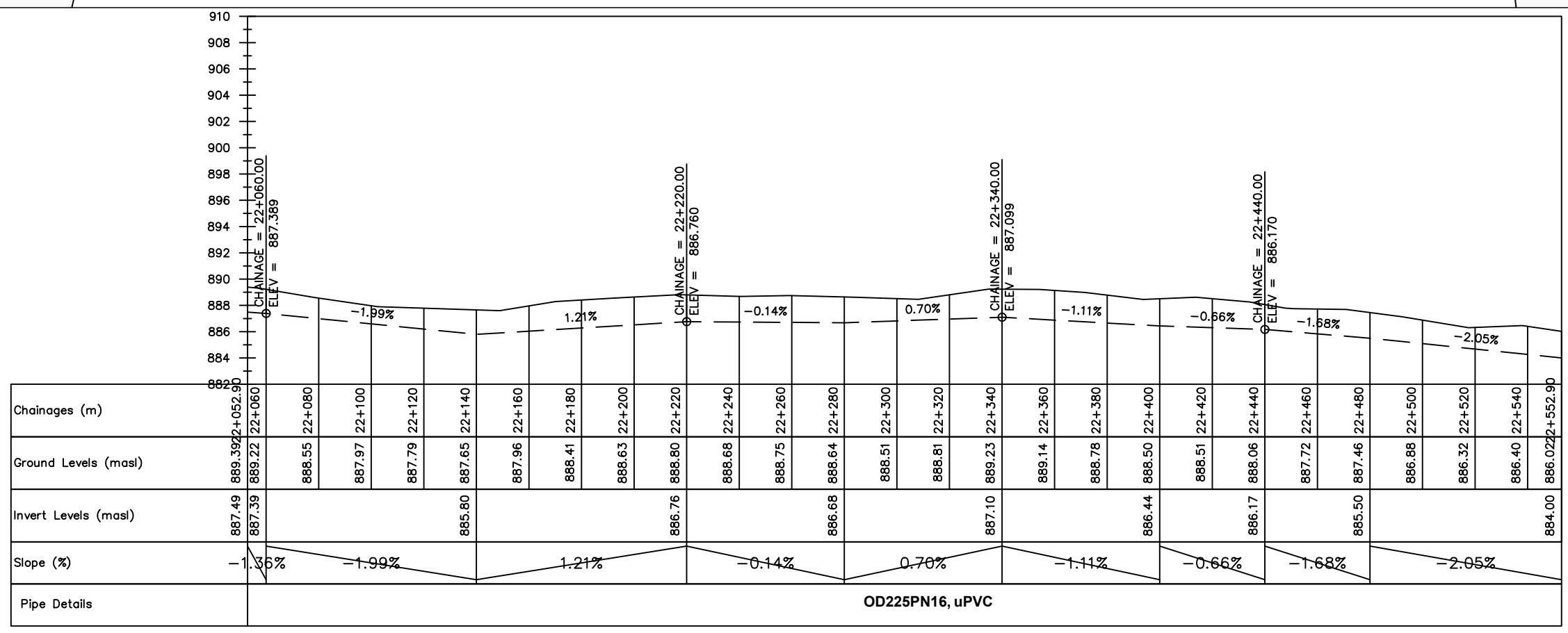
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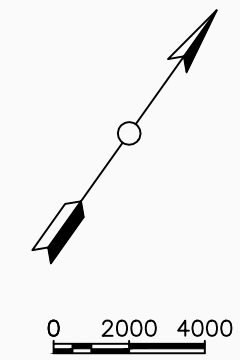
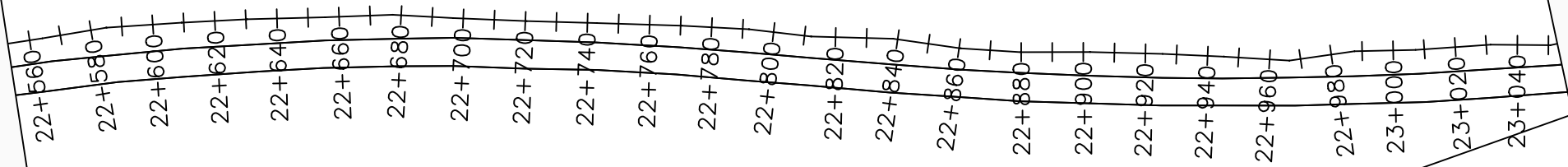
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
14+000 - 14+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	29 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

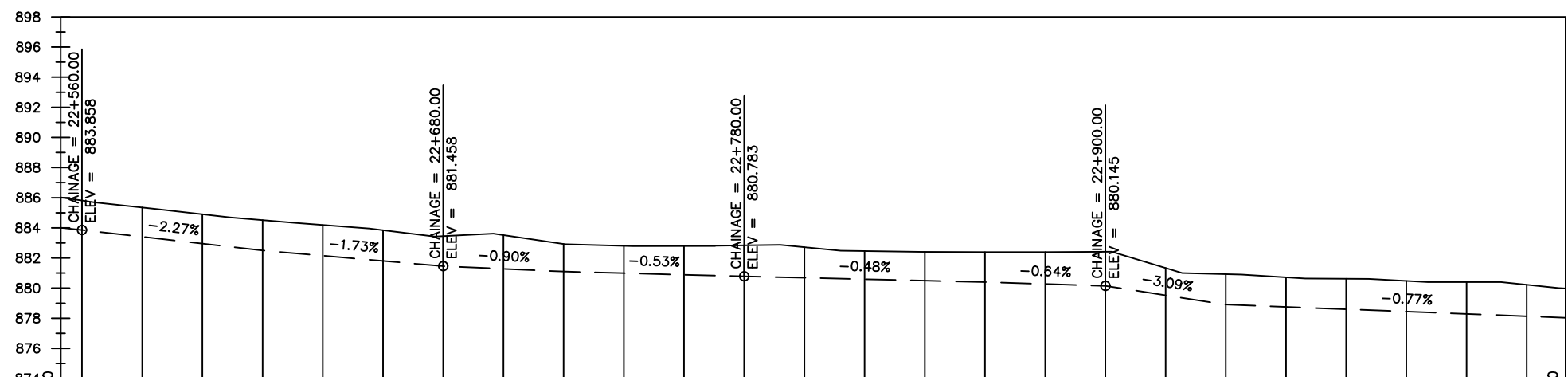
REVISIONS :

No	Date	Description

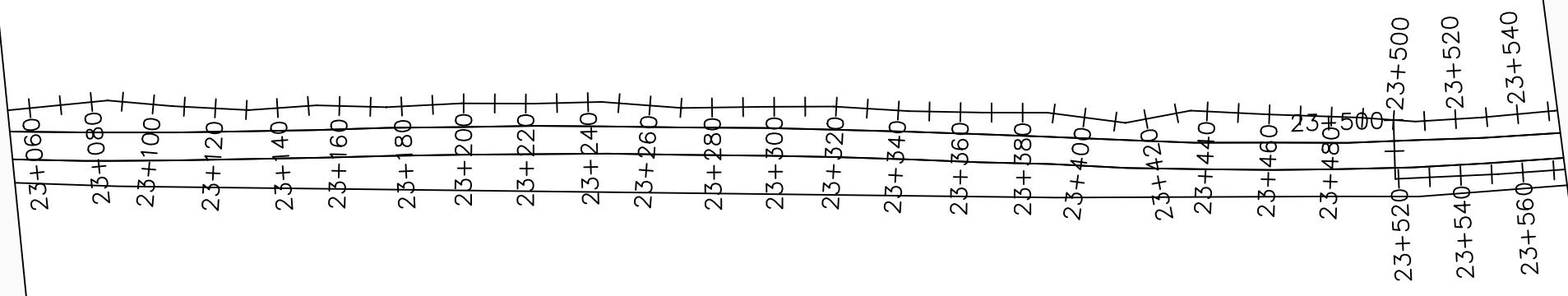
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
22+552.9 - 23+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	30 of 54



Chainages (m)	874.90	884.00	885.35	884.90	884.51	884.19	883.84	883.45	883.52	882.93	882.80	882.740	882.80	882.760	882.84	882.72	882.46	882.41	882.39	882.39	882.41	881.34	880.93	880.72	880.62	880.48	880.40	880.22	878.03
Ground Levels (masl)	886.02	885.81	885.35	884.90	884.51	884.19	883.84	883.45	883.52	882.93	882.80	882.740	882.80	882.760	882.84	882.72	882.46	882.41	882.39	882.39	882.41	881.34	880.93	880.72	880.62	880.48	880.40	880.22	878.03
Invert Levels (masl)	884.00	883.86	882.50	882.50	881.46	881.10	881.10	880.78	880.78	880.40	880.40	880.40	880.15	880.15	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.91	878.03
Slope (%)	-2.05%	-2.27%	-1.73%	-0.90%	-0.53%	-0.48%	-0.64%	-3.09%	-0.77%																				
Pipe Details	OD225PN16, uPVC															DN200PN10, STEEL													



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

CLIENT :

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CONSULTANT :

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In Association with

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

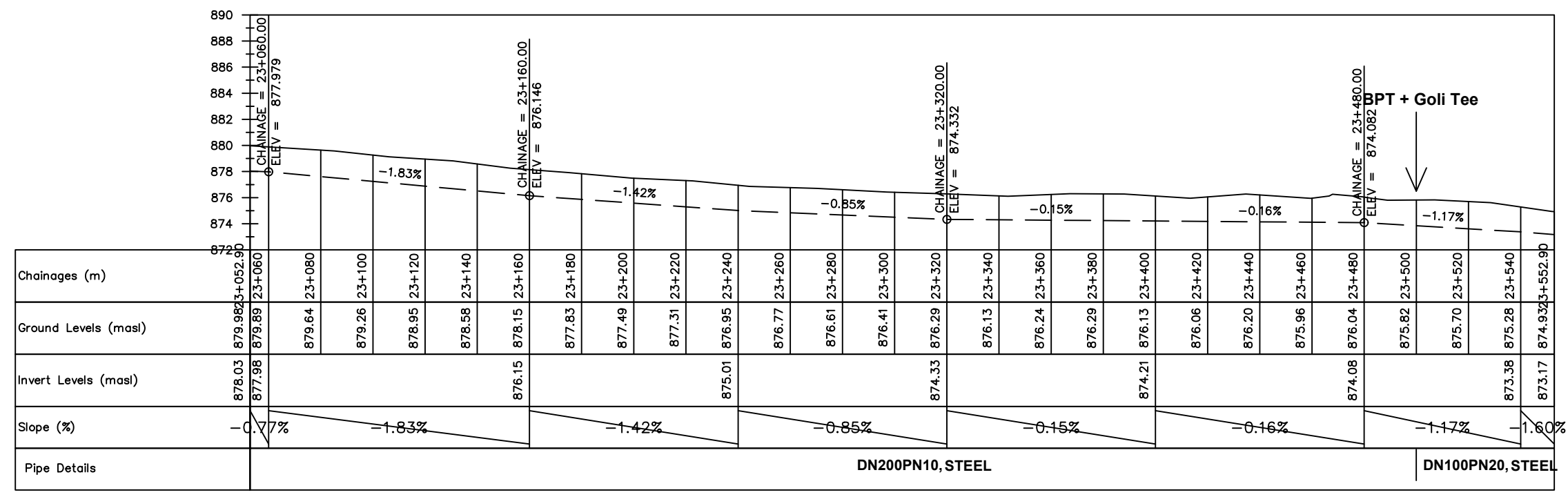
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No	Date	Description

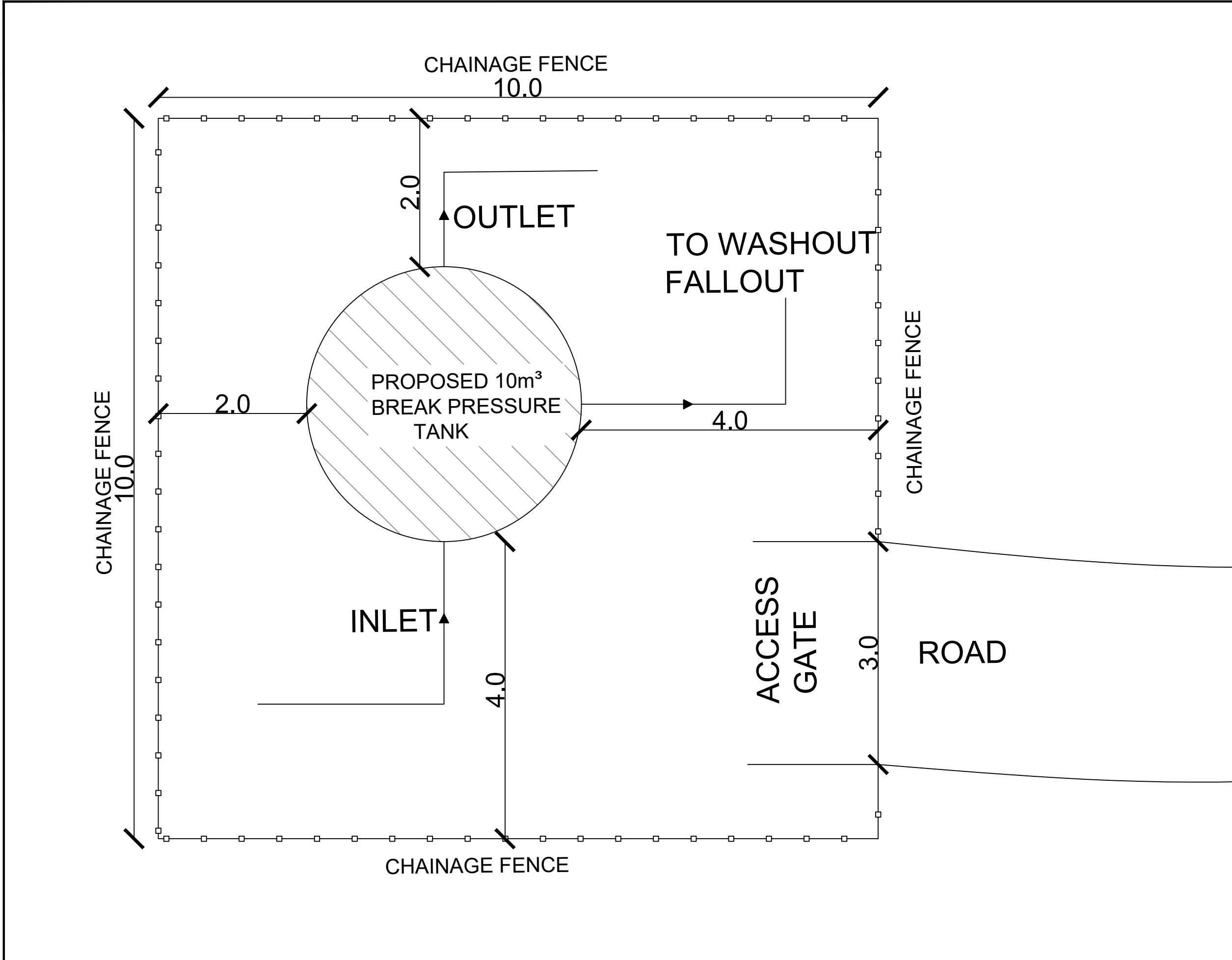
DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
23+052.9 - 23+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	31 of 54



BREAK PRESSURE TANK



LEGEND

CLIENT : THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT : Alliance Consultants Ltd
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PROJECT :
 ALA-ORA WATER SUPPLY AND SANITATION PROJECT

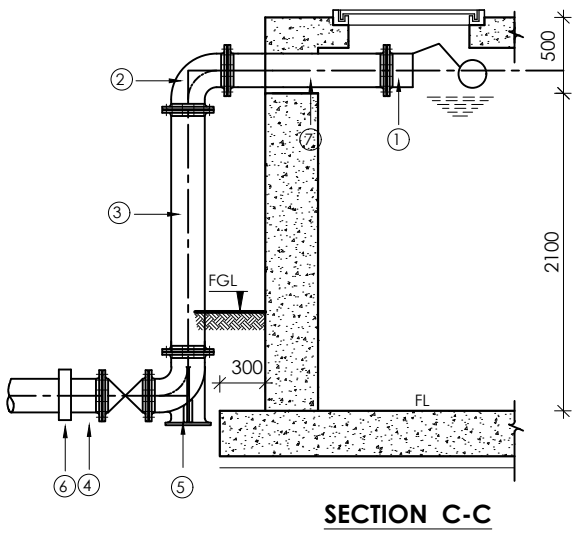
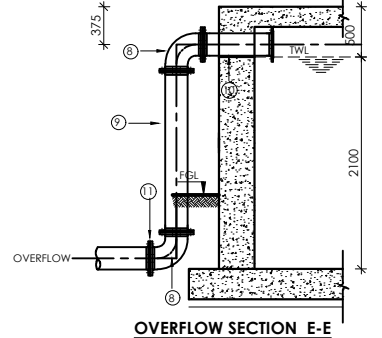
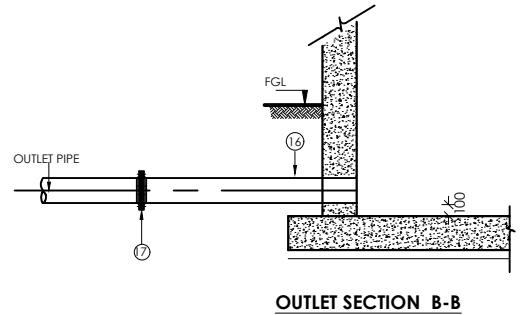
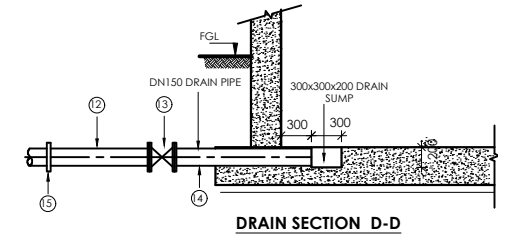
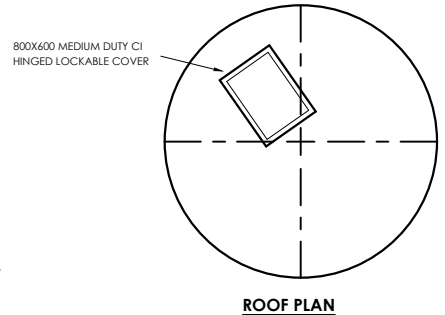
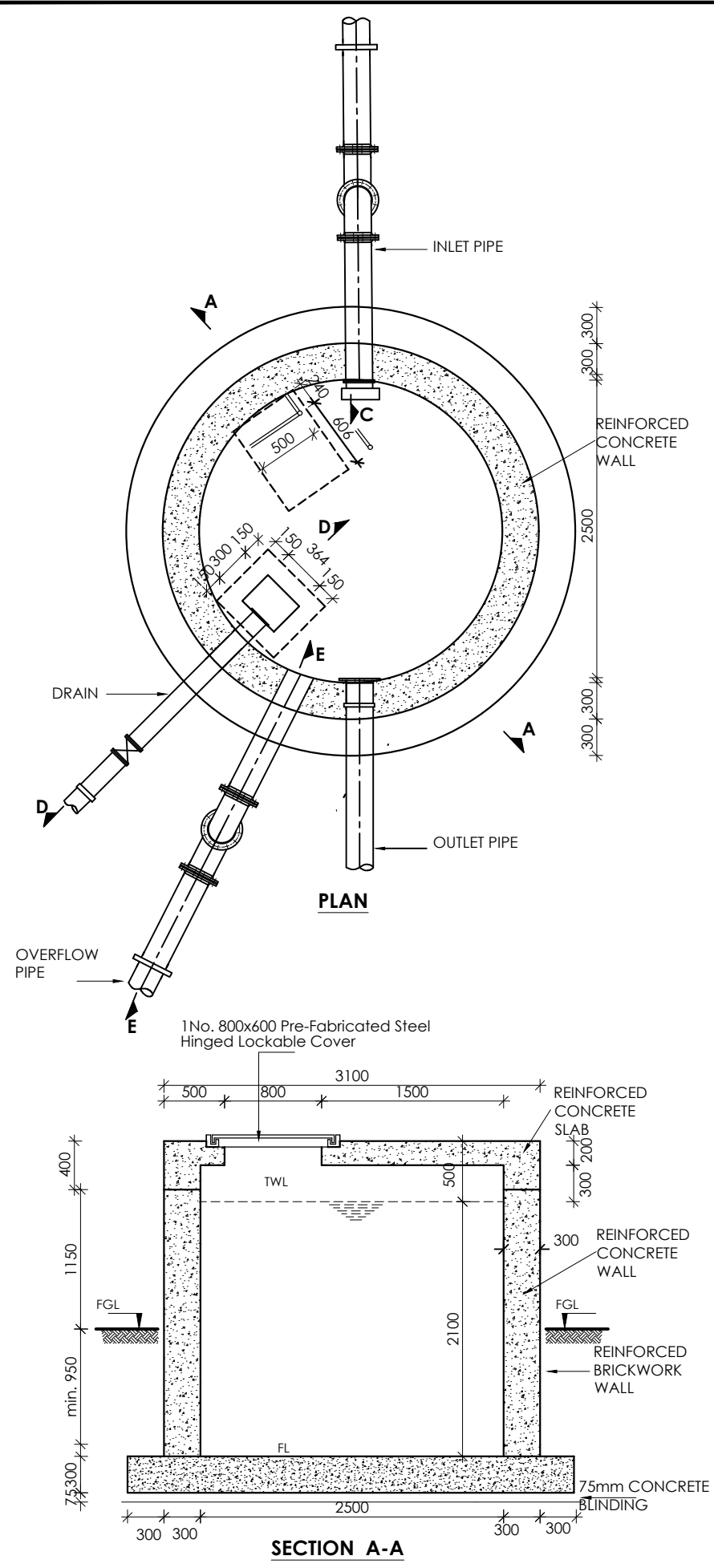
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **BREAK PRESSURE TANK- 10m³**
 SITE GENERAL LAYOUT

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_BPT_009**
 Scale: 1:50 Sheet No.: 1 of 1



PIPES AND FITTINGS SCHEDULE (INLET)

ITEM	No. OF	DESCRIPTION
①	1	DN200 BALL FLOAT VALVE
②	1	DN200 FLANGED 90° BEND
③	1	DN200 DOUBLE FLANGED PIPE STRAIGHT SPECIAL LENGTH NOT EXCEEDING 16m
④	1	DN200 FLANGED SPIGOT PIPE
⑤	1	DN150 90° DUCKFOOT BEND
⑥	1	DN200 COUPLING
⑦	1	DN200 DOUBLE FLANGED PIPE STRAIGHT SPECIAL LENGTH NOT EXCEEDING 1m

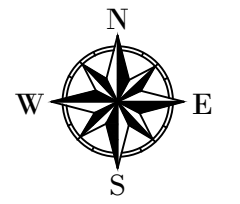
PIPES AND FITTINGS SCHEDULE (OVERFLOW AND WASHOUT)


⑧	2	DN200 FLANGED 90° BEND
⑨	1	DOUBLE FLANGED PIPE STRAIGHT SPECIAL LENGTH NOT EXCEEDING 1.6m
⑩	1	DN200 PIPE STRAIGHT SPECIAL, LENGTH NOT EXCEEDING 0.7m
⑪	1	DN200 COUPLING
⑫	1	DN150 FLANGED SPIGOT PIPE, LENGTH NOT EXCEEDING 2m
⑬	1	DN150 FLANGED GATE VALVE
⑭	1	DN150 FLANGED PUDDLE PIECE LENGTH NOT EXCEEDING 1m


PIPES AND FITTINGS SCHEDULE (OUTLET)

⑮	1	DN200 FLANGED PIPE STRAIGHT SPECIAL, LENGTH NOT EXCEEDING 2m
⑰	1	DN200 SPIGOT PIPE

LEGEND



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In Association with

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PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

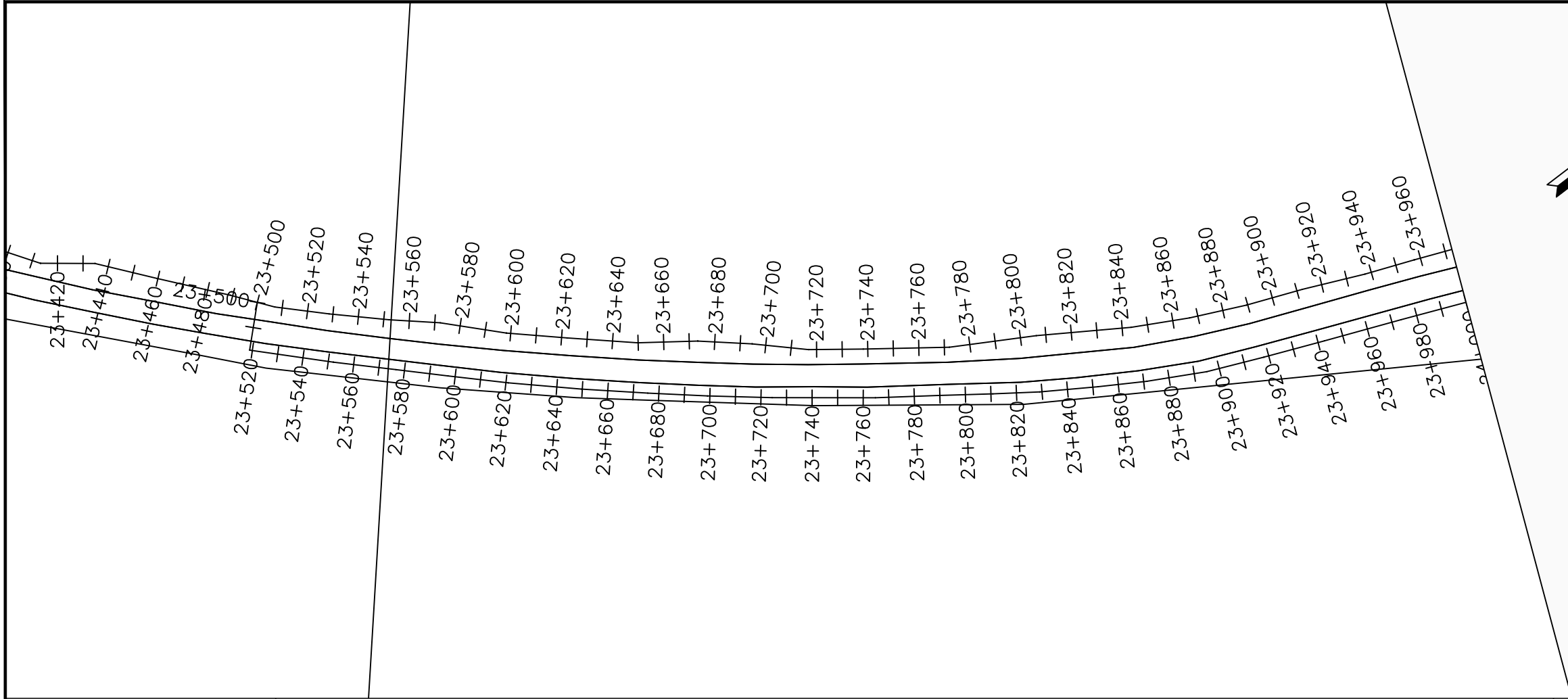
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **BREAK PRESSURE TANK-10m³**
PLAN

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA_RES_BPT_009
Scale:	N.T.S
Sheet No.:	1 of 2



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

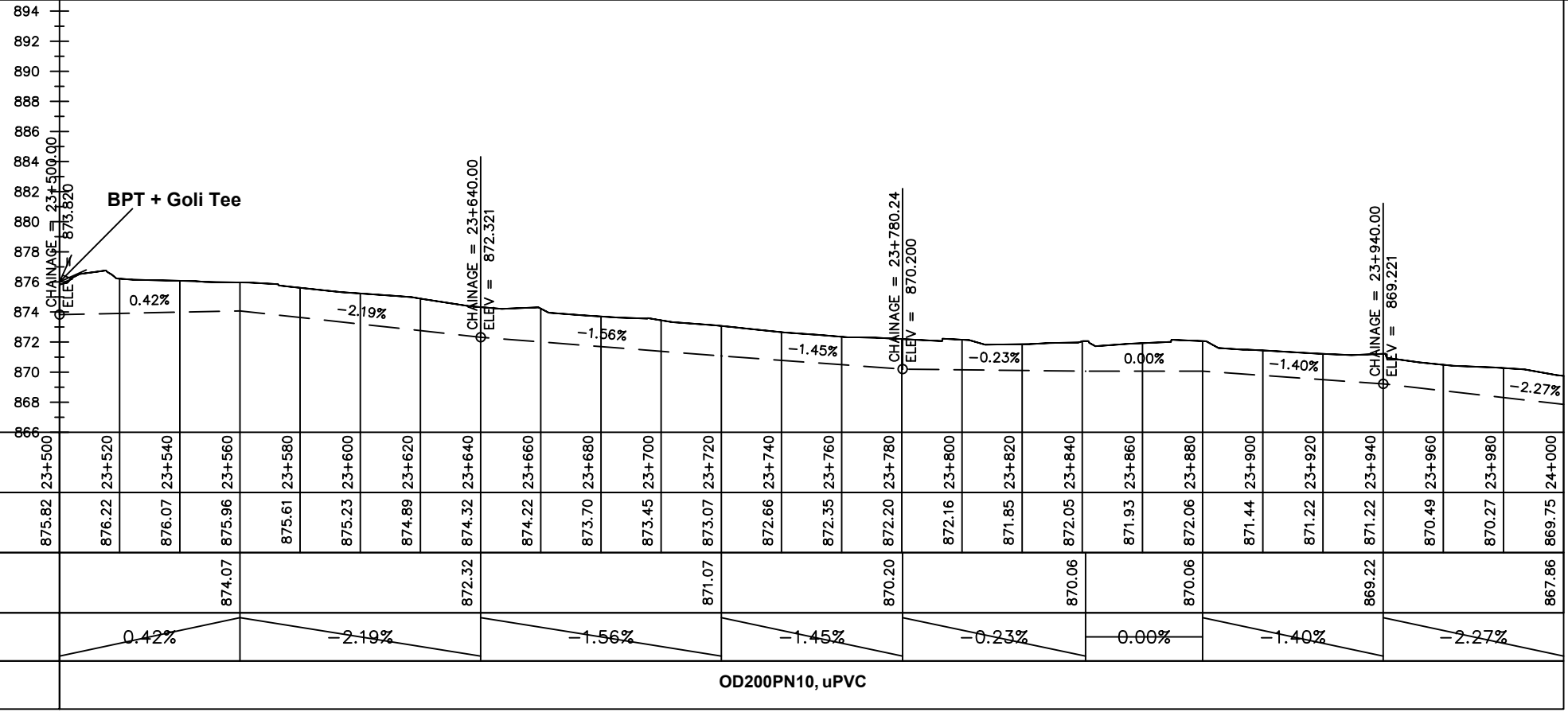
REVISIONS :

No	Date	Description

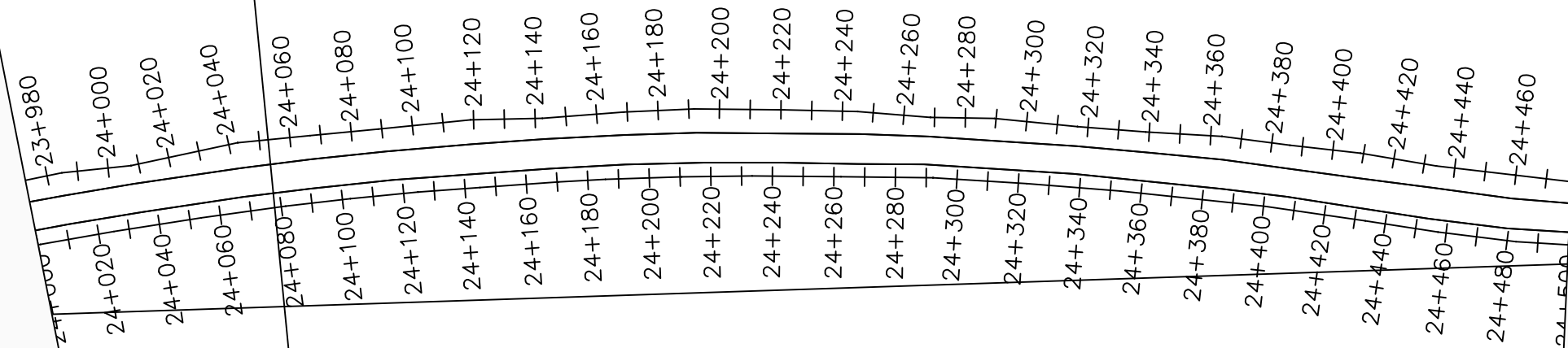
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
23+500 - 24+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	1 of 88



Chainages (m)	23+500	23+520	23+540	23+560	23+580	23+600	23+620	23+640	23+660	23+680	23+700	23+720	23+740	23+760	23+780	23+800	23+820	23+840	23+860	23+880	23+900	23+920	23+940	23+960	23+980	24+000
Ground Levels (masl)	875.82	876.22	876.07	875.96	875.61	875.23	874.89	874.32	874.22	873.70	873.45	873.07	872.66	872.35	872.20	872.16	871.85	872.05	871.93	872.06	871.44	871.22	871.22	870.49	870.27	869.75
Invert Levels (masl)				874.07				872.32				871.07			870.20			870.06		870.06			869.22			867.86
Slope (%)		0.42%		-2.19%				-1.56%				-1.45%			-0.23%		0.00%			-1.40%			-2.27%			
Pipe Details	OD200PN10, uPVC																									



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

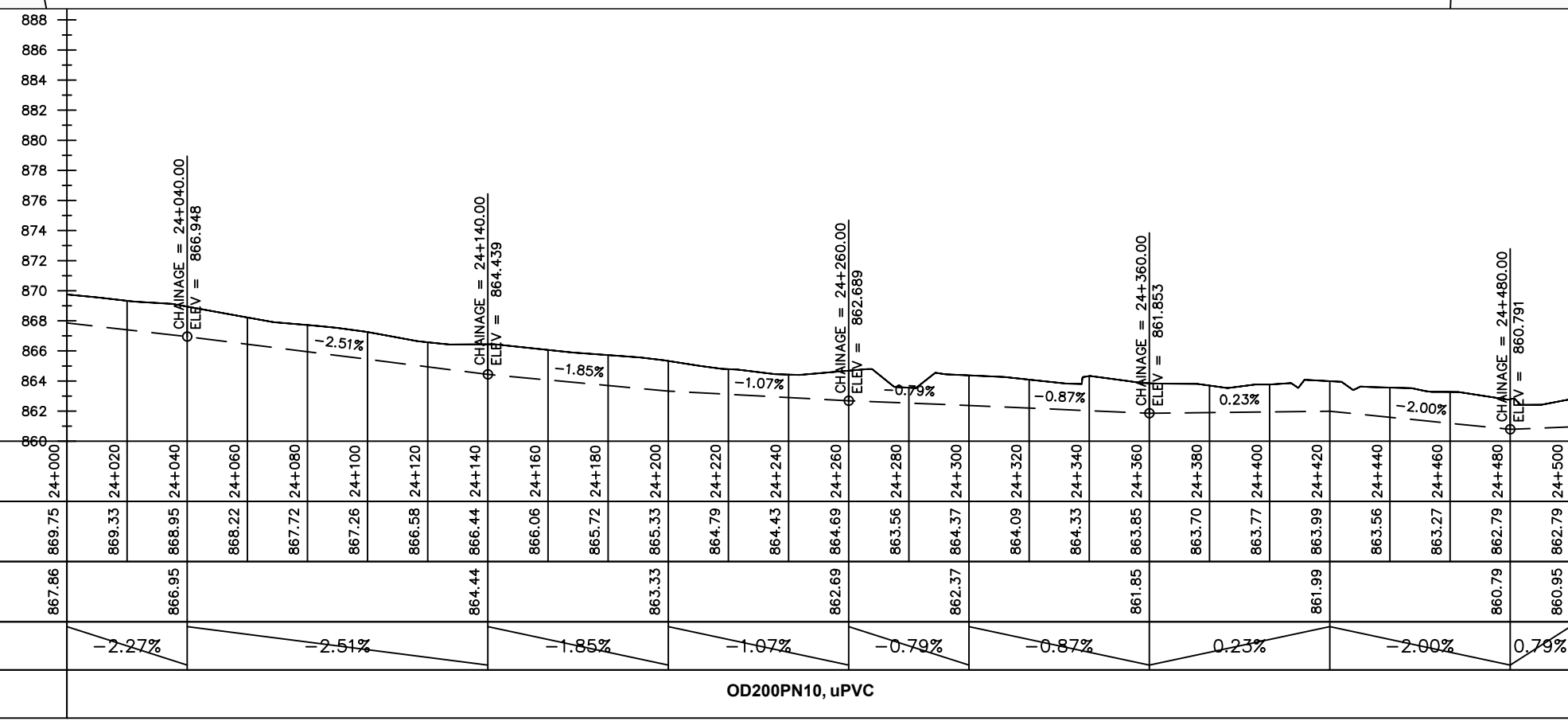
REVISIONS :

No	Date	Description

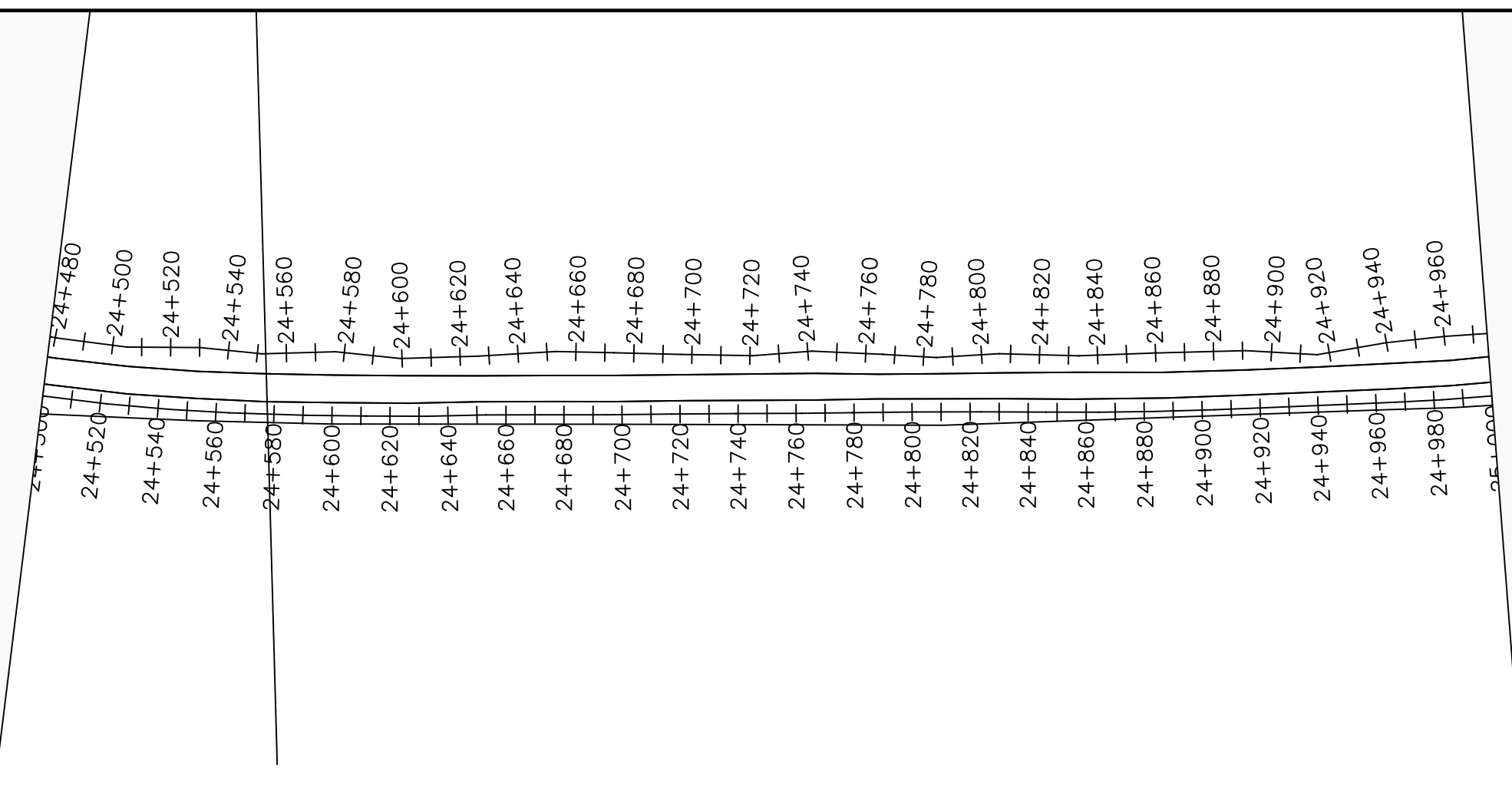
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
24+000 - 24+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	2 of 88



OD200PN10, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

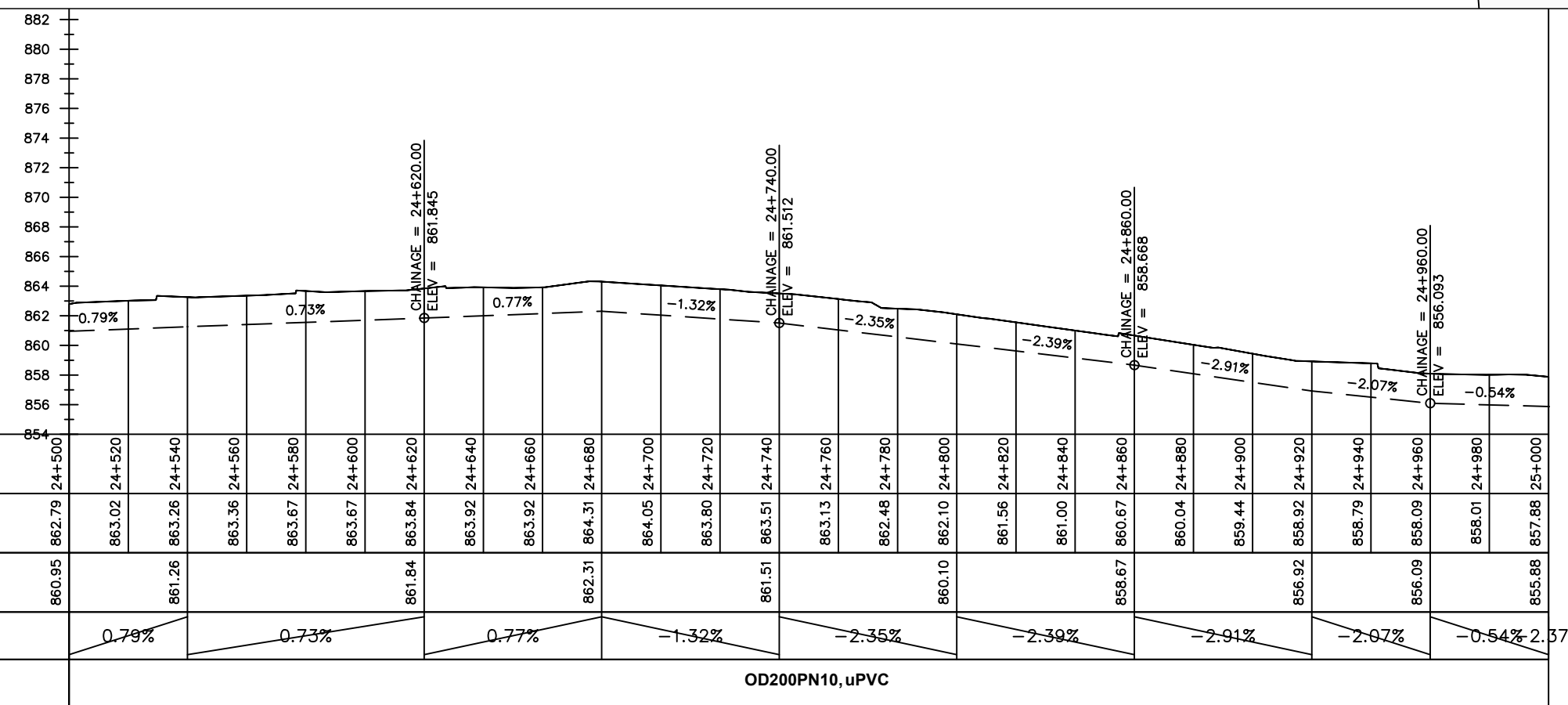
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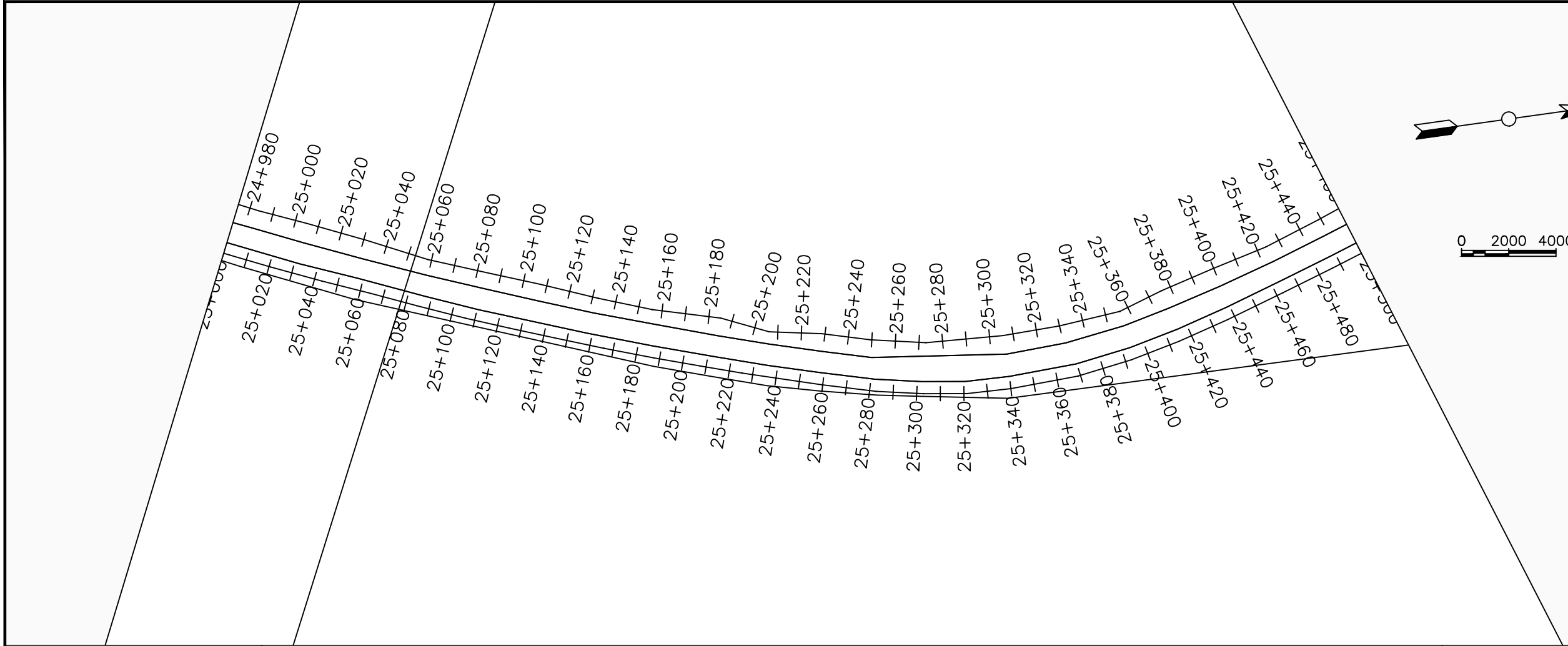
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
24+500 - 25+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	3 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

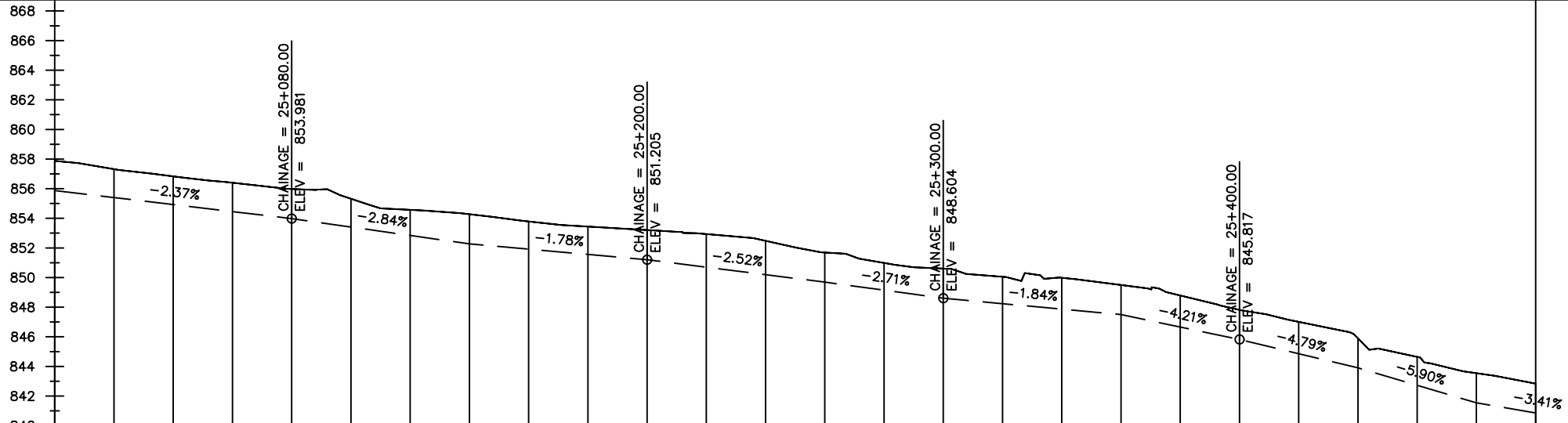
REVISIONS :

No	Date	Description

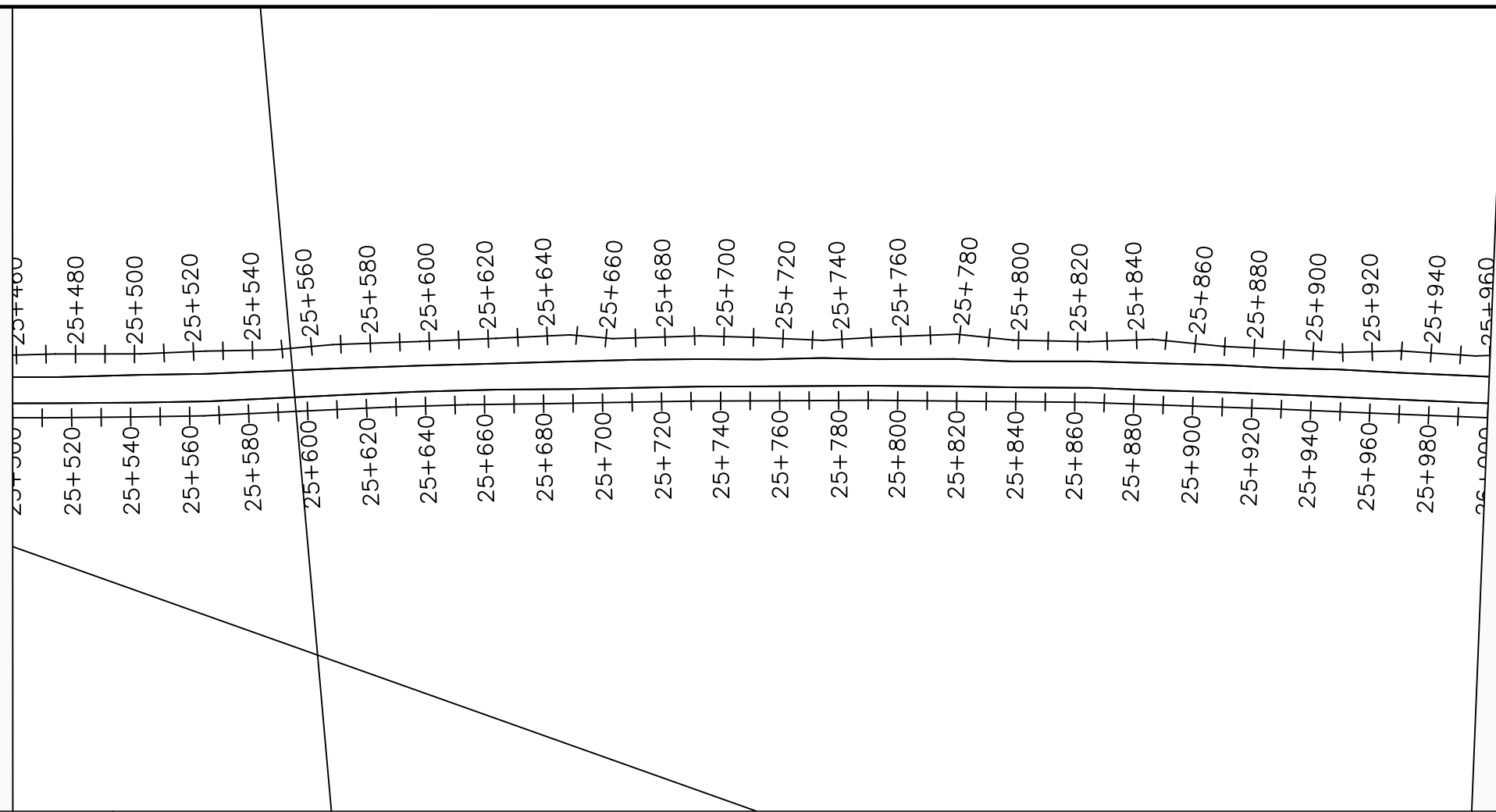
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
25+000 - 25+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	4 of 88



Chainages (m)	25+000	25+020	25+040	25+060	25+080	25+100	25+120	25+140	25+160	25+180	25+200	25+220	25+240	25+260	25+280	25+300	25+320	25+340	25+360	25+380	25+400	25+420	25+440	25+460	25+480	25+500		
Ground Levels (masl)	857.88	857.32	856.84	856.40	855.98	855.32	854.58	854.27	853.79	853.44	853.20	852.94	852.48	851.69	850.99	850.60	850.05	849.98	849.50	848.79	847.82	847.01	845.90	844.65	843.54	842.84		
Invert Levels (masl)	855.88				853.98			852.27			851.20			849.69		848.60			847.50		845.82		843.90		841.54	840.86		
Slope (%)	-0.54%	-2.37%			-2.84%			-1.78%			-2.52%			-2.71%		-1.84%			-4.21%		-4.79%		-5.90%		-3.41%			
Pipe Details	OD200PN10,uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
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Profile

- Ground Level
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CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

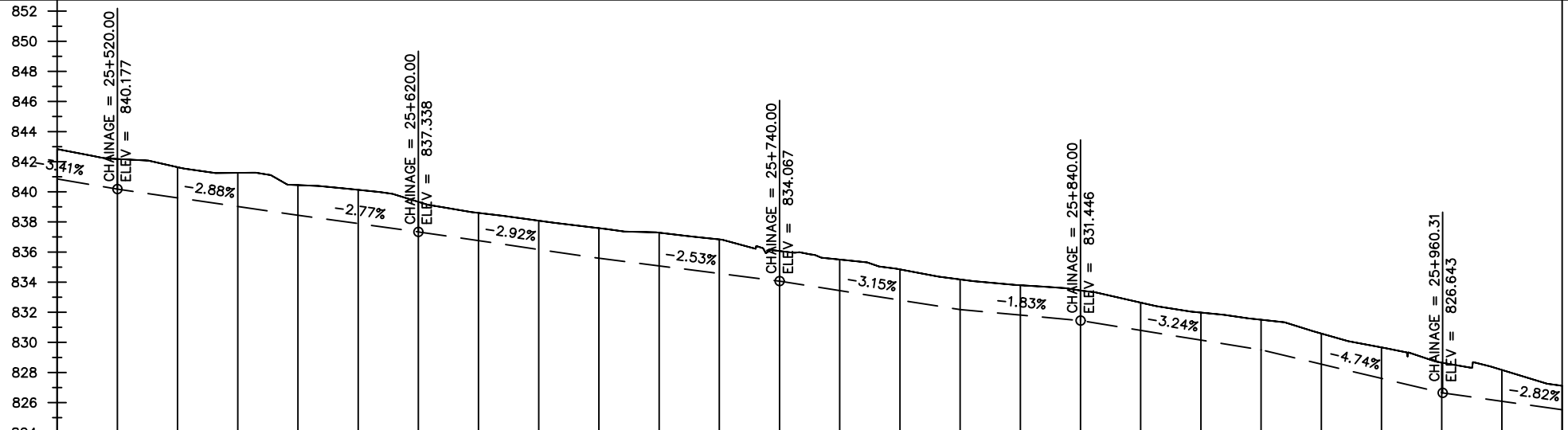
REVISIONS :

No	Date	Description

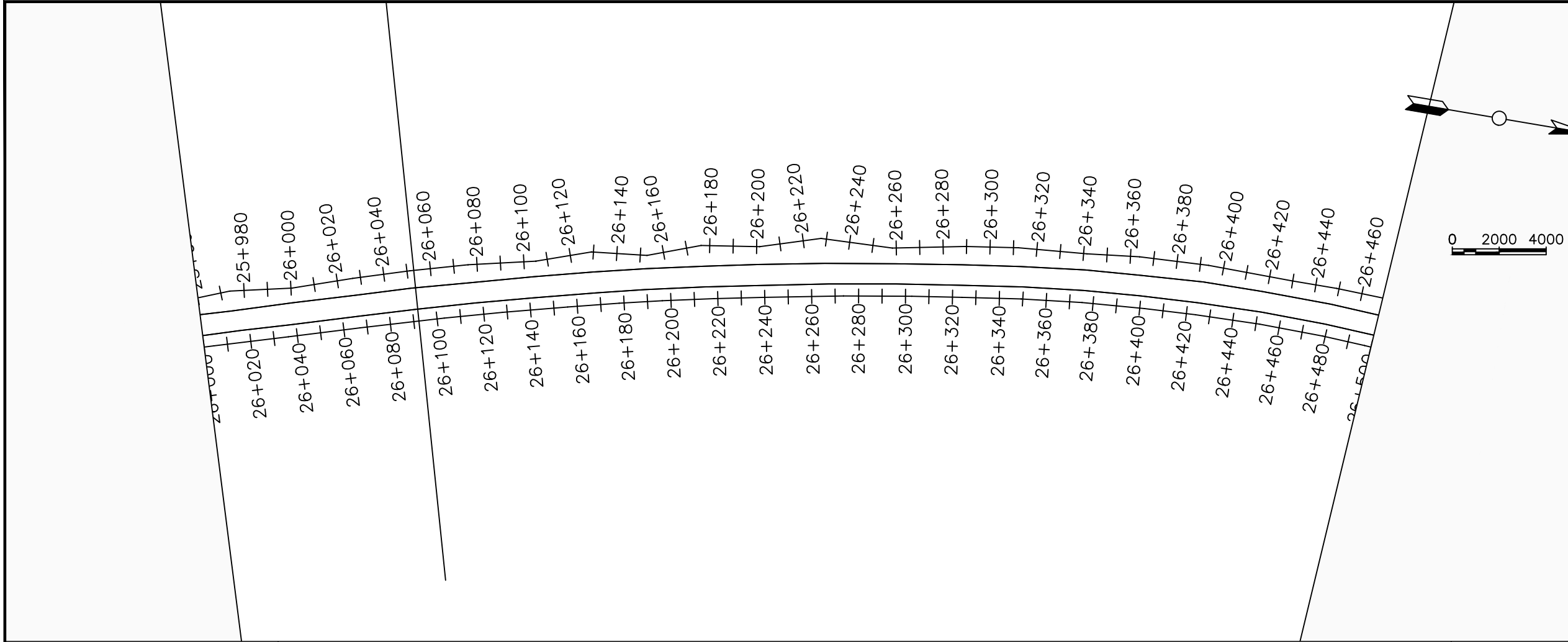
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
25+500 - 26+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	5 of 88



Chainages (m)	25+500	25+520	25+540	25+560	25+580	25+600	25+620	25+640	25+660	25+680	25+700	25+720	25+740	25+760	25+780	25+800	25+820	25+840	25+860	25+880	25+900	25+920	25+940	25+960	25+980	26+000		
Ground Levels (masl)	842.84	842.18	841.64	841.26	840.45	840.13	839.34	838.60	838.08	837.59	837.28	836.84	836.07	835.50	834.84	834.18	833.80	833.45	832.64	831.98	831.50	830.59	829.66	828.65	828.17	827.12		
Invert Levels (masl)	840.86	840.18			838.45		837.34			835.59			834.07			832.18		831.45			829.50			826.64		825.53		
Slope (%)	-3.41%	-2.88%	-2.77%	-2.92%	-2.53%	-3.15%	-1.83%	-3.24%	-4.74%	-2.82%																		
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

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- Building
- Contours

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- Ground Level
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- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

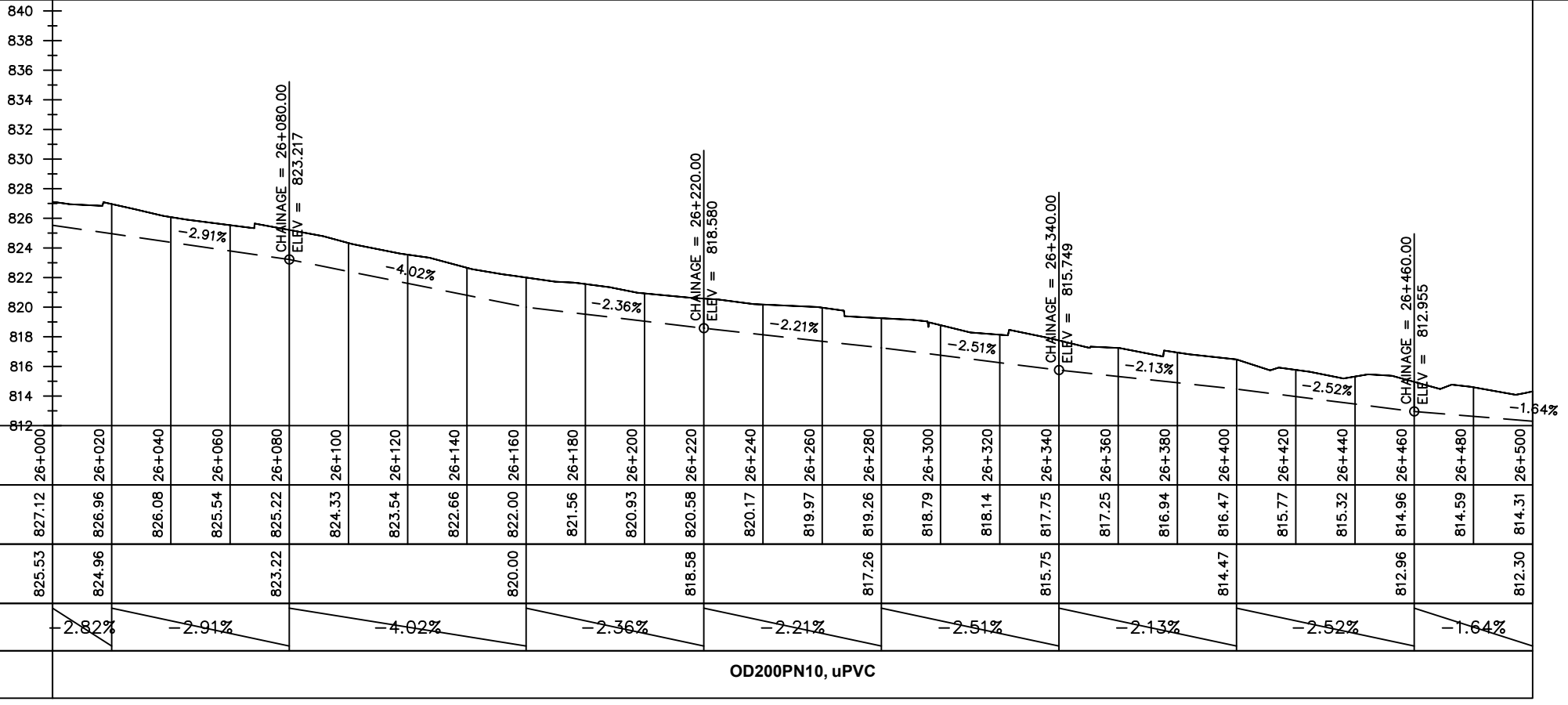
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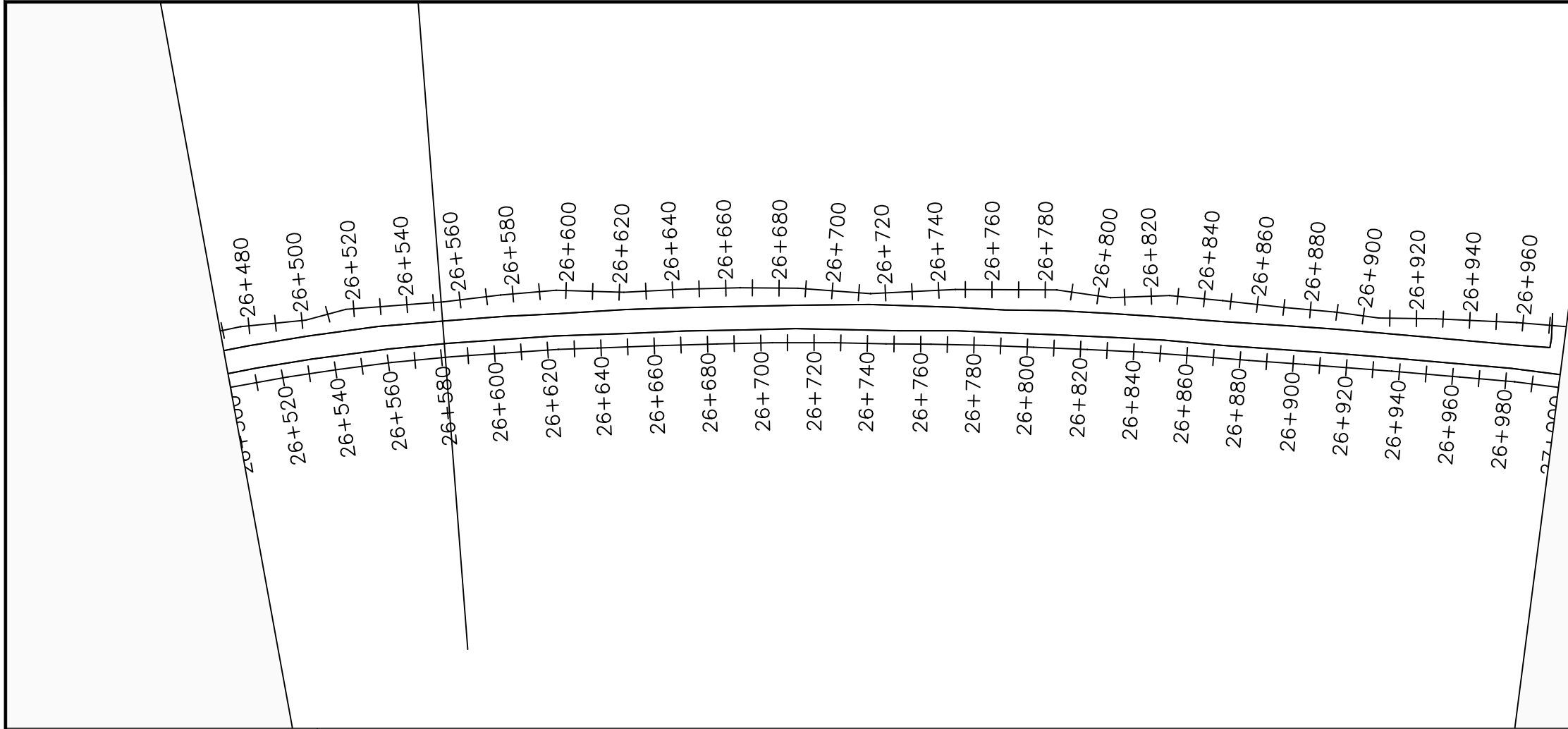
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
26+000 - 26+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	6 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

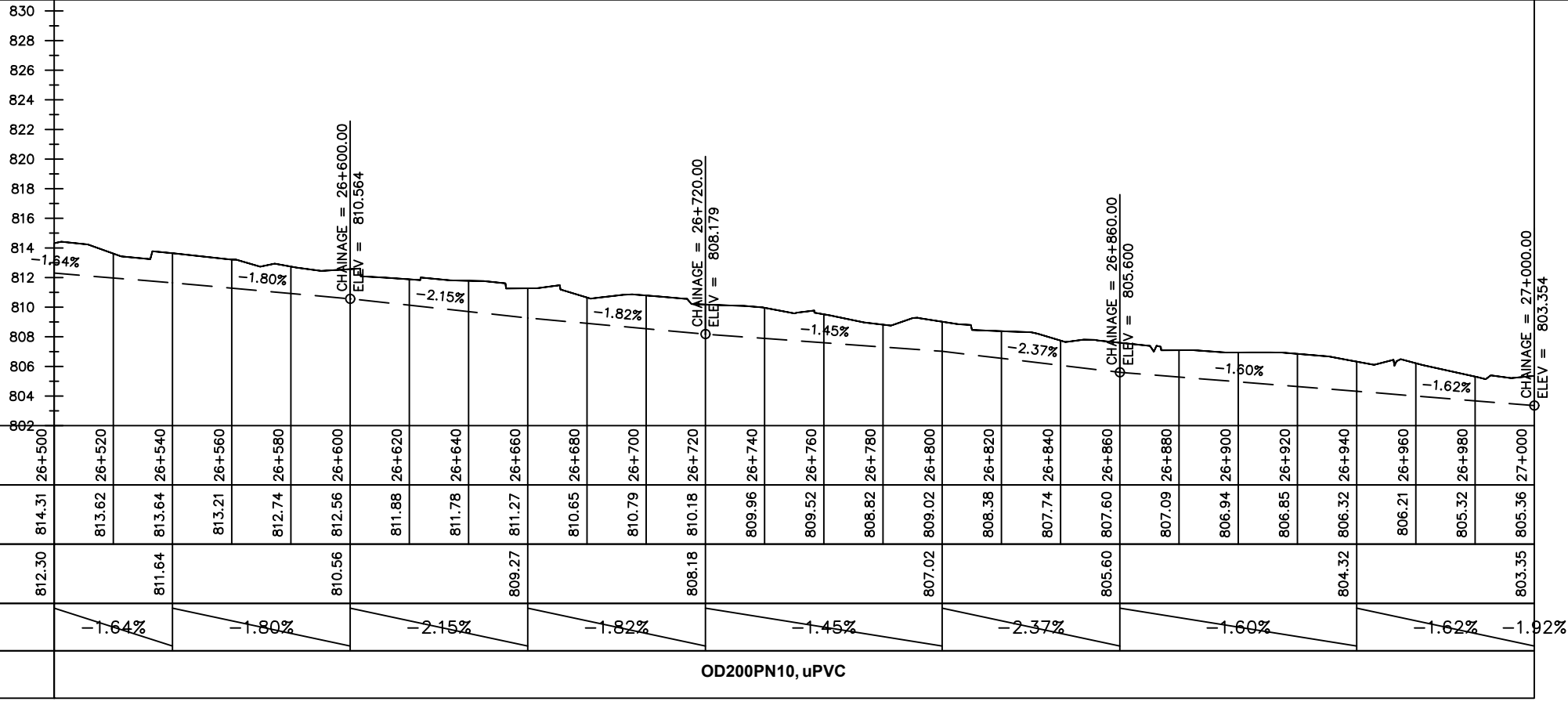
REVISIONS :

No	Date	Description

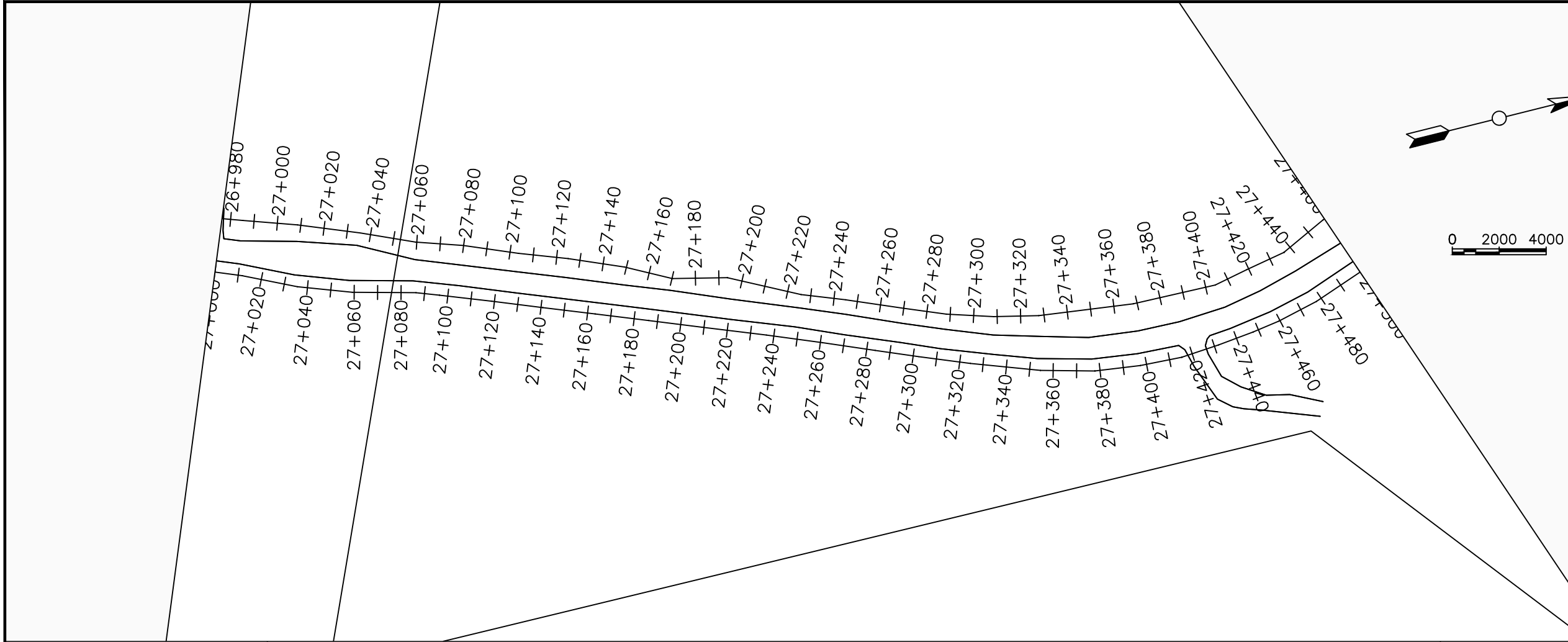
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
26+500 - 27+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	7 of 88



Chainages (m)	26+500	26+520	26+540	26+560	26+580	26+600	26+620	26+640	26+660	26+680	26+700	26+720	26+740	26+760	26+780	26+800	26+820	26+840	26+860	26+880	26+900	26+920	26+940	26+960	26+980	27+000		
Ground Levels (masl)	814.31	813.62	813.64	813.21	812.74	812.56	811.88	811.78	811.27	810.65	810.79	810.18	809.96	809.52	808.82	809.02	808.38	807.74	807.60	807.09	806.94	806.85	806.32	806.21	805.32	805.36		
Invert Levels (masl)	812.30	811.64	810.56	809.27	808.18	807.60	807.09	806.94	806.85	806.32	806.21	805.32	805.36	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	805.35	
Slope (%)	-1.64%	-1.80%	-2.15%	-1.82%	-1.45%	-2.37%	-1.60%	-1.62%	-1.92%																			
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

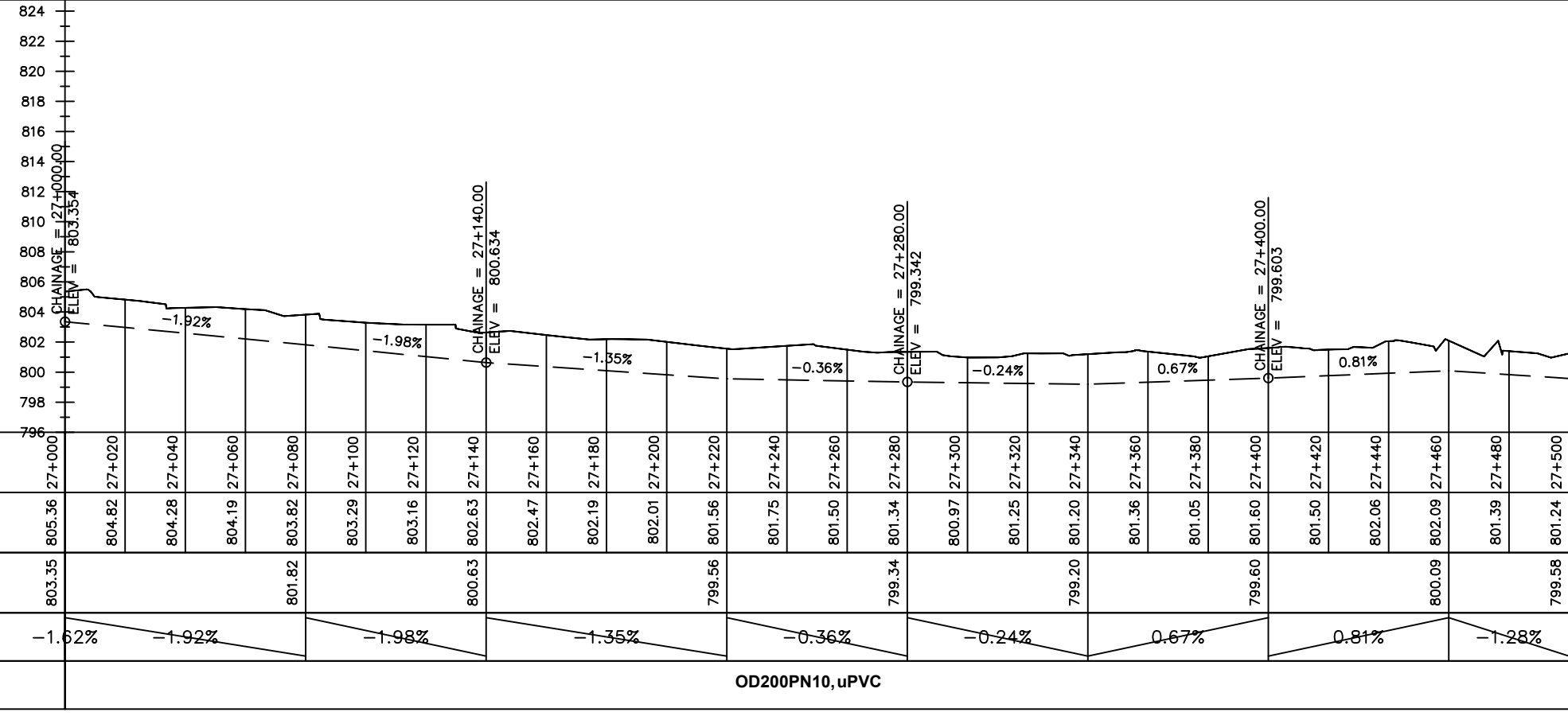
REVISIONS :

No	Date	Description

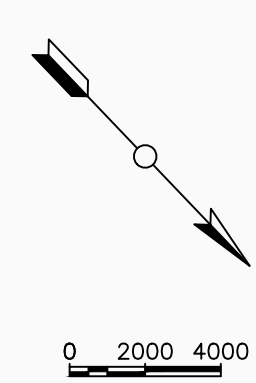
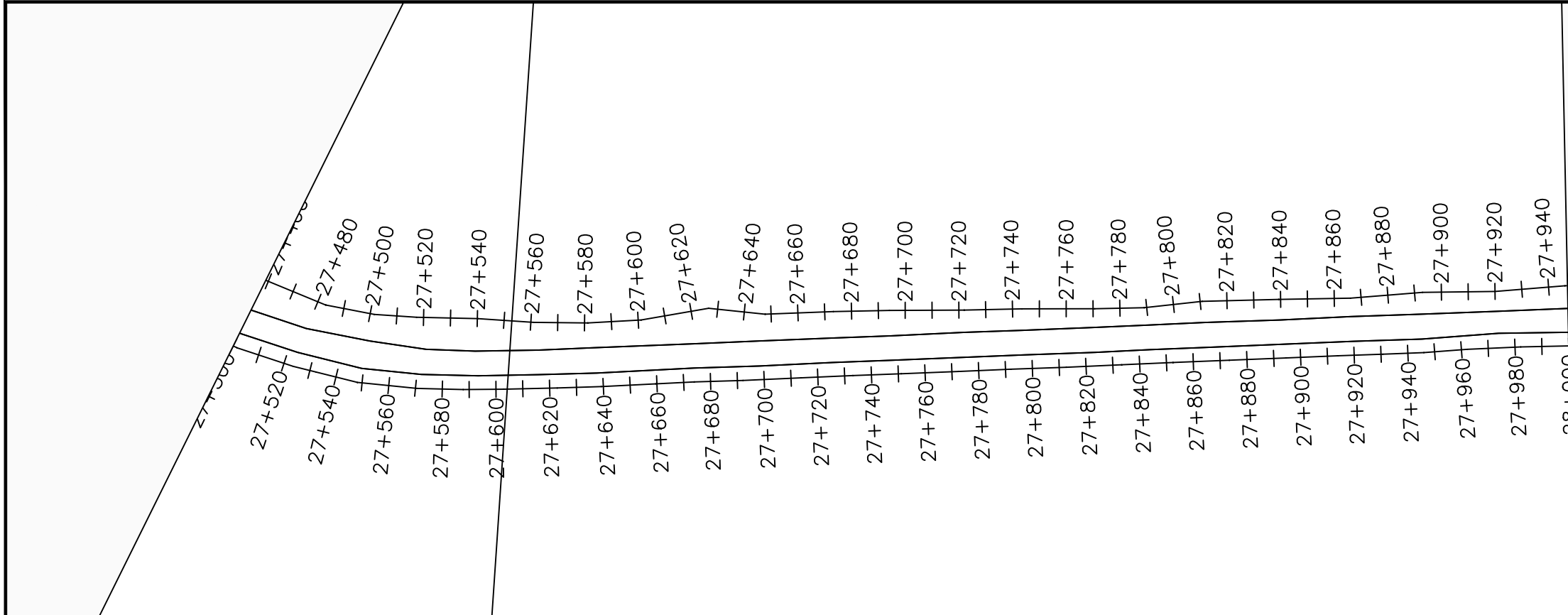
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
27+000 - 27+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	8 of 88



OD200PN10, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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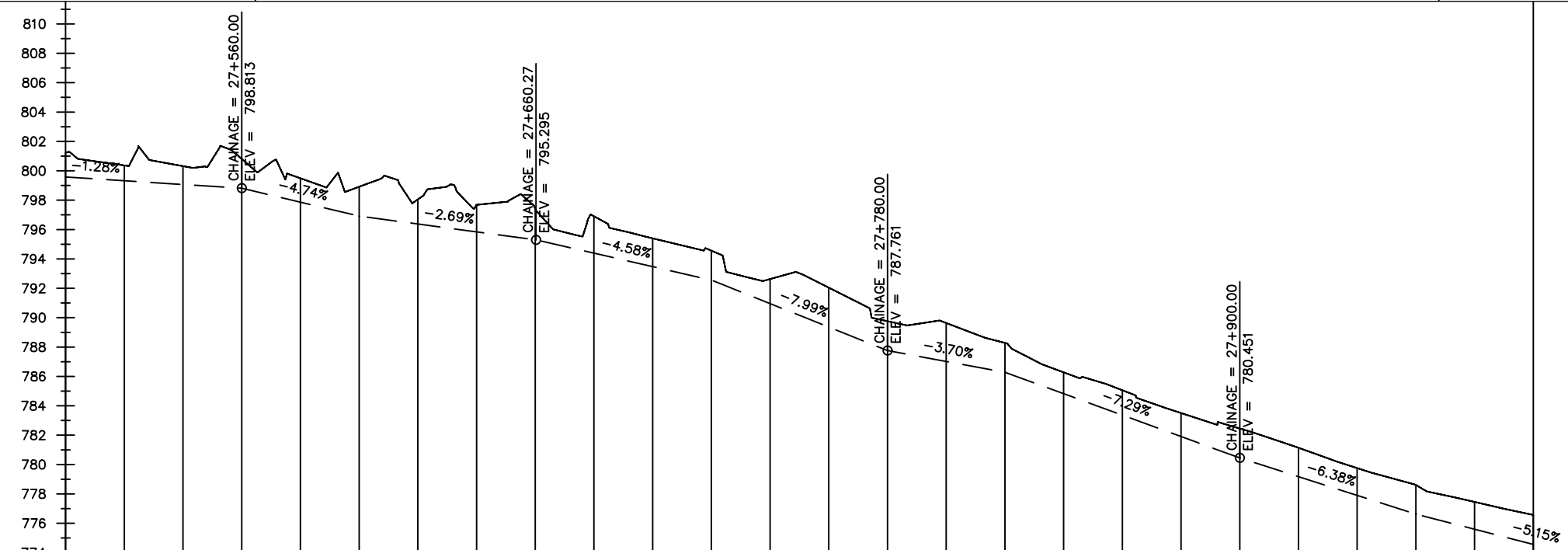
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

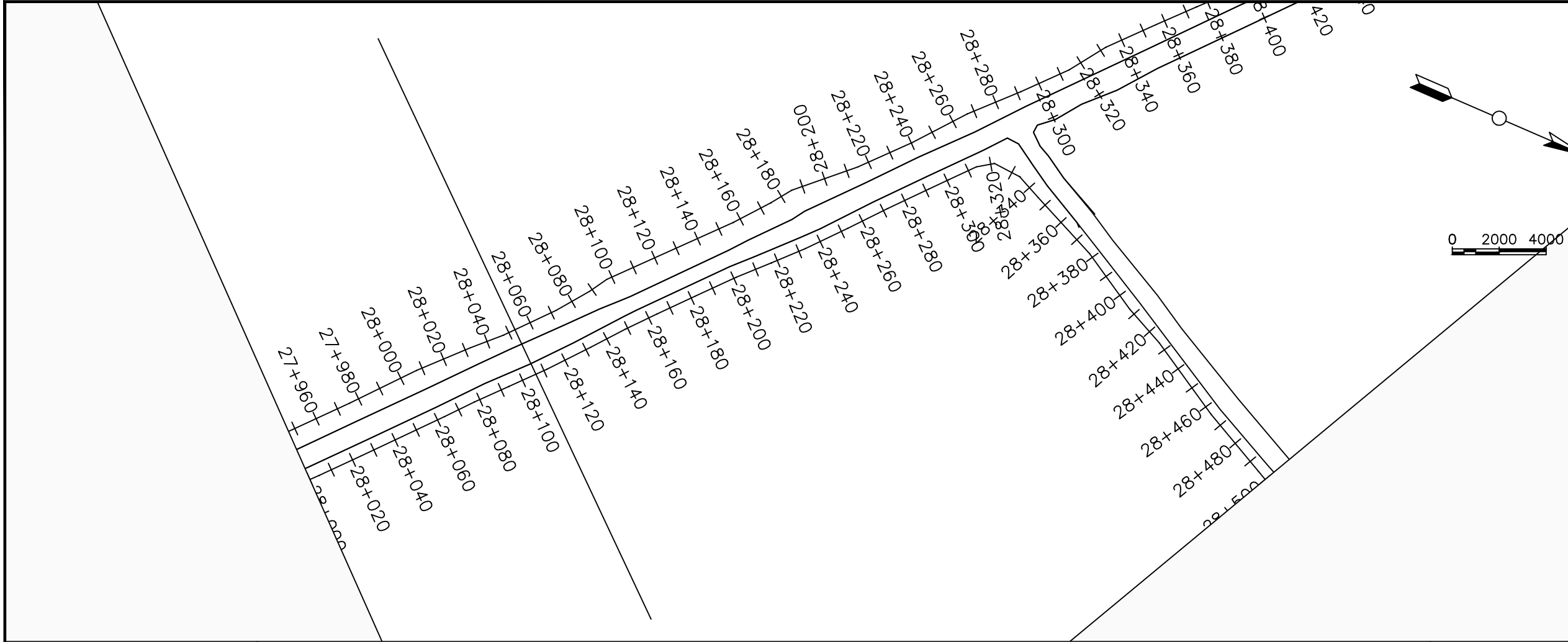
No	Date	Description

DRAWING TITLE :
TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
 27+500 - 28+000

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	9 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
27+500	801.24	799.58		OD200PN10, uPVC
27+520	800.37		-1.28%	
27+540	800.32			OD200PN10, uPVC
27+560	800.81	798.81	-4.74%	
27+580	799.49			OD200PN10, uPVC
27+600	798.92	796.92	-2.69%	
27+620	798.05			OD200PN10, uPVC
27+640	797.88		-4.58%	
27+660	797.43	795.30	-7.99%	OD200PN16, uPVC
27+680	796.91			
27+700	795.40			OD200PN16, uPVC
27+720	794.56	792.56	-3.70%	
27+740	792.63			OD200PN16, uPVC
27+760	792.04		-7.29%	
27+780	789.76	787.76	-6.38%	OD200PN16, uPVC
27+800	789.63			
27+820	788.28	786.28	-5.15%	OD200PN16, uPVC
27+840	786.28			
27+860	785.06			OD200PN16, uPVC
27+880	783.51			
27+900	782.45	780.45		OD200PN16, uPVC
27+920	781.14			
27+940	779.76			OD200PN16, uPVC
27+960	778.62	776.63		
27+980	777.46			OD200PN16, uPVC
28+000	776.57	774.56		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
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- WO Washout
- Node detail No.

CLIENT :

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CONSULTANT :

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PROJECT :

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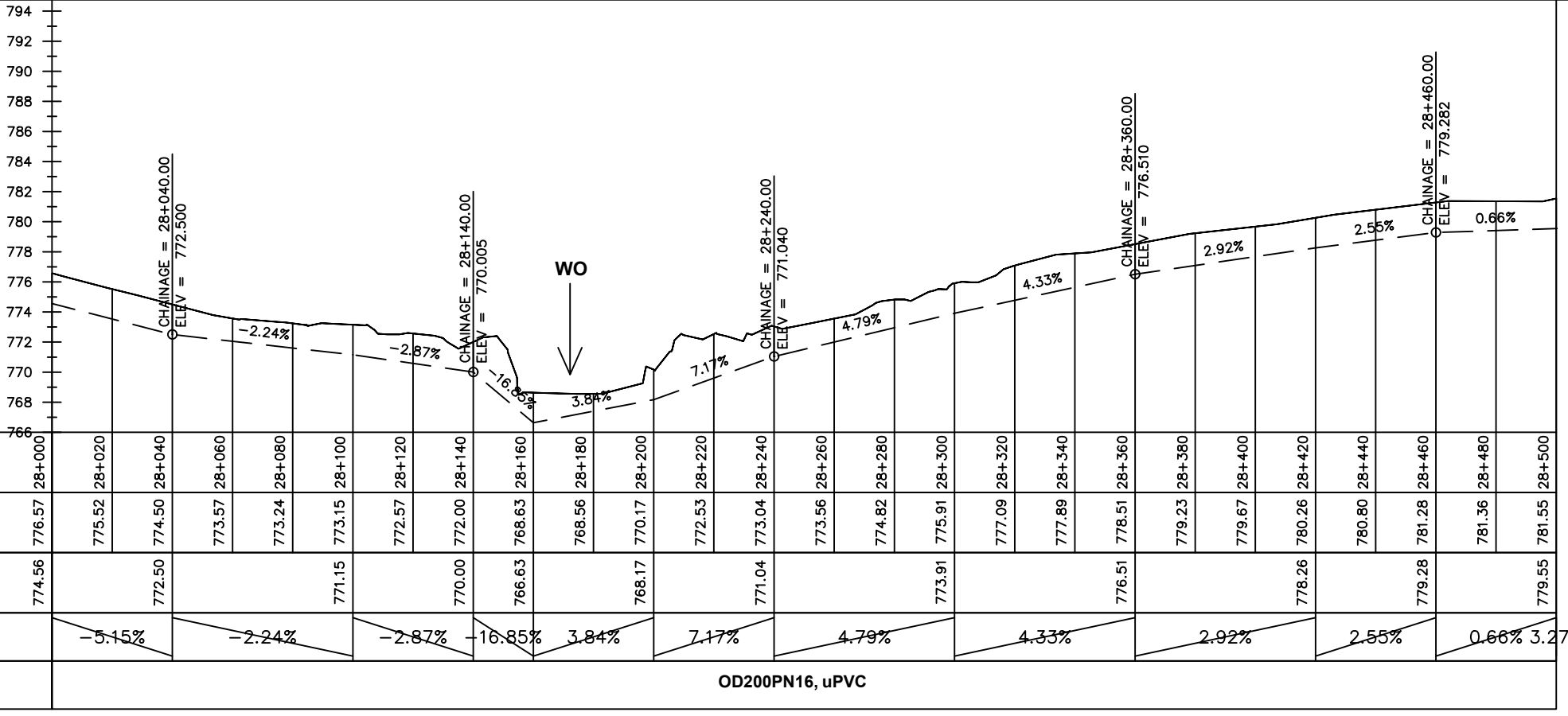
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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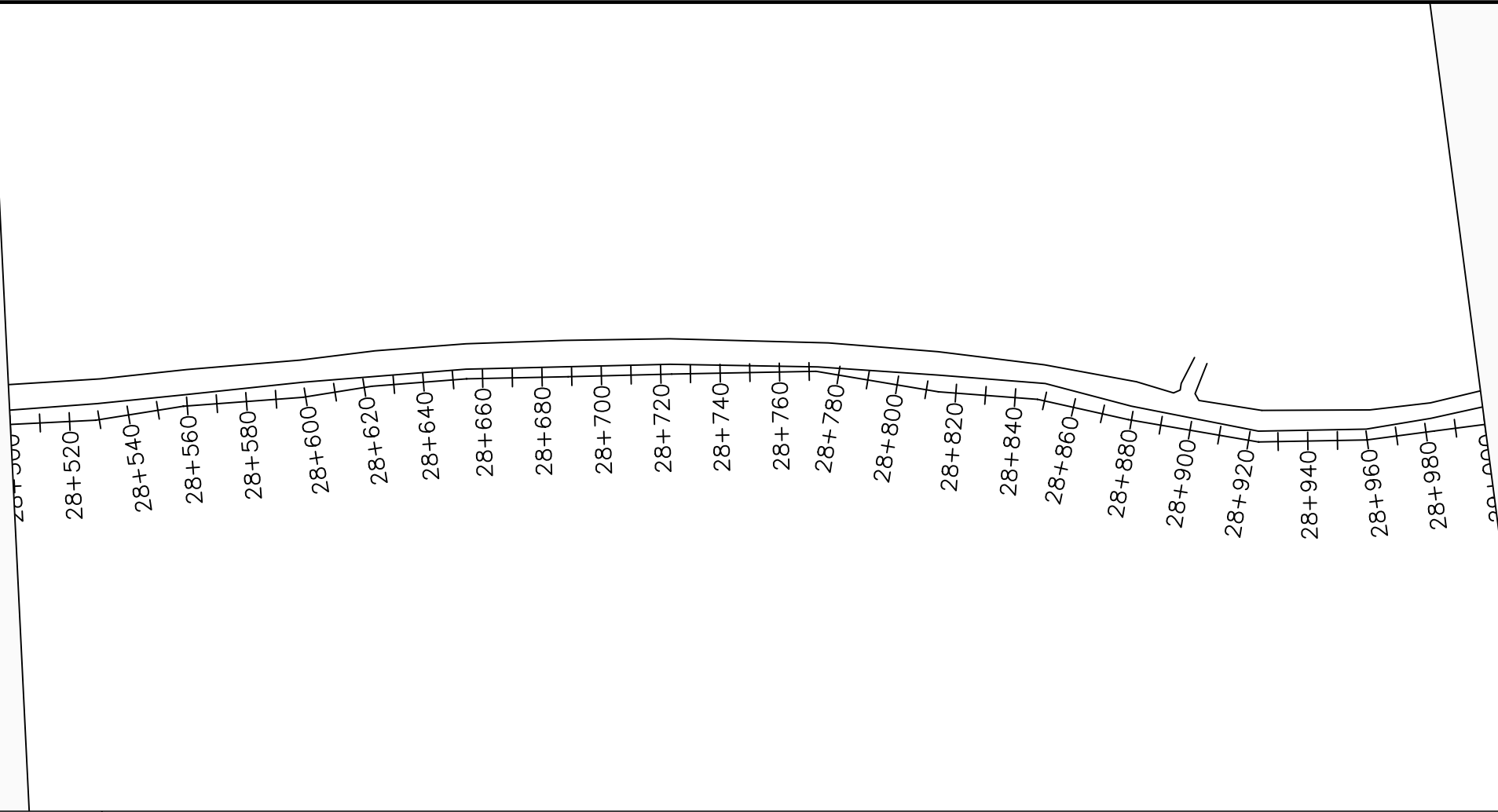
No	Date	Description

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
28+000 - 28+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	10 of 88



Chainages (m)	28+000	28+020	28+040	28+060	28+080	28+100	28+120	28+140	28+160	28+180	28+200	28+220	28+240	28+260	28+280	28+300	28+320	28+340	28+360	28+380	28+400	28+420	28+440	28+460	28+480	28+500		
Ground Levels (masl)	776.57	775.52	774.50	773.57	773.24	773.15	772.57	772.00	768.63	768.56	770.17	772.53	773.04	773.56	774.82	775.91	777.09	777.89	778.51	779.23	779.67	780.26	780.80	781.28	781.36	781.55		
Invert Levels (masl)	774.56	772.50	771.15	770.00	766.63	768.17	771.04	773.91	776.51	778.26	779.28	779.55																
Slope (%)		-5.15%	-2.24%	-2.87%	-16.85%	3.84%	7.17%	4.79%	4.33%	2.92%	2.55%	0.66%	3.27%															
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
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Profile

- Ground Level
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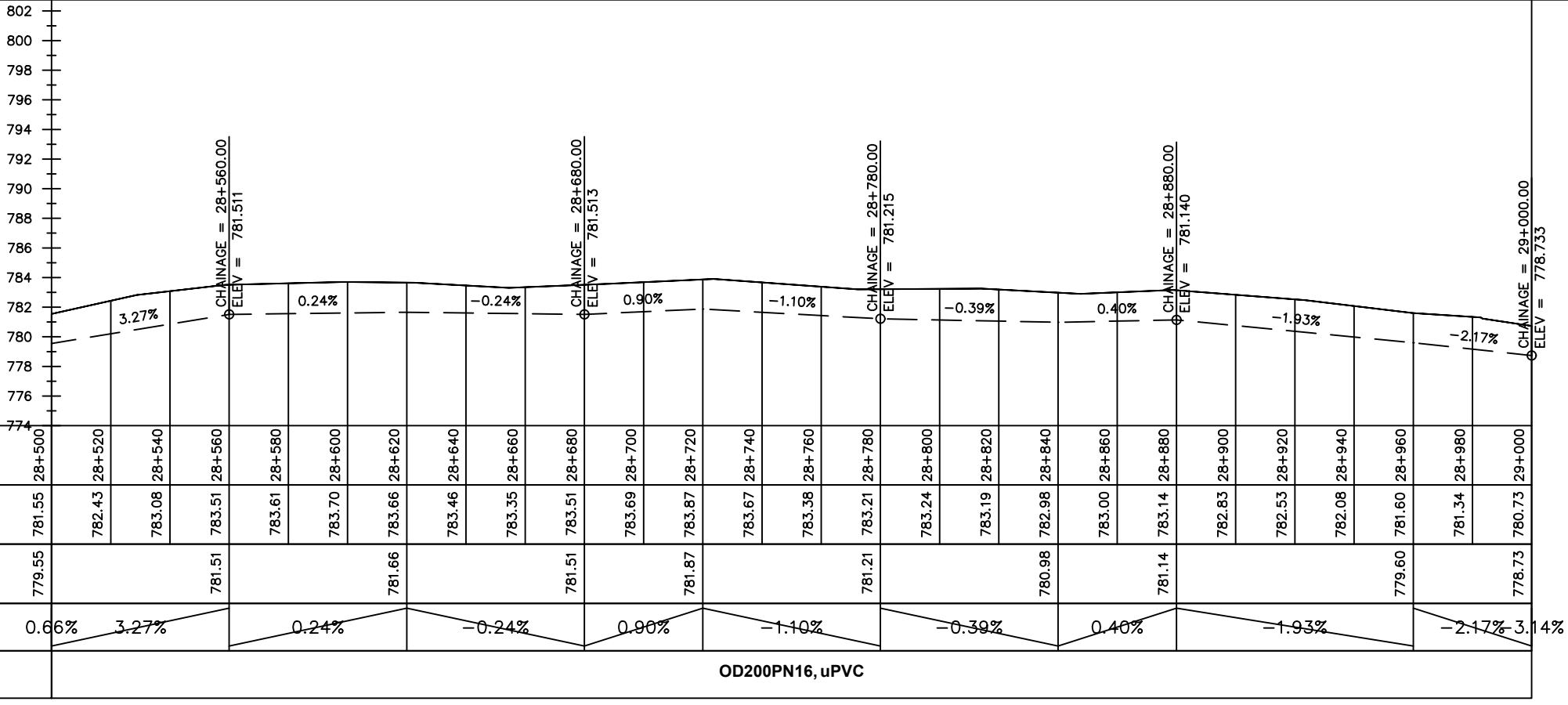
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No	Date	Description

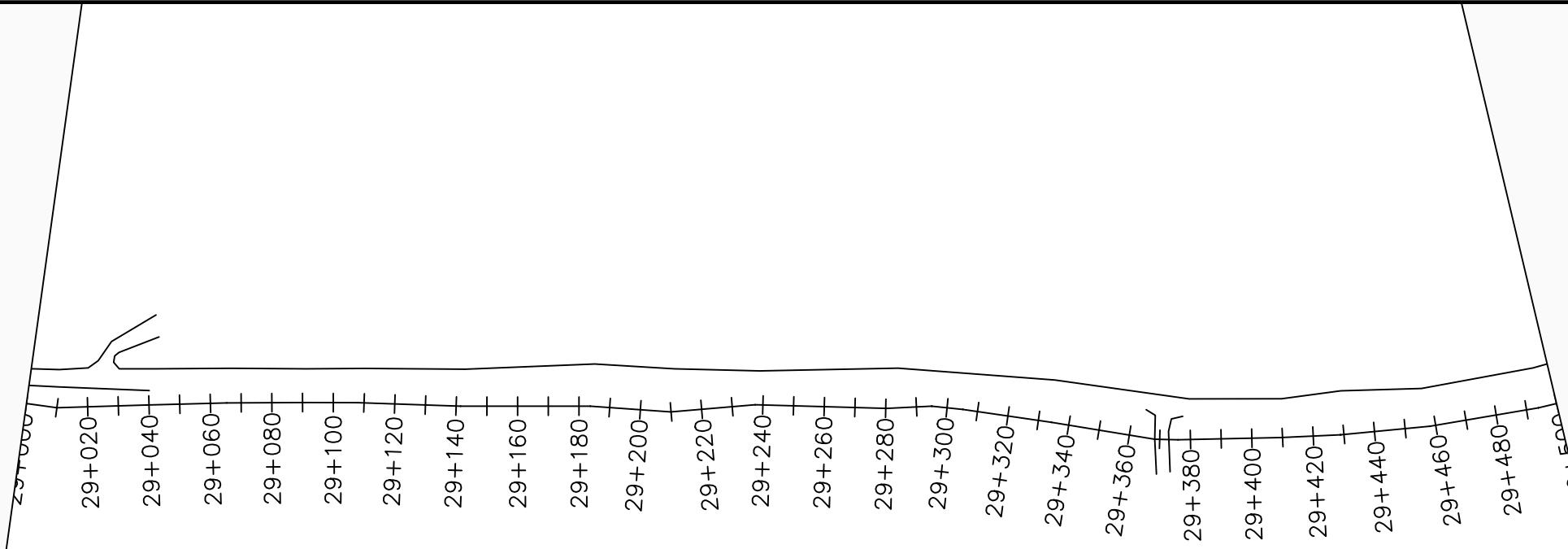
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
28+500 - 29+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
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Date:	January 2023
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Scale:	1:2000
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Chainages (m)	28+500	28+520	28+540	28+560	28+580	28+600	28+620	28+640	28+660	28+680	28+700	28+720	28+740	28+760	28+780	28+800	28+820	28+840	28+860	28+880	28+900	28+920	28+940	28+960	28+980	29+000		
Ground Levels (masl)	781.55	782.43	783.08	783.51	783.61	783.70	783.66	783.46	783.35	783.51	783.69	783.87	783.67	783.38	783.21	783.24	783.19	782.98	783.00	783.14	782.83	782.53	782.08	781.60	781.34	780.73		
Invert Levels (masl)	779.55	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	781.51	
Slope (%)	0.66%	3.27%	0.24%	-0.24%	0.90%	-1.10%	-0.39%	0.40%	-1.93%	-2.17%	3.14%																	
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

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Profile

- Ground Level
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- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

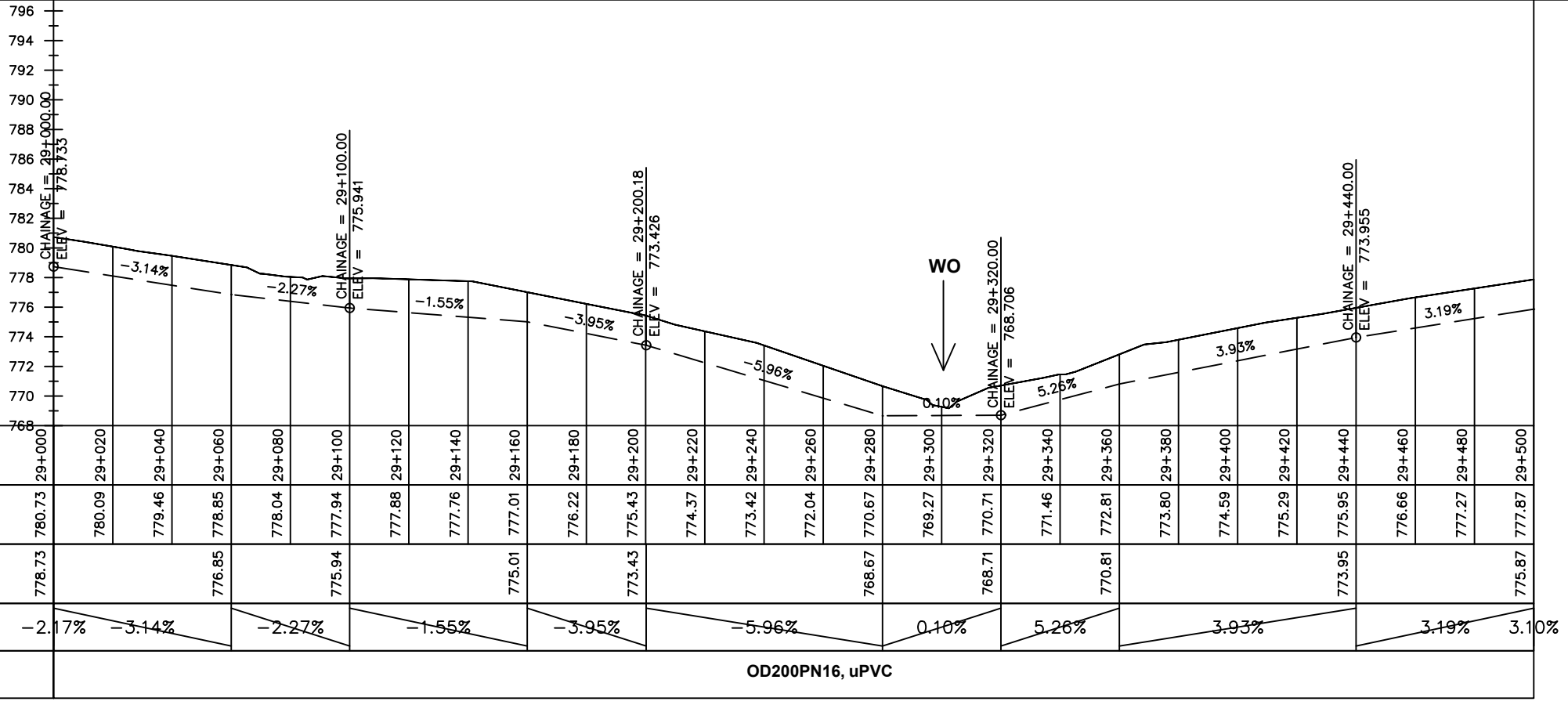
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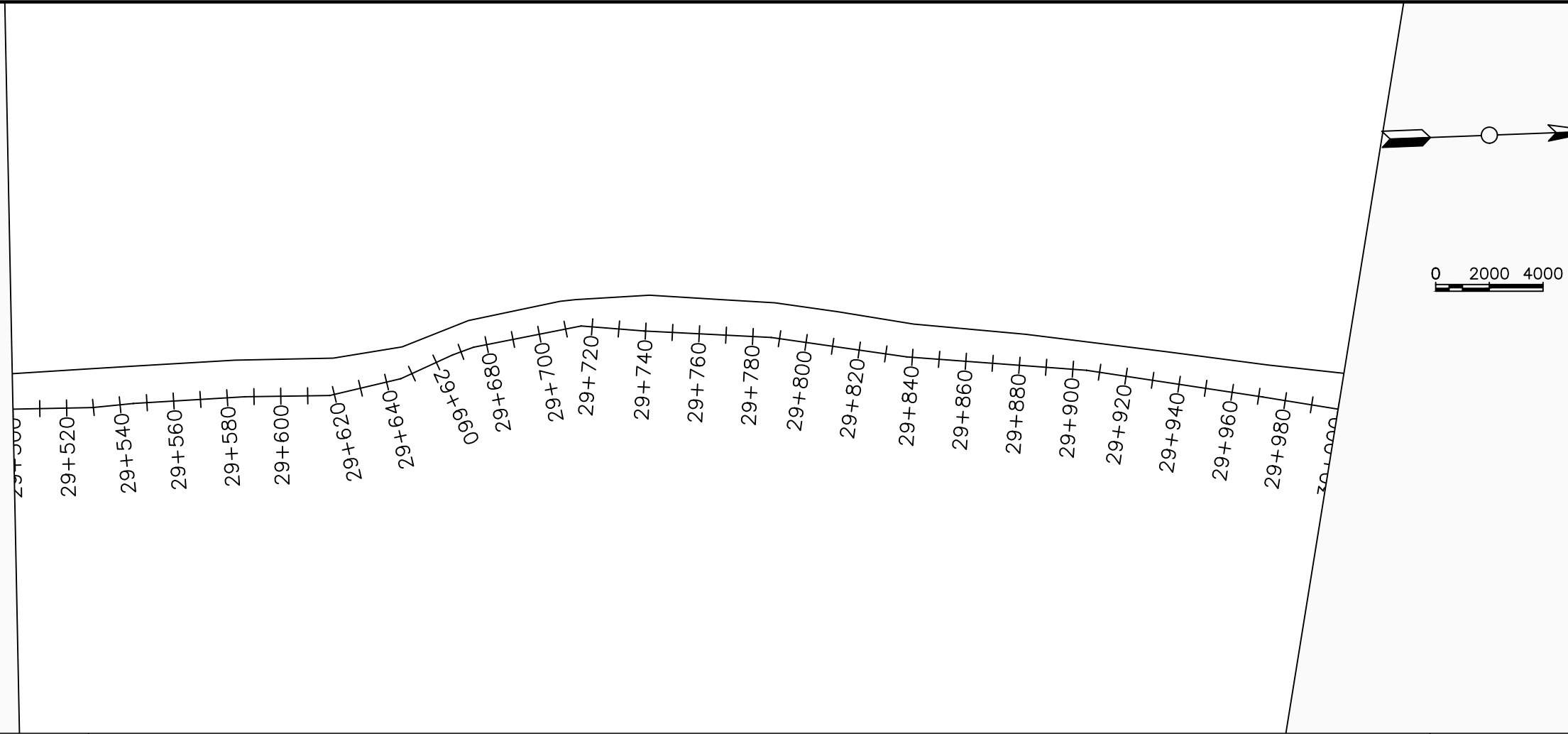
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
29+000 - 29+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	12 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

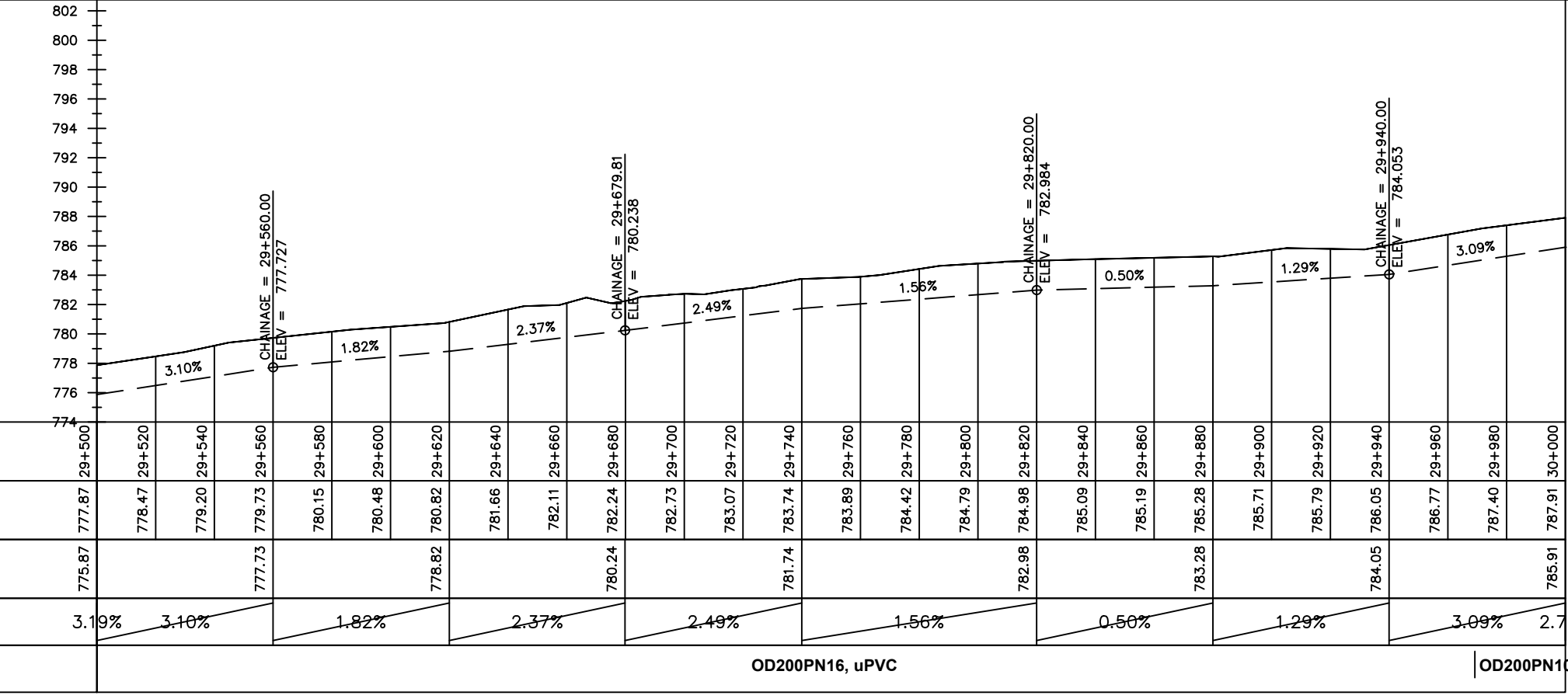
REVISIONS :

No	Date	Description

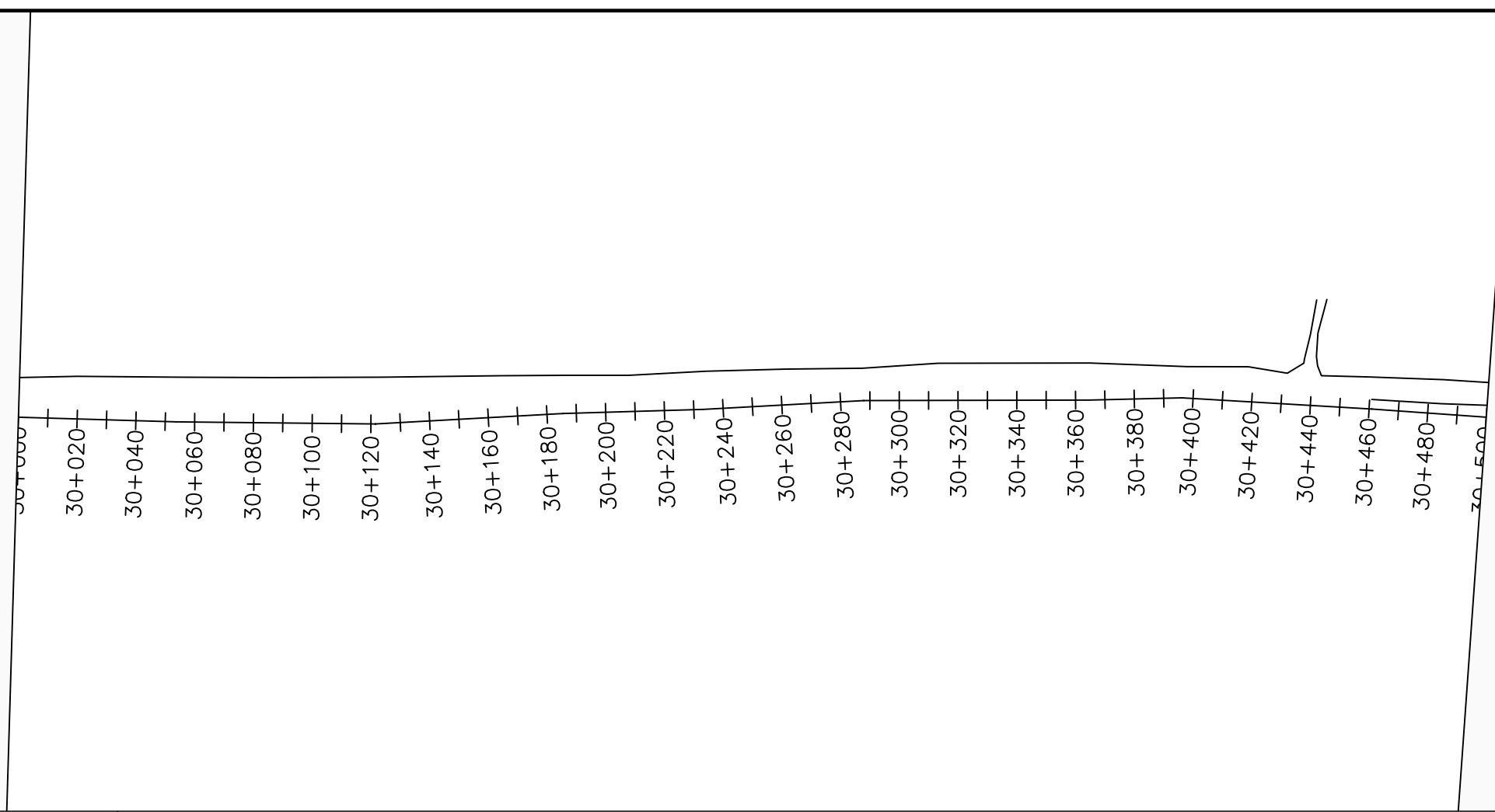
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
29+500 - 30+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
29+500	777.87	775.87	3.19%	OD200PN16, uPVC
29+520	778.47	777.73	3.10%	
29+540	779.20	778.82	1.82%	OD200PN10, uPVC
29+560	779.73	778.24	2.37%	
29+580	780.15	780.24	2.49%	OD200PN16, uPVC
29+600	780.48	781.74	1.56%	
29+620	780.82	782.98	0.50%	OD200PN10, uPVC
29+640	781.66	783.28	1.29%	
29+660	782.11	784.05	3.09%	OD200PN16, uPVC
29+680	782.73	786.77	2.70%	
29+700	783.07	787.40		
29+720	783.74	787.91		
29+740	783.89			
29+760	784.42			
29+780	784.79			
29+800	784.98			
29+820	785.09			
29+840	785.19			
29+860	785.28			
29+880	785.71			
29+900	785.79			
29+920	786.05			
29+940	786.77			
29+960	787.40			
29+980	787.91			
30+000	787.91			



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

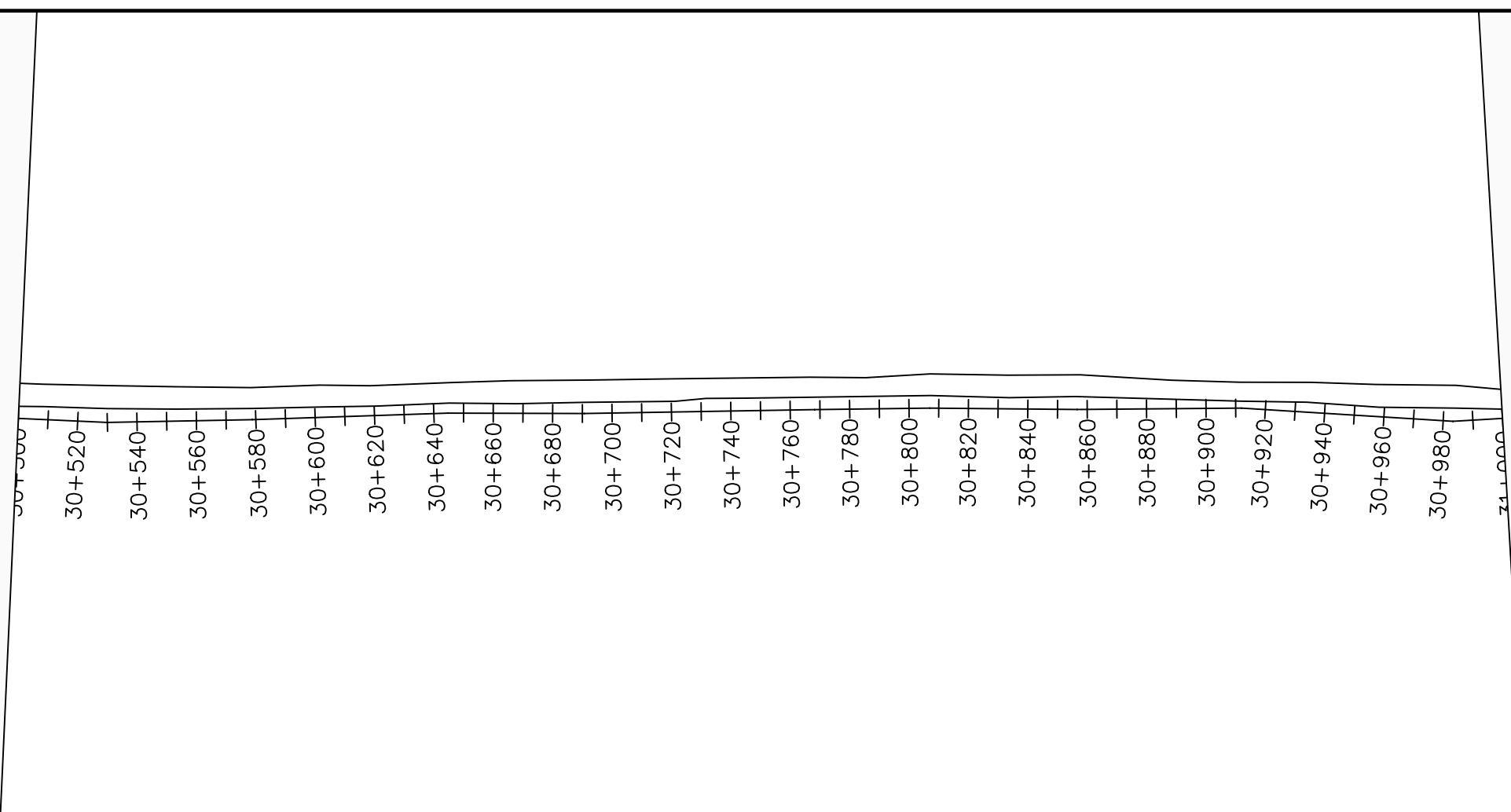
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
30+000 - 30+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	14 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
30+000	787.91	785.91	3.09%	OD200PN10, uPVC
30+020	788.42		2.70%	
30+040	788.97			
30+060	789.53	787.53	2.88%	
30+080	790.11			
30+100	790.67		2.71%	
30+120	791.26	789.26		
30+140	791.80			
30+160	792.34		2.86%	
30+180	792.88	790.88		
30+200	793.51			
30+220	794.10		2.63%	
30+240	794.60	792.60		
30+260	795.17			
30+280	795.70		2.09%	
30+300	796.17	794.17		
30+320	796.69			
30+340	797.09		1.47%	
30+360	797.49			
30+380	797.84	795.84		
30+400	798.19			
30+420	798.43	796.43	-1.49%	
30+440	798.20			
30+460	797.95			
30+480	797.54	795.54		
30+500	797.31	795.14	-2.02%	



LEGEND

Plan

- Transmission Main
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- Road
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Profile

- Ground Level
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- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

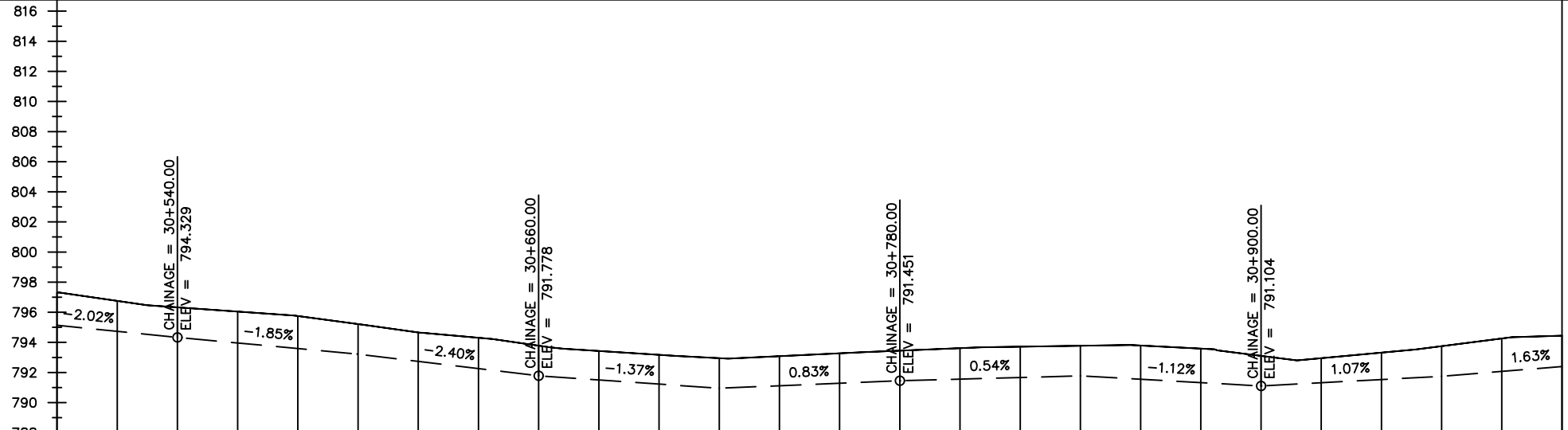
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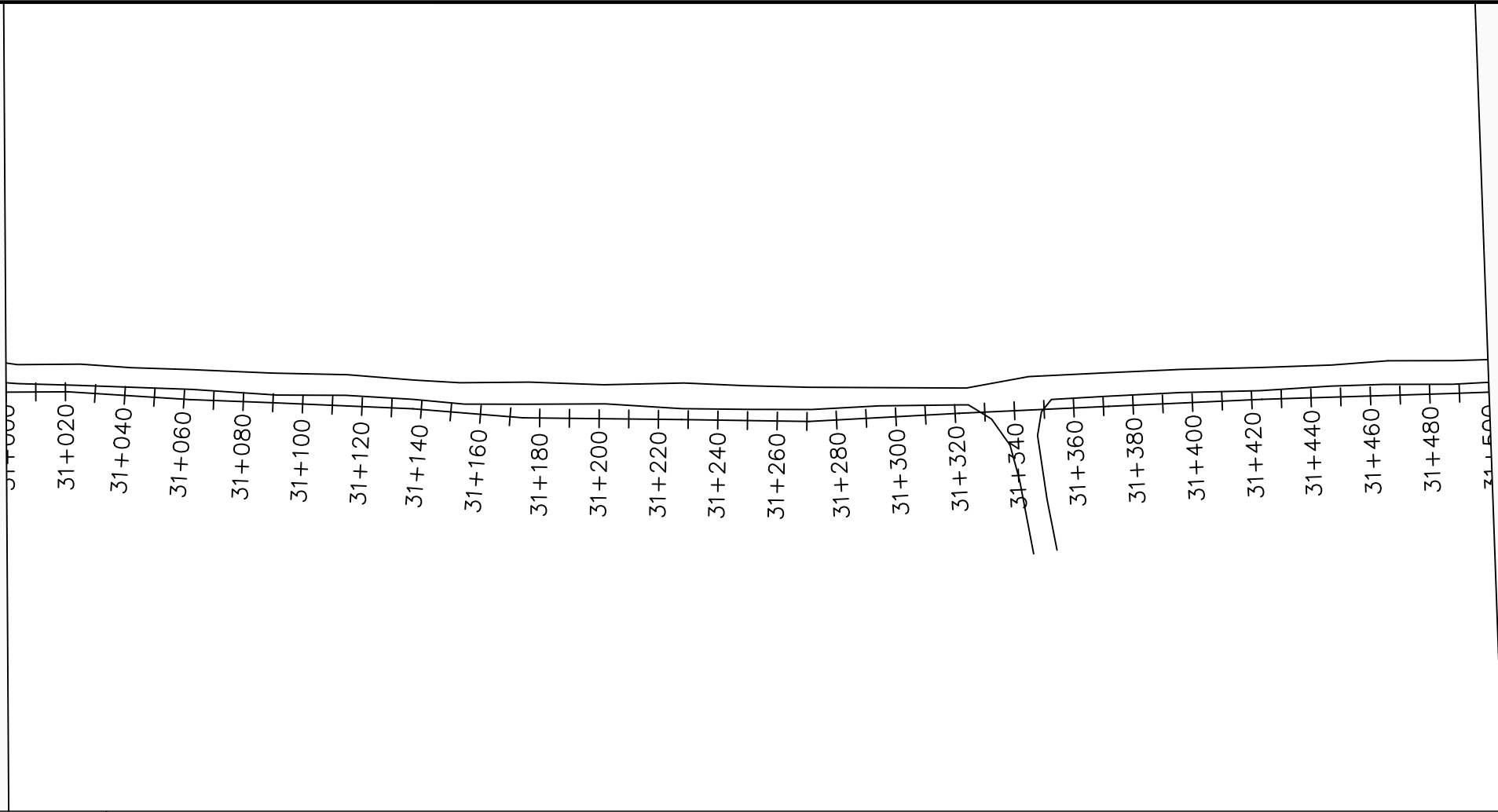
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
30+500 - 31+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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Chainages (m)	30+500	30+520	30+540	30+560	30+580	30+600	30+620	30+640	30+660	30+680	30+700	30+720	30+740	30+760	30+780	30+800	30+820	30+840	30+860	30+880	30+900	30+920	30+940	30+960	30+980	31+000		
Ground Levels (masl)	797.31	796.76	796.33	796.05	795.75	795.22	794.66	794.30	793.78	793.43	793.17	792.95	793.09	793.28	793.45	793.61	793.71	793.77	793.79	793.58	793.10	792.95	793.32	793.75	794.26	794.45		
Invert Levels (masl)	795.14		794.33			793.23			791.78			790.95			791.45			791.77			791.10			791.75		792.40		
Slope (%)		-2.02%		-1.85%		-2.40%		-2.40%		-1.37%		0.83%		0.54%		-1.12%		1.07%			1.63%							
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

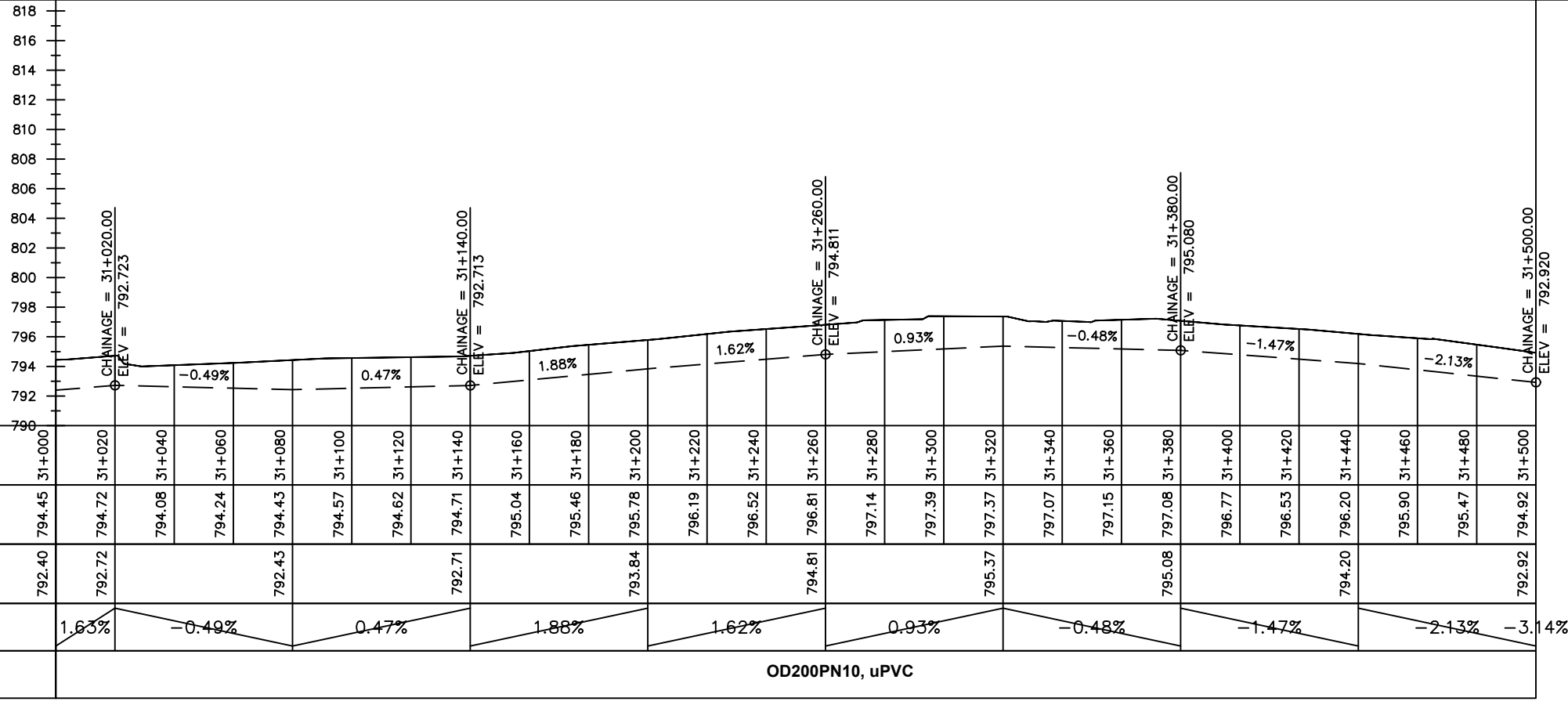
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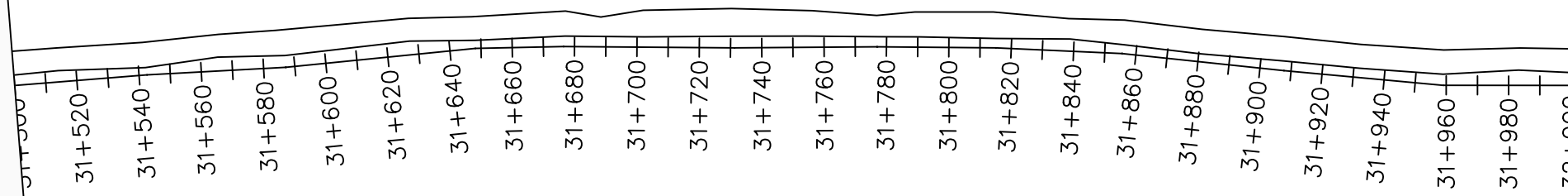
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
31+000 - 31+500

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Drawn by:	M.K
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Date:	January 2023
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

0 2000 4000

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

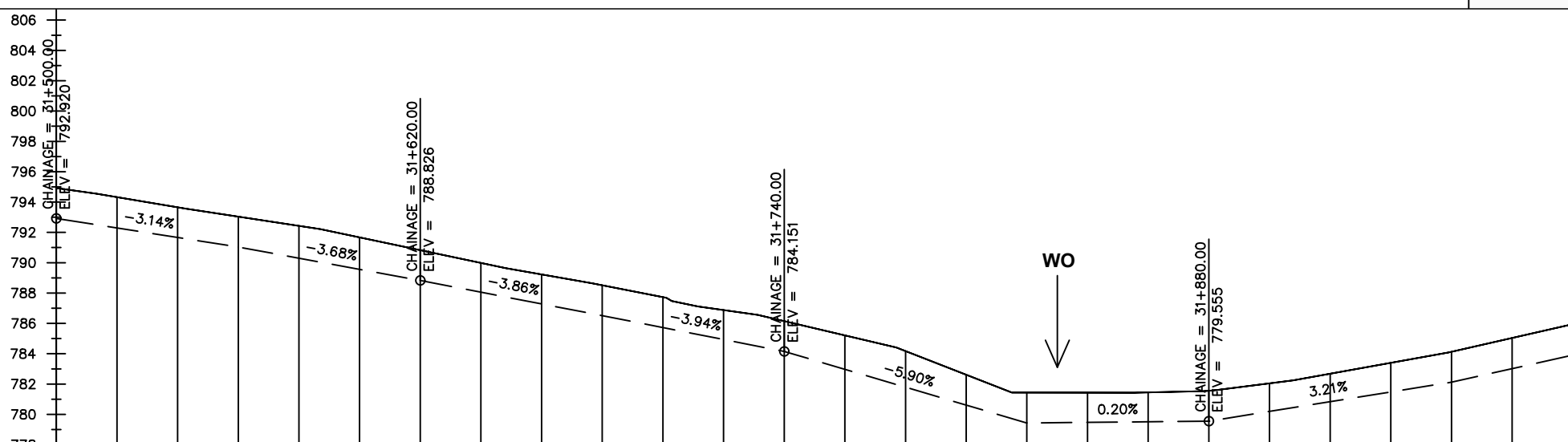
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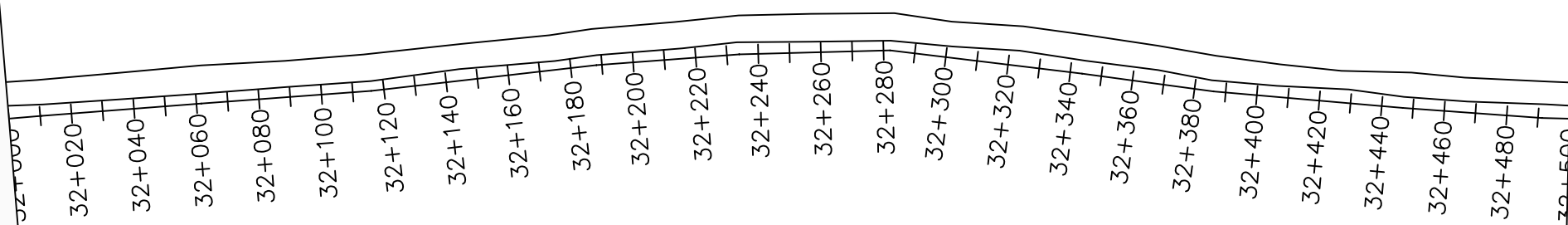
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
31+500 - 32+000

Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	17 of 88



Chainages (m)	31+500	31+520	31+540	31+560	31+580	31+600	31+620	31+640	31+660	31+680	31+700	31+720	31+740	31+760	31+780	31+800	31+820	31+840	31+860	31+880	31+900	31+920	31+940	31+960	31+980	32+000		
Ground Levels (masl)	794.92	794.33	793.65	793.04	792.43	791.67	790.83	789.98	789.23	788.51	787.73	786.88	786.15	785.21	784.17	782.61	781.43	781.43	781.45	781.56	782.04	782.68	783.40	784.12	785.04	785.95		
Invert Levels (masl)	792.92			791.04			788.83			786.51			784.15				779.43			779.56				782.12		783.91		
Slope (%)	-2.13%	-3.14%		-3.68%			-3.86%			-3.94%			-5.90%			0.20%				3.21%						4.47%		
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

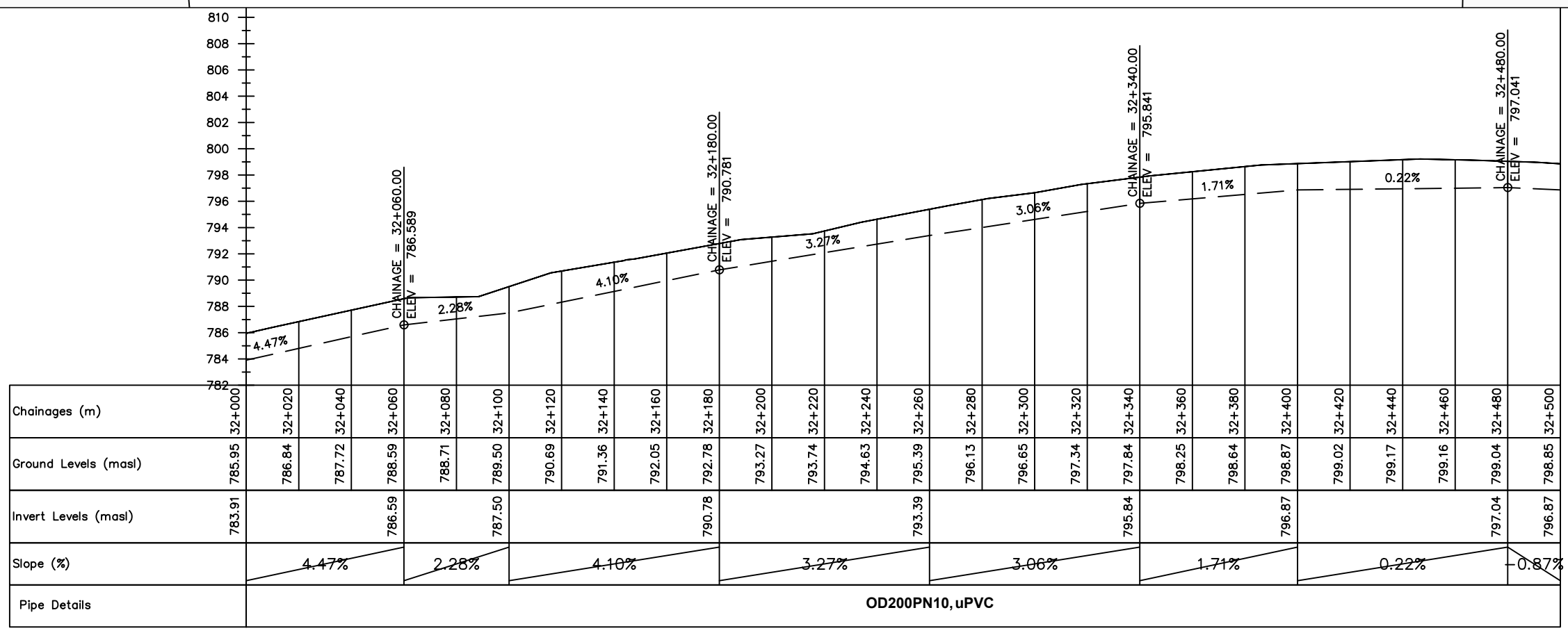
REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
32+000 - 32+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

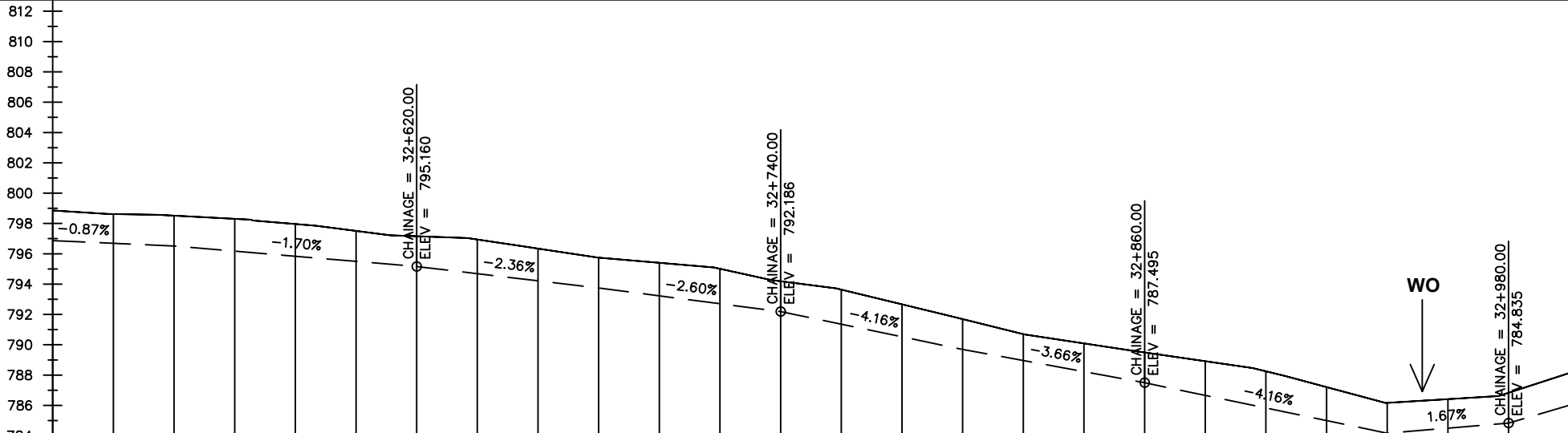
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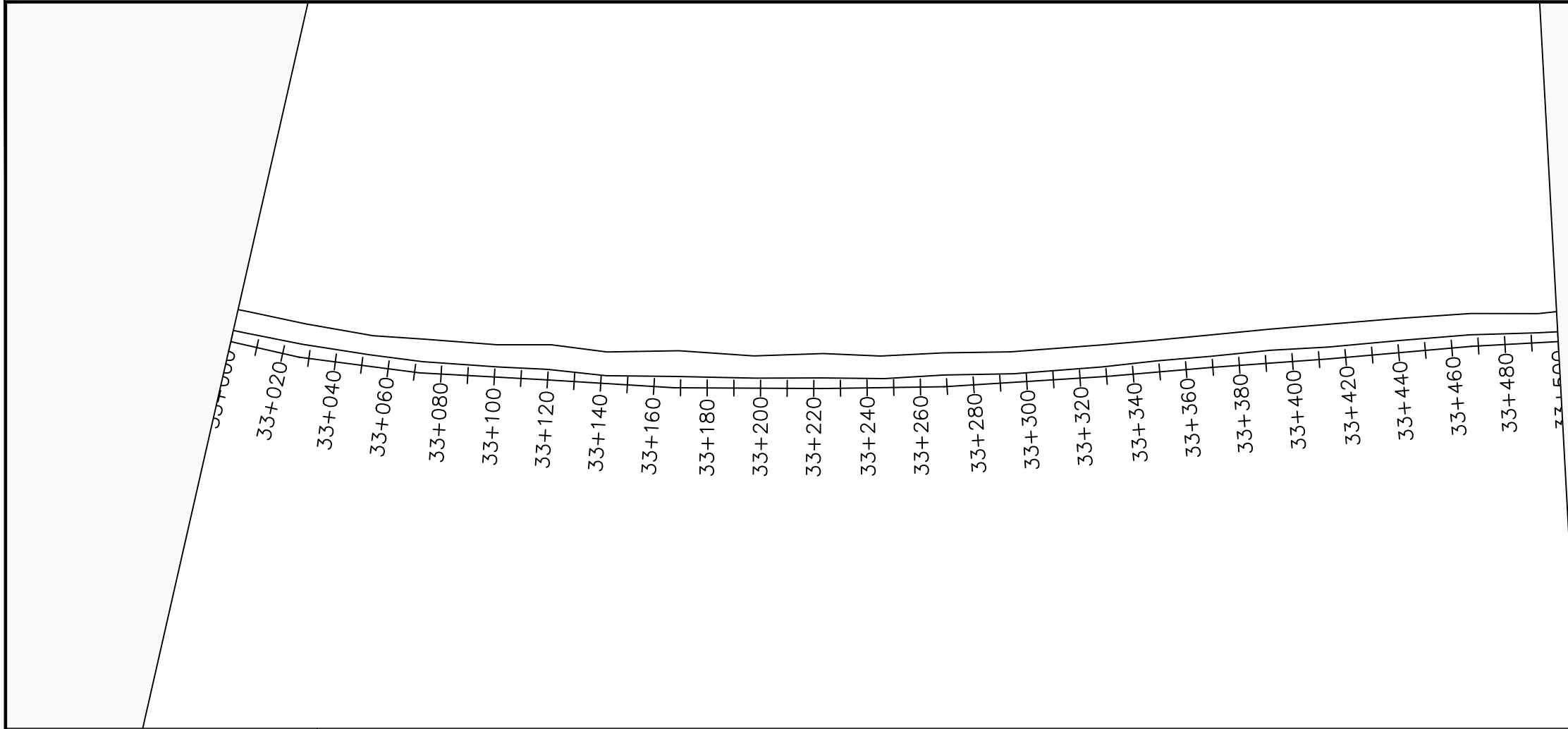
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
32+500 - 33+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	19 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
32+500	798.85	796.87		OD200PN10, uPVC
32+520	798.62		-0.87%	
32+540	798.52	796.52		
32+560	798.30		-1.70%	
32+580	797.96			
32+600	797.51		-2.36%	
32+620	797.16	795.16		
32+640	796.94		-2.60%	
32+660	796.34		-4.16%	
32+680	795.75	793.75		
32+700	795.41		-3.66%	
32+720	795.01		-4.16%	
32+740	794.19	792.19		
32+760	793.64		-4.16%	
32+780	792.67		-3.66%	
32+800	791.69	789.69		
32+820	790.70		-4.16%	
32+840	790.09		1.67%	
32+860	789.49	787.49		
32+880	788.91		5.86%	
32+900	788.25			
32+920	787.21			
32+940	786.17	784.17		
32+960	786.41			
32+980	786.84	784.84		
33+000	788.14	786.01		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

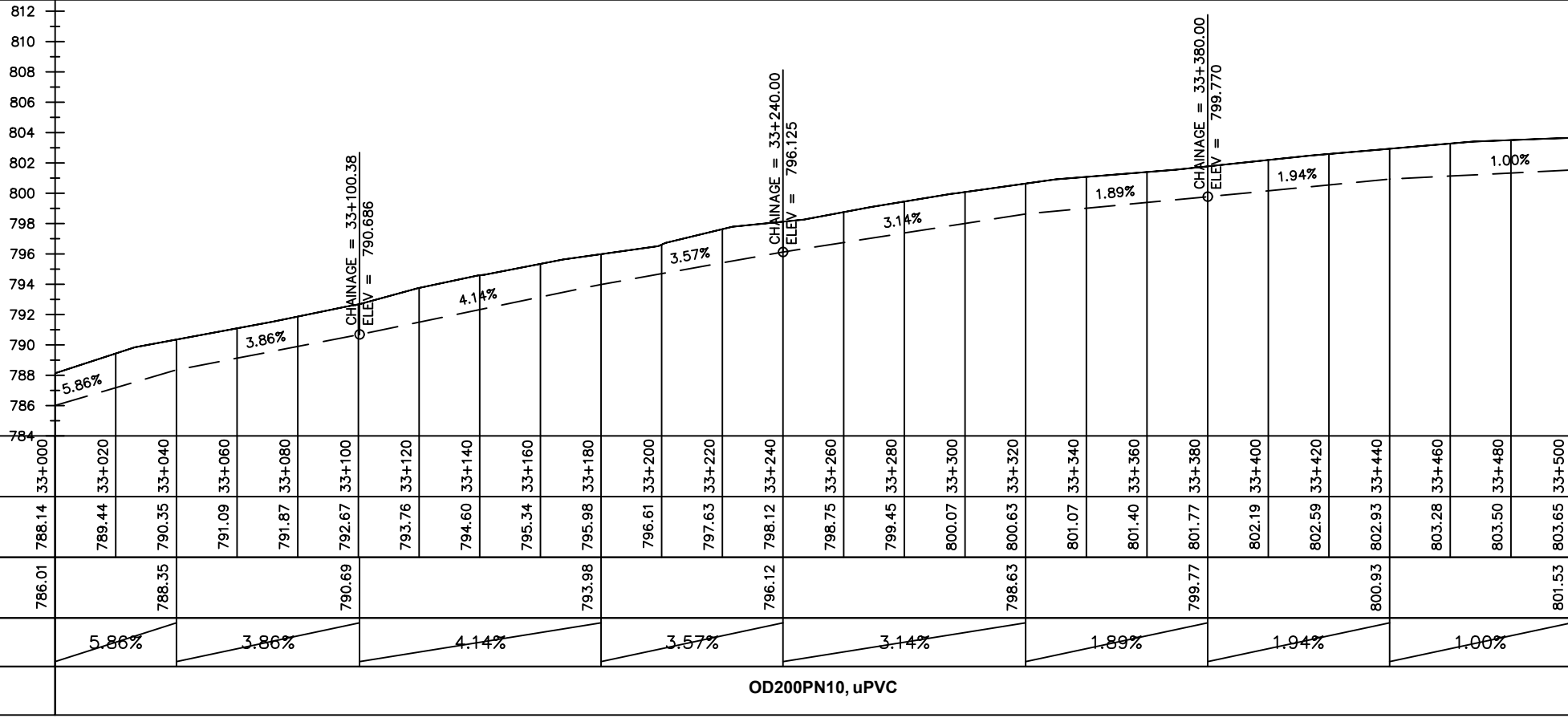
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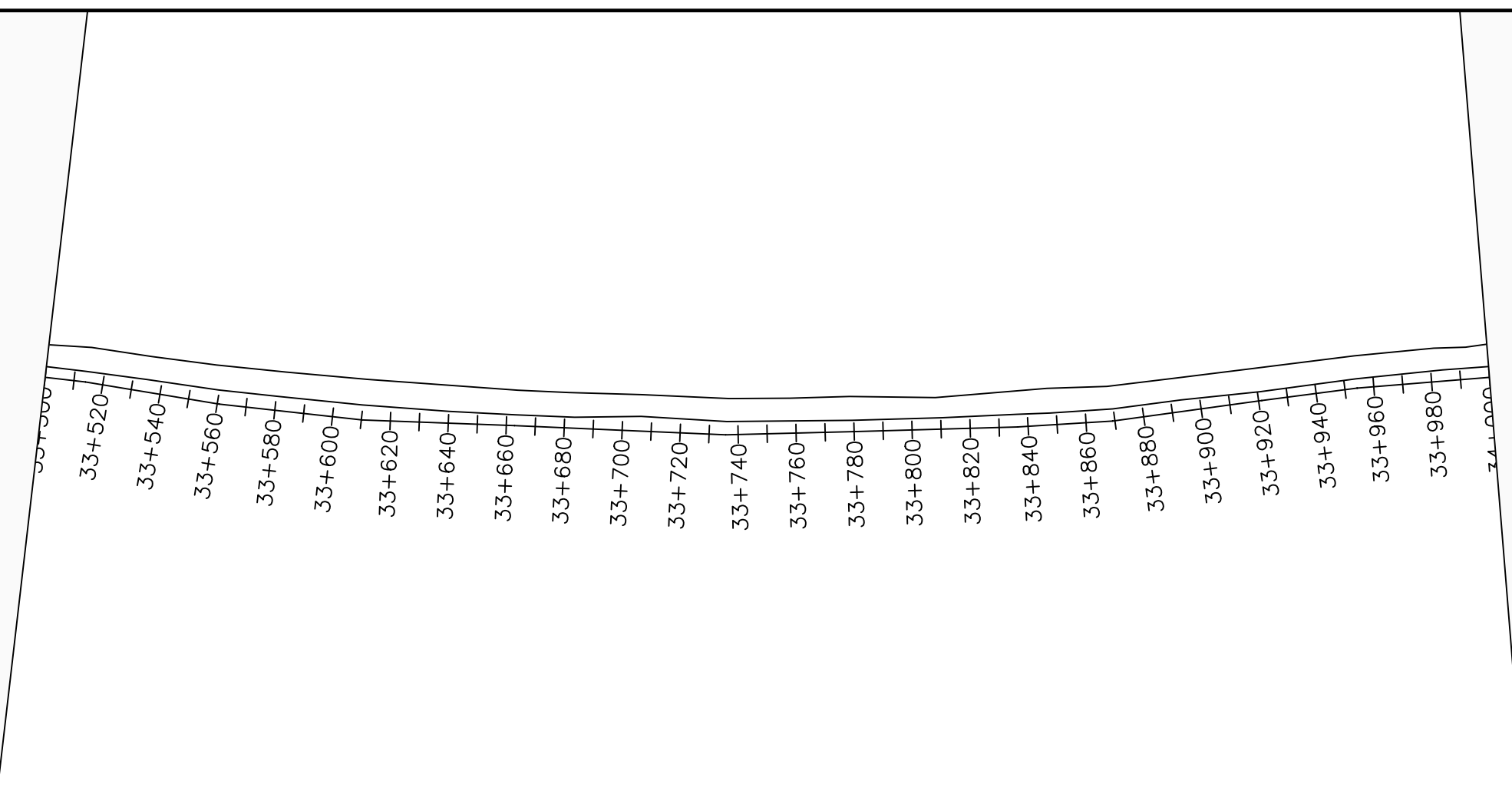
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
33+000 - 33+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	20 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
33+000	788.14	786.01		OD200PN10, uPVC
33+020	789.44		5.86%	
33+040	790.35	788.35		
33+060	791.09		3.86%	
33+080	791.87			
33+100	792.67	790.69		
33+120	793.76		4.14%	
33+140	794.60			
33+160	795.34		3.57%	
33+180	795.98	793.98		
33+200	796.61		3.14%	
33+220	797.63			
33+240	798.12	796.12		
33+260	798.75		1.89%	
33+280	799.45			
33+300	800.07		1.94%	
33+320	800.63	800.63		
33+340	801.07		1.00%	
33+360	801.40			
33+380	801.77	801.77		
33+400	802.19			
33+420	802.59			
33+440	802.93	800.93		
33+460	803.28			
33+480	803.50			
33+500	803.65	801.53		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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Profile

- Ground Level
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- Node detail No.

CLIENT :

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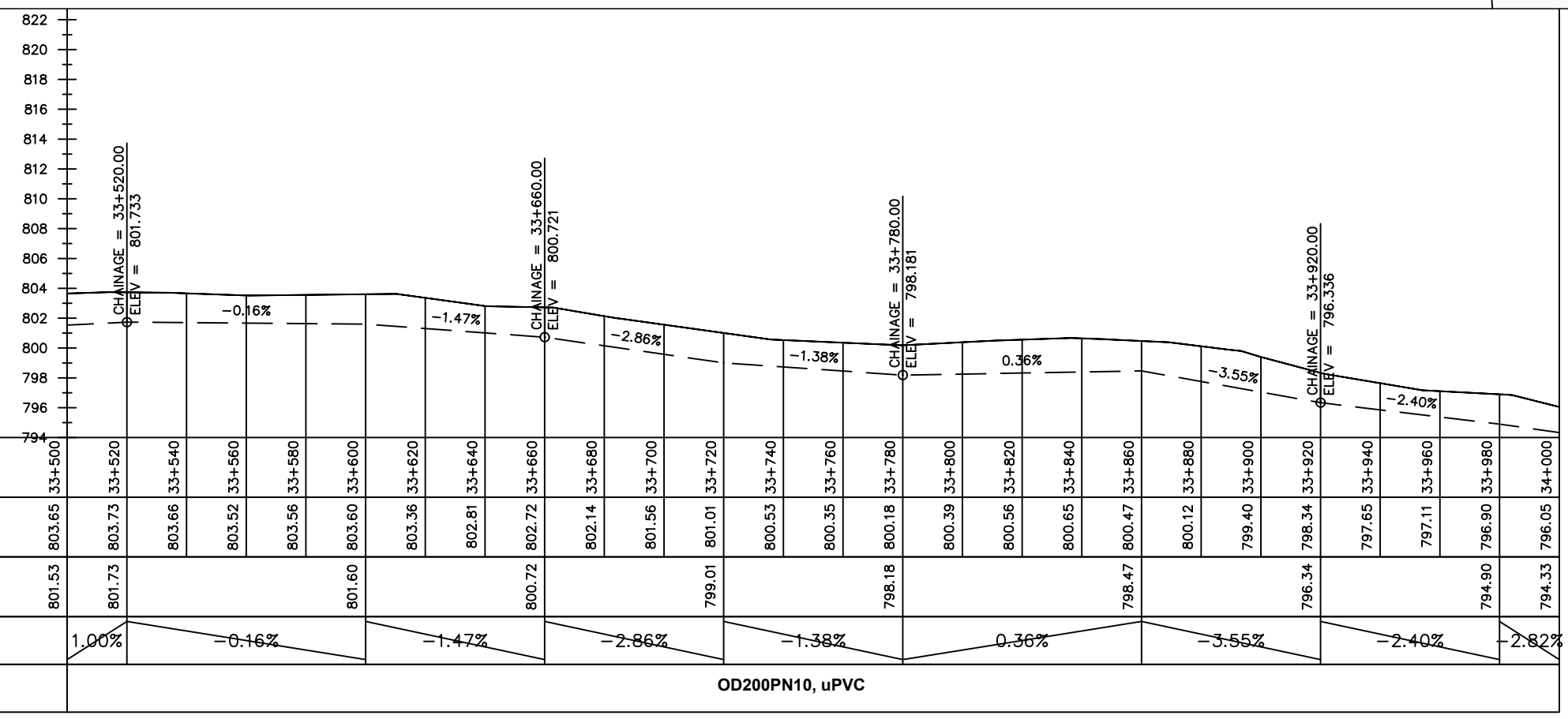
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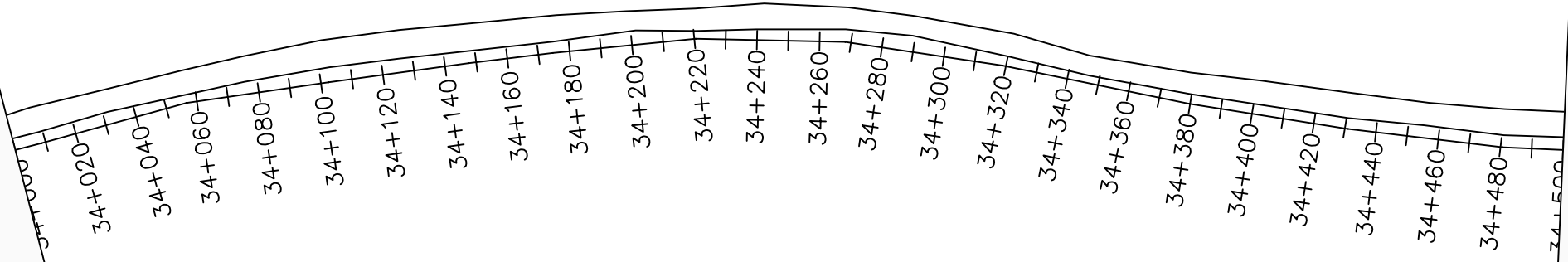
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
33+500 - 34+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	21 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
33+500	803.65	801.53	1.00%	OD200PN10, uPVC
33+520	803.73	801.73	-0.16%	
33+540	803.66	801.60	-1.47%	
33+560	803.52	800.72	-2.86%	
33+580	803.56	799.01	-1.38%	
33+600	803.60	798.18	0.36%	
33+620	803.36	798.47	-3.55%	
33+640	802.81	794.90	-2.40%	
33+660	802.72	794.33	-2.82%	
33+680	802.14			
33+700	801.56			
33+720	801.01			
33+740	800.53			
33+760	800.35			
33+780	800.18			
33+800	800.39			
33+820	800.56			
33+840	800.65			
33+860	800.47			
33+880	800.12			
33+900	799.40			
33+920	798.34			
33+940	797.65			
33+960	797.11			
33+980	796.90			
34+000	796.05			



LEGEND

Plan

- Transmission Main
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Profile

- Ground Level
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- WO Washout
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

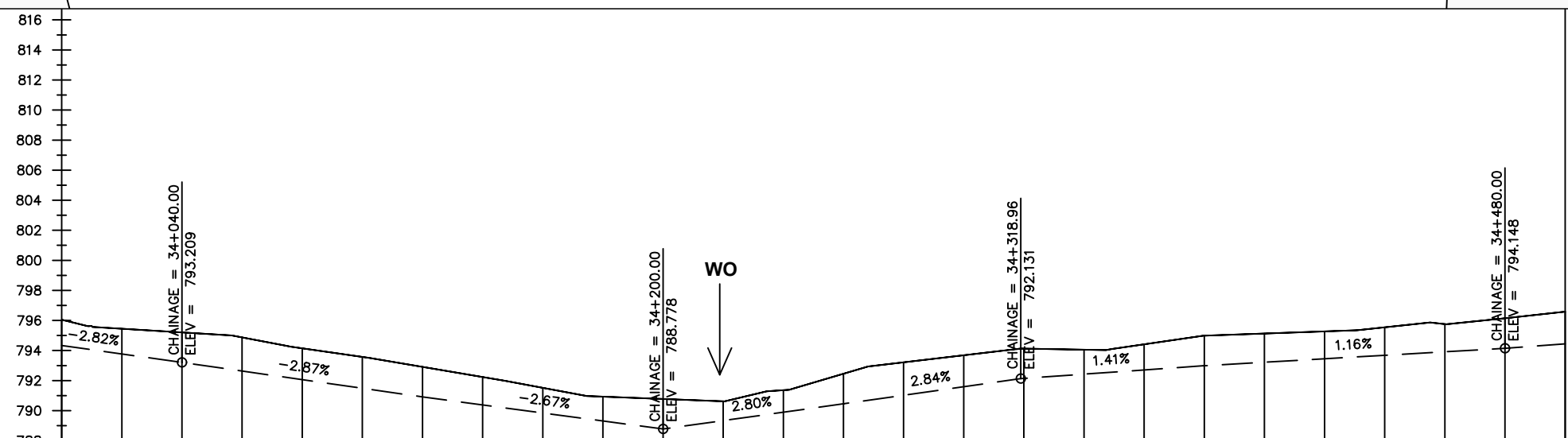
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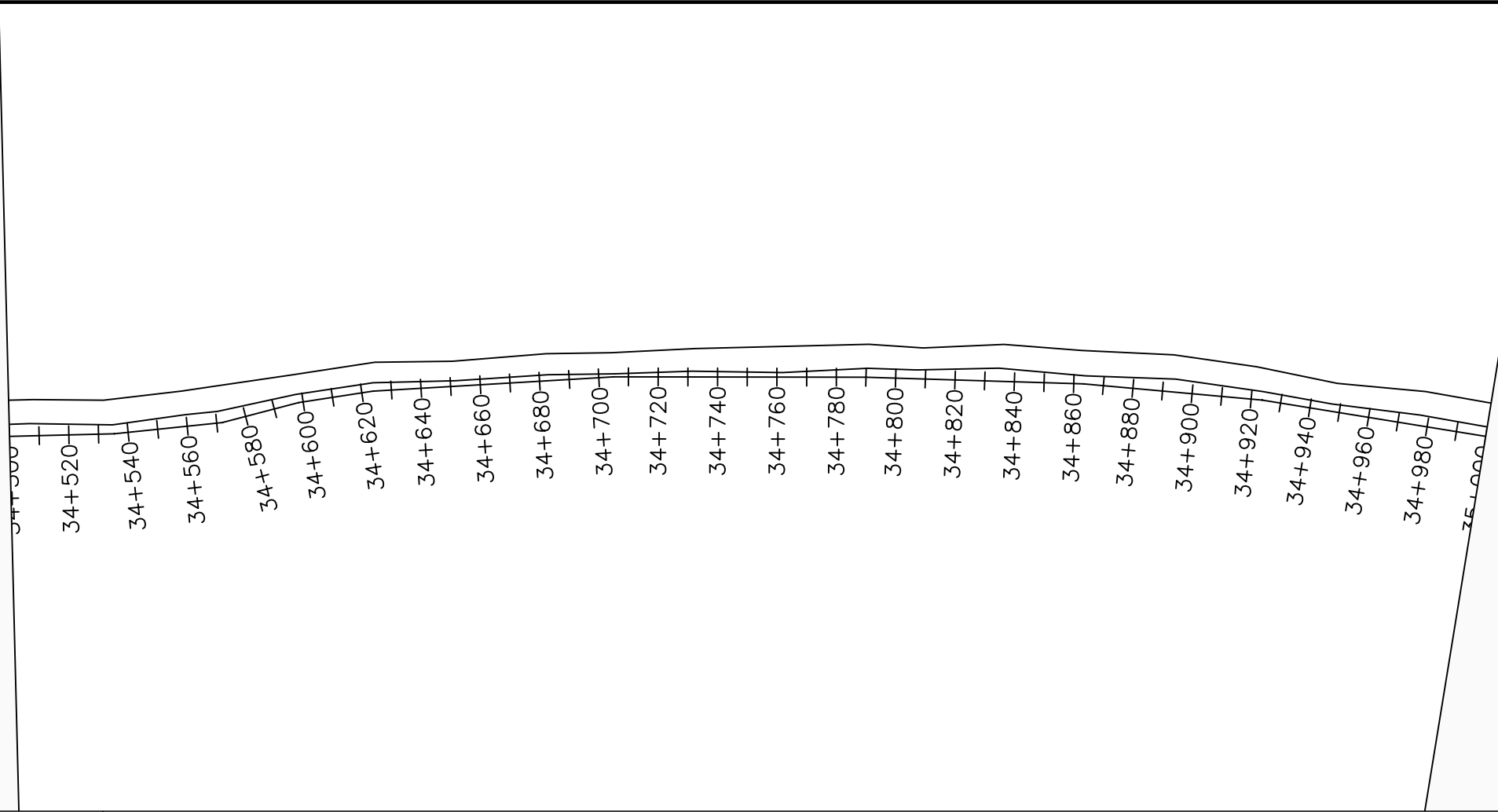
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
34+000 - 34+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
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Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
34+000	796.05	794.33		OD200PN10, uPVC
34+020	795.45		-2.82%	
34+040	795.21	793.21		
34+060	794.88		-2.87%	
34+080	794.15			
34+100	793.58		-2.67%	
34+120	792.91	790.91		
34+140	792.24			
34+160	791.52		-2.67%	
34+180	790.93			
34+200	790.78	788.78		
34+220	790.62		2.80%	
34+240	791.36			
34+260	792.46	790.46		
34+280	793.22		2.84%	
34+300	793.69			
34+320	794.13	792.13		
34+340	794.05		1.41%	
34+360	794.41			
34+380	794.99	792.99		
34+400	795.13			
34+420	795.28		1.16%	
34+440	795.55			
34+460	795.76			
34+480	796.15	794.15		
34+500	796.58	794.45	1.50%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

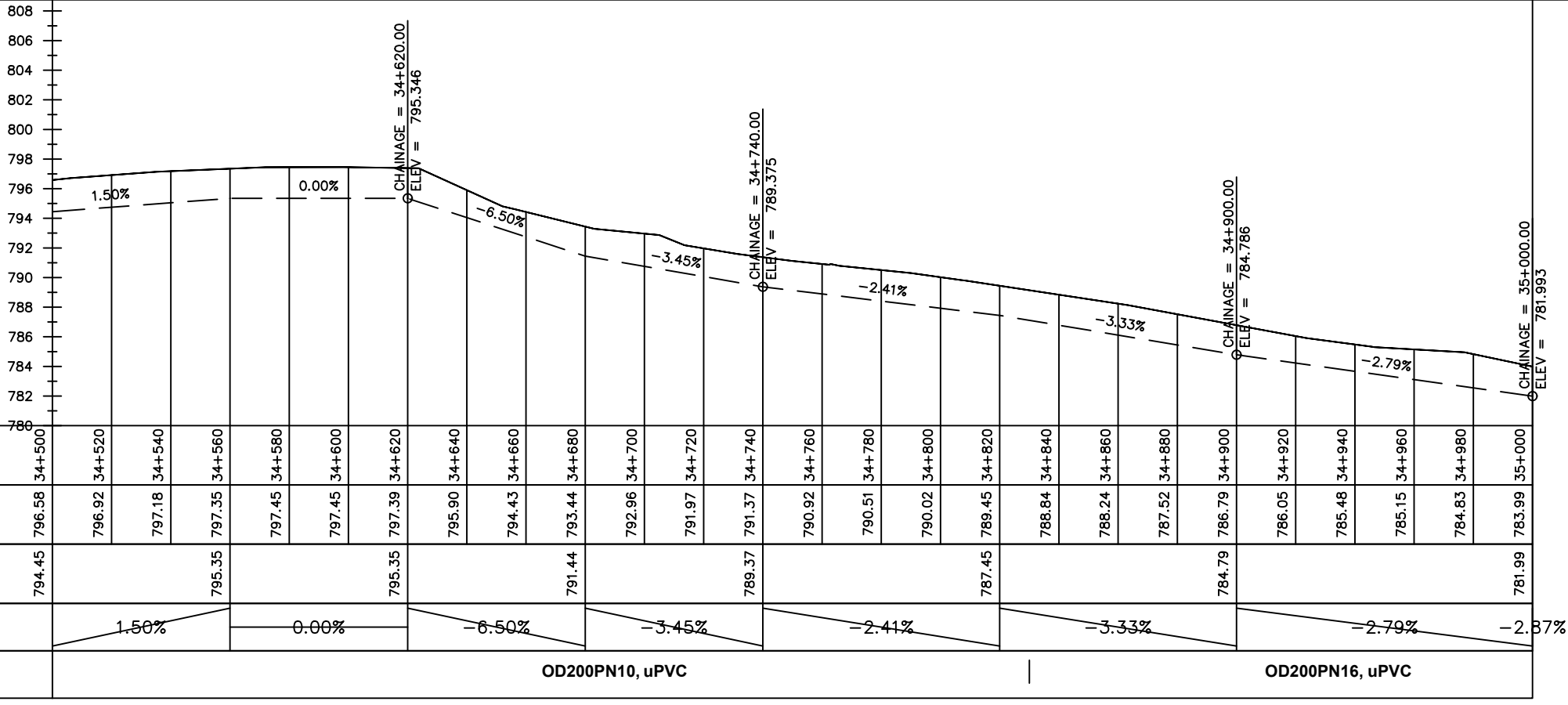
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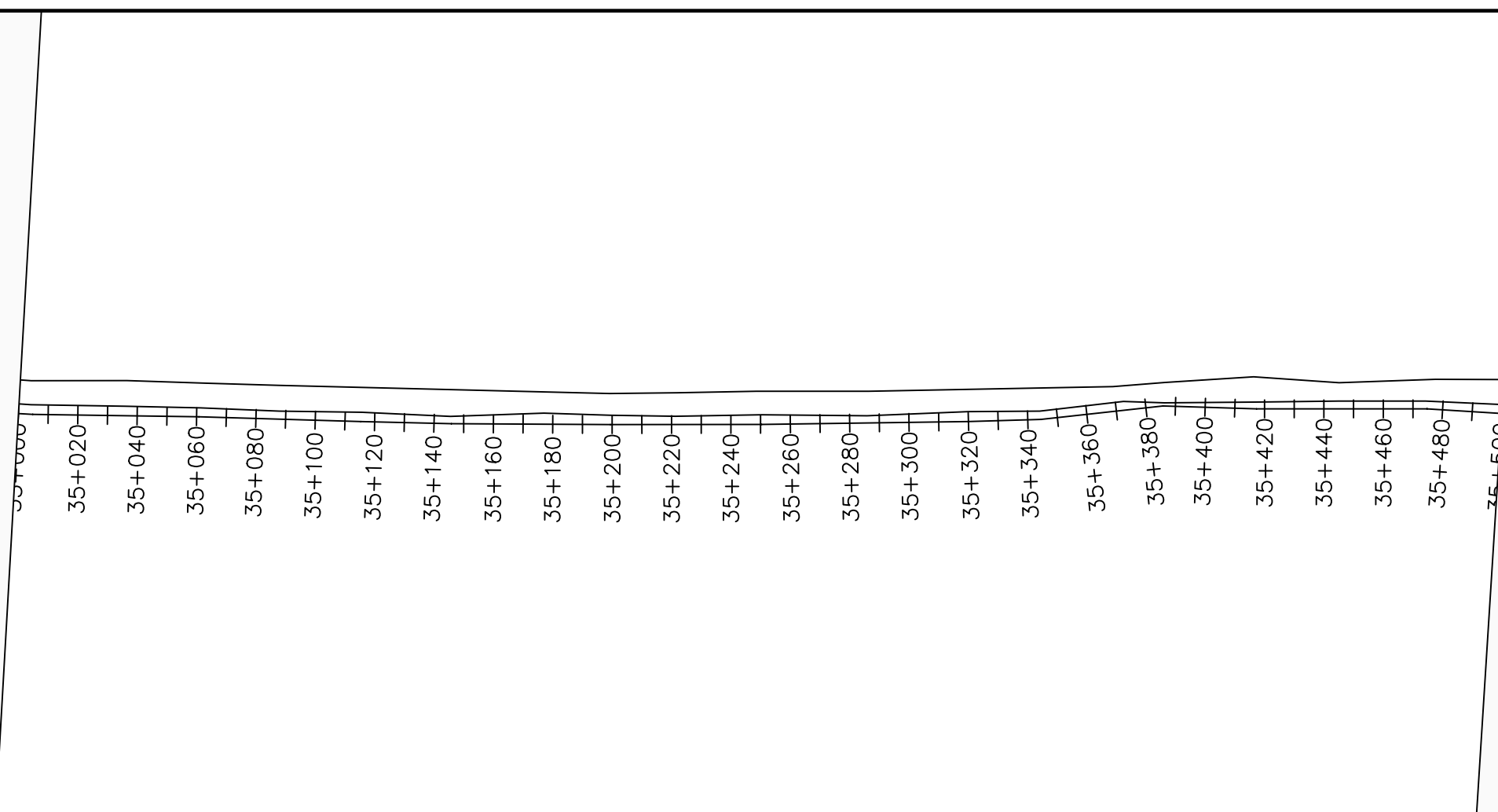
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
34+500 - 35+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	23 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

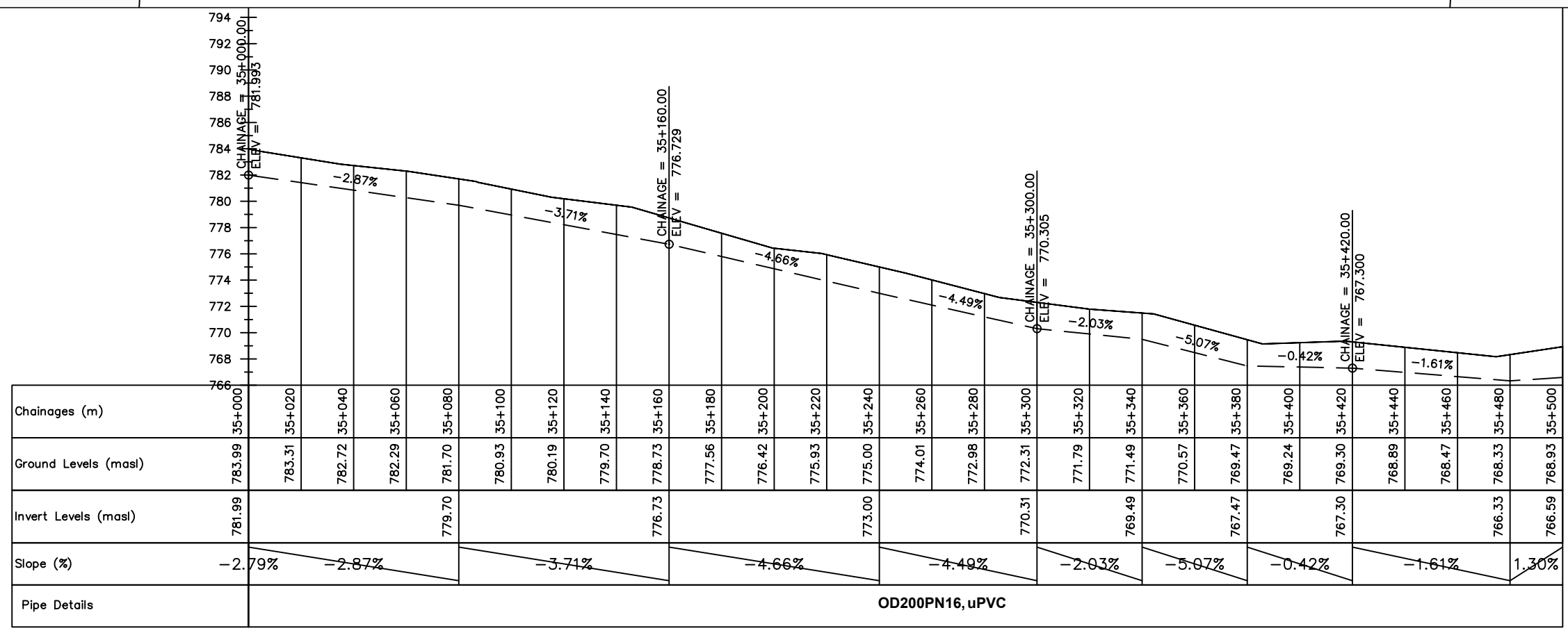
REVISIONS :

No	Date	Description

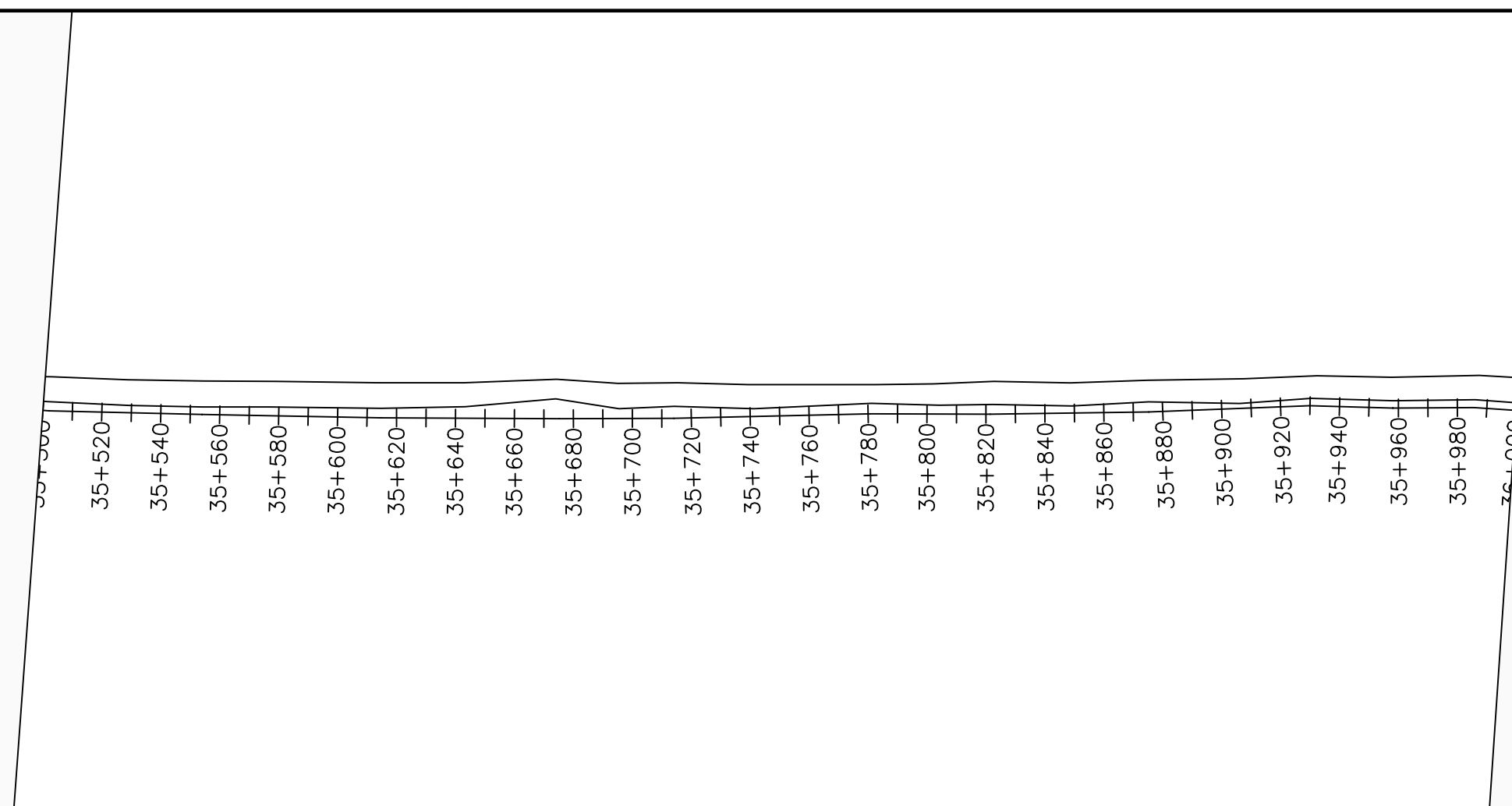
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
35+000 - 35+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
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OD200PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

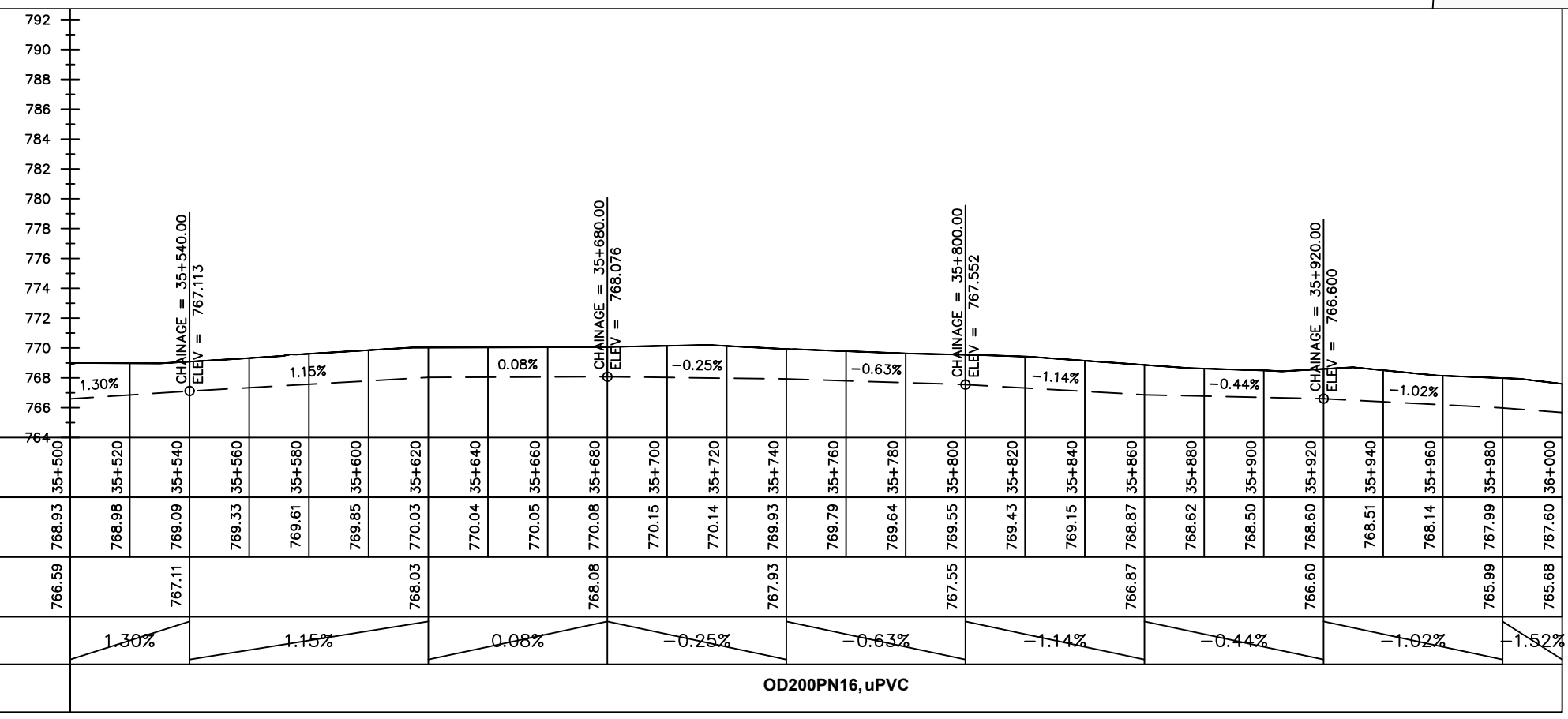
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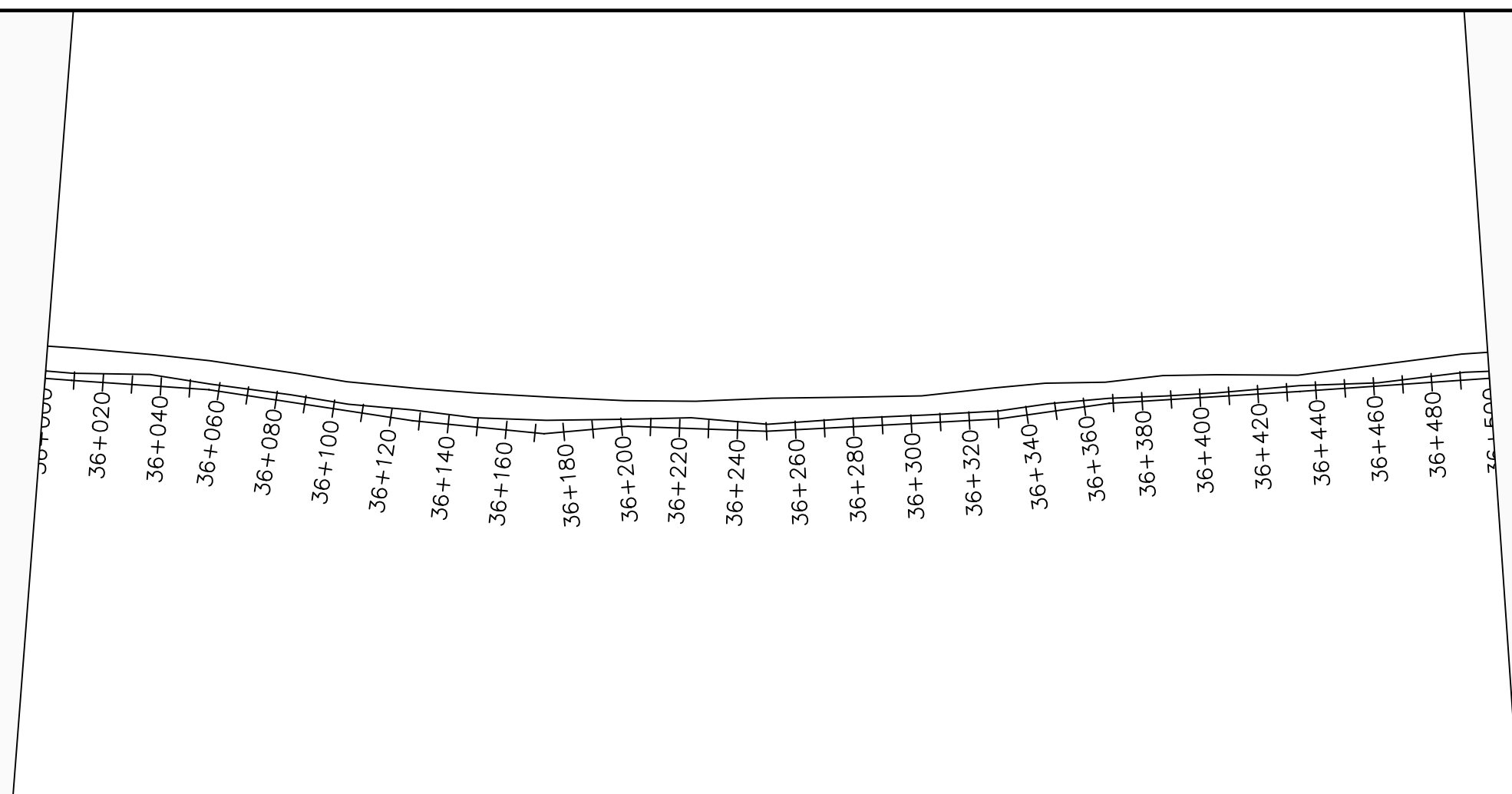
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
35+500 - 36+000

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	January 2023
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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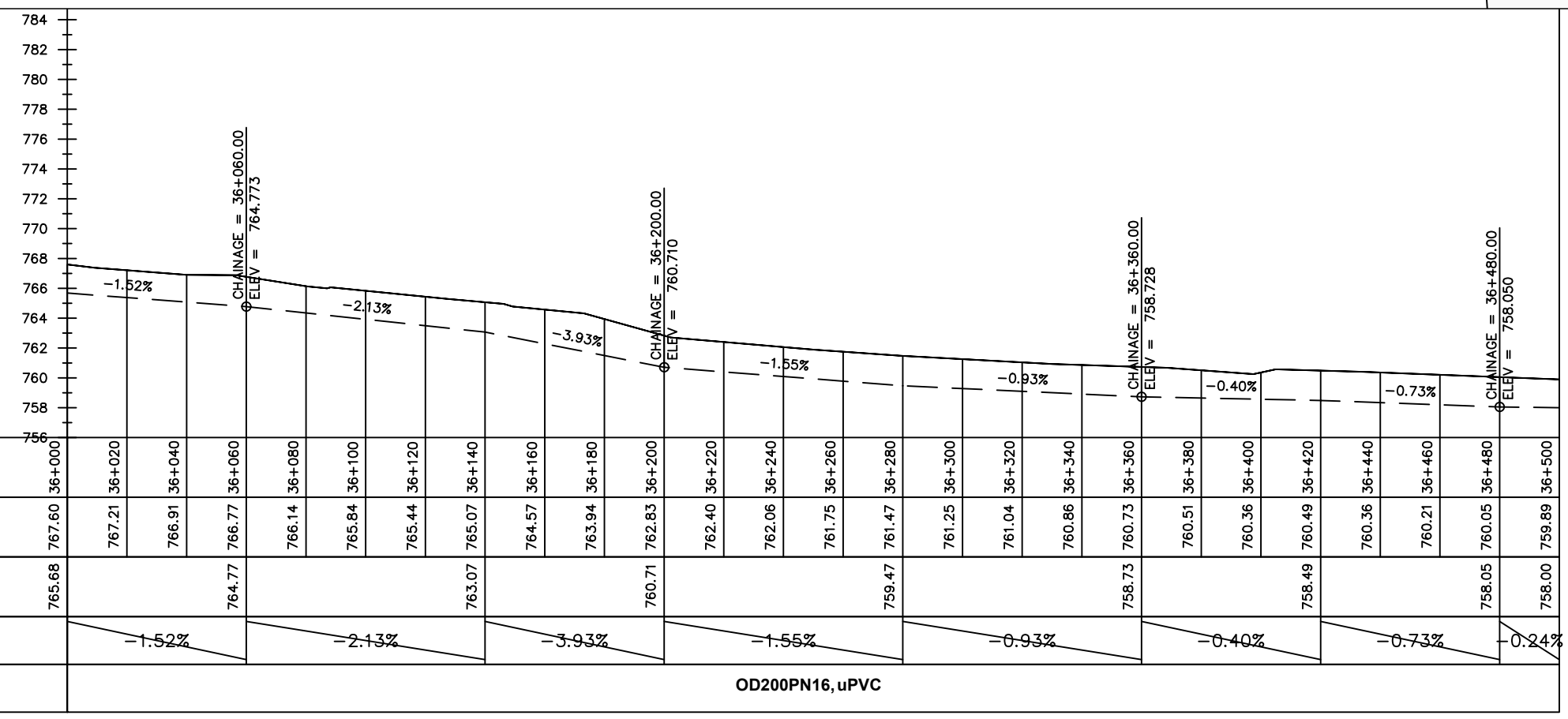
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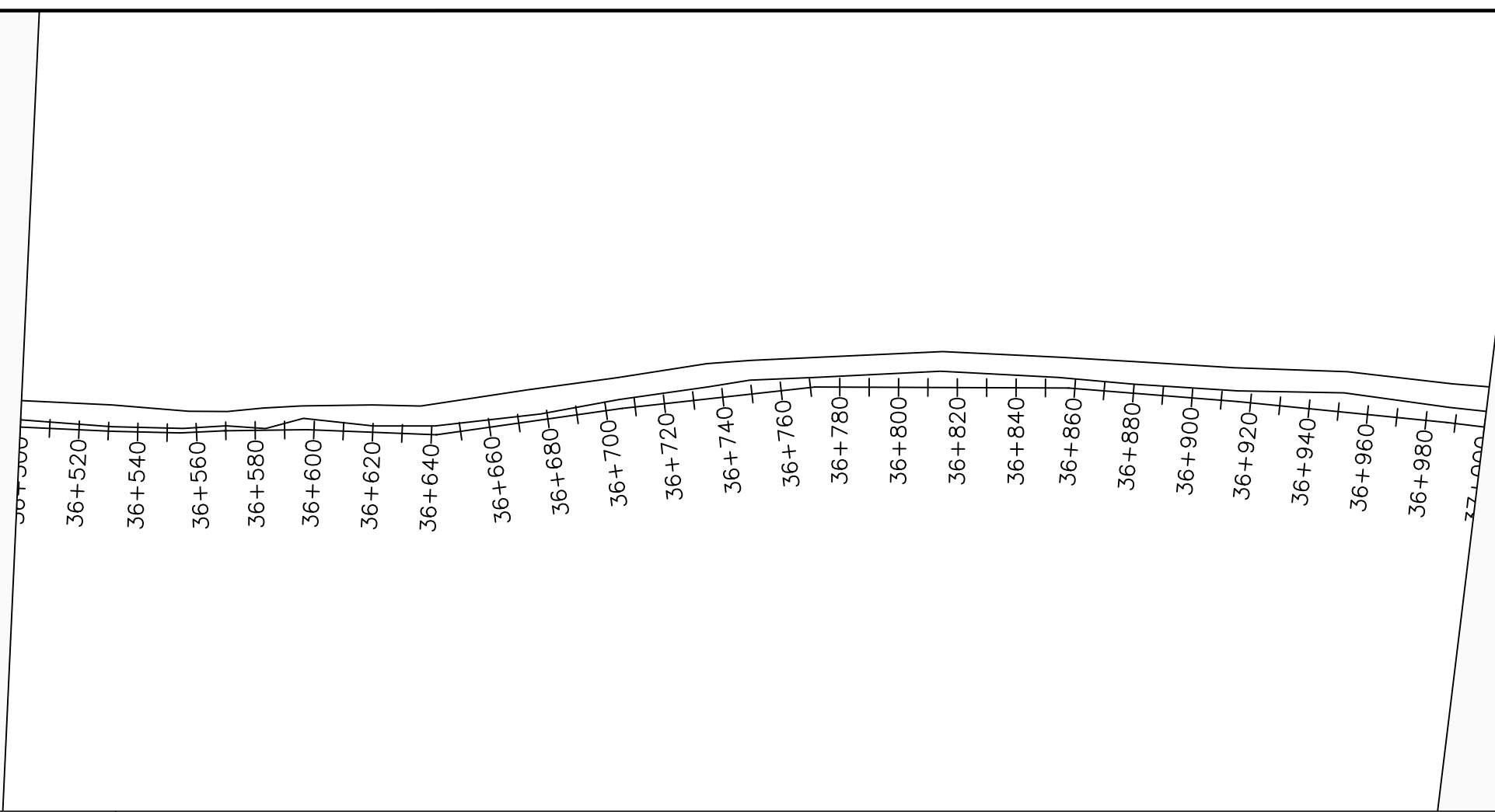
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
36+000 - 36+500

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

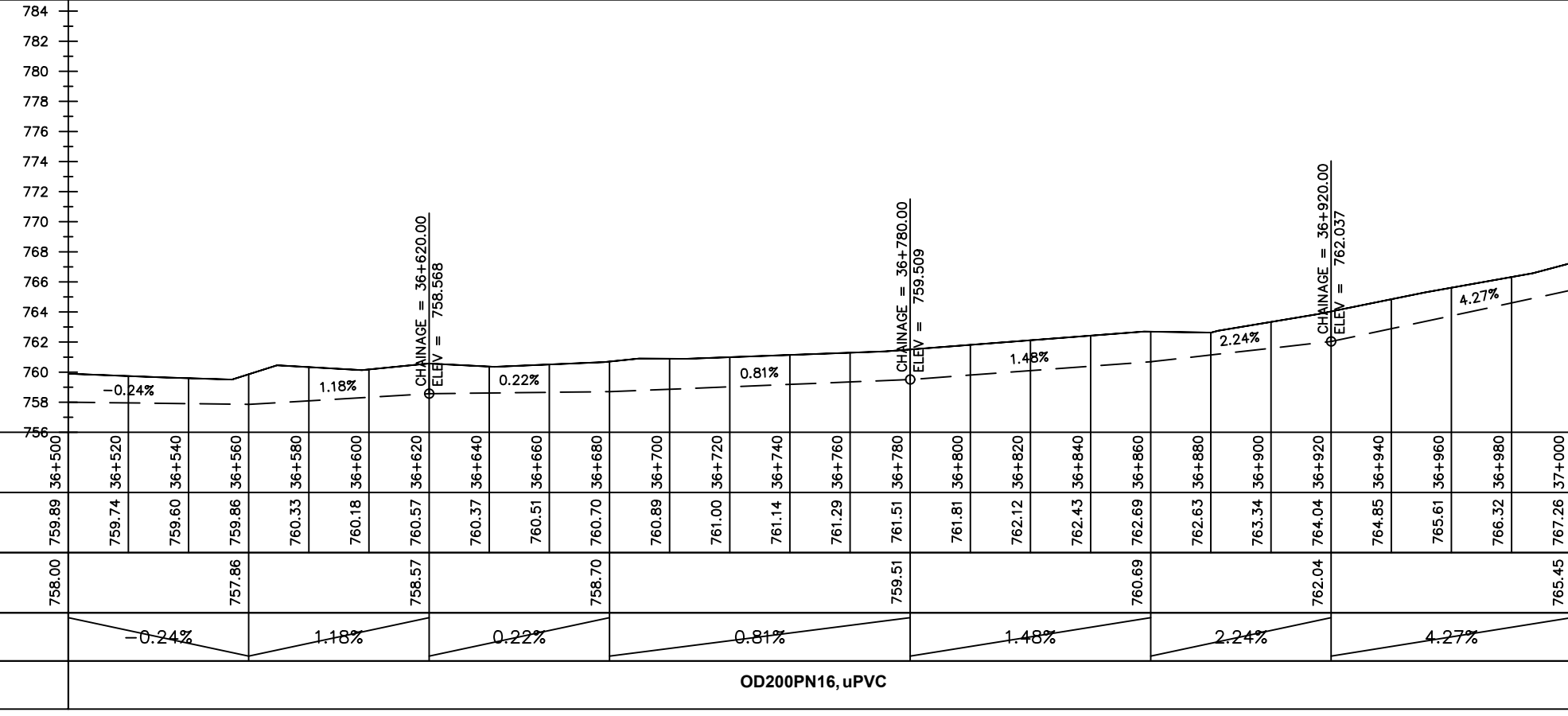
REVISIONS :

No	Date	Description

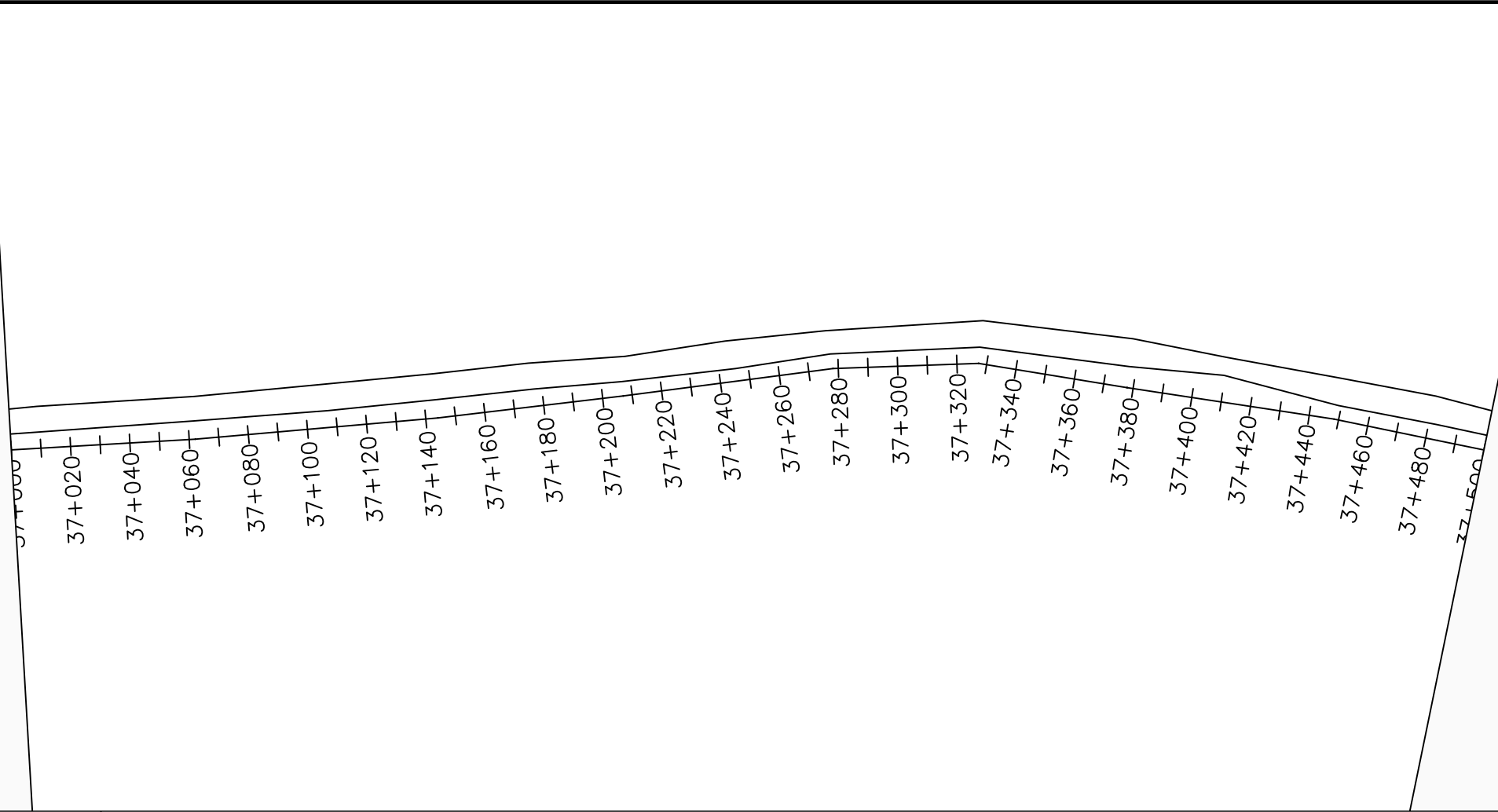
DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
36+500 - 37+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	27 of 88



Chainages (m)	36+500	36+520	36+540	36+560	36+580	36+600	36+620	36+640	36+660	36+680	36+700	36+720	36+740	36+760	36+780	36+800	36+820	36+840	36+860	36+880	36+900	36+920	36+940	36+960	36+980	37+000		
Ground Levels (masl)	759.89	759.74	759.60	759.86	760.33	760.18	760.37	760.37	760.51	760.70	760.89	761.00	761.14	761.29	761.51	761.81	762.12	762.43	762.69	762.63	763.34	764.04	764.85	765.61	766.32	767.26		
Invert Levels (masl)	758.00			757.86			758.57			758.70					759.51				760.69			762.04				765.45		
Slope (%)		-0.24%		1.18%			0.22%			0.81%					1.48%				2.24%			4.27%						
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
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- Building
- Contours

Profile

- Ground Level
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

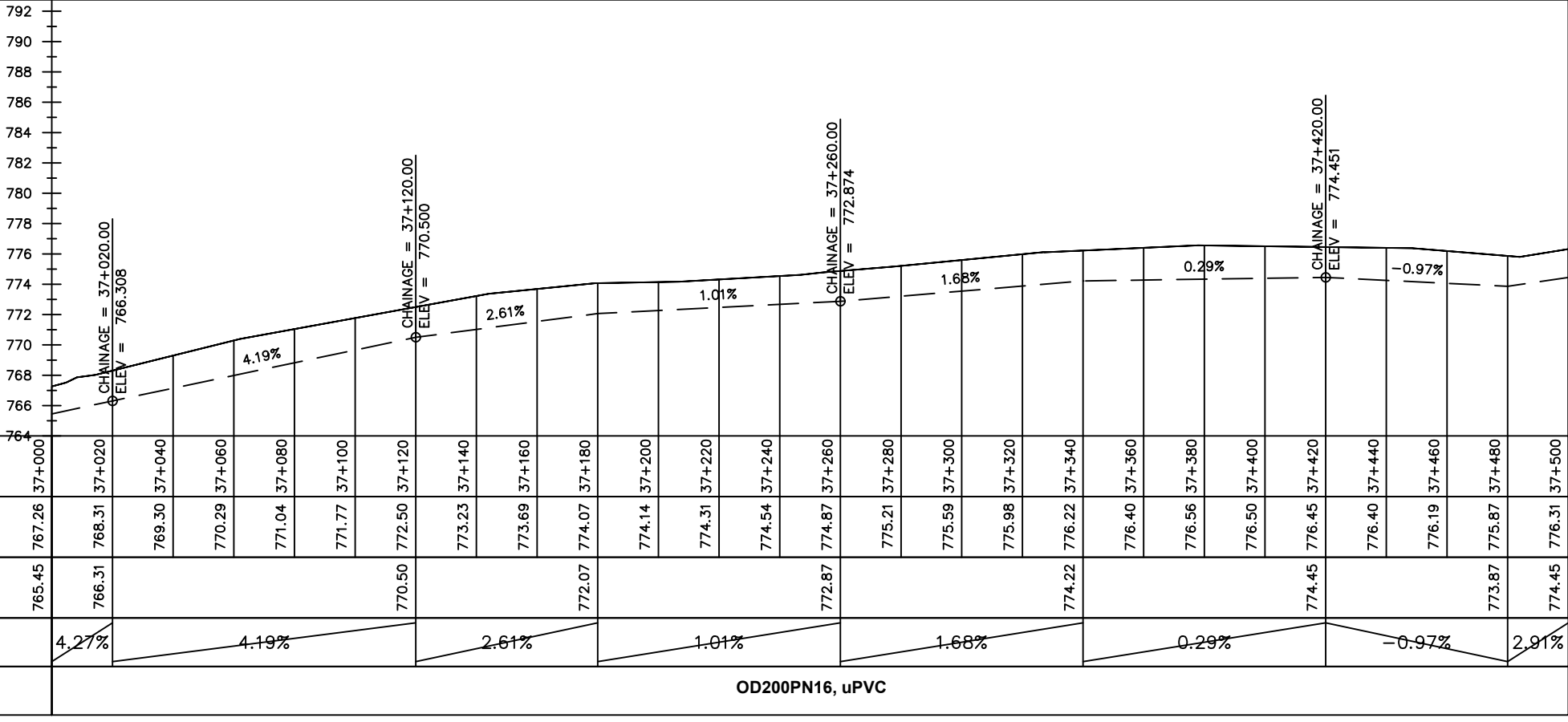
REVISIONS :

No	Date	Description

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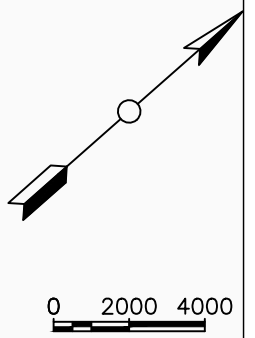
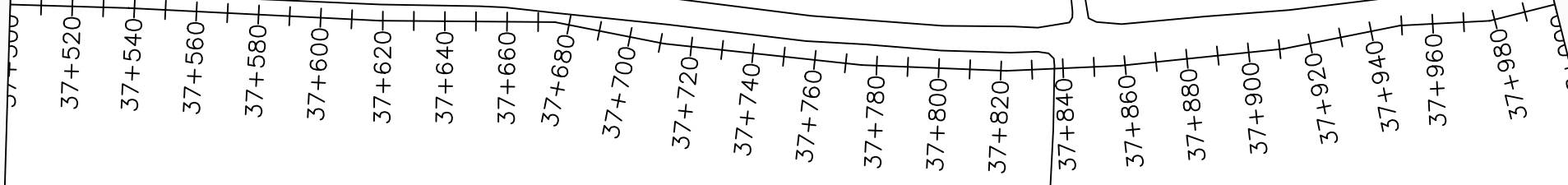
TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
37+000 - 37+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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Chainages (m)	37+000	37+020	37+040	37+060	37+080	37+100	37+120	37+140	37+160	37+180	37+200	37+220	37+240	37+260	37+280	37+300	37+320	37+340	37+360	37+380	37+400	37+420	37+440	37+460	37+480	37+500		
Ground Levels (masl)	767.26	768.31	769.30	770.29	771.04	771.77	772.50	773.23	773.69	774.07	774.14	774.31	774.54	774.87	775.21	775.59	775.98	776.22	776.40	776.56	776.50	776.45	776.40	776.19	775.87	776.31		
Invert Levels (masl)	765.45	766.31					770.50			772.07				772.87				774.22			776.50	774.45			773.87	774.45		
Slope (%)		4.27%		4.19%			2.61%			1.01%				1.68%				0.29%			-0.97%				2.91%			
Pipe Details	OD200PN16, uPVC																											

BARIBU TANK



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

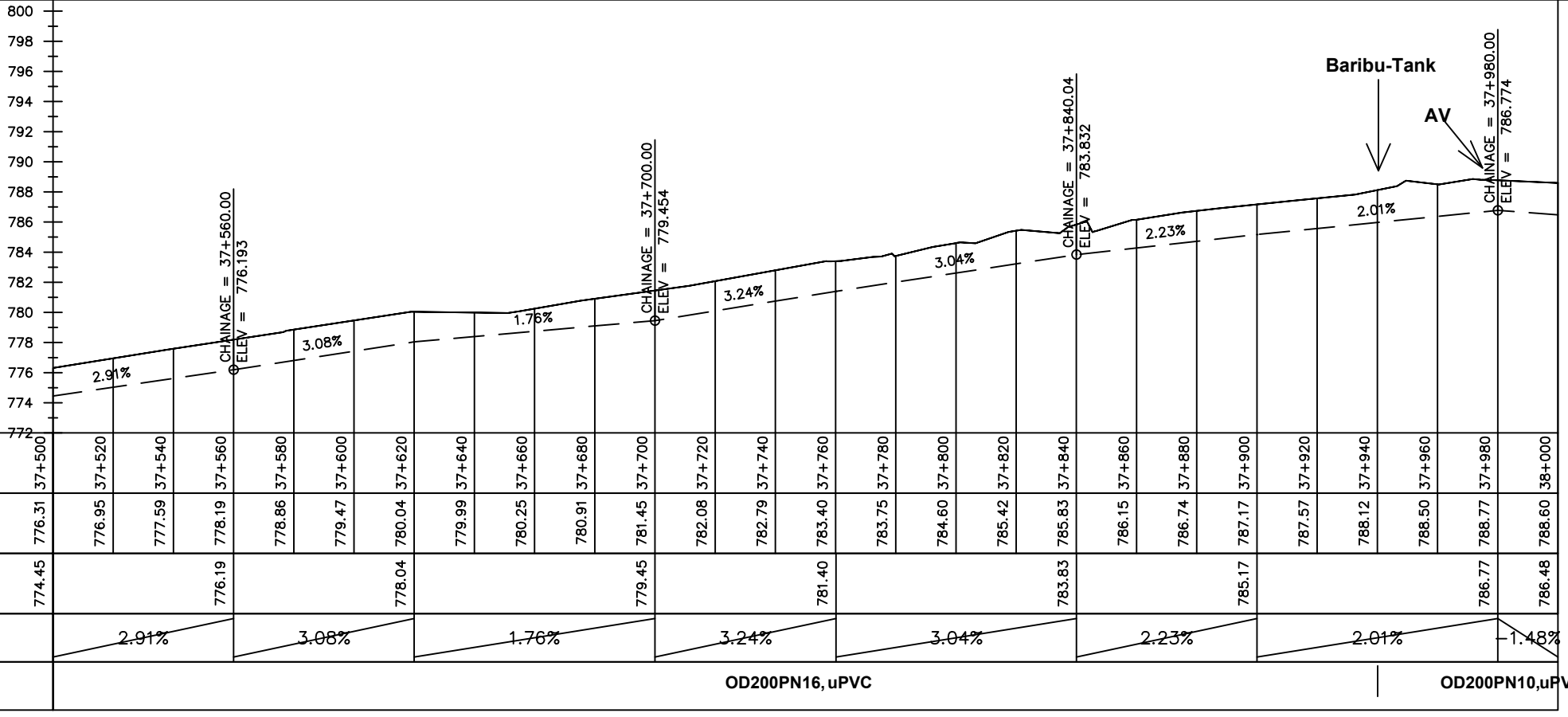
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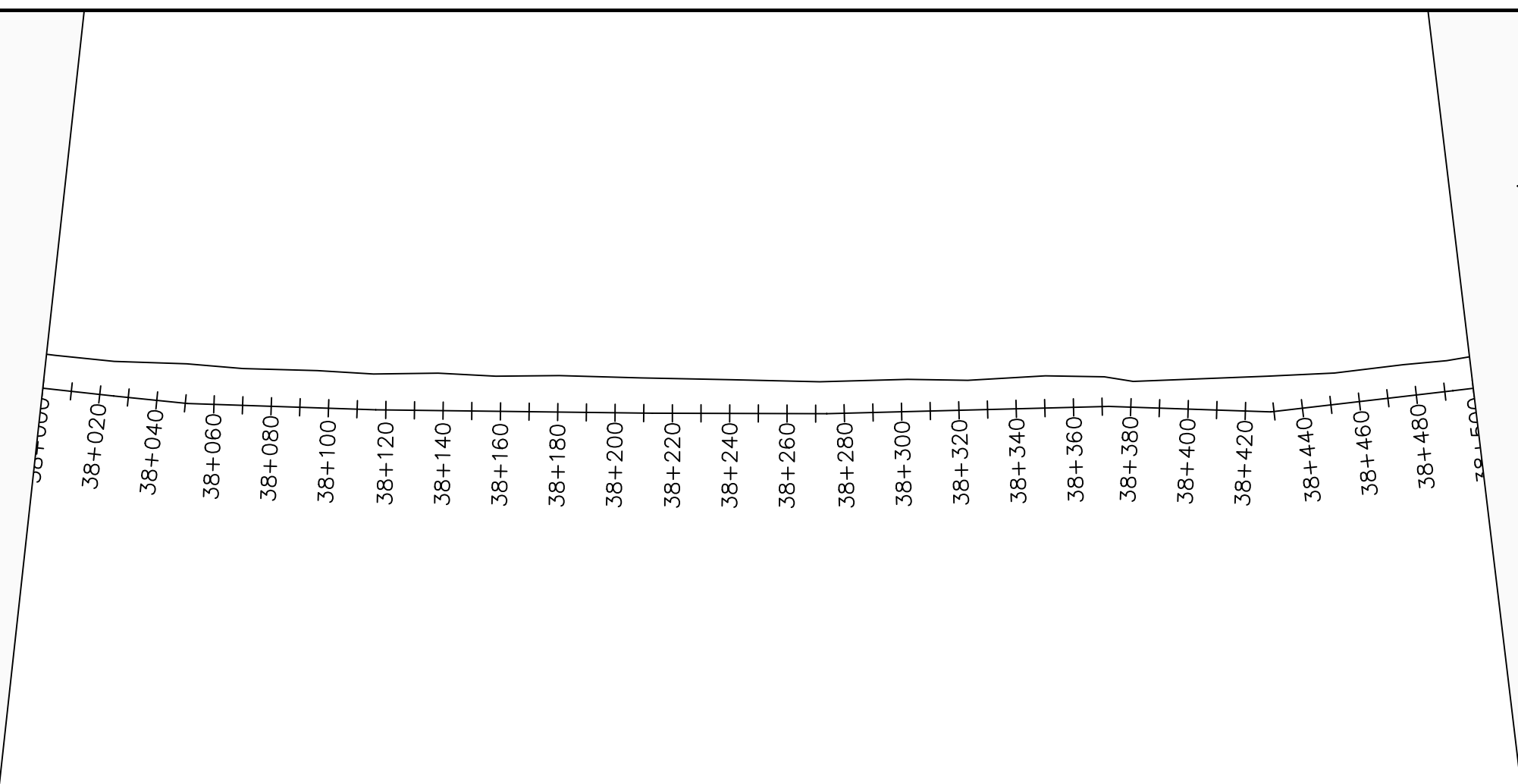
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
37+500 - 38+000

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

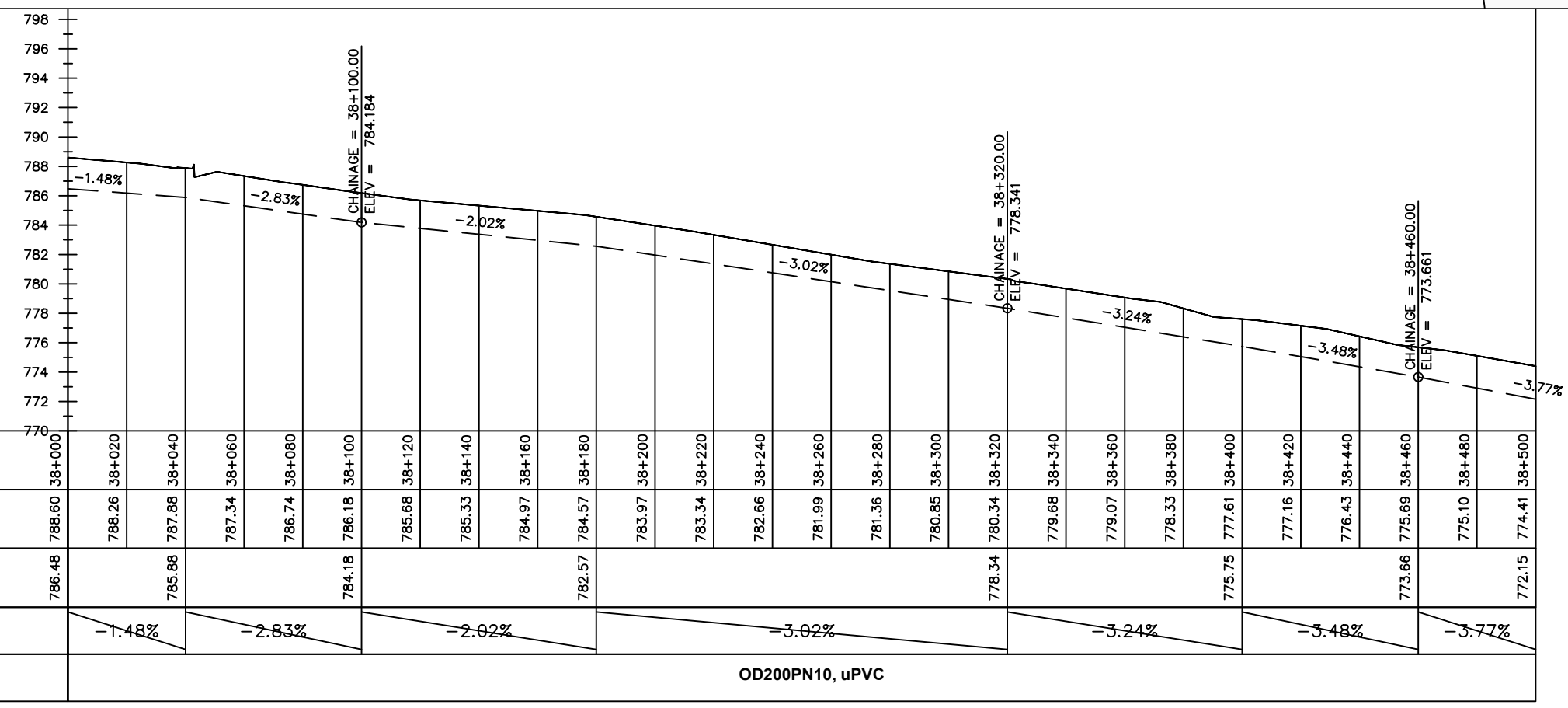
REVISIONS :

No	Date	Description

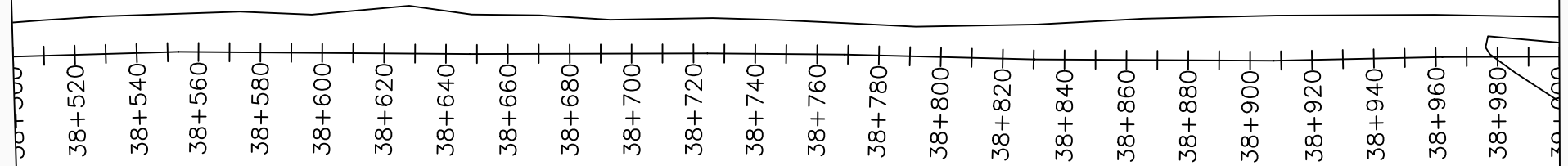
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
38+000 - 38+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	30 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
38+000	788.60	786.48	-1.48%	OD200PN10, uPVC
38+020	788.26	785.88	-2.83%	
38+040	787.88	784.18	-2.02%	
38+060	787.34	782.57	-3.02%	
38+080	786.74	778.34	-3.24%	
38+100	786.18	775.75	-3.48%	
38+120	785.68	773.66	-3.77%	
38+140	785.33	772.15		
38+160	784.97			
38+180	784.57			
38+200	783.97			
38+220	783.34			
38+240	782.66			
38+260	781.99			
38+280	781.36			
38+300	780.85			
38+320	780.34			
38+340	779.68			
38+360	779.07			
38+380	778.33			
38+400	777.61			
38+420	777.16			
38+440	776.43			
38+460	775.69			
38+480	775.10			
38+500	774.41			



LEGEND

Plan

- Transmission Main
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

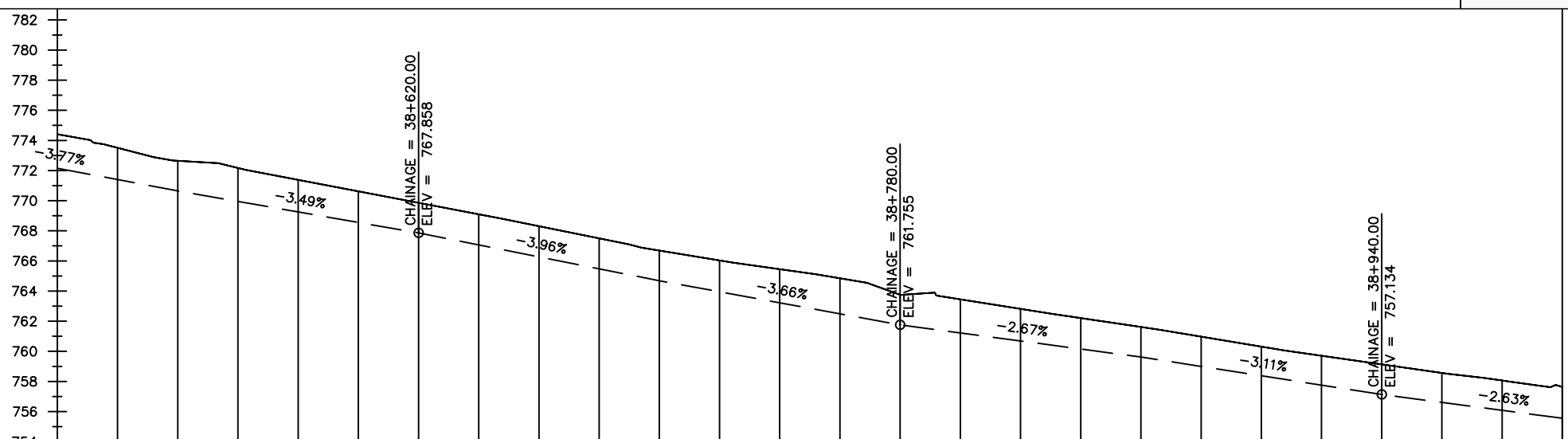
REVISIONS :

No	Date	Description

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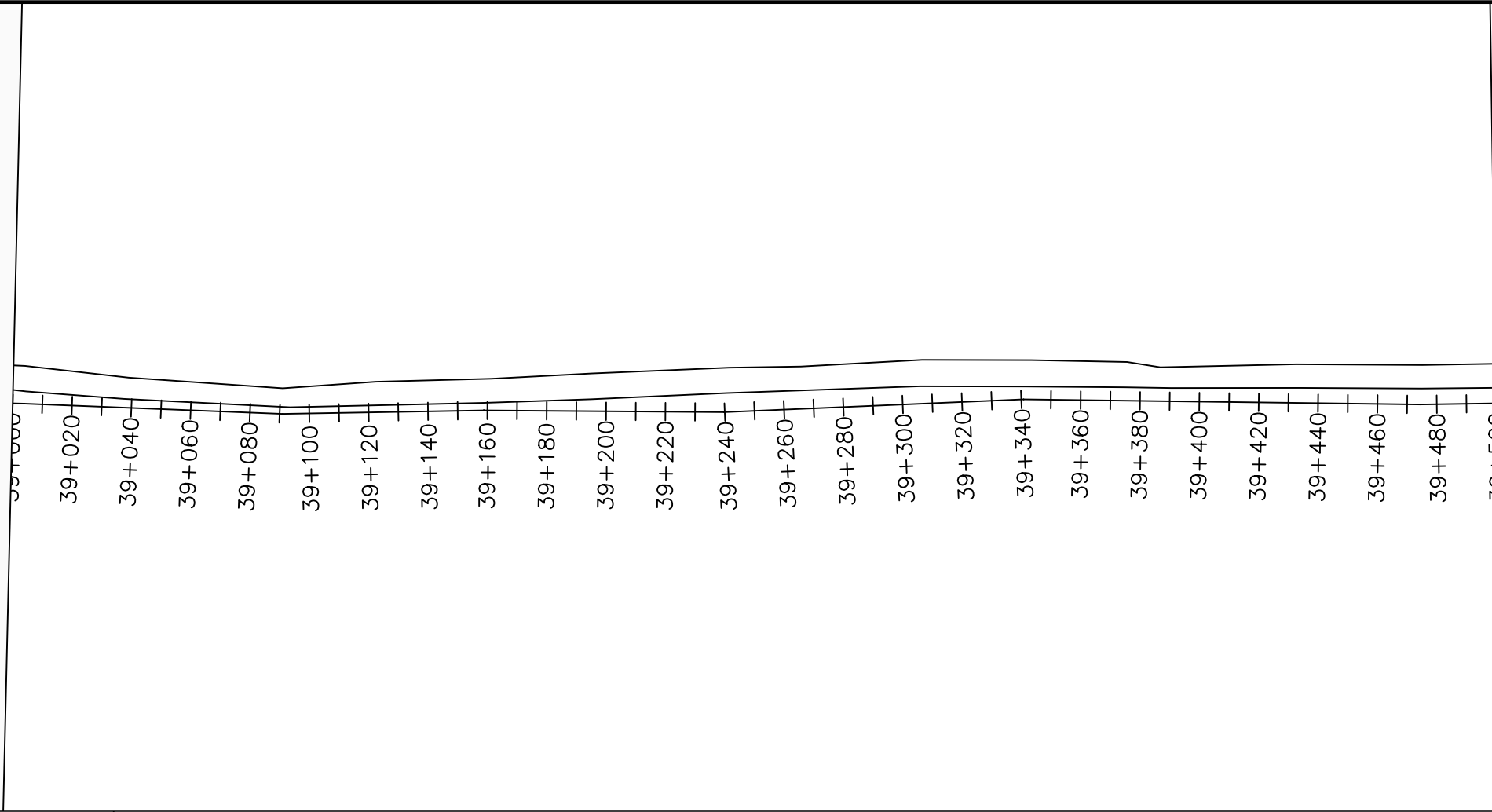
TRANSMISSION MAIN 3 (TO INDE TANK)
38+500 - 39+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	31 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
38+500	774.41	772.15		
38+520	773.51		-3.77%	
38+540	772.65	770.65		
38+560	772.17		-3.49%	
38+580	771.38			
38+600	770.62		-3.96%	
38+620	769.86	767.86		
38+640	769.10		-3.66%	
38+660	768.31			
38+680	767.50		-3.96%	
38+700	766.69	764.69		
38+720	766.03		-3.66%	
38+740	765.45		-2.67%	
38+760	764.85		-3.11%	
38+780	763.76	761.76		
38+800	763.45		-2.63%	
38+820	762.82			
38+840	762.21		-3.11%	
38+860	761.62	759.62		
38+880	760.97		-2.63%	
38+900	760.31			
38+920	759.71		-3.11%	
38+940	759.13	757.13		
38+960	758.56		-2.63%	
38+980	758.06			
39+000	757.64	755.56		

OD200PN10,uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

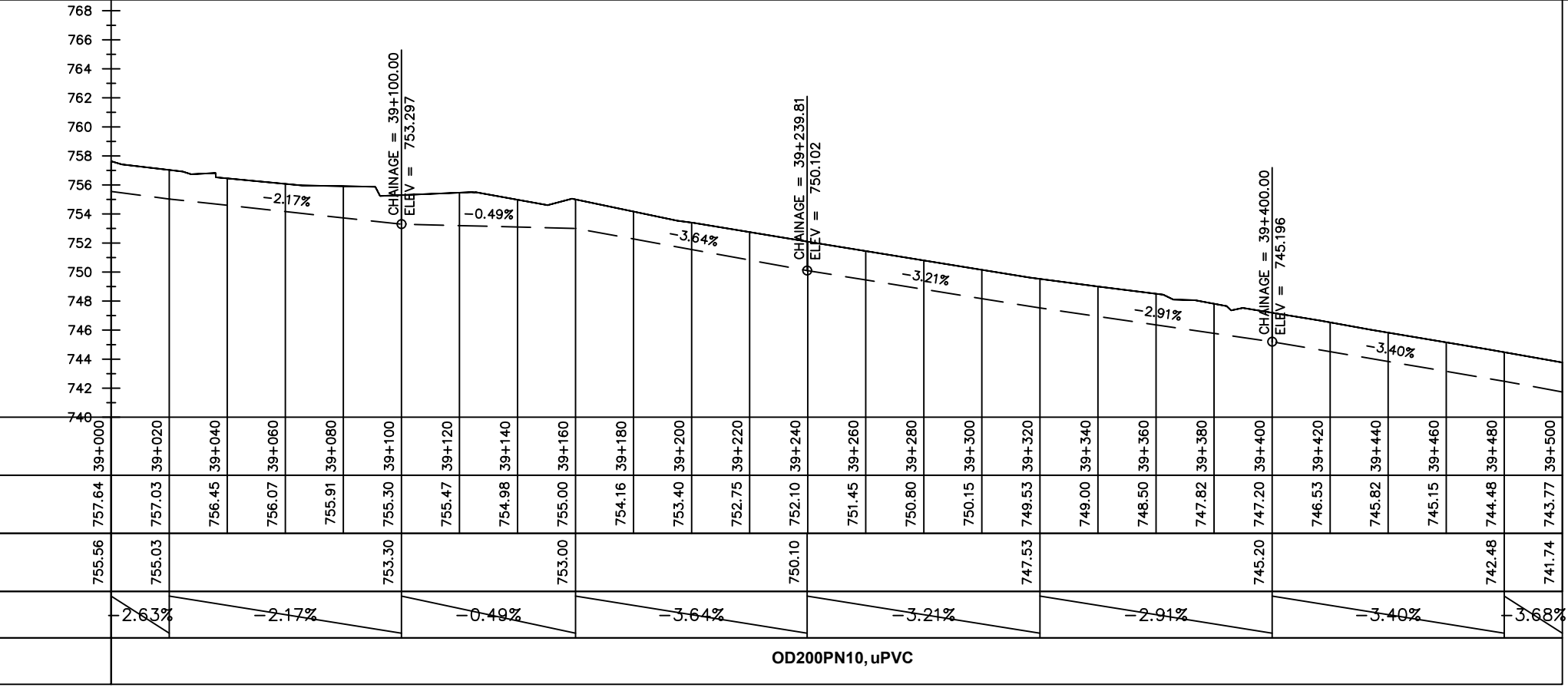
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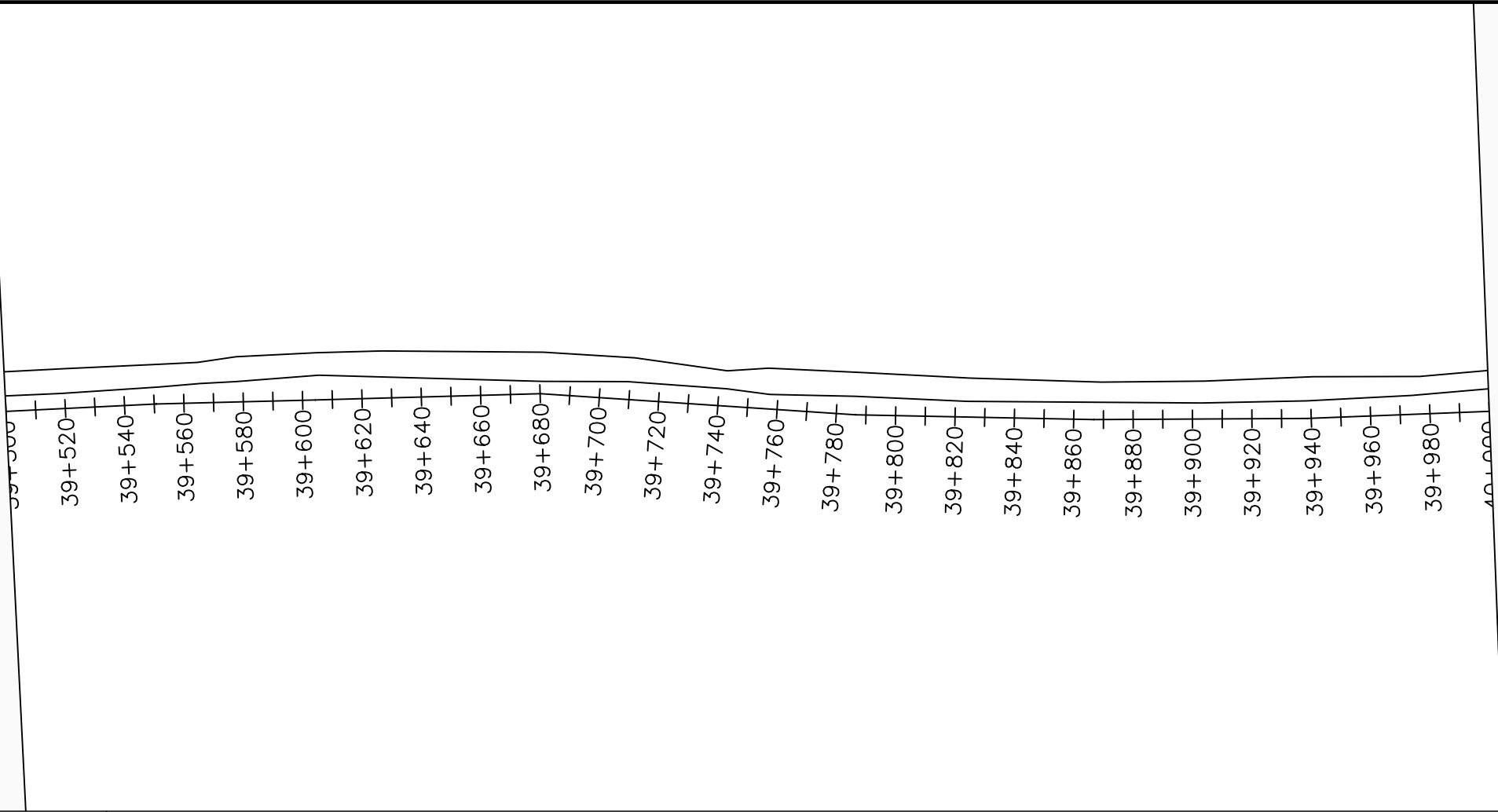
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
39+000 - 39+500

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
DRG. No.:	NYA-GTM-003
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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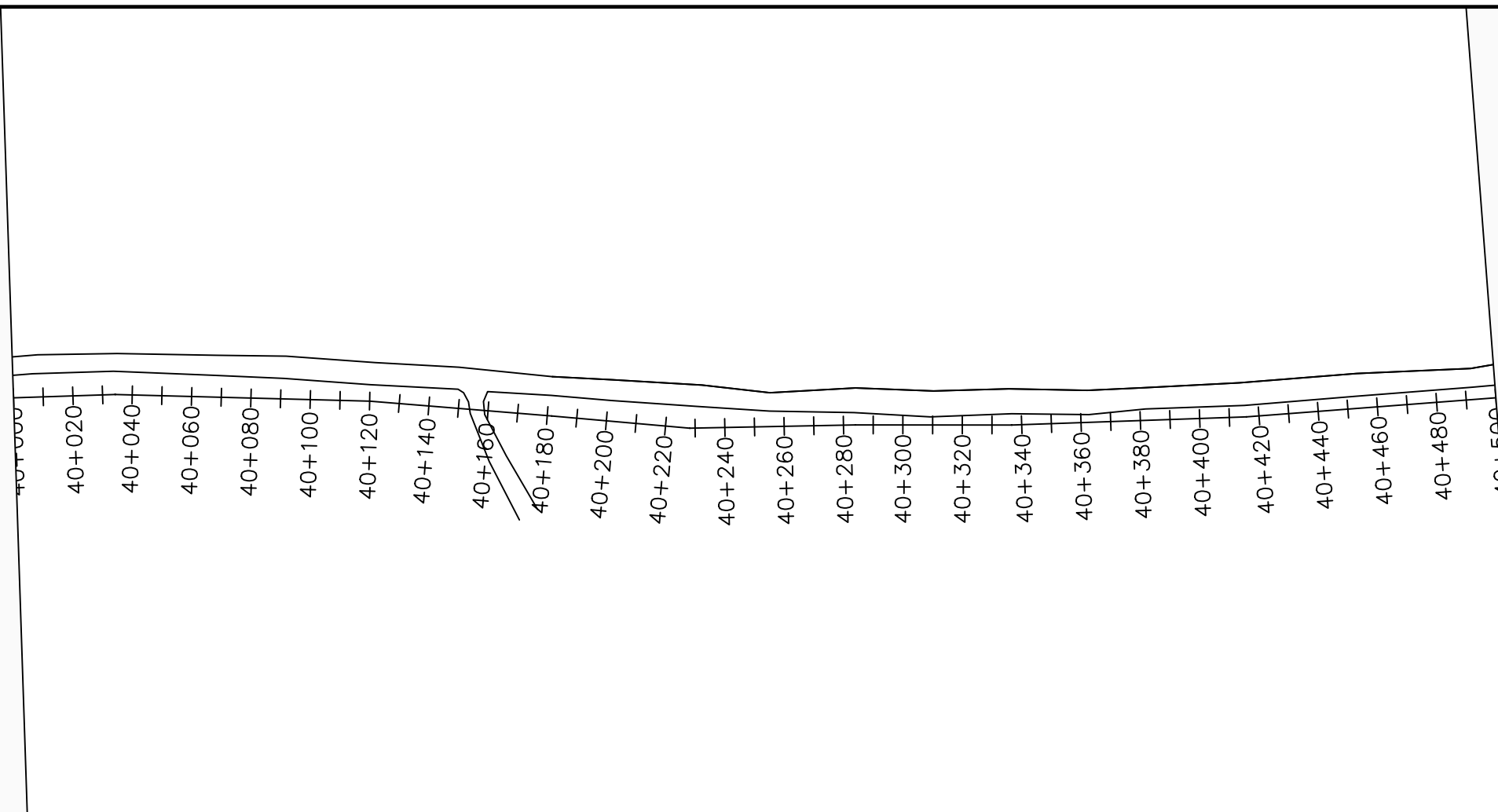
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
39+500 - 40+000

Surveyed by:	R.K
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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	33 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
39+500	743.77	741.74		OD200PN10,uPVC
39+520	743.12		-3.68%	
39+540	742.23			
39+560	741.53	739.53		
39+580	741.05		-2.40%	
39+600	740.57	738.57		
39+620	740.50			
39+640	740.54		0.05%	
39+660	740.57			
39+680	740.61	738.61		
39+700	740.45			
39+720	740.24			
39+740	740.15		-0.51%	
39+760	740.05			
39+780	739.96			
39+800	740.00	738.00		
39+820	740.10			
39+840	740.24		0.71%	
39+860	740.29			
39+880	740.57	738.57		
39+900	740.99			
39+920	741.35		1.67%	
39+940	741.68			
39+960	741.90	739.90		
39+980	742.12			
40+000	742.54	740.56	1.64%	



LEGEND

Plan

- Transmission Main
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Profile

- Ground Level
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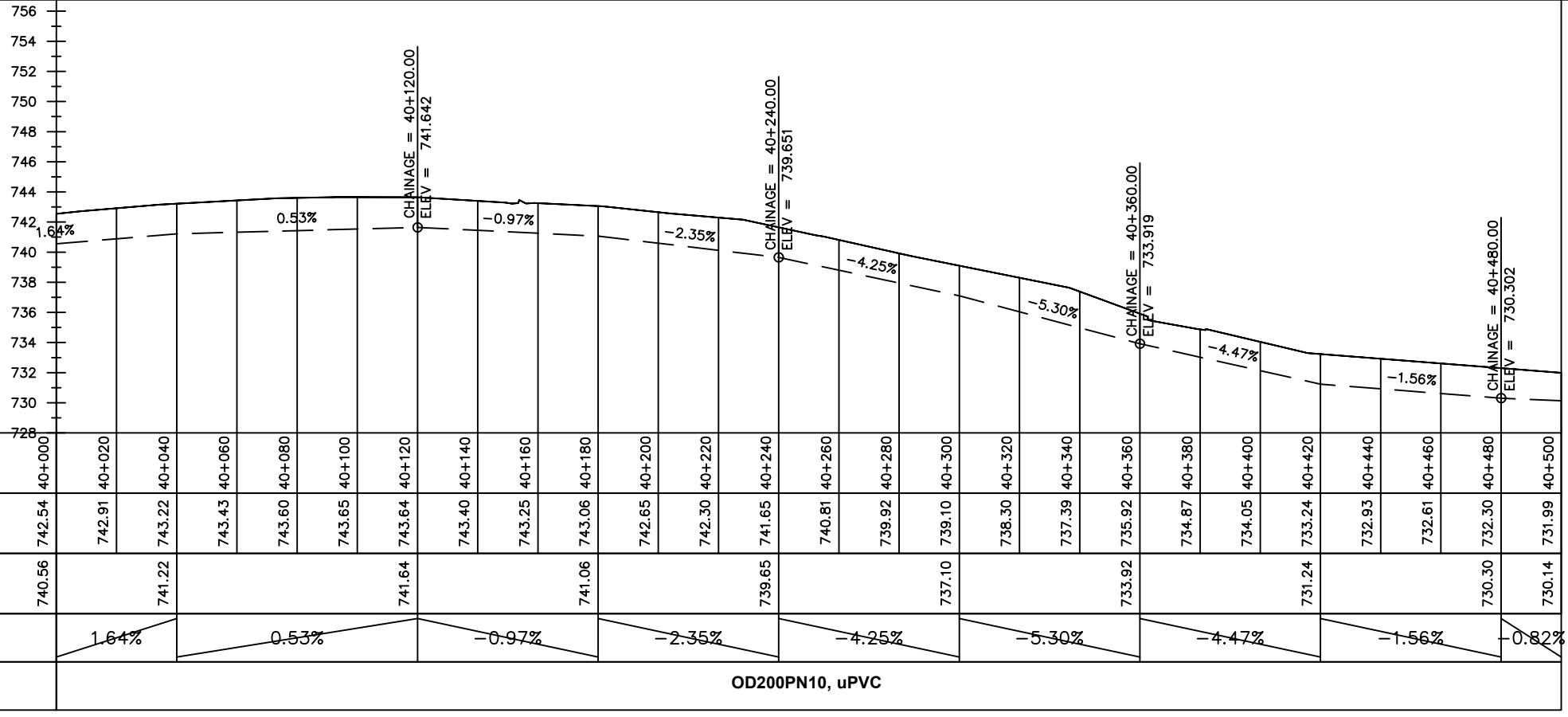
REVISIONS :

No	Date	Description

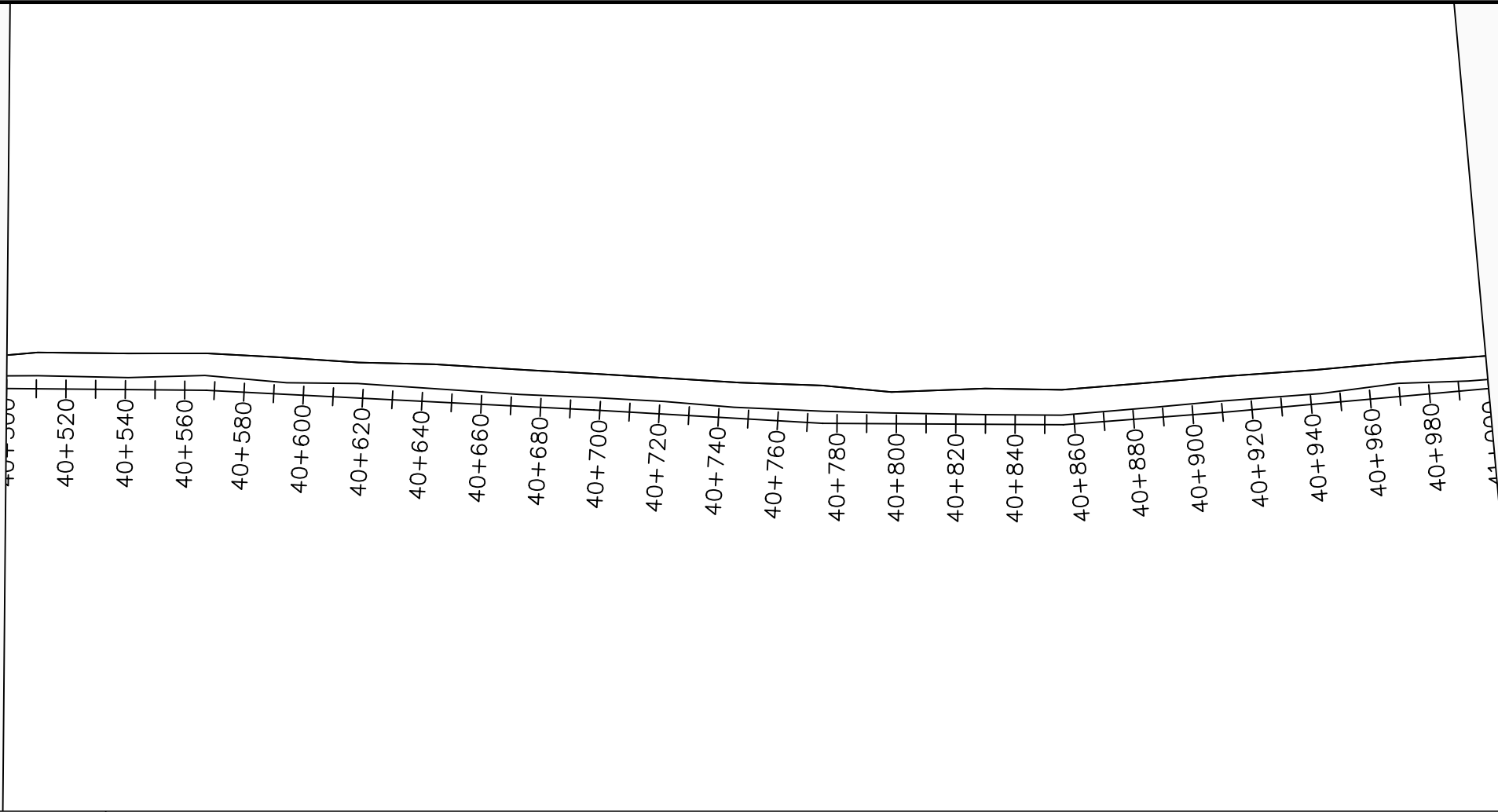
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
40+000 - 40+500

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	34 of 88



Chainages (m)	40+000	40+020	40+040	40+060	40+080	40+100	40+120	40+140	40+160	40+180	40+200	40+220	40+240	40+260	40+280	40+300	40+320	40+340	40+360	40+380	40+400	40+420	40+440	40+460	40+480	40+500		
Ground Levels (masl)	742.54	742.91	743.22	743.43	743.60	743.65	743.64	743.40	743.25	743.06	742.65	742.30	741.65	740.81	739.92	739.10	738.30	737.39	735.92	734.87	734.05	733.24	732.93	732.61	732.30	731.99		
Invert Levels (masl)	740.56		741.22			741.64		741.06			739.65		737.10			733.92			731.24						730.30	730.14		
Slope (%)		1.64%		0.53%		-0.97%		-2.35%		-4.25%		-5.30%		-4.47%		-1.56%			-0.82%									
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

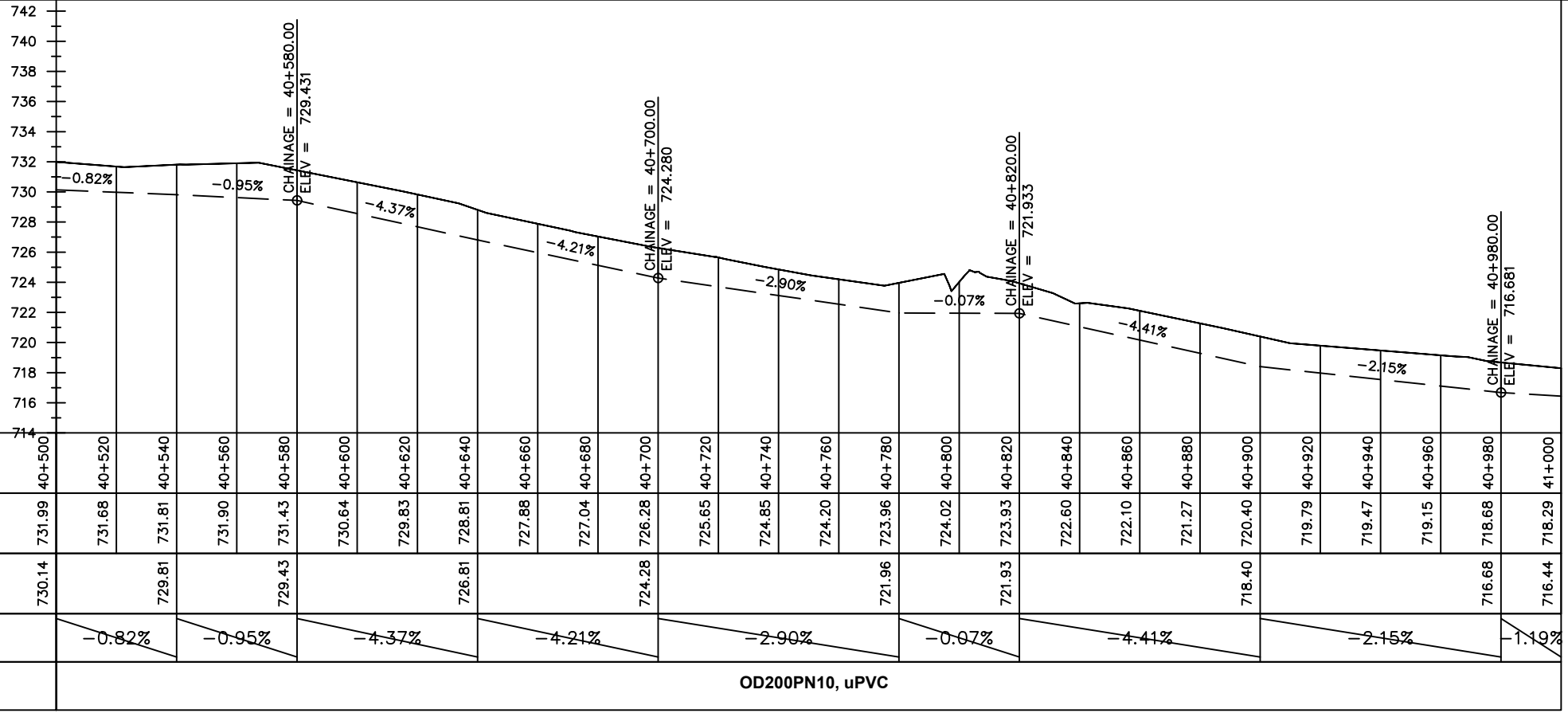
REVISIONS :

No	Date	Description

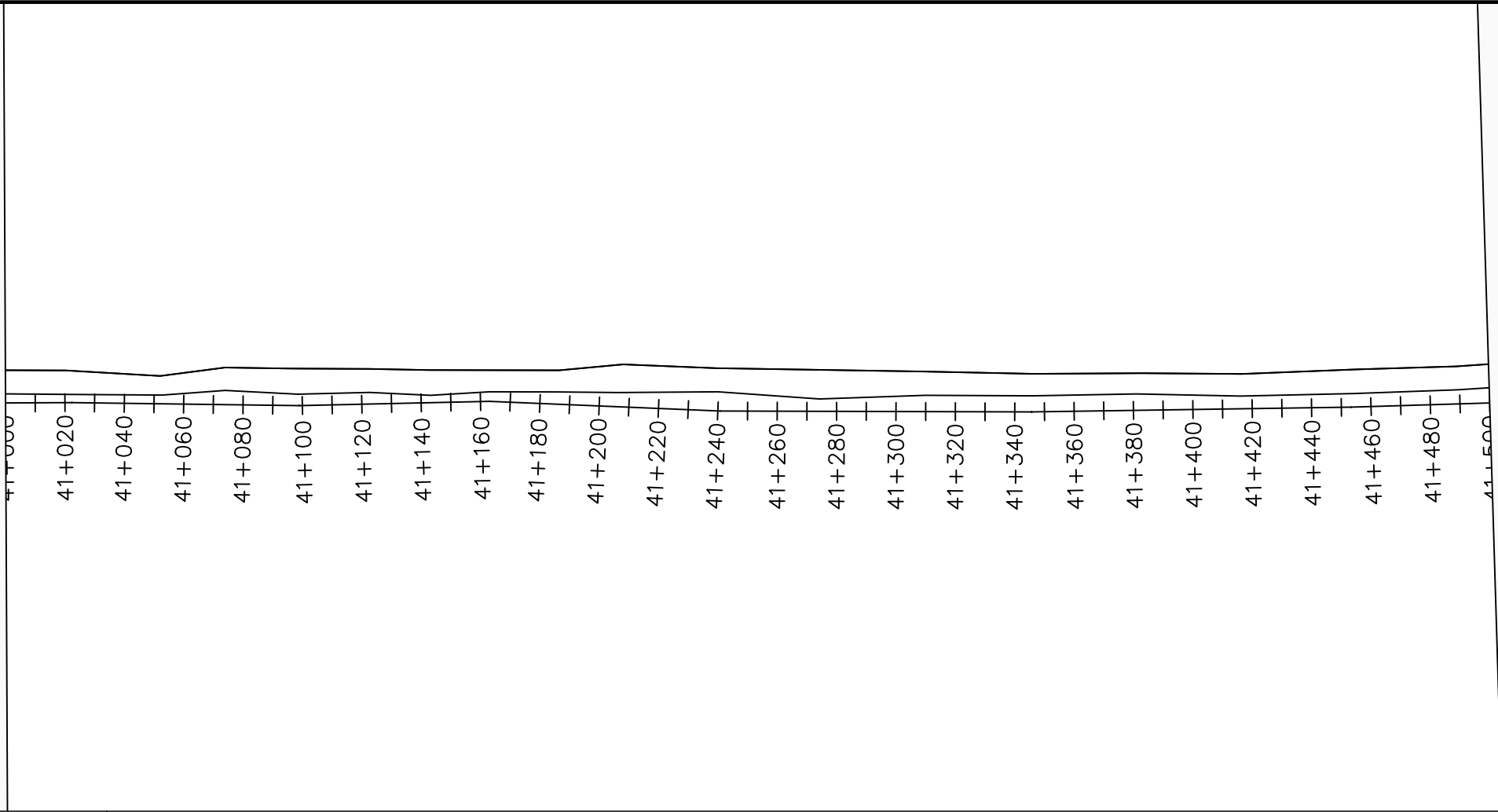
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
40+500 - 41+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	35 of 88



Chainages (m)	40+500	40+520	40+540	40+560	40+580	40+600	40+620	40+640	40+660	40+680	40+700	40+720	40+740	40+760	40+780	40+800	40+820	40+840	40+860	40+880	40+900	40+920	40+940	40+960	40+980	41+000		
Ground Levels (masl)	731.99	731.68	731.81	731.90	731.43	730.64	729.83	728.81	727.88	727.04	726.28	725.65	724.85	724.20	723.96	724.02	723.93	722.60	722.10	721.27	720.40	719.79	719.47	719.15	718.68	718.29		
Invert Levels (masl)	730.14		729.81		729.43			726.81			724.28				721.96		721.93				718.40				716.68	716.44		
Slope (%)		-0.82%		-0.95%		-4.37%		-4.21%		-2.90%		-0.07%		-4.41%		-2.15%		-1.19%										
Pipe Details	OD200PN10, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

0 2000 4000

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

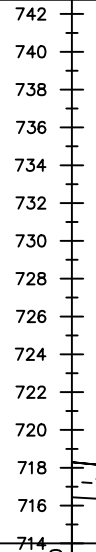
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
41+000 - 41+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	36 of 88

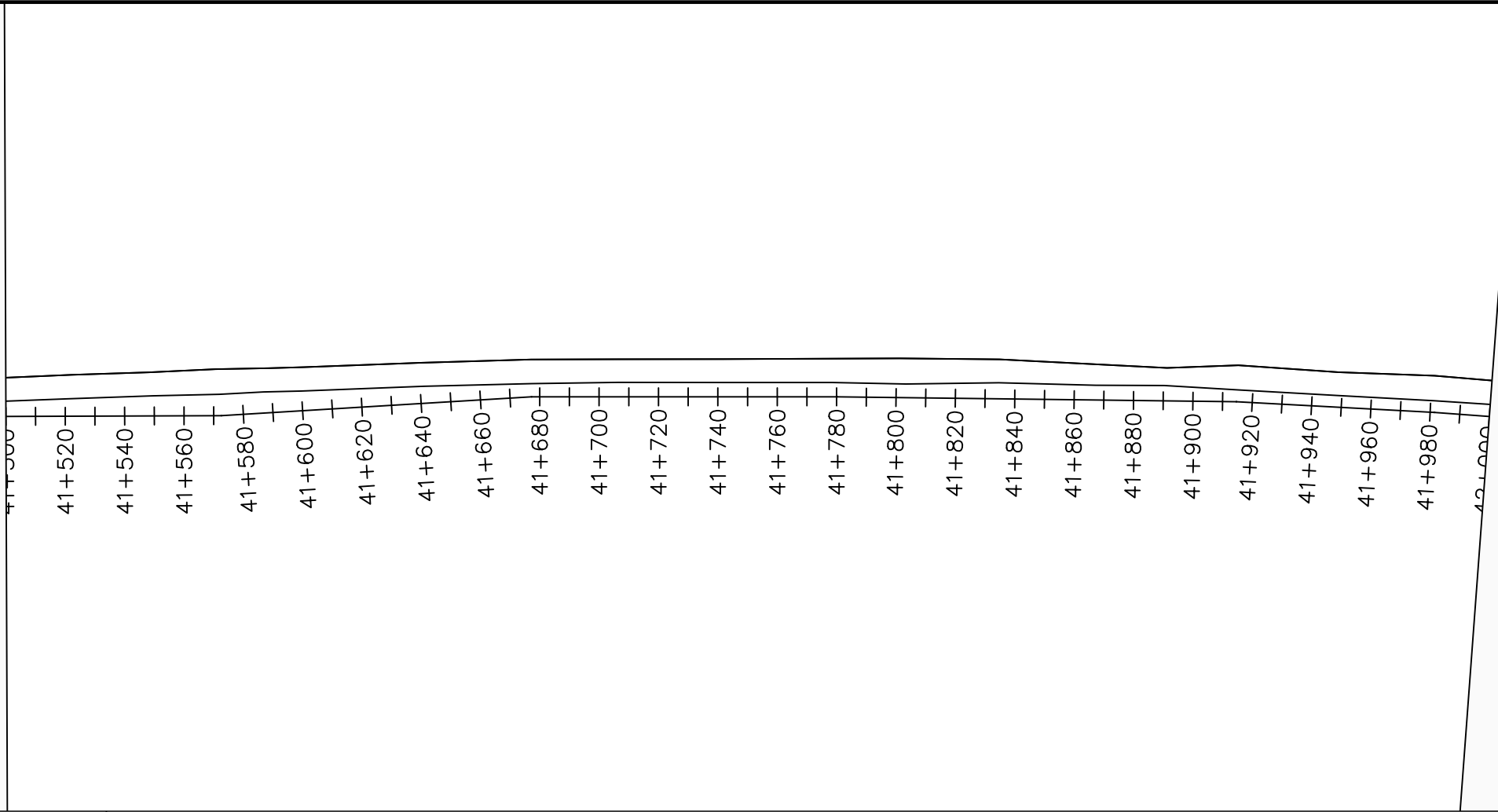
Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
41+000	718.29	716.44	-1.19%	OD200PN10, uPVC
41+020	717.90	715.97	1.29%	
41+040	717.97	717.00	2.83%	
41+060	718.09	719.00	0.23%	
41+080	718.21	719.49	-0.17%	
41+100	718.36	719.35	0.44%	
41+120	719.00	719.70	-0.15%	
41+140	719.77	719.26		
41+160	720.23			
41+180	720.77			
41+200	721.26			
41+220	721.63			
41+240	721.75			
41+260	721.73			
41+280	721.60			
41+300	721.49			
41+320	721.44			
41+340	721.46			
41+360	721.41			
41+380	721.35			
41+400	721.44			
41+420	721.73			
41+440	721.72			
41+460	721.70			
41+480	721.67			
41+500	721.64	719.64		



CHAINAGE = 41+120.00
ELEV = 716.998

CHAINAGE = 41+300.00
ELEV = 719.490

CHAINAGE = 41+460.00
ELEV = 719.703



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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Profile

- Ground Level
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

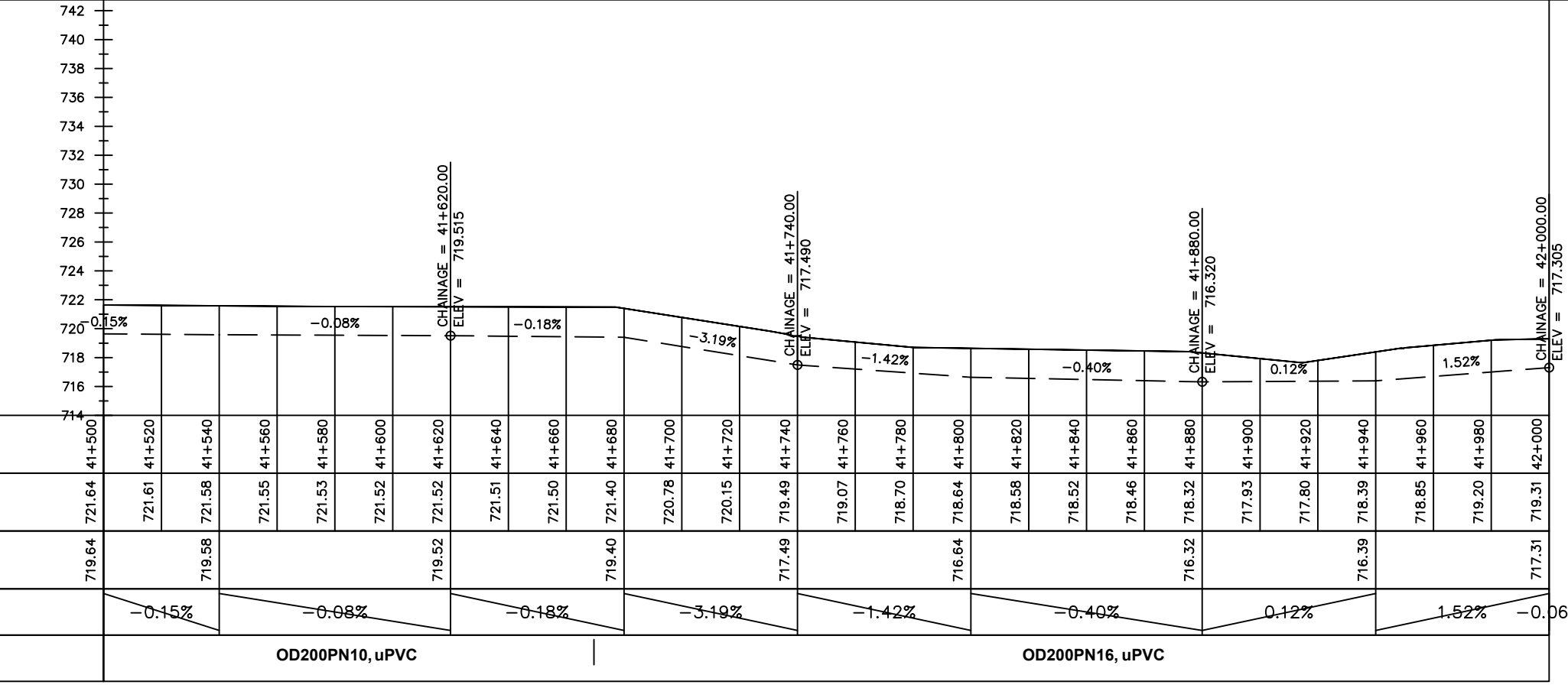
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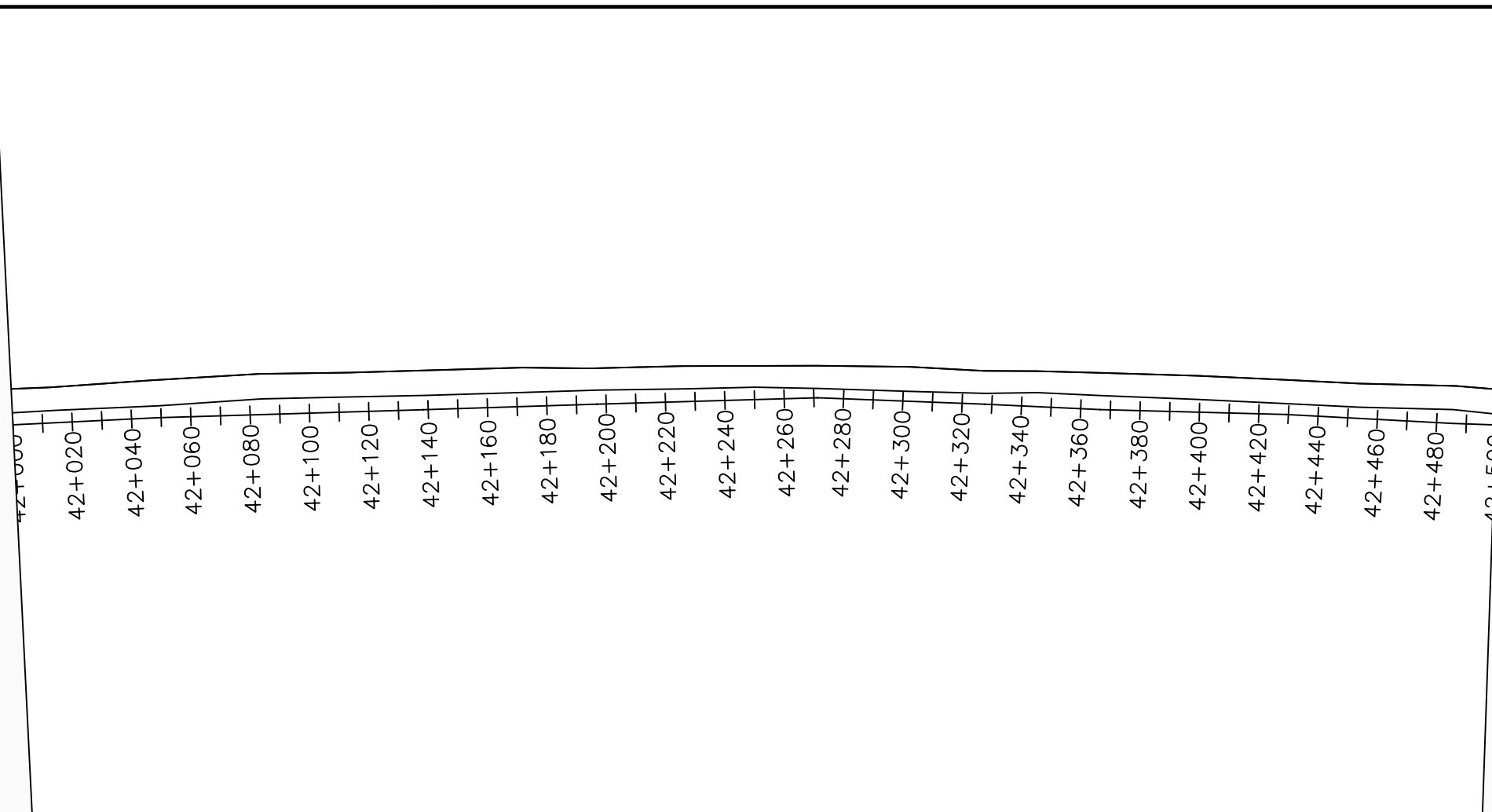
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
41+500 - 42+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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LEGEND

Plan

- Transmission Main
- Distribution Main
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- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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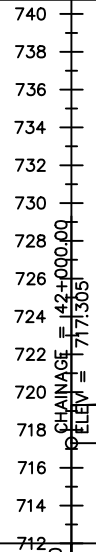
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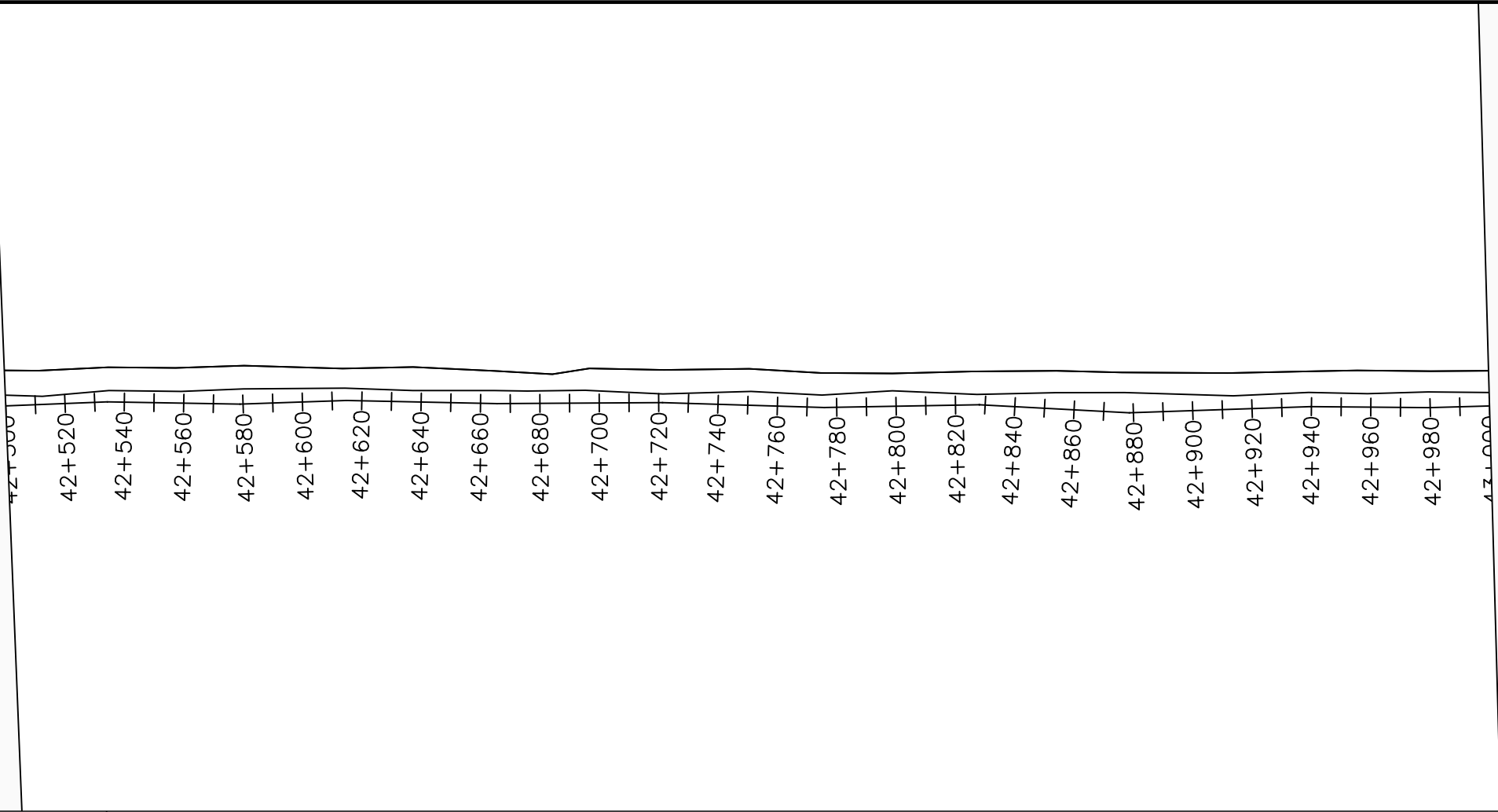
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
42+000 - 42+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	38 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
42+000	719.31	717.31	1.52%	OD200PN16, uPVC
42+020	719.39		-0.06%	
42+040	719.47			
42+060	719.42			
42+080	719.25	717.25	-0.81%	
42+100	719.09			
42+120	718.93			
42+140	718.77	716.77	-0.71%	
42+160	718.63			
42+180	718.52			
42+200	718.44			
42+220	718.20	716.20	-0.55%	
42+240	717.96			
42+260	717.80			
42+280	717.72			
42+300	717.76	715.76	-1.46%	
42+320	717.66			
42+340	717.29			
42+360	716.89	714.89	-0.64%	
42+380	716.66			
42+400	716.46			
42+420	716.51	714.51	-0.99%	
42+440	716.55			
42+460	716.45			
42+480	715.91	713.91	0.16%	
42+500	715.91	713.95		





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
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- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

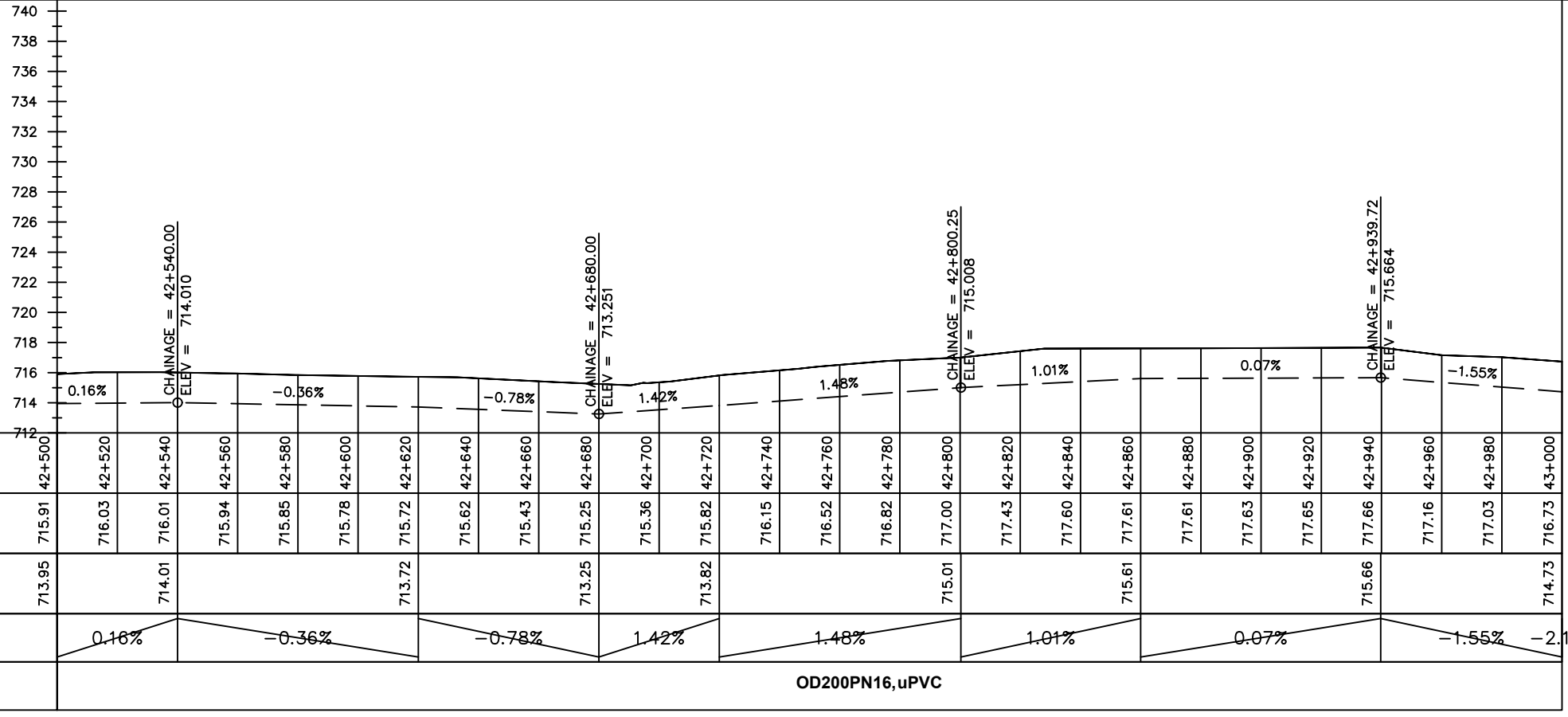
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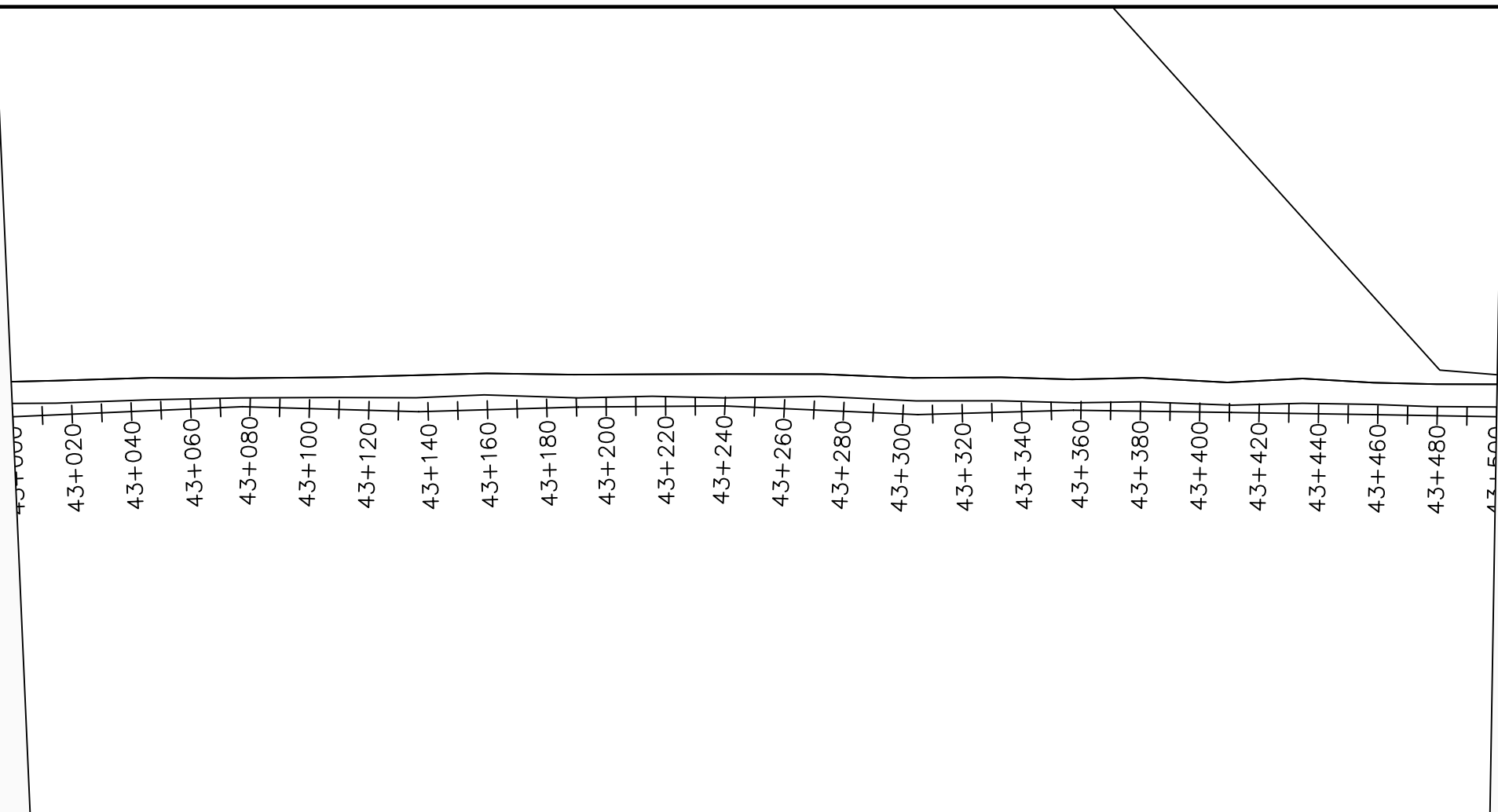
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
42+500 - 43+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	39 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⓐ Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

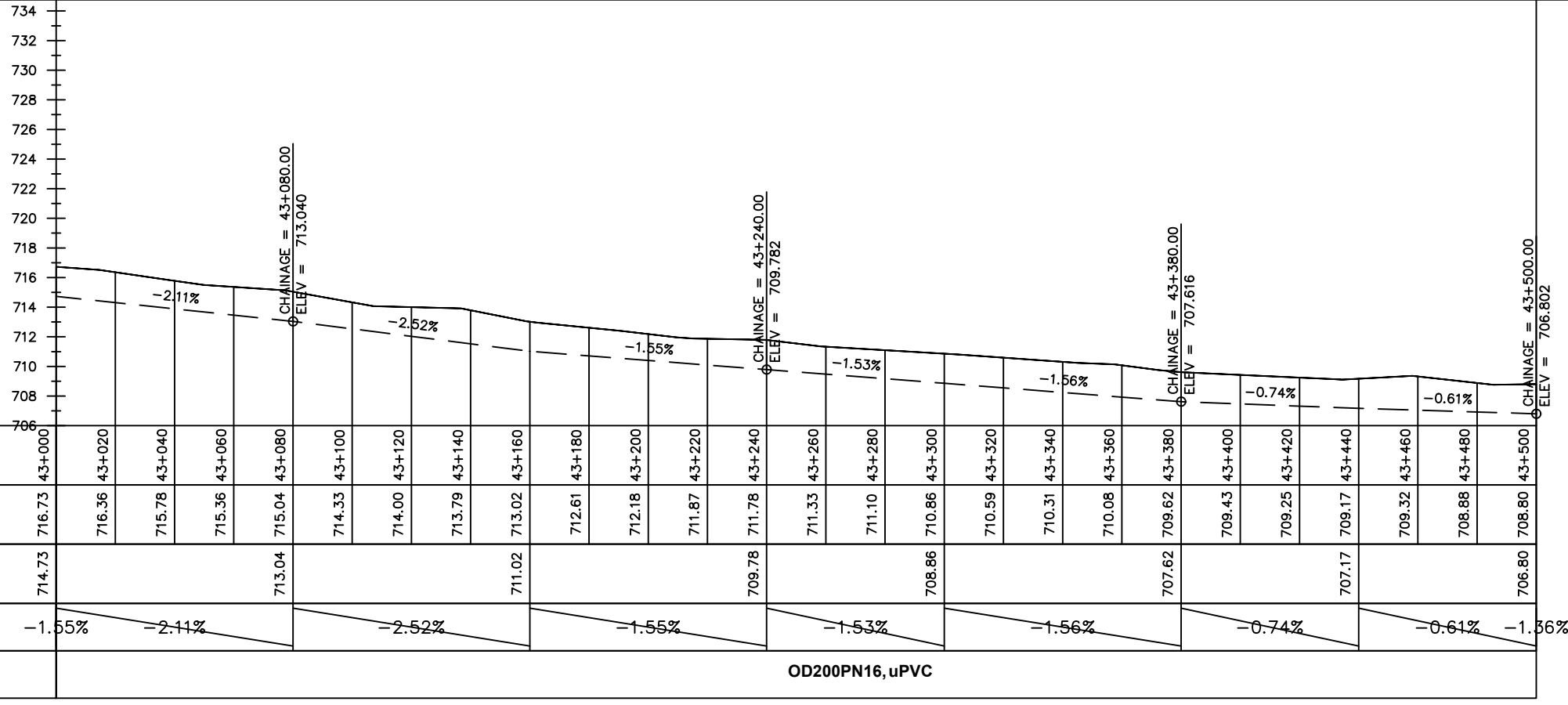
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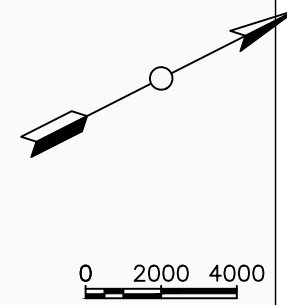
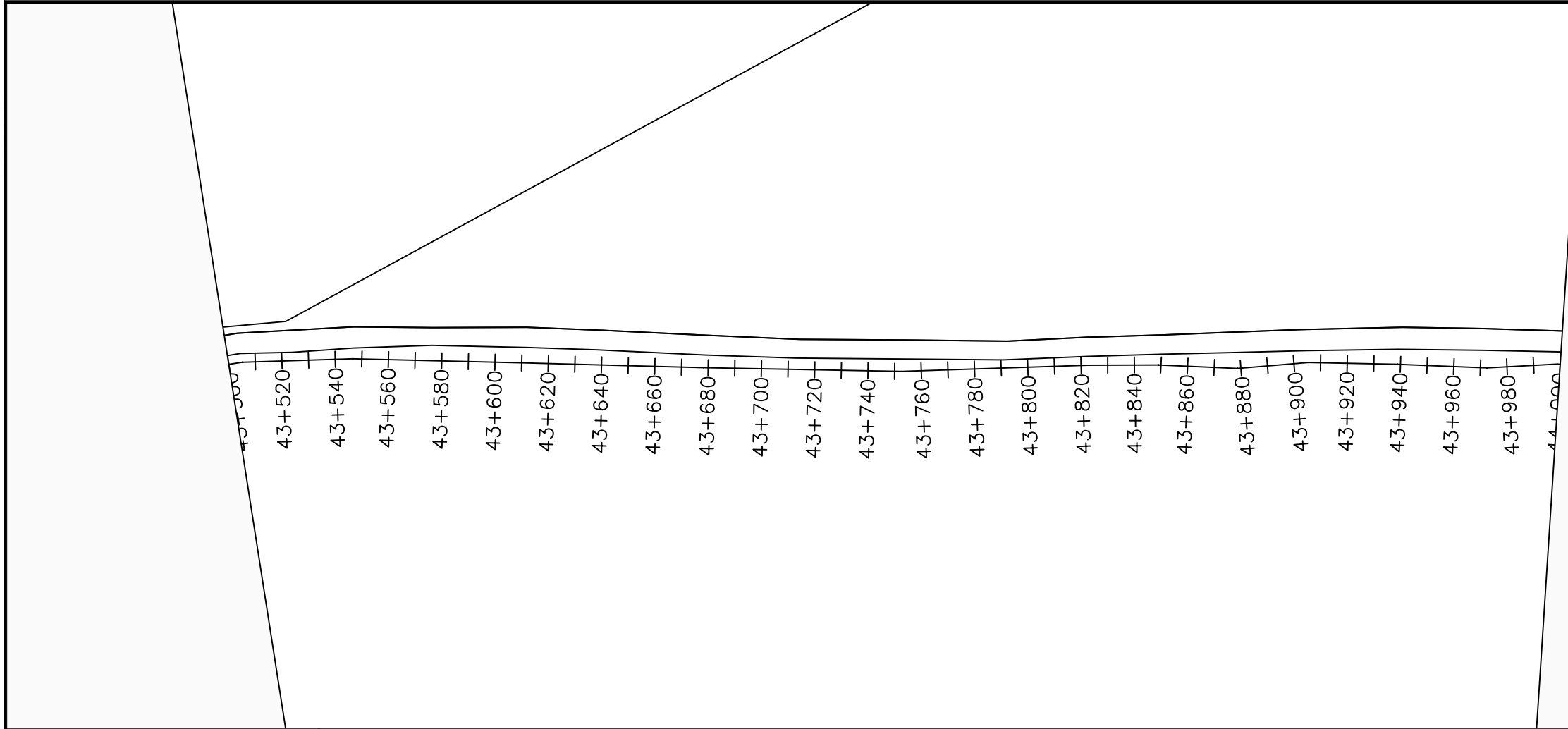
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
43+000 - 43+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	40 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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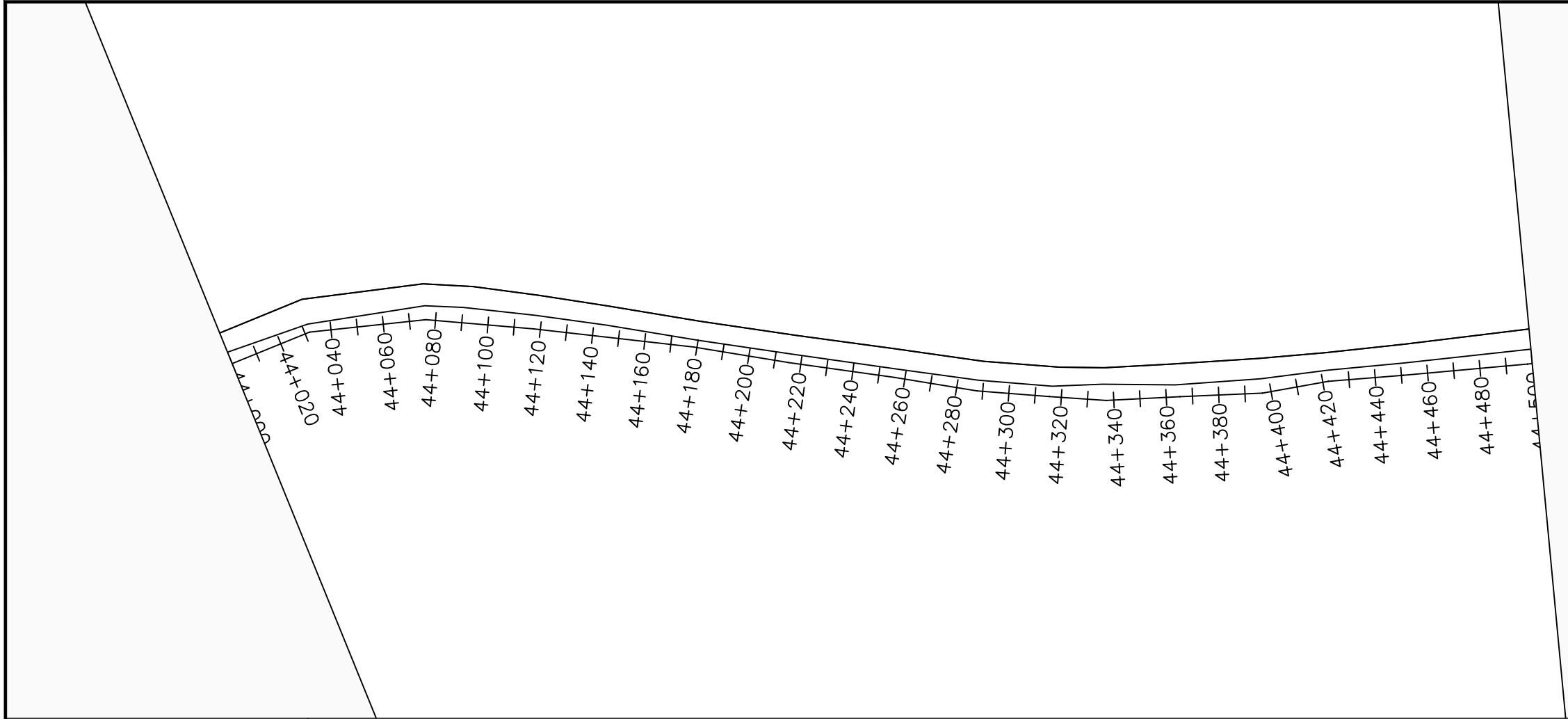
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
43+500 - 44+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	41 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
43+500	708.80	706.80	-0.61%	OD200PN16, uPVC
43+520	708.31			
43+540	707.91			
43+560	707.70		-1.36%	
43+580	707.56			
43+600	707.41			
43+620	707.18	705.18		
43+640	706.86			
43+660	706.55		-1.39%	
43+680	706.25			
43+700	706.06	704.06		
43+720	705.88			
43+740	705.78		-0.69%	
43+760	705.68			
43+780	705.51	703.51		
43+800	705.28		-0.81%	
43+820	704.99			
43+840	705.02	703.02		
43+860	704.95			
43+880	704.76		-0.82%	
43+900	704.58			
43+920	704.37	702.37		
43+940	704.16		-0.50%	
43+960	704.17			
43+980	704.07	702.07		
44+000	703.81	701.83	-1.20%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

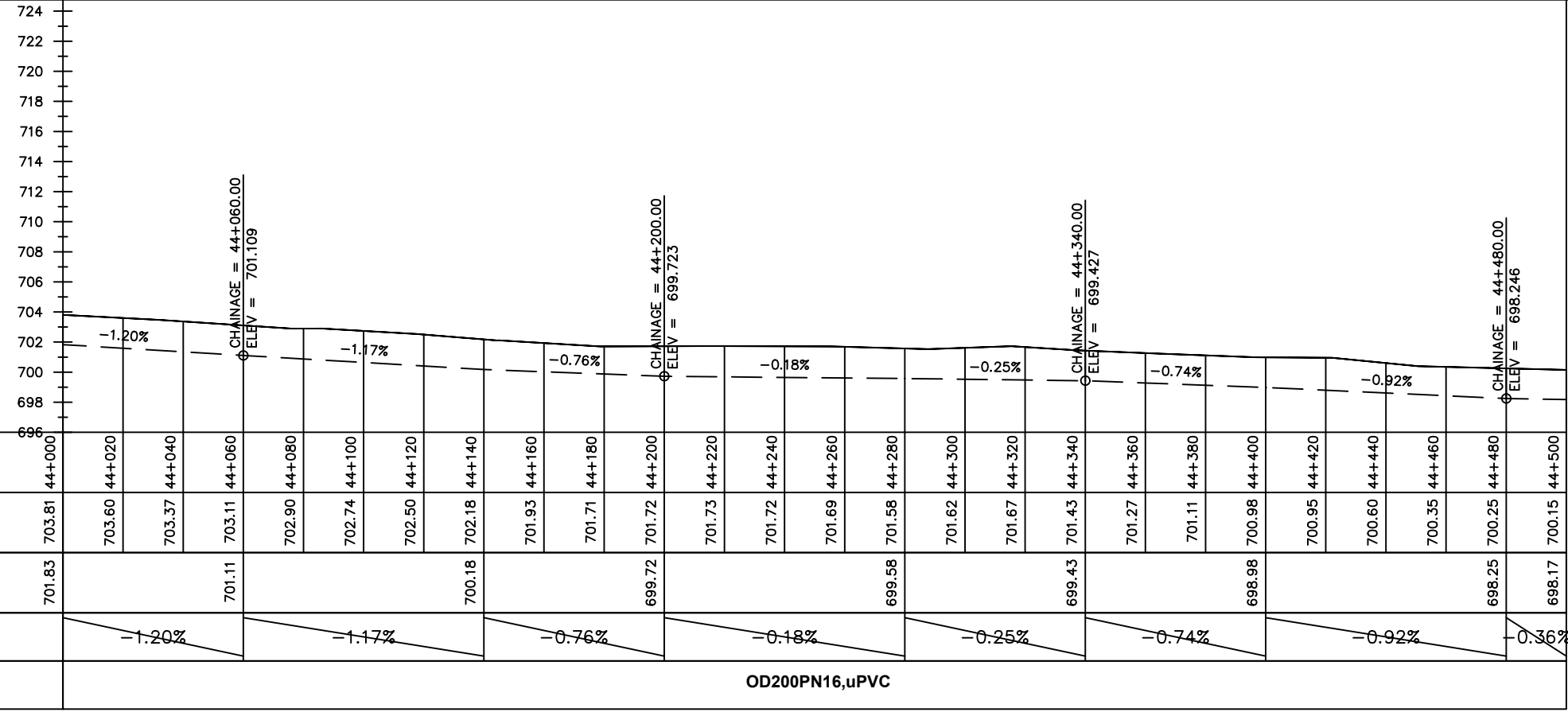
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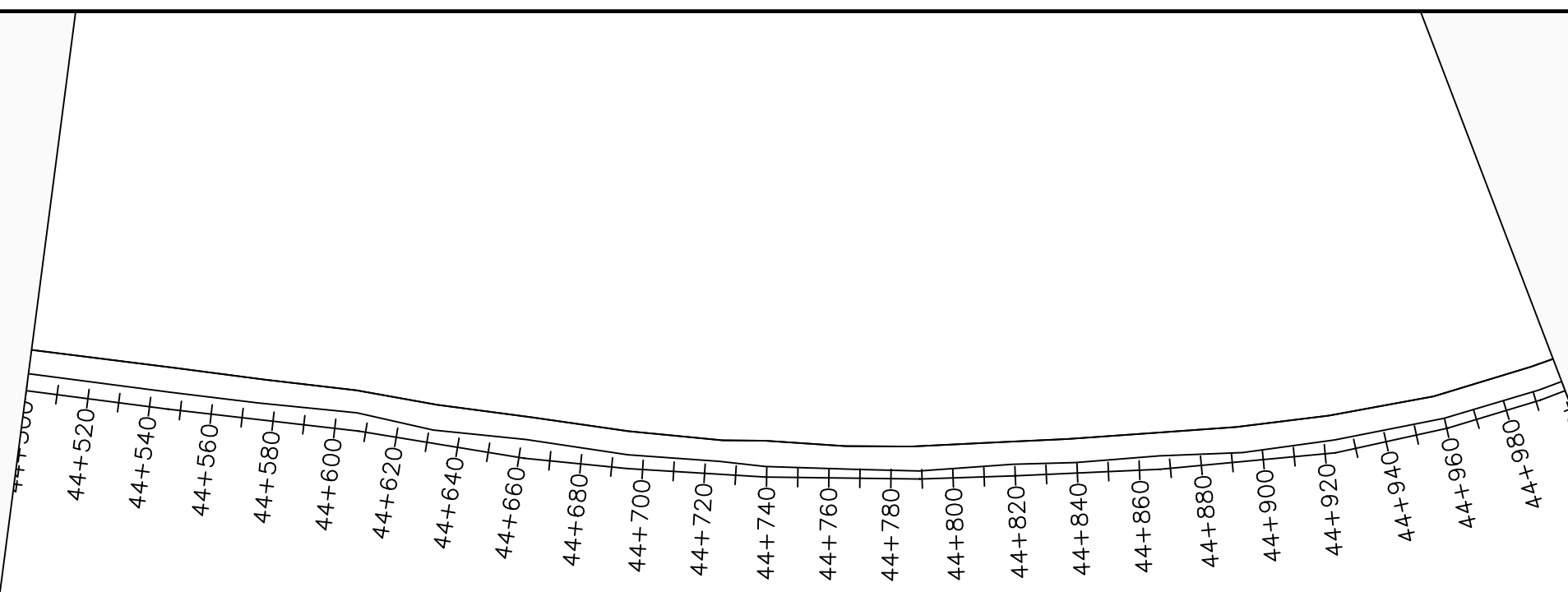
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
44+000 - 44+500

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	42 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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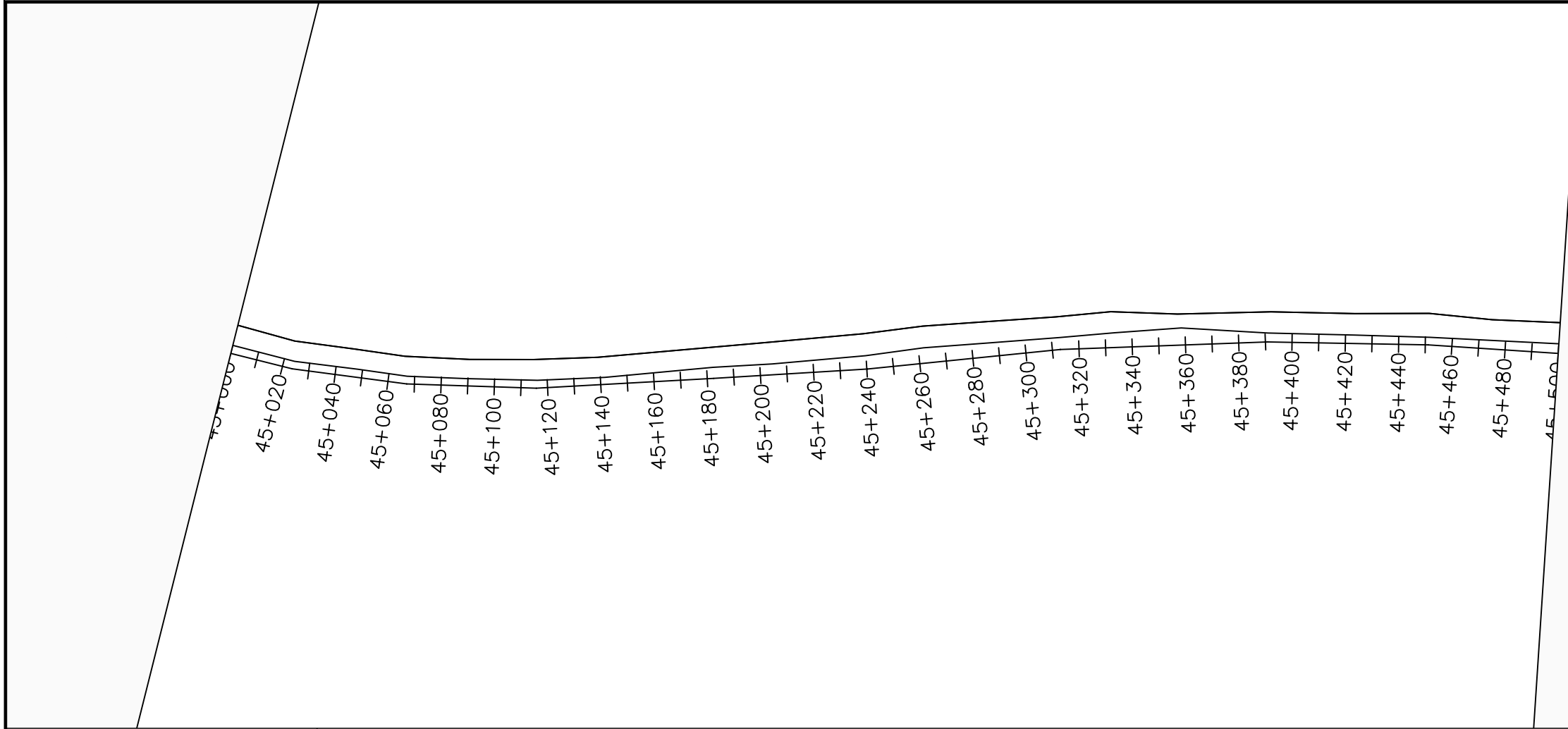
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
44+500 - 45+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	43 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
44+500	700.15	698.17		OD200PN16, uPVC
44+520	700.08		-0.36%	
44+540	700.00			
44+560	699.96	697.96		
44+580	699.93			
44+600	699.90		-0.61%	
44+620	699.73			
44+640	699.47	697.47		
44+660	699.22		-3.24%	
44+680	698.18	696.18		
44+700	697.26		-2.57%	
44+720	696.95			
44+740	696.64	694.64		
44+760	696.39		-1.12%	
44+780	695.98			
44+800	695.97	693.97		
44+820	695.84		-0.30%	
44+840	695.81			
44+860	695.79	693.79		
44+880	695.60		-1.32%	
44+900	695.44			
44+920	695.00	693.00		
44+940	694.75		-0.39%	
44+960	694.53			
44+980	694.77	692.77		
45+000	694.90	692.80	0.18%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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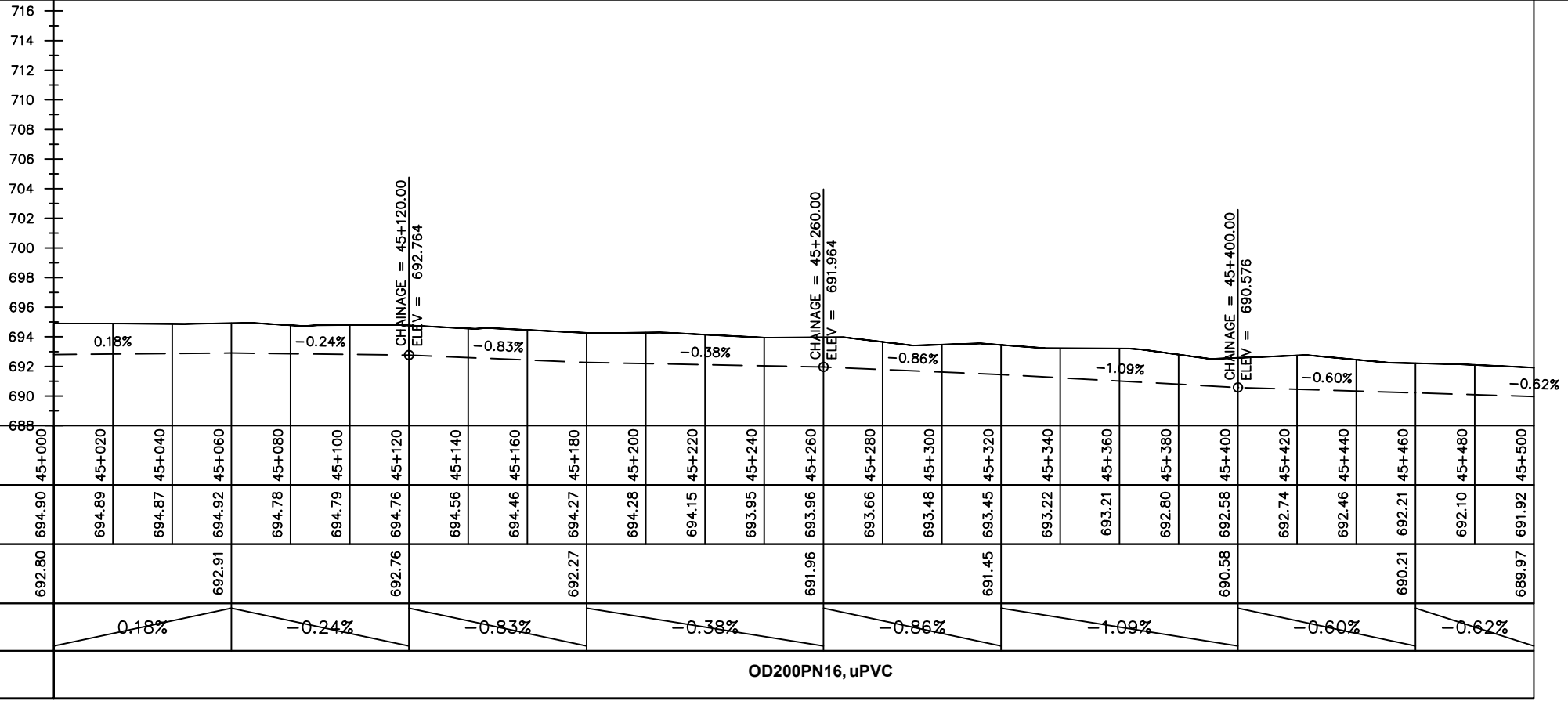
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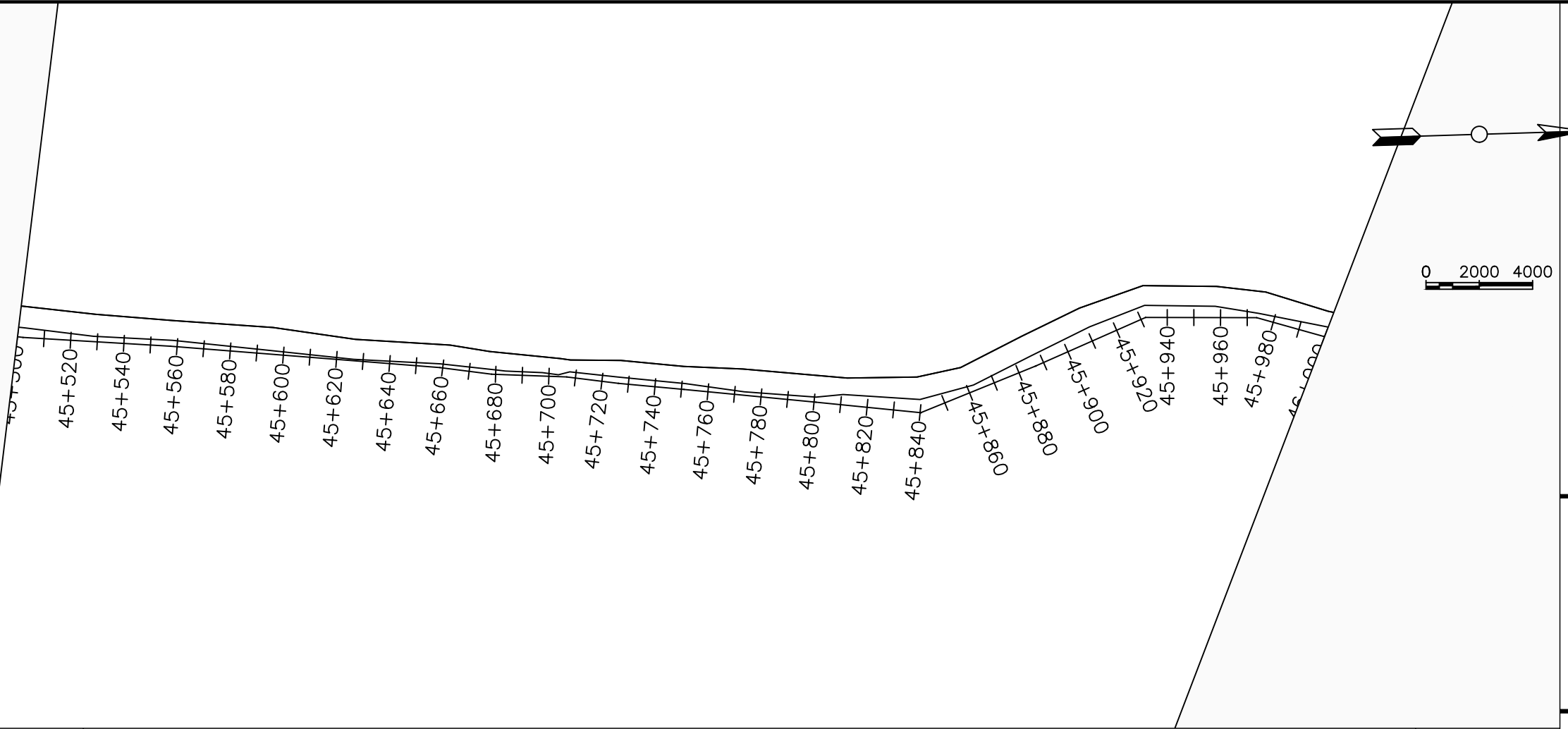
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
45+000 - 45+500

Surveyed by:	R.K
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Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
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Sheet No.:	44 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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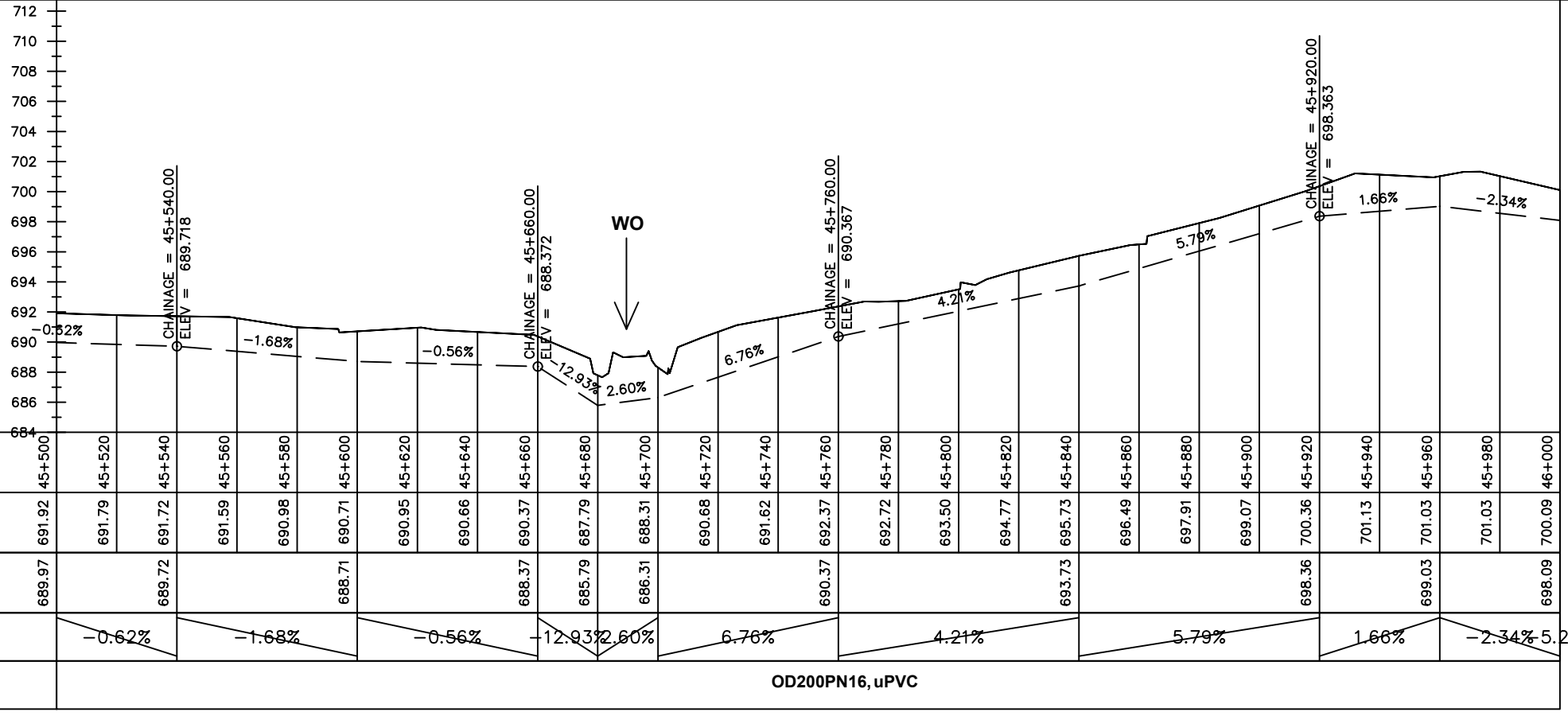
REVISIONS :

No	Date	Description

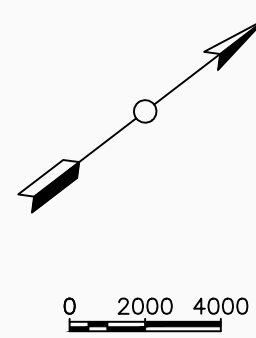
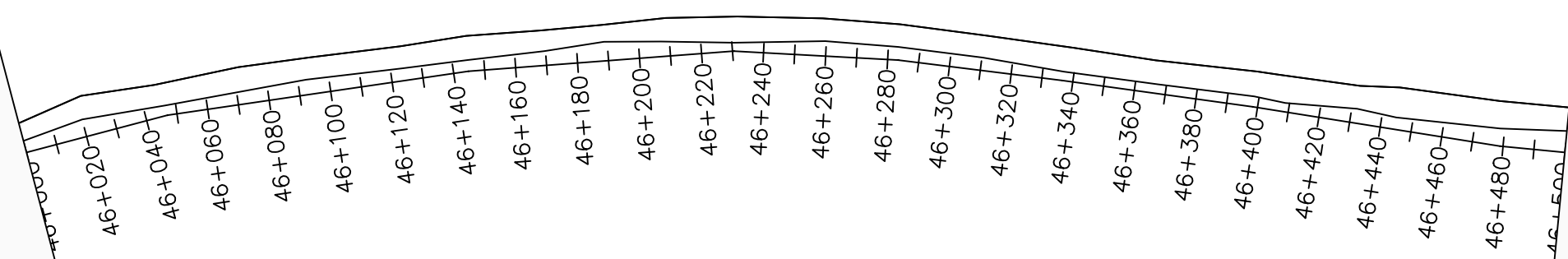
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
45+500 - 46+000

Surveyed by:	R.K
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Date:	January 2023
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Scale:	1:2000
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Chainages (m)	45+500	45+520	45+540	45+560	45+580	45+600	45+620	45+640	45+660	45+680	45+700	45+720	45+740	45+760	45+780	45+800	45+820	45+840	45+860	45+880	45+900	45+920	45+940	45+960	45+980	46+000		
Ground Levels (masl)	691.92	691.79	691.72	691.59	690.98	690.71	690.95	690.66	690.37	687.79	688.31	690.68	691.62	692.37	692.72	693.50	694.77	695.73	696.49	697.91	699.07	700.36	701.13	701.03	701.03	700.09		
Invert Levels (masl)	689.97	689.72	689.72	688.71	688.37	688.37	688.37	688.37	688.37	685.79	686.31	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37	688.37		
Slope (%)		-0.62%		-1.68%		-0.56%		-0.56%		-12.93%	2.60%		6.76%		4.21%				5.79%			1.66%		-2.34%	5.29%			
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

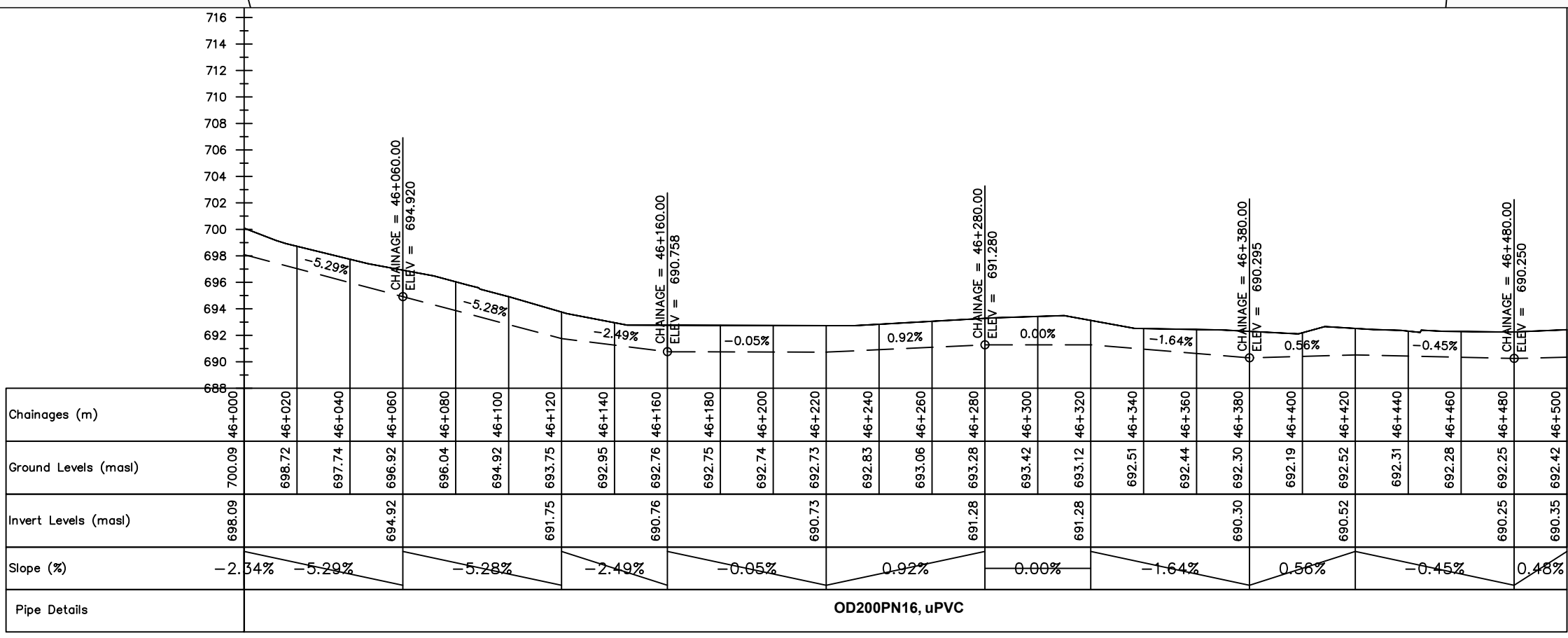
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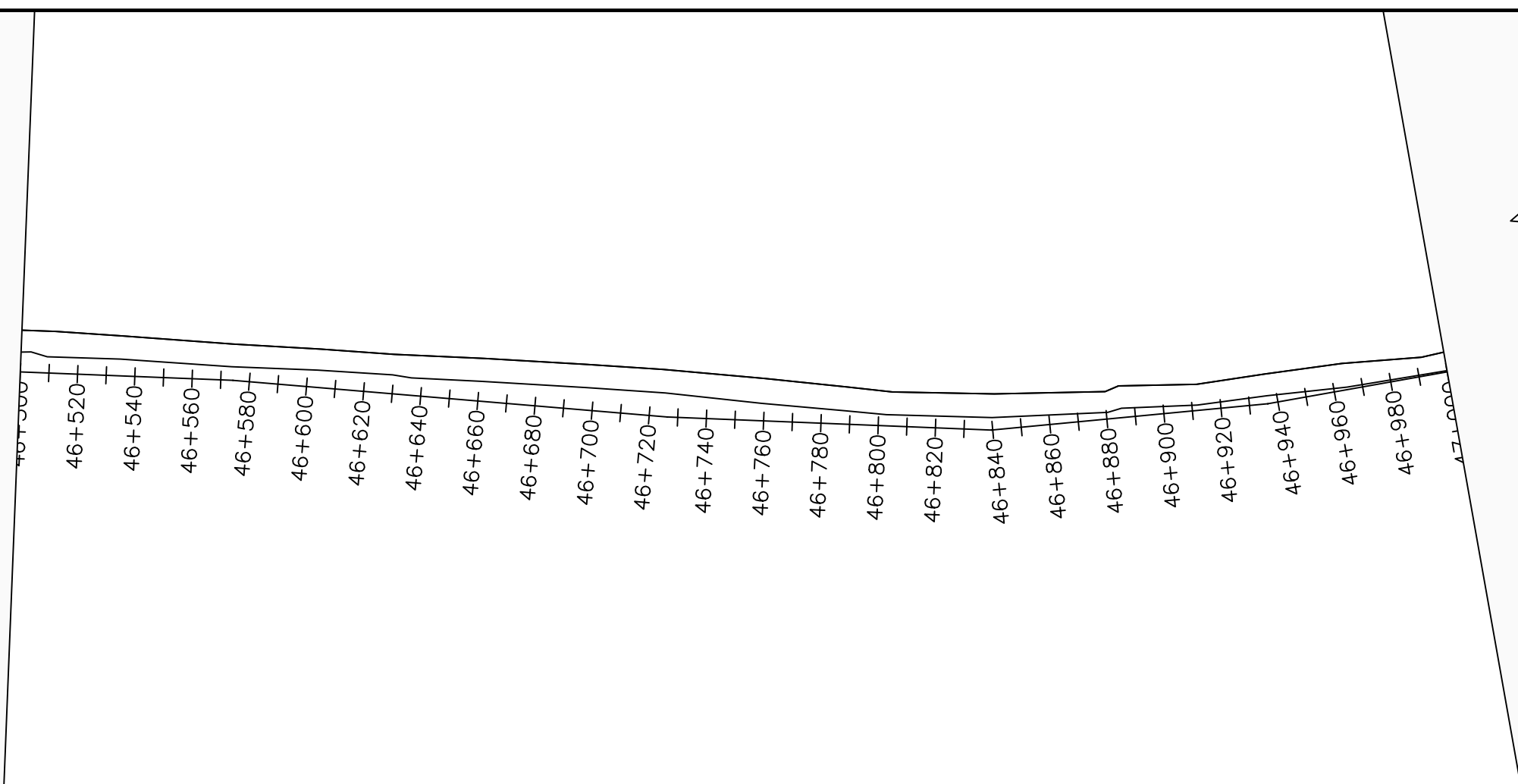
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
46+000 - 46+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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OD200PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

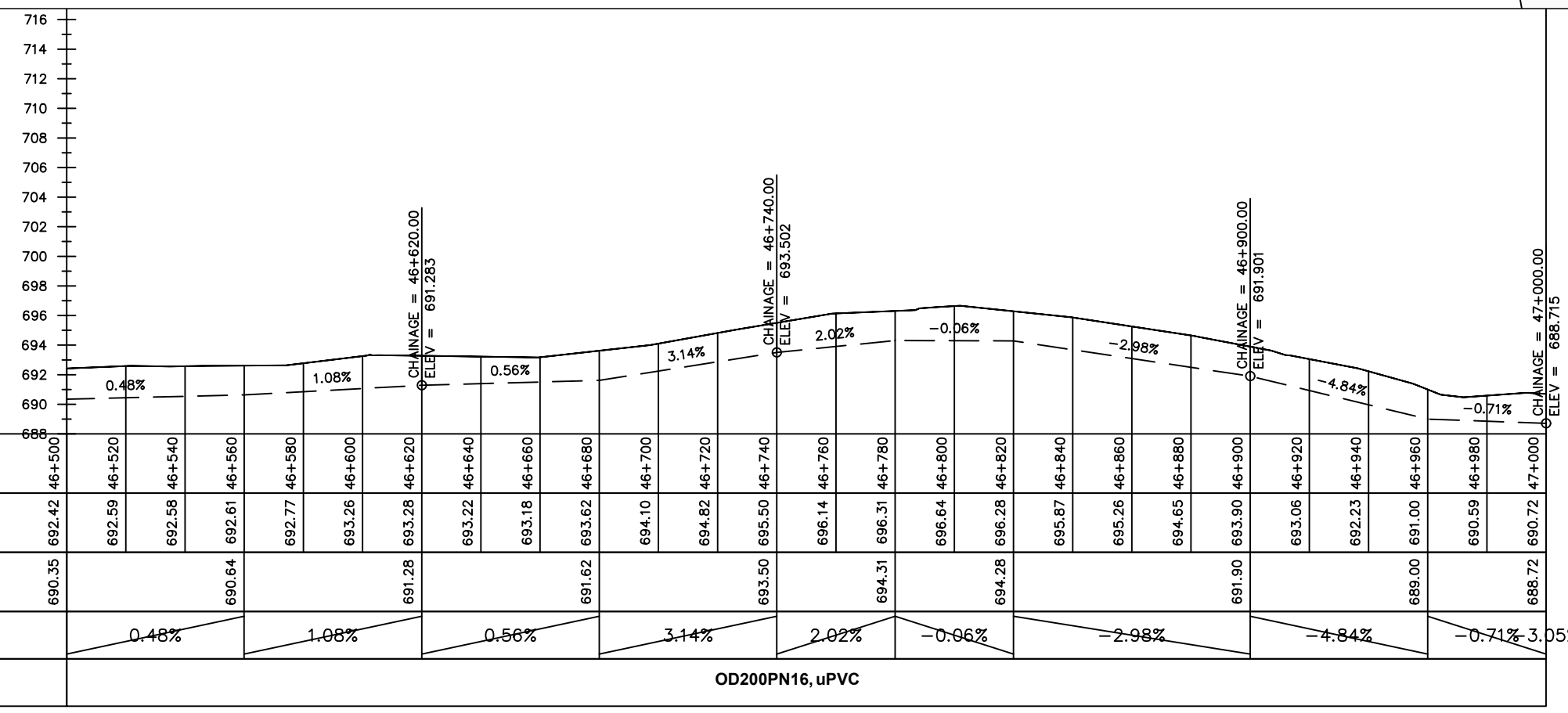
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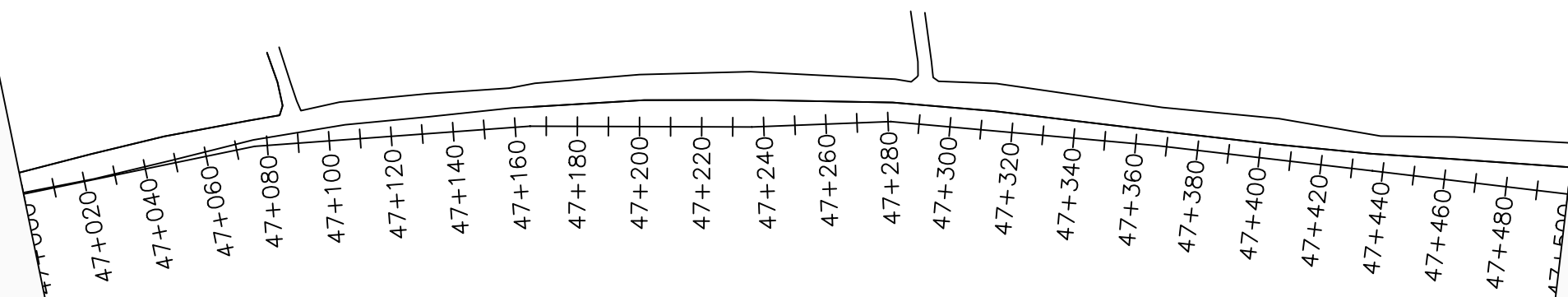
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
46+500 - 47+000

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	47 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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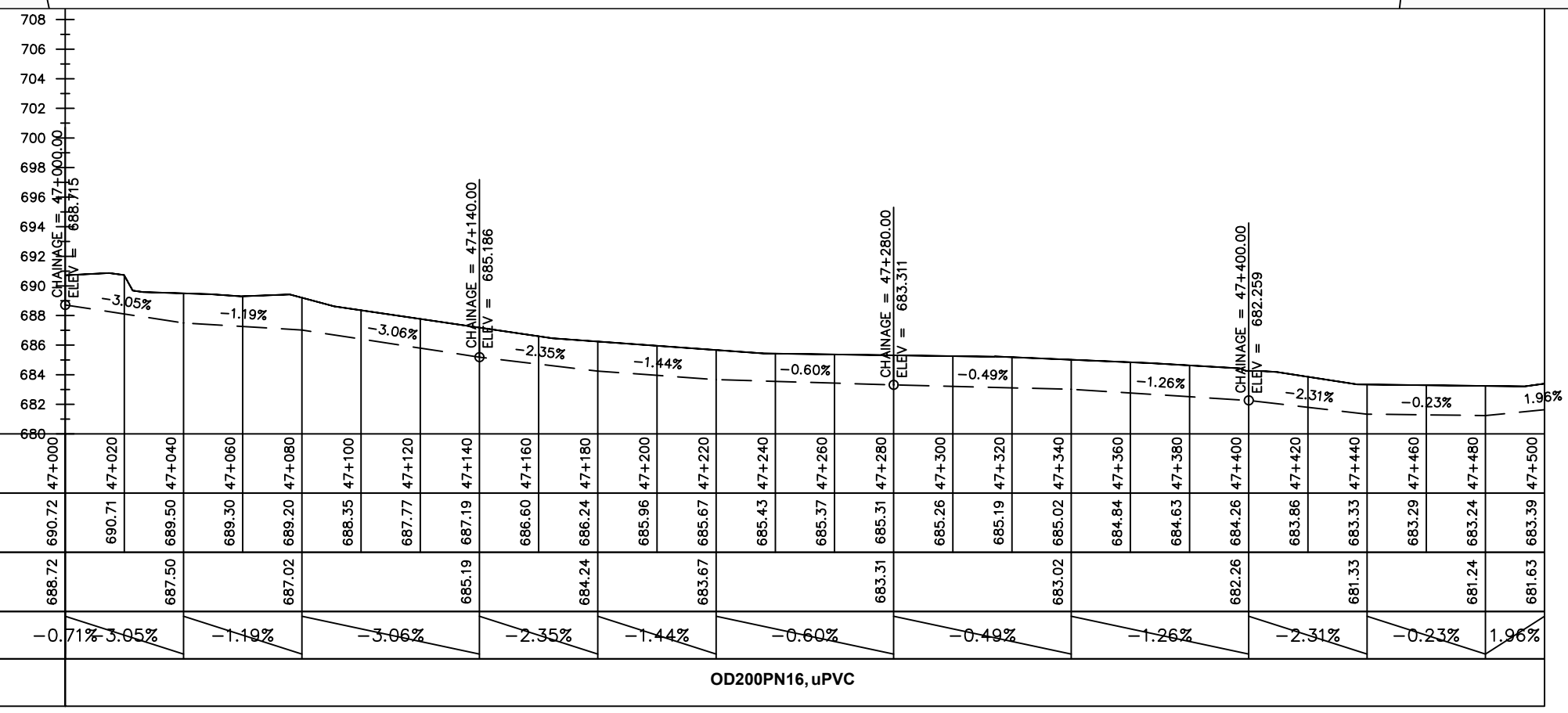
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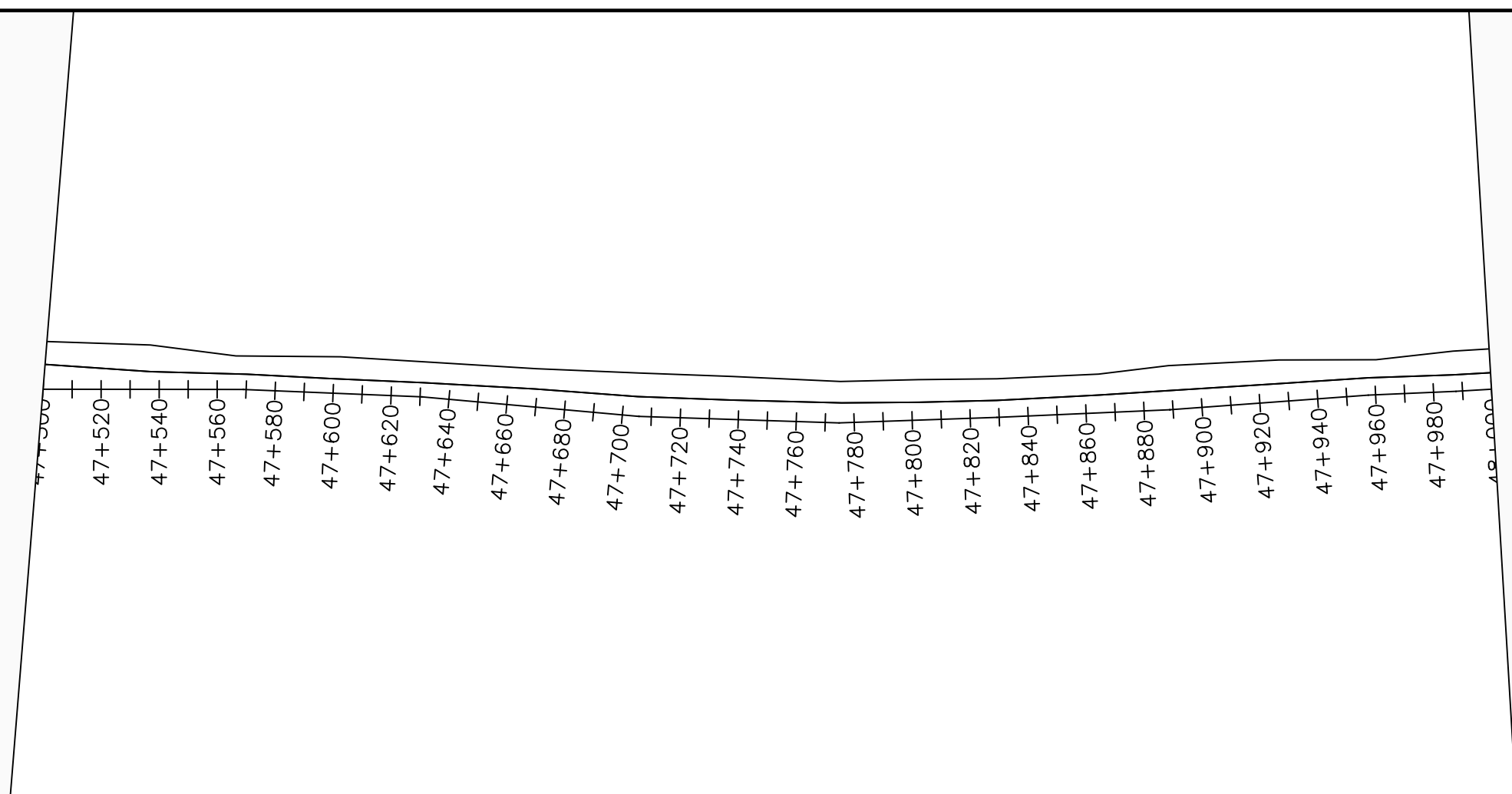
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
47+000 - 47+500

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

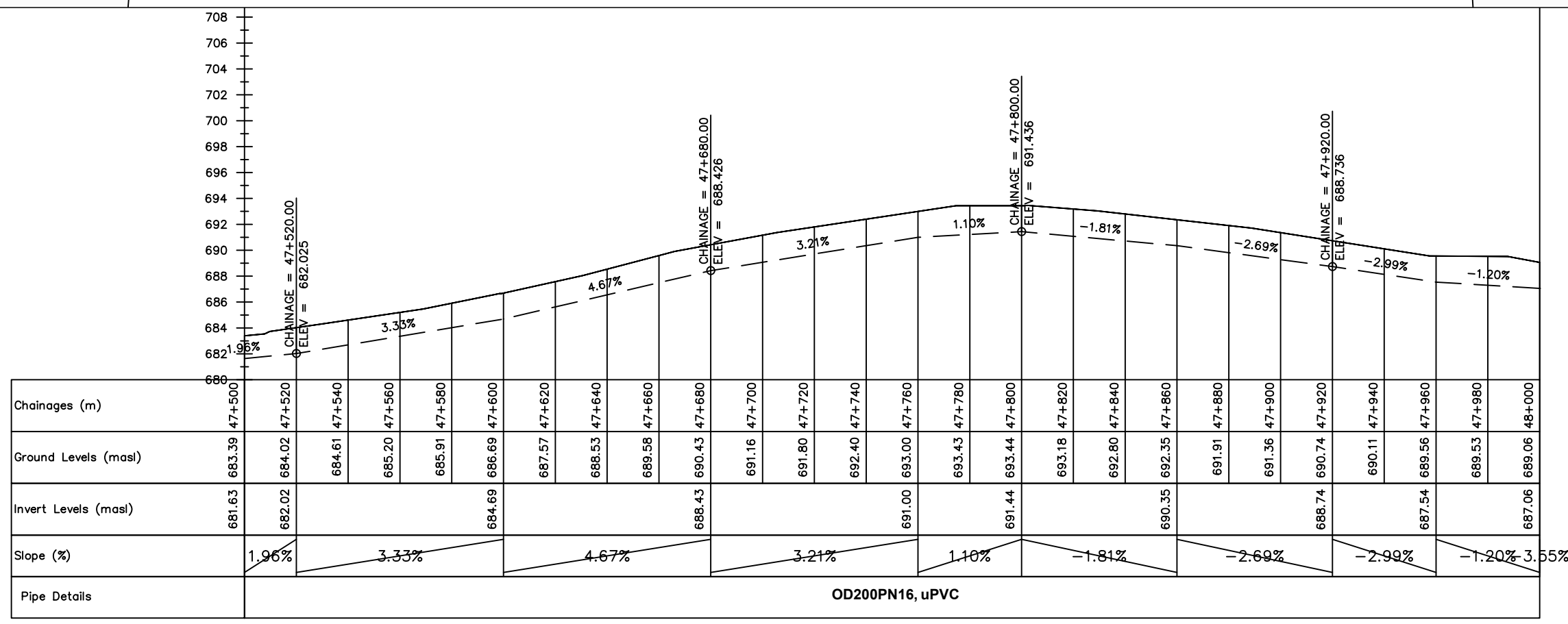
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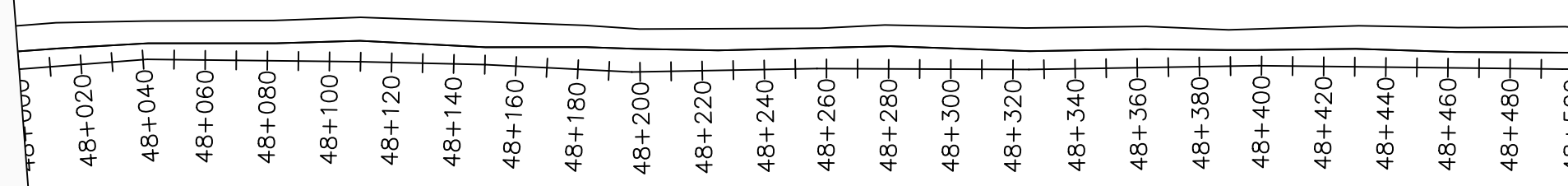
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TRANSMISSION MAIN 3 (TO INDE TANK)
47+500 - 48+000

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Checked by:	J.K.K
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Scale:	1:2000
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LEGEND


- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - AV Air Valve
 - WO Washout
 - Node detail No.

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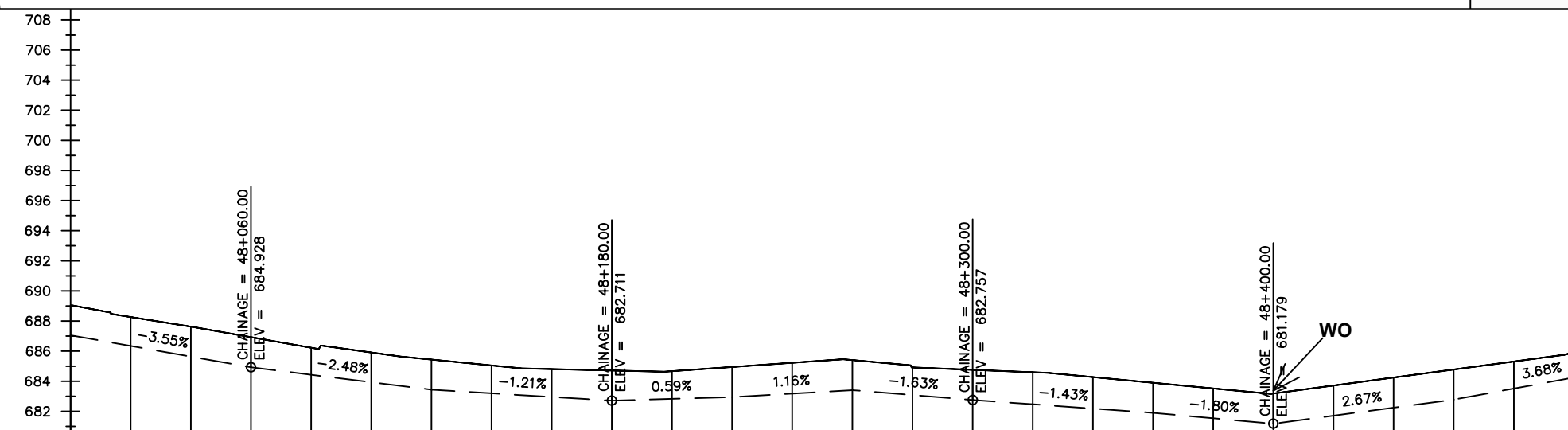
REVISIONS :

No	Date	Description

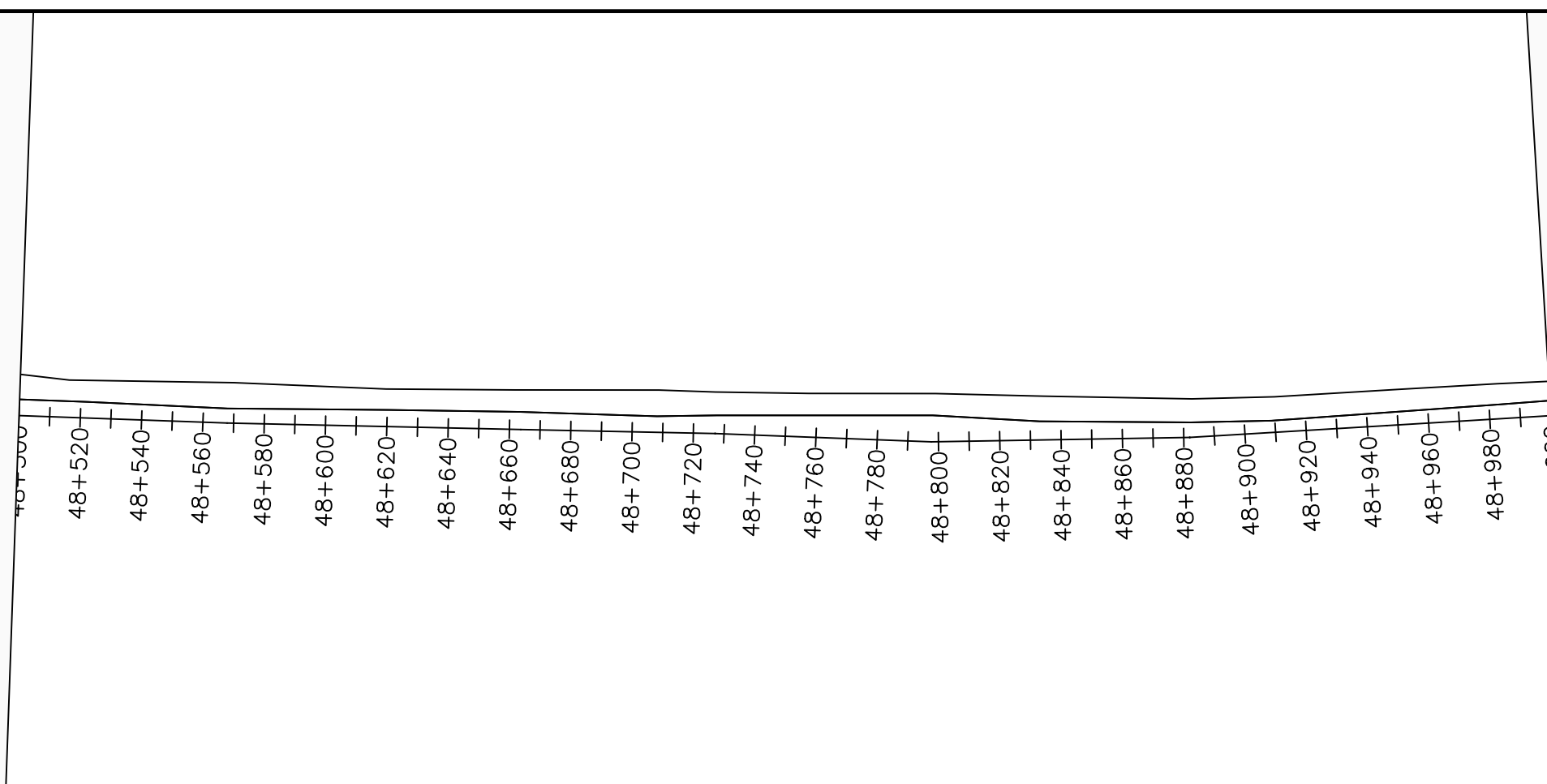
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
48+000 - 48+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	50 of 88



Chainages (m)	48+000	48+020	48+040	48+060	48+080	48+100	48+120	48+140	48+160	48+180	48+200	48+220	48+240	48+260	48+280	48+300	48+320	48+340	48+360	48+380	48+400	48+420	48+440	48+460	48+480	48+500		
Ground Levels (masl)	689.06	688.26	687.62	686.93	686.23	685.91	685.44	685.05	684.81	684.71	684.67	684.95	685.23	685.41	684.91	684.76	684.60	684.28	683.90	683.52	683.18	683.71	684.25	684.78	685.31	685.93		
Invert Levels (masl)	687.06			684.93			683.44			682.71		682.95		683.41		682.76			681.90		681.18			682.78		684.25		
Slope (%)	-1.20%	-3.55%		-2.48%			-1.21%			0.59%		1.16%		-1.63%		-1.43%			-1.80%		2.67%				3.68%			
Pipe Details	OD200PN16,uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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- Contours

Profile

- Ground Level
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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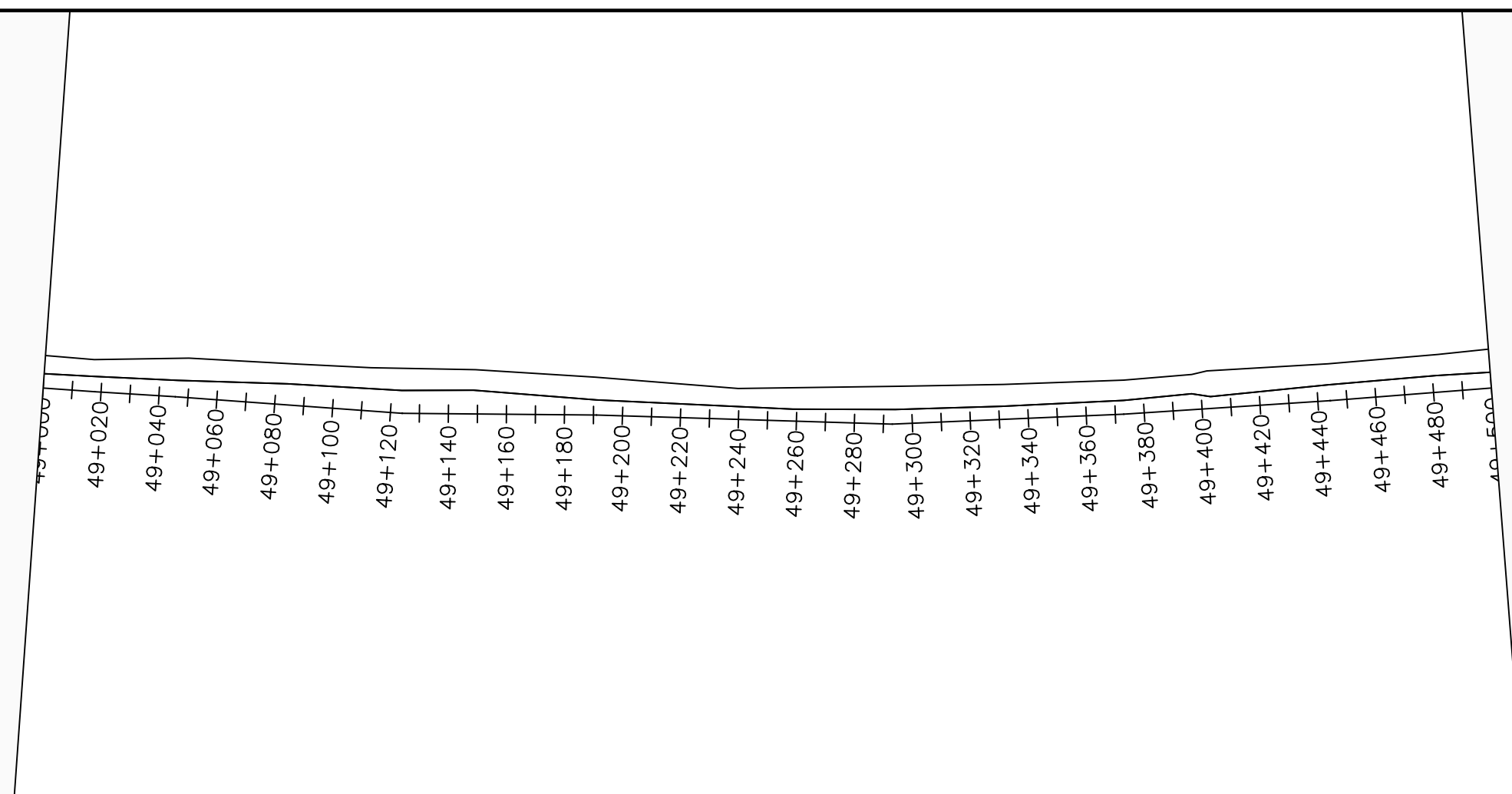
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
48+500 - 49+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	51 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
48+500	685.93	684.25	3.68%	OD200PN16, uPVC
48+520	686.99	684.99	5.28%	
48+540	688.04	689.21	5.27%	
48+560	689.10	689.21	4.72%	
48+580	690.16	689.21	3.96%	
48+600	691.21	689.21	2.73%	
48+620	692.26	689.21	1.28%	
48+640	693.32	689.21		
48+660	694.37	689.21		
48+680	695.43	689.21		
48+700	696.48	689.21		
48+720	697.53	689.21		
48+740	698.48	689.21		
48+760	699.37	689.21		
48+780	700.25	689.21		
48+800	701.13	689.21		
48+820	701.90	689.21		
48+840	702.67	689.21		
48+860	703.45	689.21		
48+880	704.22	689.21		
48+900	704.88	689.21		
48+920	705.59	689.21		
48+940	706.16	689.21		
48+960	706.40	689.21		
48+980	706.57	689.21		
49+000	706.97	689.21		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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Profile

- Ground Level
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- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

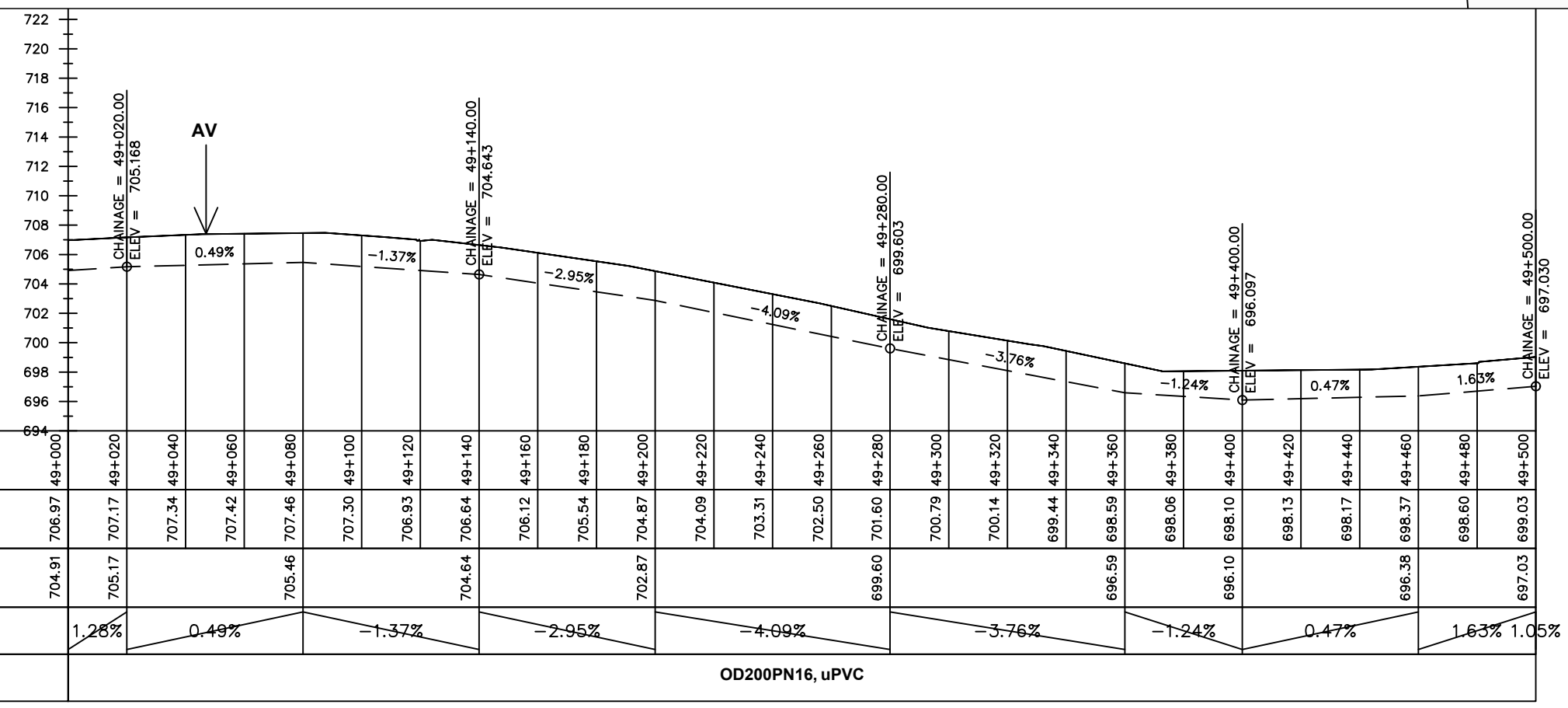
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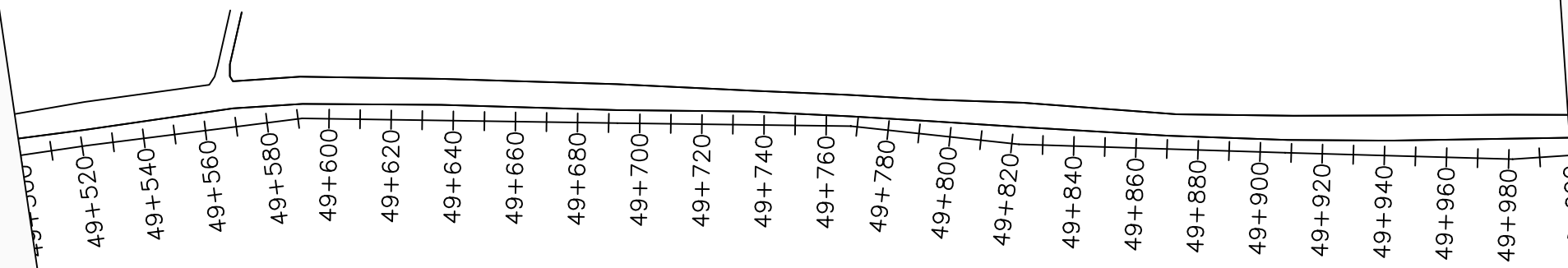
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
49+000 - 49+500

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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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OD200PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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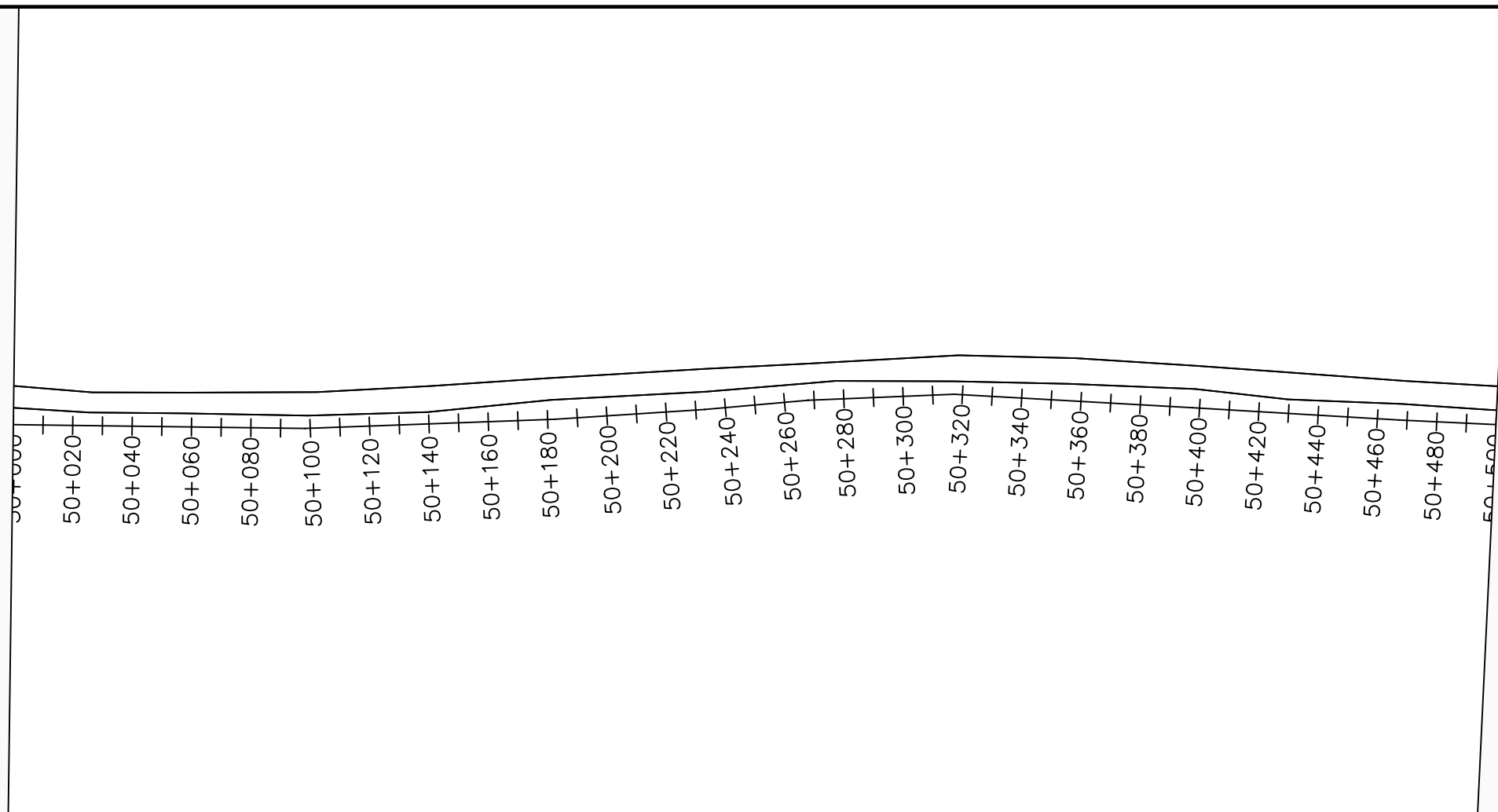
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
49+500 - 50+000

Surveyed by:	R.K
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Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	53 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
49+500	699.03	697.03	1.63%	OD200PN16, uPVC
49+520	699.38		1.05%	
49+540	699.53		-0.17%	
49+560	699.66	697.66	-3.37%	
49+580	699.79		-4.41%	
49+600	699.59	697.59	-2.97%	
49+620	698.95		-0.07%	
49+640	698.24	696.24	3.87%	
49+660	697.36		3.66%	
49+680	696.48	694.48	2.47%	
49+700	695.75		1.80%	
49+720	695.29	693.29		
49+740	695.10			
49+760	695.26	693.26		
49+780	695.69			
49+800	696.59			
49+820	697.58	695.58		
49+840	698.35			
49+860	699.09			
49+880	699.78	697.78		
49+900	700.38			
49+920	700.86			
49+940	701.26	699.26		
49+960	701.70			
49+980	702.04			
50+000	702.41	700.34		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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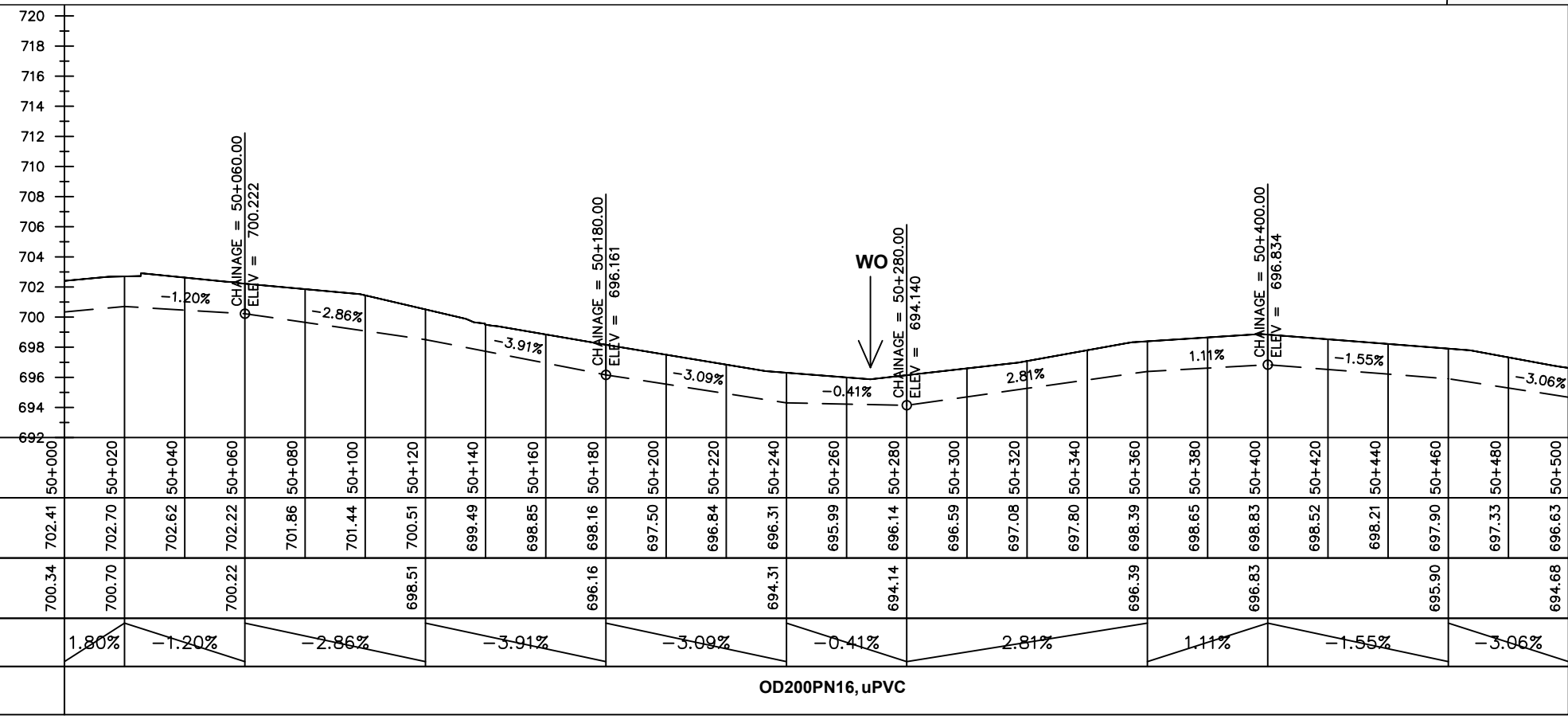
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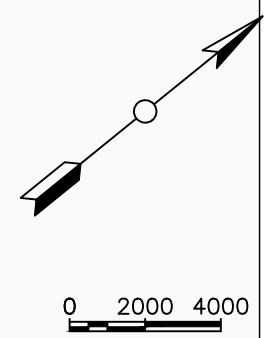
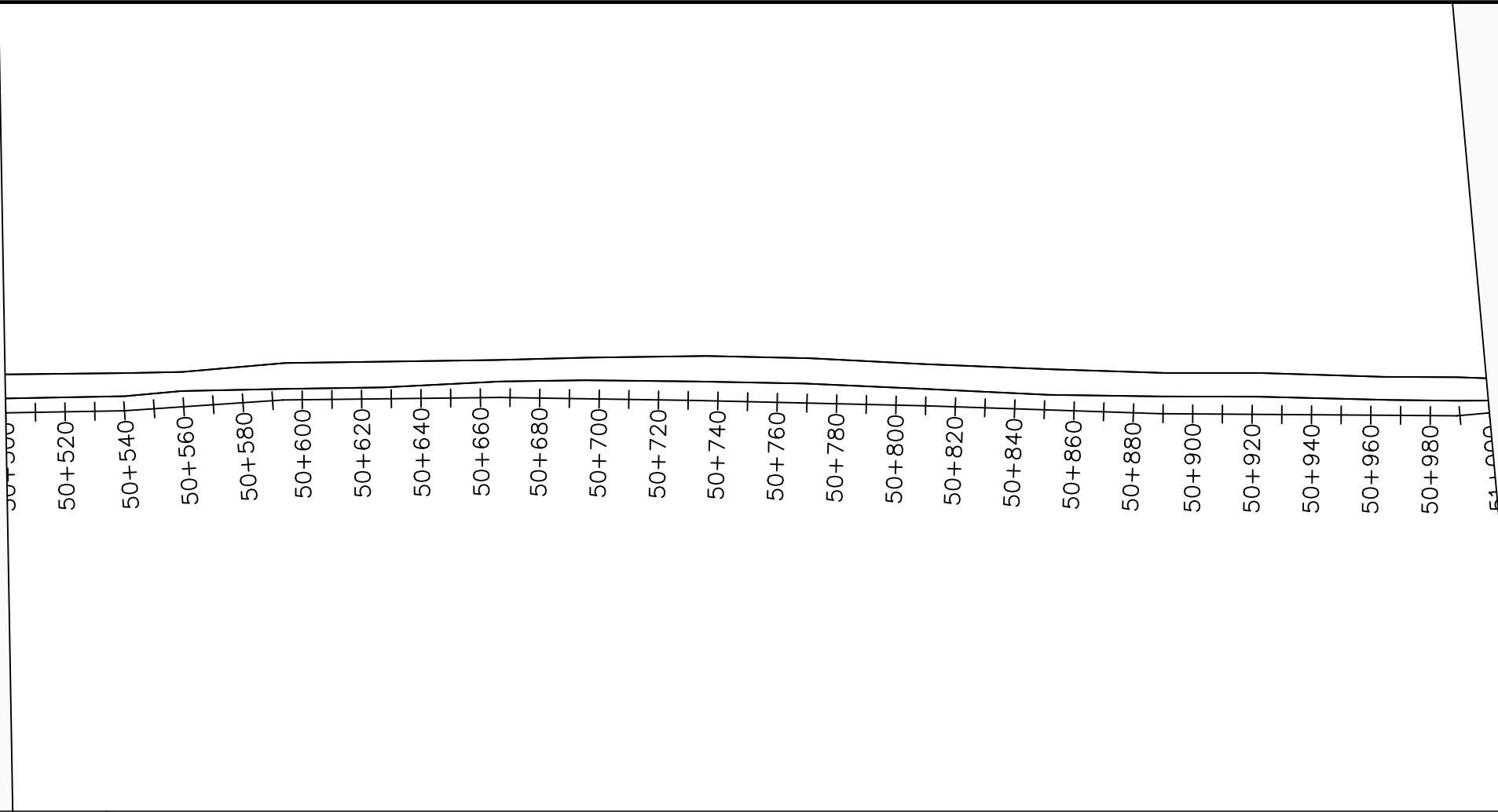
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
50+000 - 50+500

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Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	54 of 88



Chainages (m)	50+000	50+020	50+040	50+060	50+080	50+100	50+120	50+140	50+160	50+180	50+200	50+220	50+240	50+260	50+280	50+300	50+320	50+340	50+360	50+380	50+400	50+420	50+440	50+460	50+480	50+500		
Ground Levels (masl)	702.41	702.70	702.62	702.22	701.86	701.44	700.51	699.49	698.85	698.16	697.50	696.84	696.31	695.99	696.14	696.59	697.08	697.80	698.39	698.65	698.83	698.52	698.21	697.90	697.33	696.63		
Invert Levels (masl)	700.34	700.70	700.22				698.51			696.16			694.31		694.14				696.39		696.83			695.90		694.68		
Slope (%)	1.80%	-1.20%	-2.86%	-3.91%	-3.09%	-0.41%	2.81%	1.11%	-1.55%	-3.06%																		
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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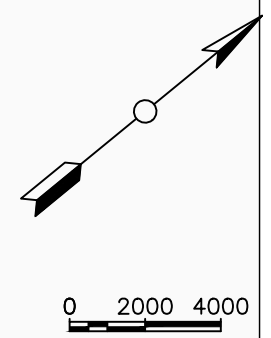
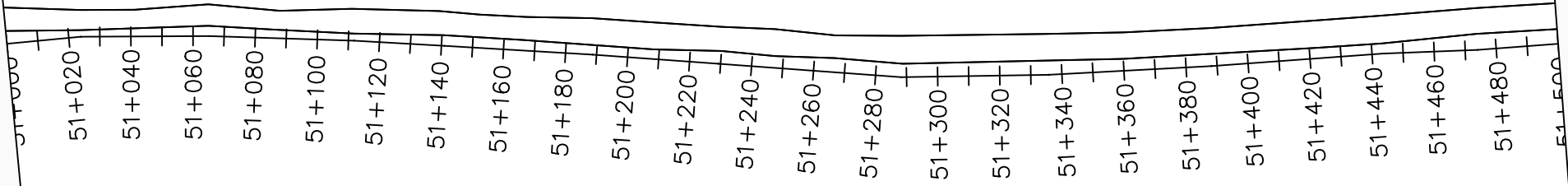
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
50+500 - 51+000

Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	55 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
50+500	696.63	694.68		OD200PN16, uPVC
50+520	696.07	694.07	-3.06%	
50+540	695.51		-1.46%	
50+560	695.48	693.48	0.06%	
50+580	695.46		1.92%	
50+600	695.51	693.51	4.02%	
50+620	695.73		3.11%	
50+640	696.15		2.06%	
50+660	696.66	694.66	0.49%	
50+680	697.54		1.47%	
50+700	698.36		-0.58%	
50+720	699.08	697.08		
50+740	699.75			
50+760	700.36			
50+780	700.96			
50+800	701.57	699.57		
50+820	702.09			
50+840	702.53			
50+860	702.81	700.81		
50+880	702.99			
50+900	703.08			
50+920	703.10	701.10		
50+940	703.37			
50+960	703.68	701.68		
50+980	703.39			
51+000	703.45	701.45	1.84%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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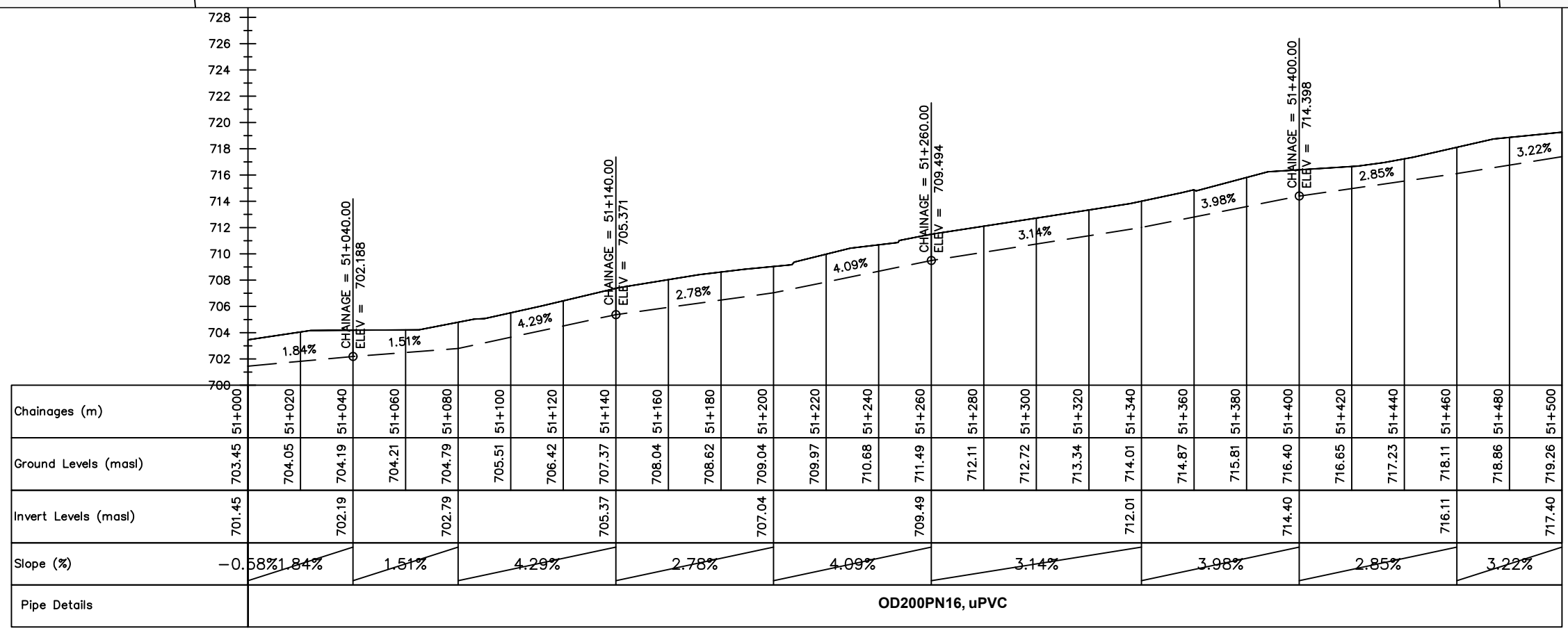
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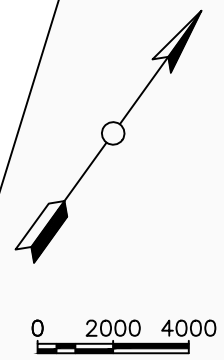
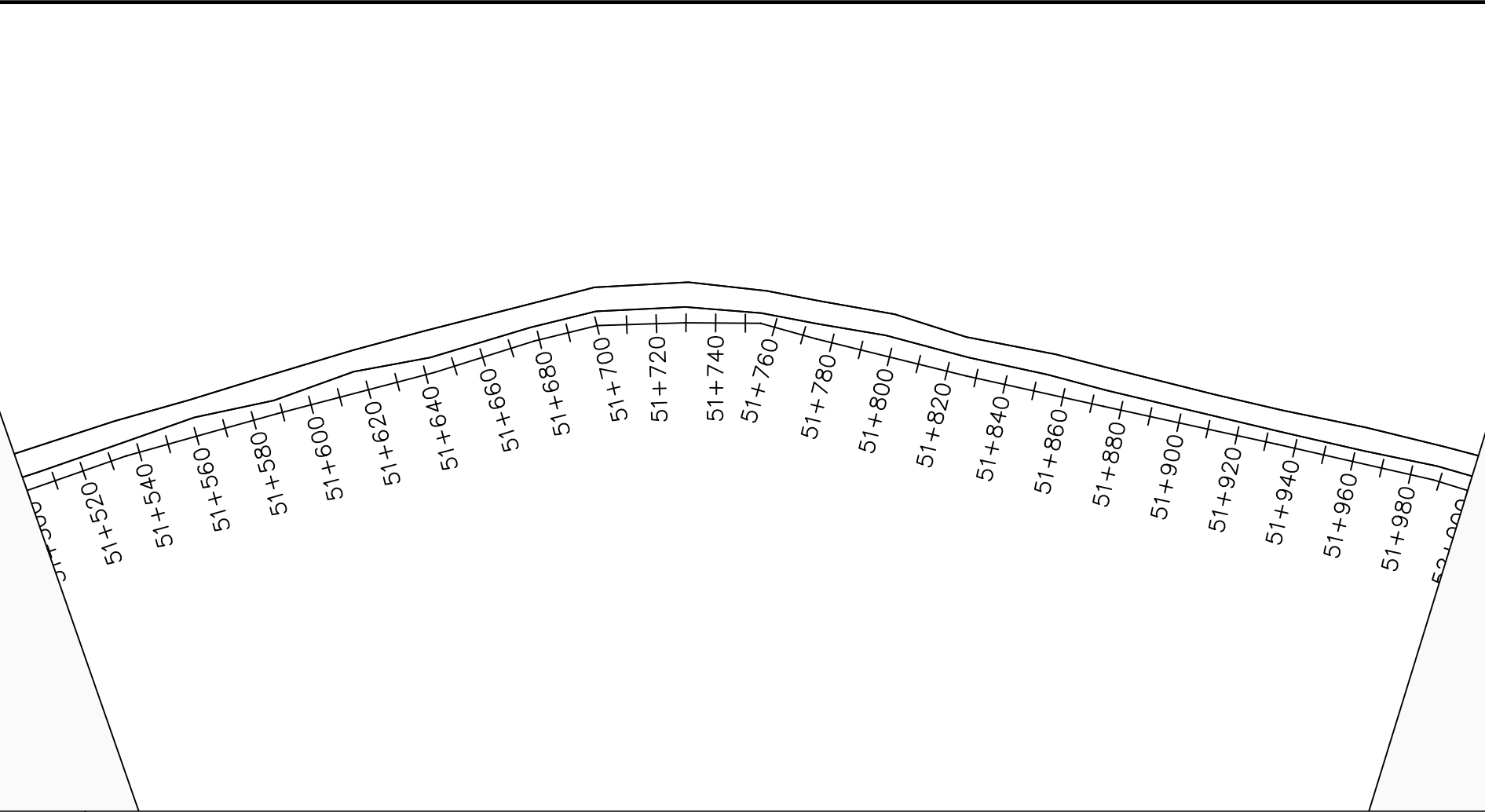
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
51+000 - 51+500

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
DRG. No.:	NYA-GTM-003
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

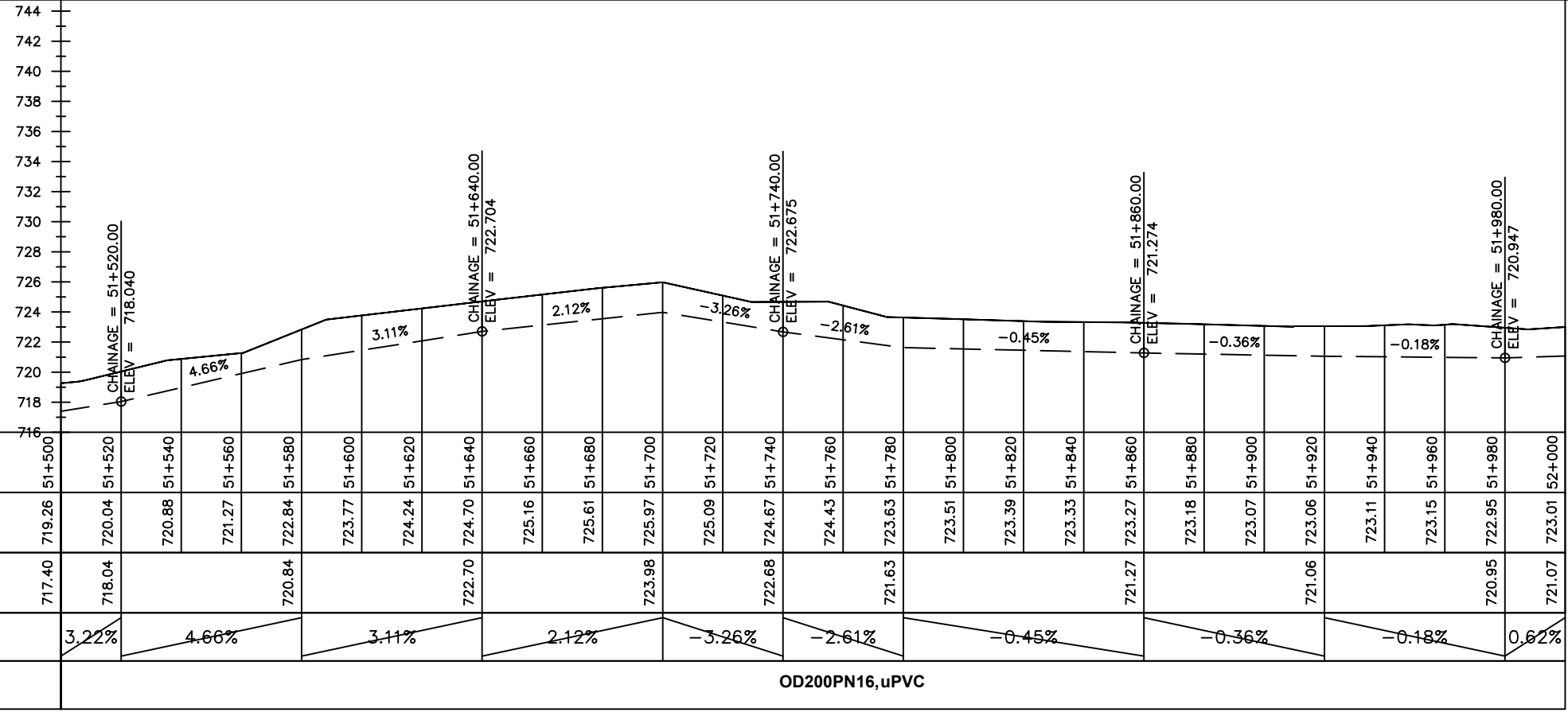
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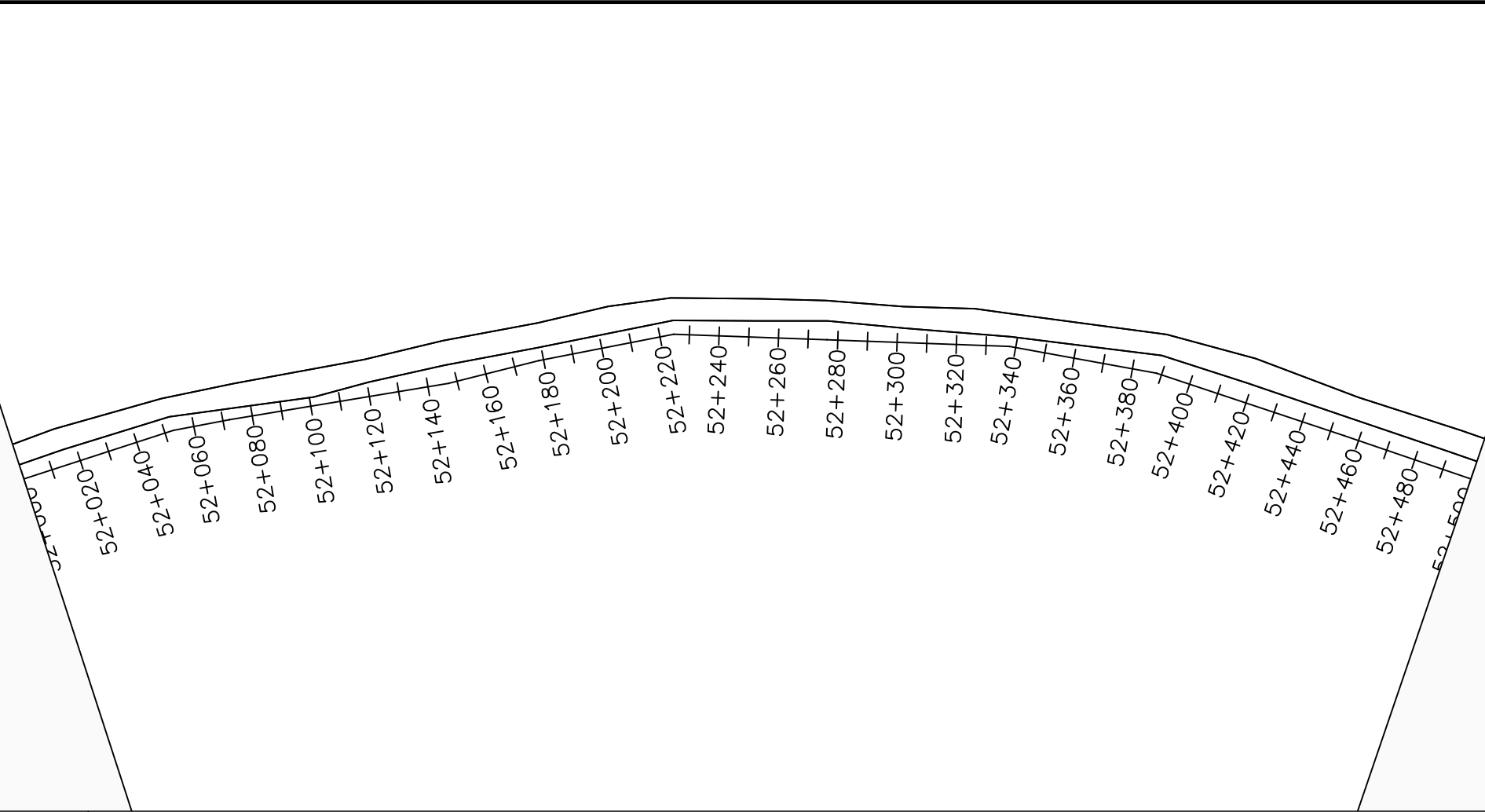
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
51+500 - 52+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	57 of 88



Chainages (m)	51+500	51+520	51+540	51+560	51+580	51+600	51+620	51+640	51+660	51+680	51+700	51+720	51+740	51+760	51+780	51+800	51+820	51+840	51+860	51+880	51+900	51+920	51+940	51+960	51+980	52+000		
Ground Levels (masl)	719.26	720.04	720.88	721.27	722.84	723.77	724.24	724.70	725.16	725.61	725.97	725.09	724.67	724.43	723.63	723.51	723.39	723.33	723.27	723.18	723.07	723.06	723.11	723.15	722.95	723.01		
Invert Levels (masl)	717.40	718.04	720.84	722.70	722.70	723.98	723.98	722.68	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63	721.63		
Slope (%)	3.22%	4.66%	3.11%	2.12%	-3.26%	-2.61%	-0.45%	-0.36%	-0.18%	0.62%																		
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

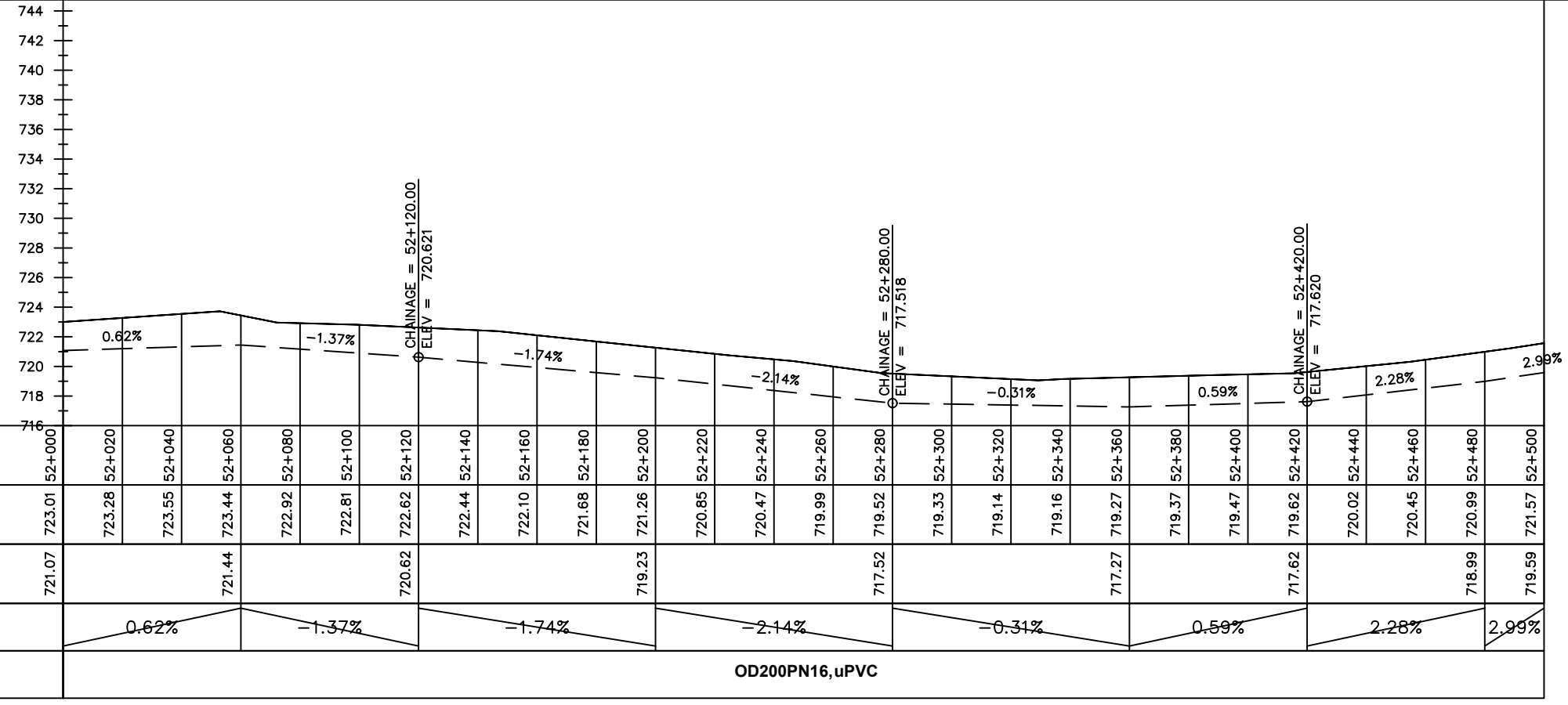
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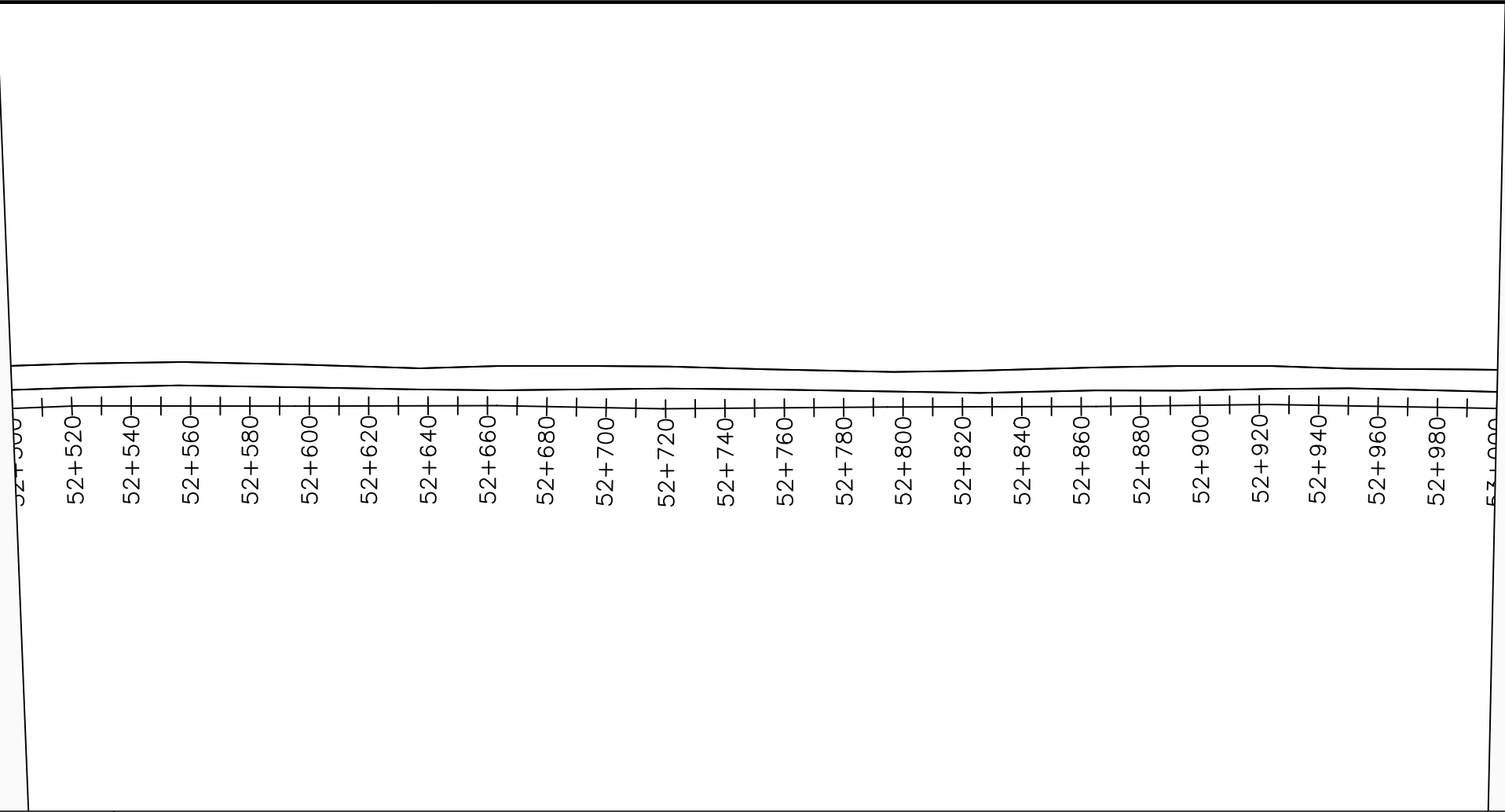
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
52+000 - 52+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

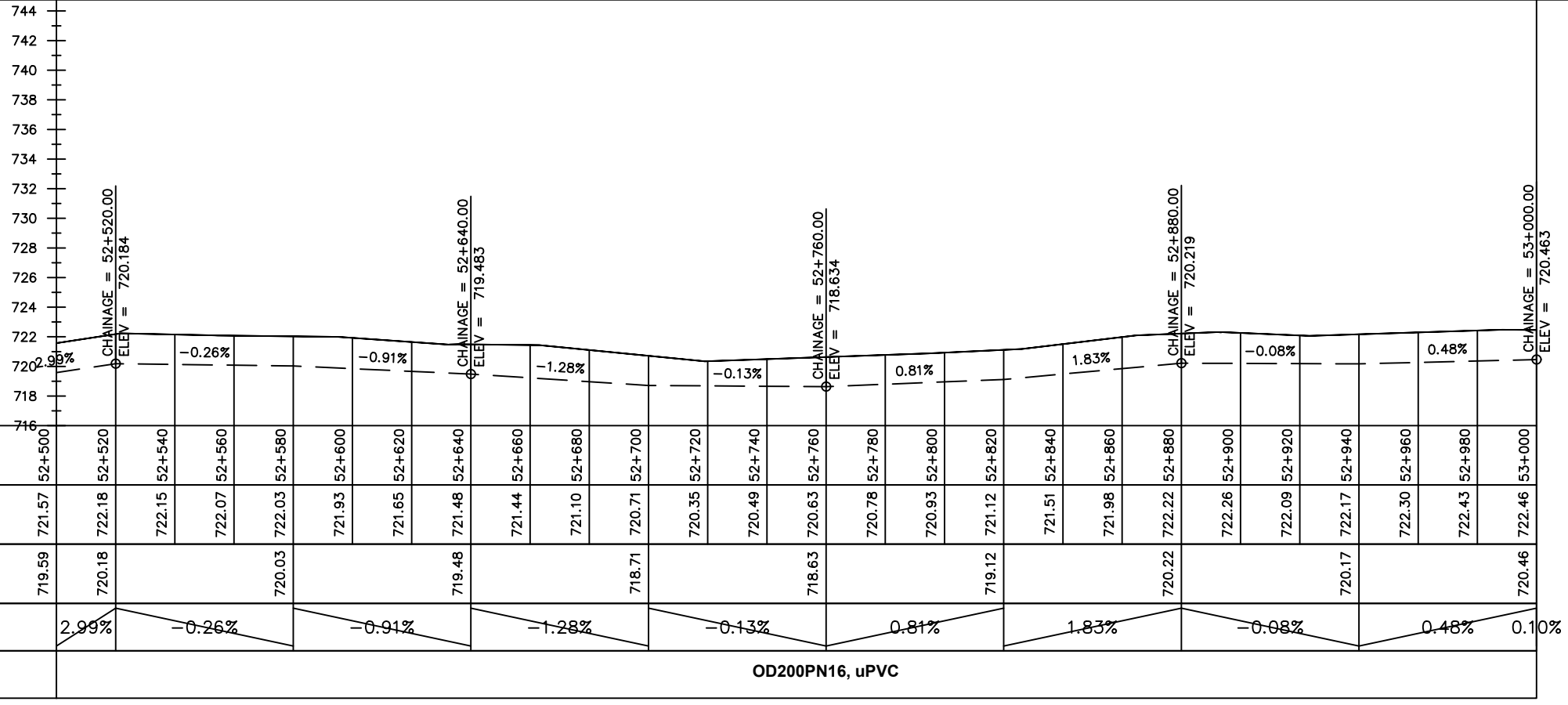
REVISIONS :

No	Date	Description

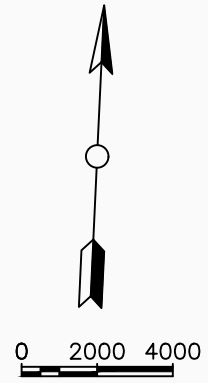
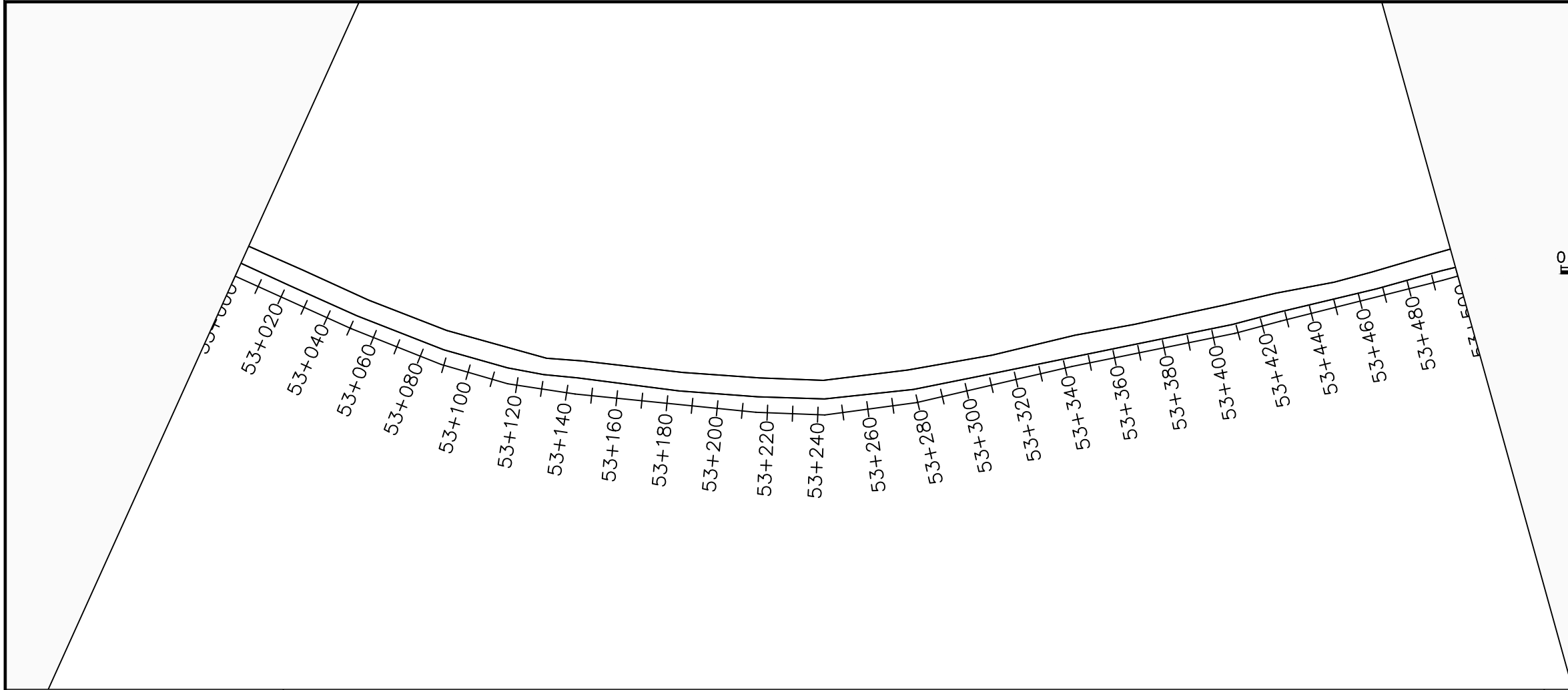
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
52+500 - 53+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	59 of 88



Chainages (m)	52+500	52+520	52+540	52+560	52+580	52+600	52+620	52+640	52+660	52+680	52+700	52+720	52+740	52+760	52+780	52+800	52+820	52+840	52+860	52+880	52+900	52+920	52+940	52+960	52+980	53+000		
Ground Levels (masl)	721.57	722.18	722.15	722.07	722.03	721.93	721.65	721.48	721.44	721.10	720.71	720.35	720.49	720.63	720.78	720.93	721.12	721.51	721.98	722.22	722.26	722.09	722.17	722.30	722.43	722.46		
Invert Levels (masl)	719.59	720.18	720.03	719.48	718.71	718.63	719.12	720.22	720.17	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46	720.46		
Slope (%)	2.99%	-0.26%	-0.91%	-1.28%	-0.13%	0.81%	1.83%	-0.08%	0.48%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%		
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

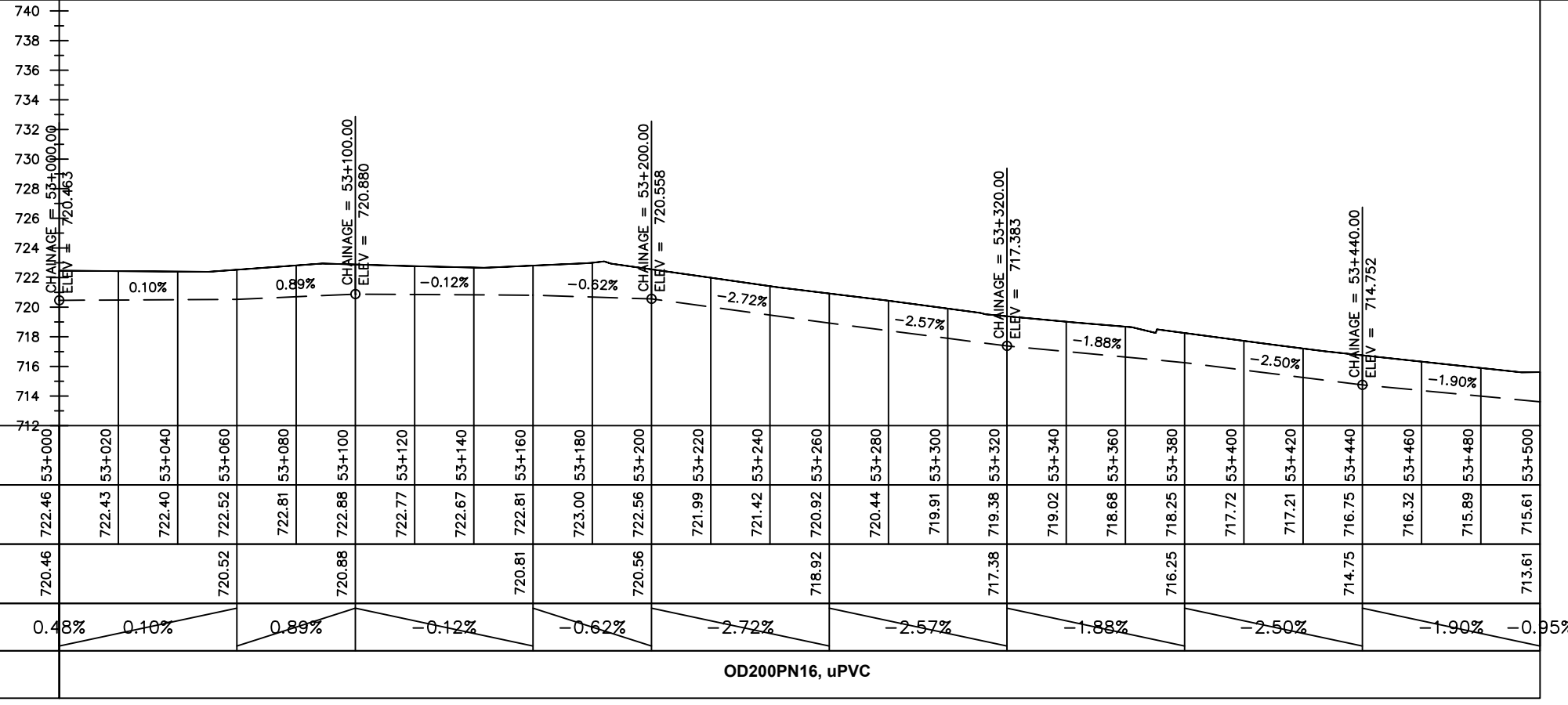
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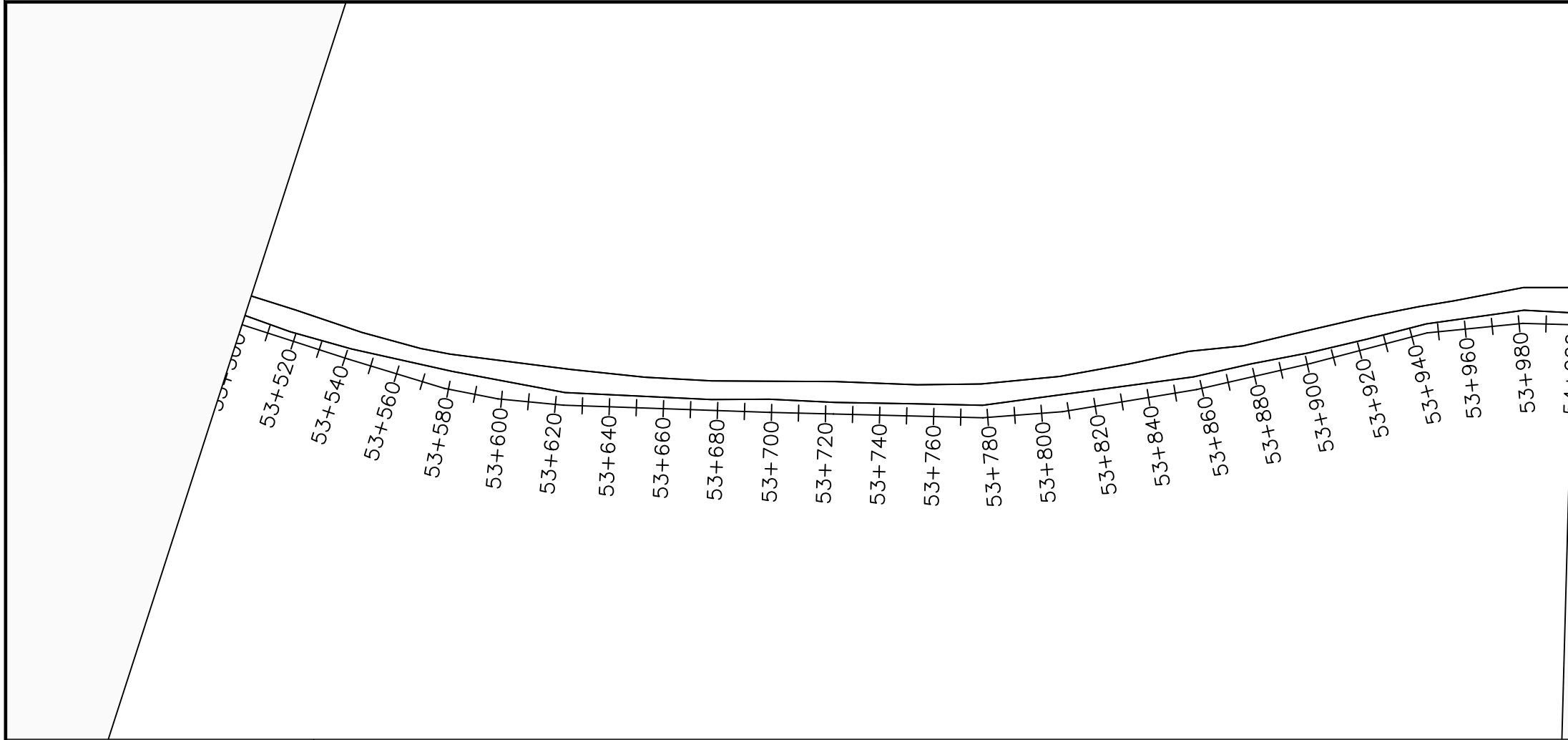
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO INDE TANK
53+000 - 53+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:2000
Sheet No.:	60 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

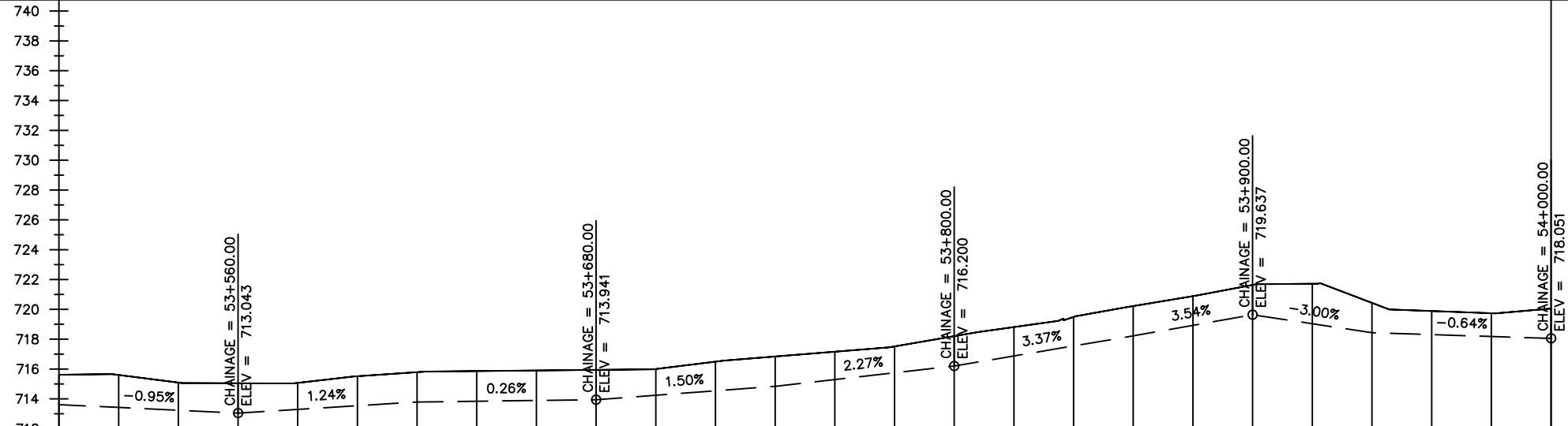
REVISIONS :

No	Date	Description

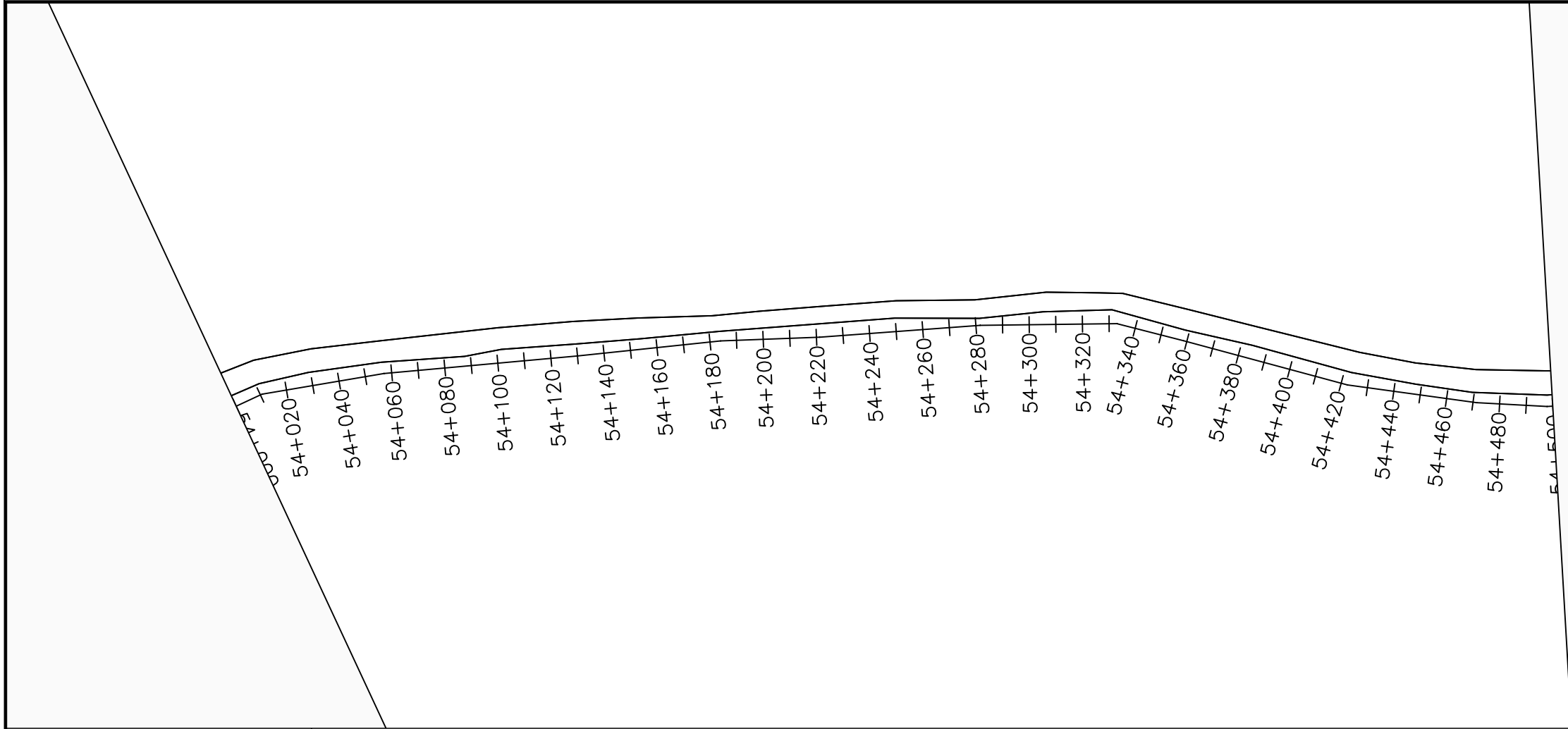
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
53+500 - 54+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	61 of 88



Chainages (m)	53+500	53+520	53+540	53+560	53+580	53+600	53+620	53+640	53+660	53+680	53+700	53+720	53+740	53+760	53+780	53+800	53+820	53+840	53+860	53+880	53+900	53+920	53+940	53+960	53+980	54+000		
Ground Levels (masl)	715.61	715.60	715.09	715.04	715.07	715.52	715.79	715.86	715.90	715.94	716.00	716.50	716.84	717.16	717.51	718.20	718.81	719.49	720.22	720.89	721.64	721.72	720.44	719.89	719.74	720.05		
Invert Levels (masl)	713.61			713.04			713.79			713.94			714.84			716.20			718.22		719.64		718.44			718.05		
Slope (%)	-1.90%	-0.95%		1.24%			0.26%			1.50%		2.27%			3.37%			3.54%		-3.00%		-0.64%			-1.7%			
Pipe Details	OD200PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

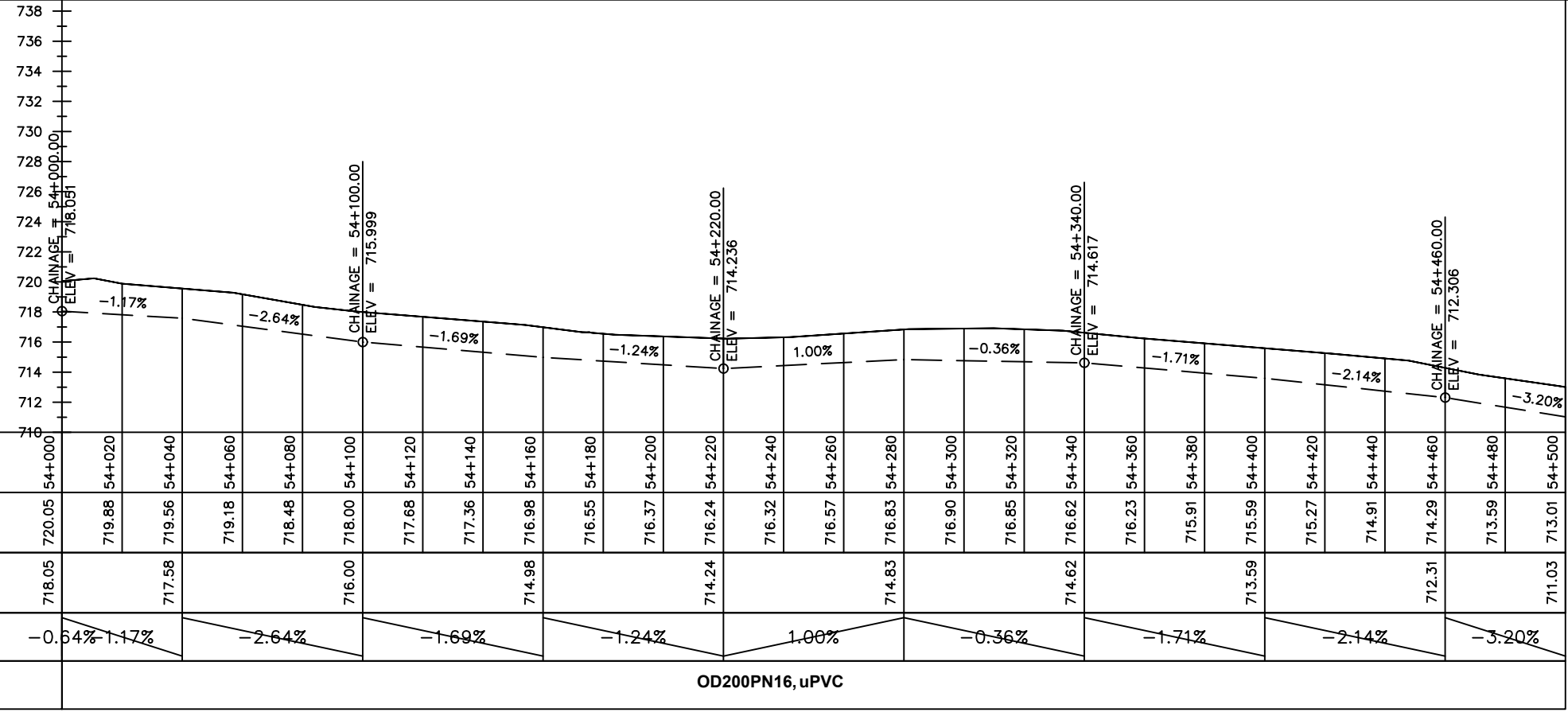
REVISIONS :

No	Date	Description

DRAWING TITLE :

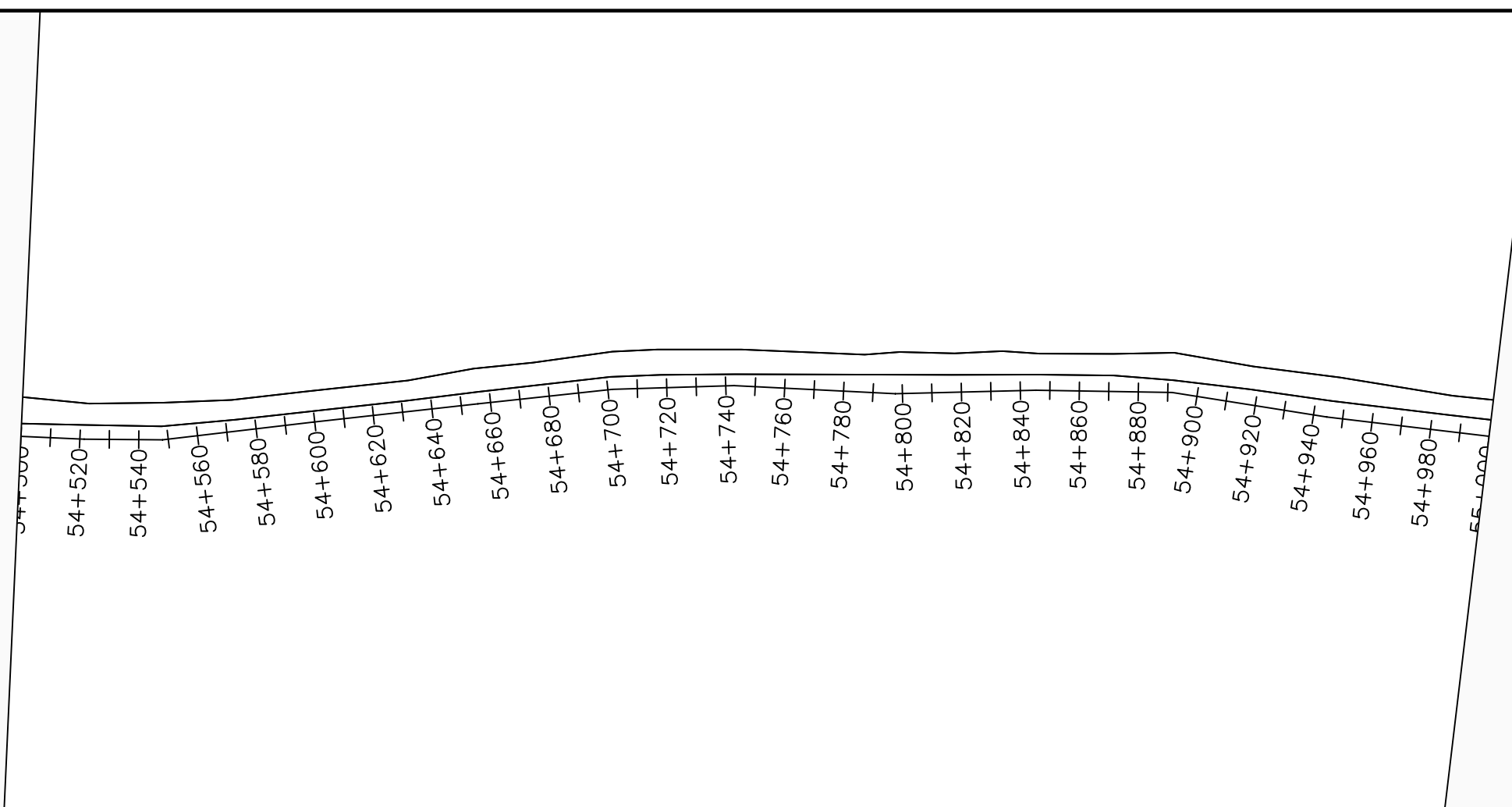
TRANSMISSION MAIN 3 (TO INDE TANK)
54+000 - 54+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	62 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)
54+000	720.05	718.05	-0.64%
54+020	719.88	717.58	-1.17%
54+040	719.56	716.00	-2.64%
54+060	719.18	714.98	-1.69%
54+080	718.48	714.24	-1.24%
54+100	718.00	714.24	1.00%
54+120	717.68	714.83	-0.36%
54+140	717.36	714.62	-1.71%
54+160	716.98	713.59	-2.14%
54+180	716.55	712.31	-3.20%
54+200	716.37	711.03	-3.20%
54+220	716.24	714.24	1.00%
54+240	716.32	714.83	-0.36%
54+260	716.57	714.62	-1.71%
54+280	716.83	713.59	-2.14%
54+300	716.90	712.31	-3.20%
54+320	716.85	711.03	-3.20%
54+340	716.62	714.24	1.00%
54+360	716.23	714.83	-0.36%
54+380	715.91	713.59	-1.71%
54+400	715.59	712.31	-2.14%
54+420	715.27	711.03	-3.20%
54+440	714.91	711.03	-3.20%
54+460	714.29	712.31	1.00%
54+480	713.59	711.03	-3.20%
54+500	713.01	711.03	-3.20%

OD200PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

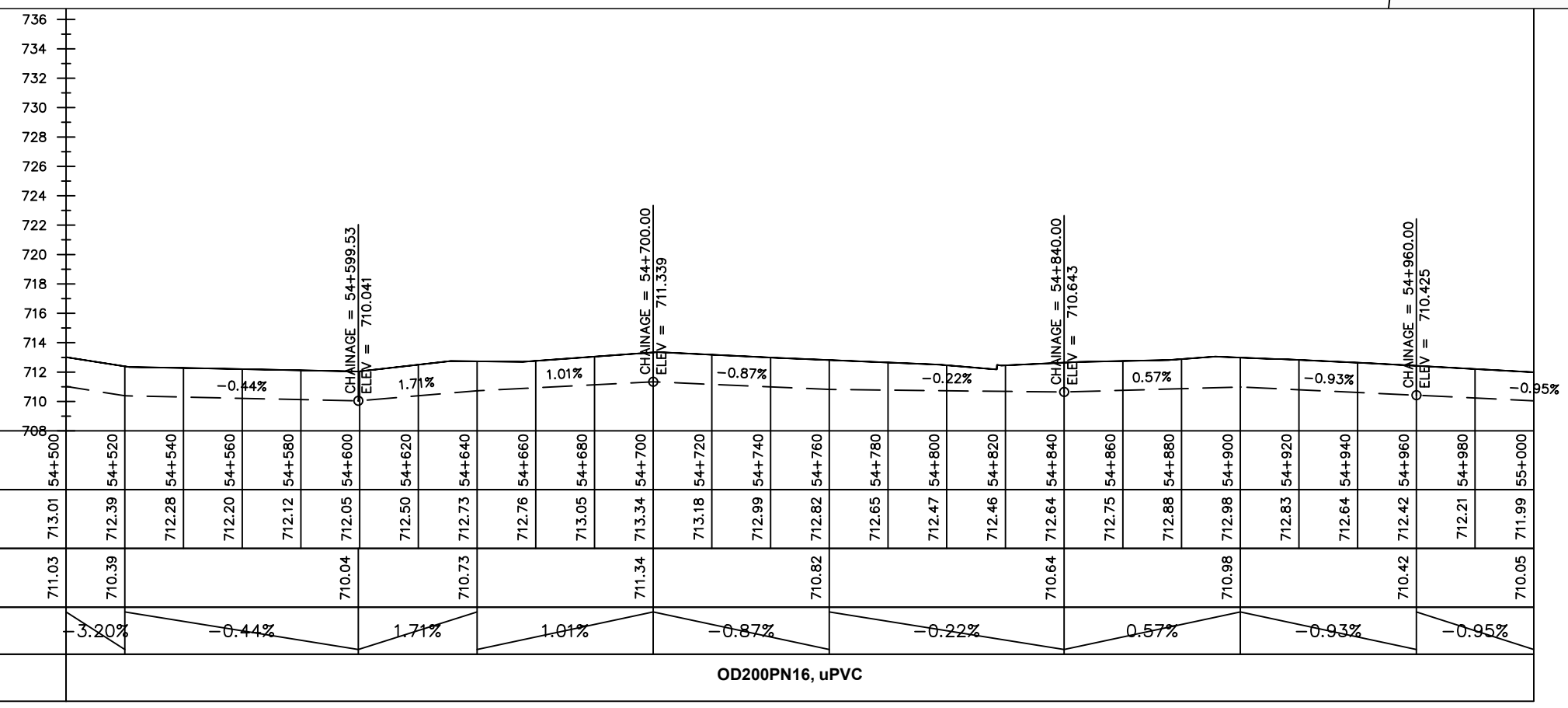
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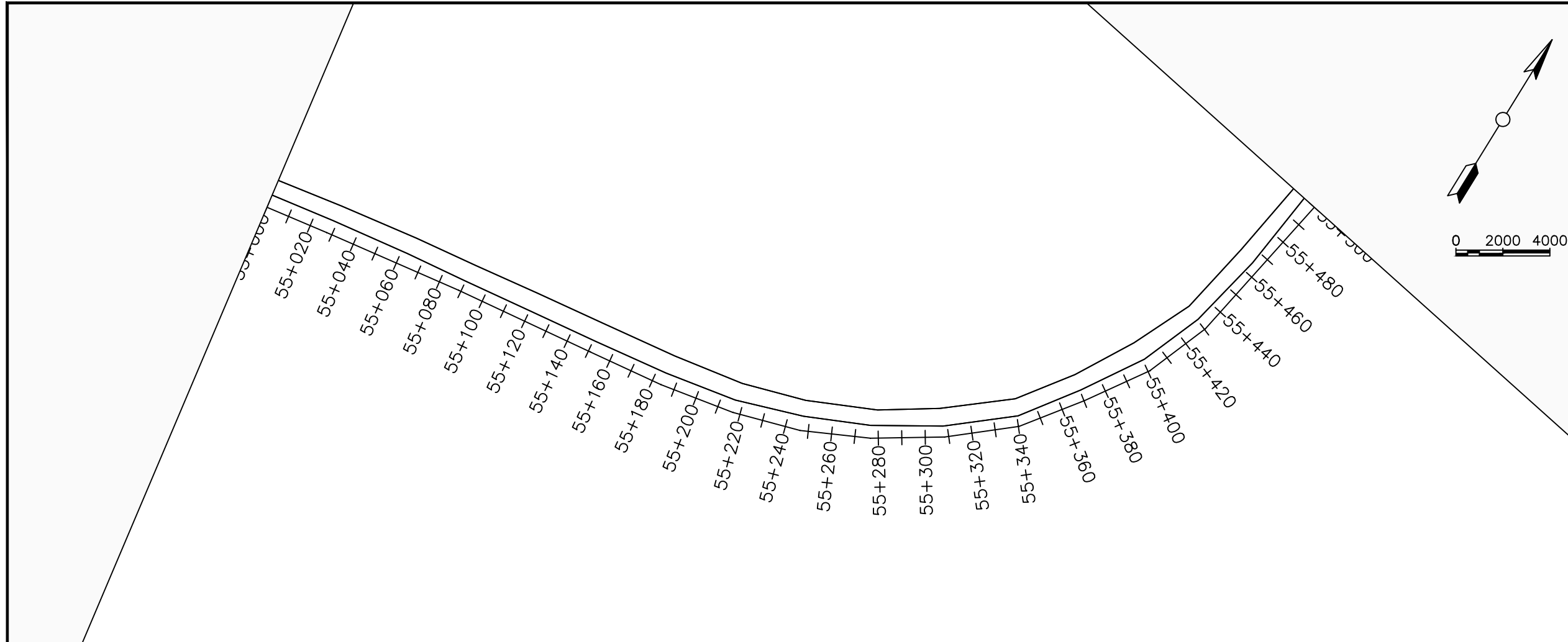
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
54+500 - 55+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	63 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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CONSULTANT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

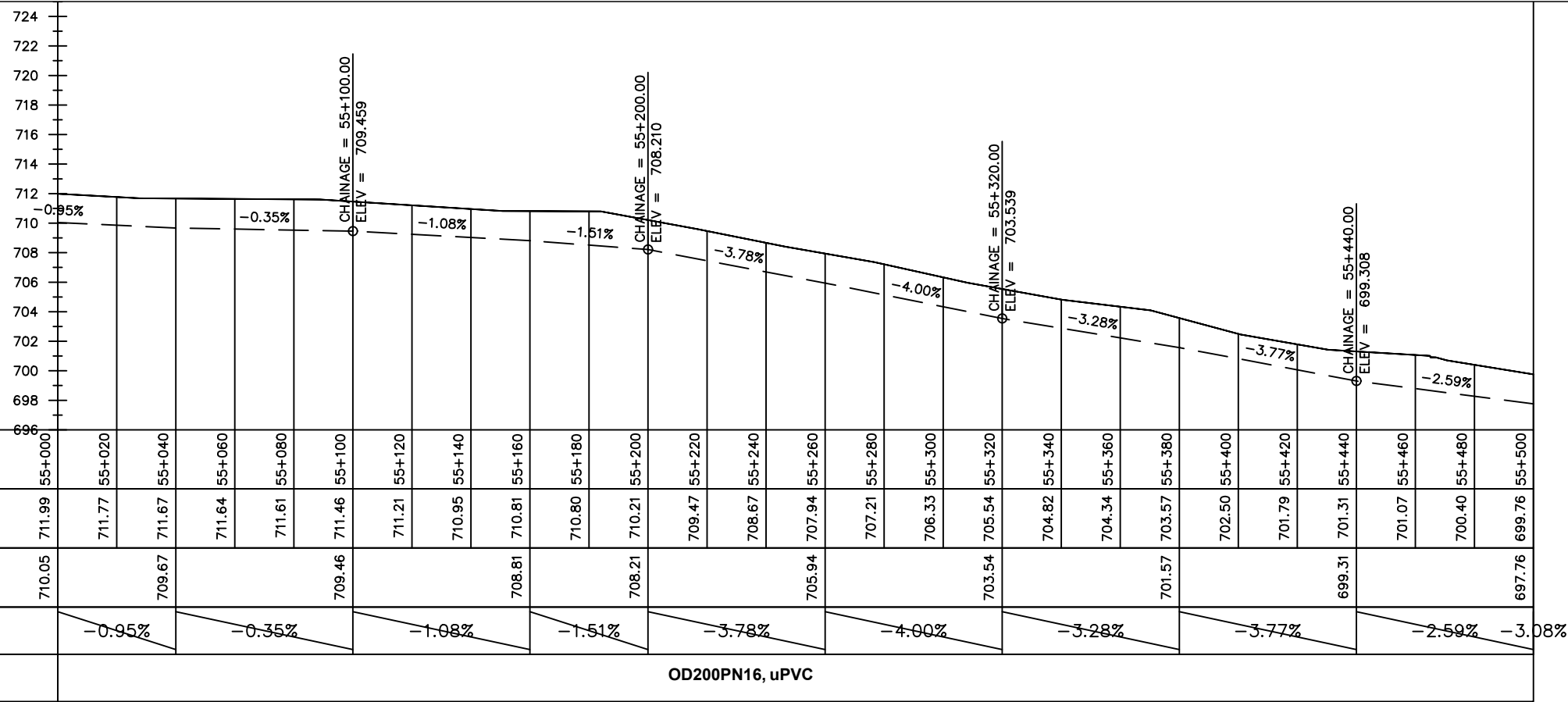
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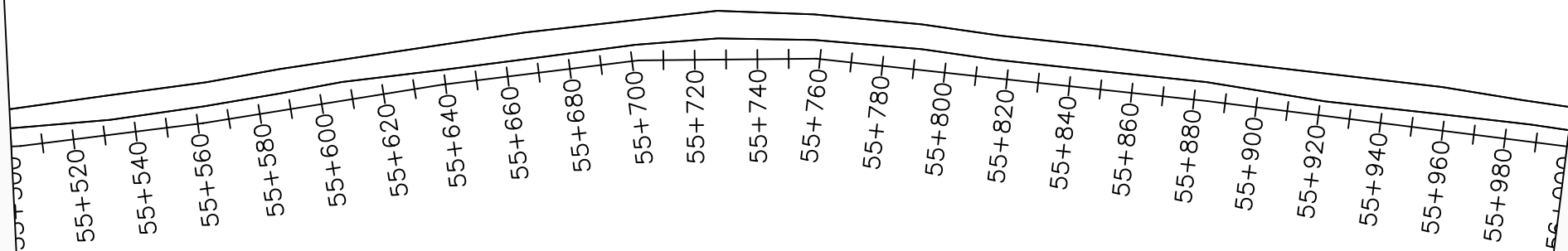
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
55+000 - 55+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	64 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

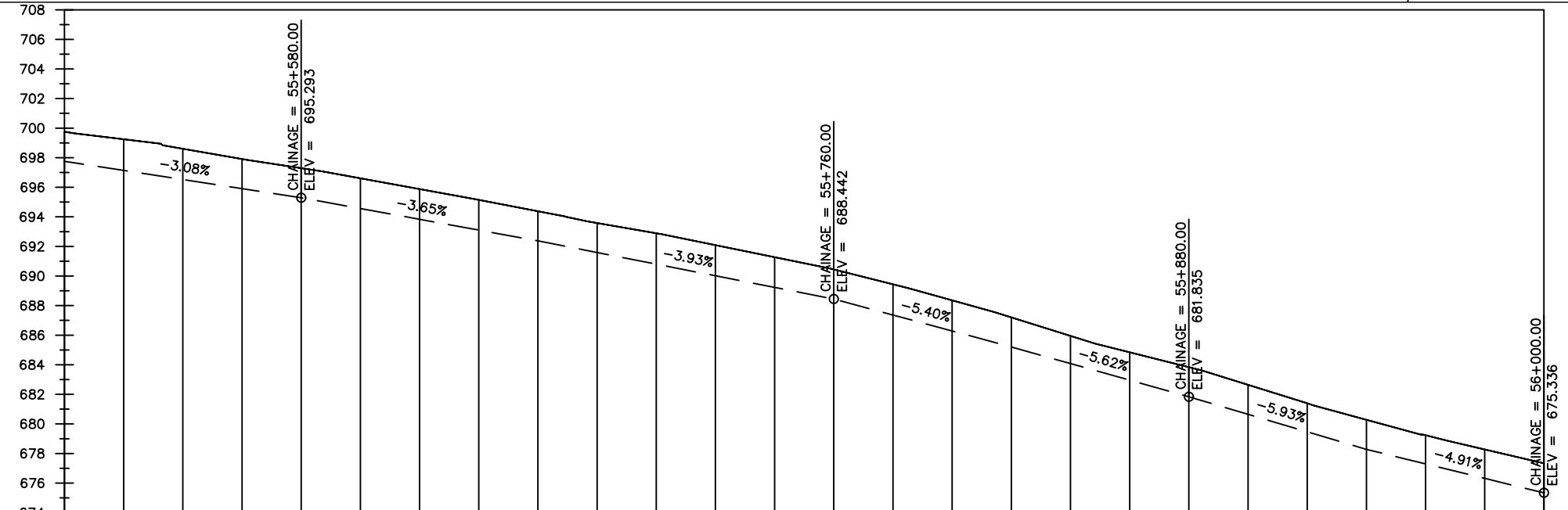
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No	Date	Description

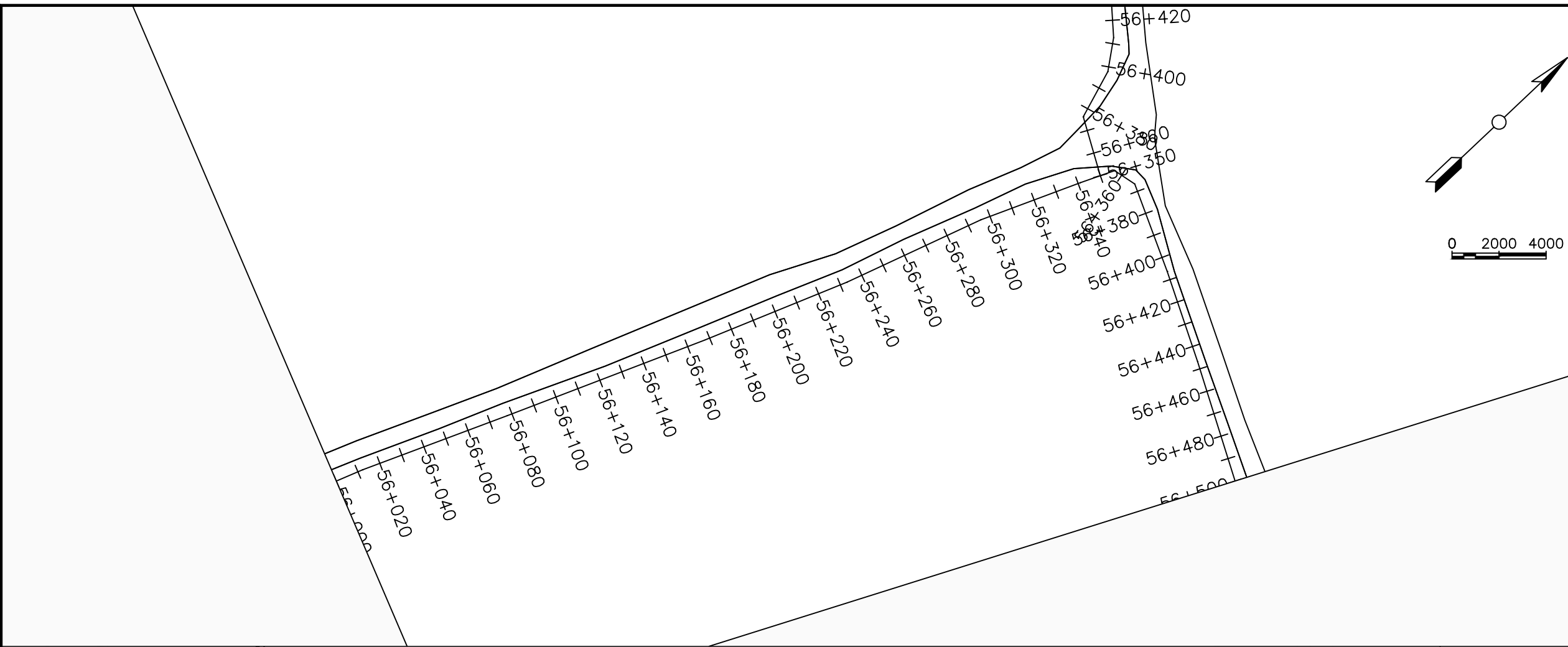
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
55+500 - 56+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	65 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
55+500	699.76	697.76	-2.59%	OD200PN16, uPVC
55+520	699.25			
55+540	698.61		-3.08%	
55+560	697.91			
55+580	697.29	695.29		
55+600	696.61		-3.65%	
55+620	695.88			
55+640	695.15			
55+660	694.38	692.38		
55+680	693.58		-3.93%	
55+700	692.89			
55+720	692.09			
55+740	691.27		-3.93%	
55+760	690.44	688.44		
55+780	689.44		-5.40%	
55+800	688.36			
55+820	687.20	685.20		
55+840	685.95		-5.62%	
55+860	684.84			
55+880	683.83	681.83		
55+900	682.64		-5.93%	
55+920	681.40			
55+940	680.28	678.28		
55+960	679.23		-4.91%	
55+980	678.27			
56+000	677.34	675.34	-4.84%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

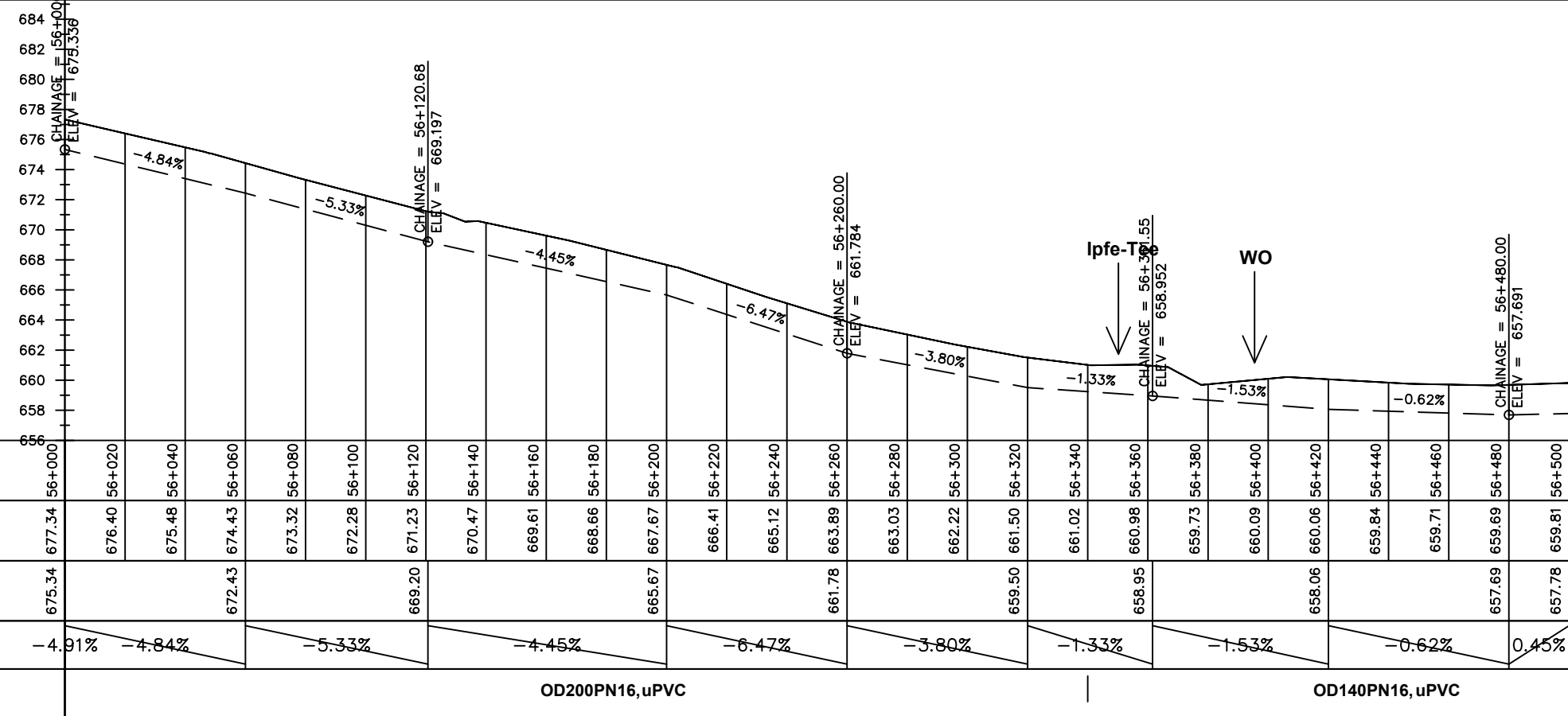
REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
56+000 - 56+500

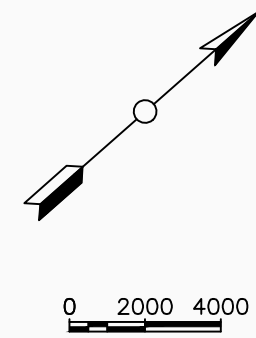
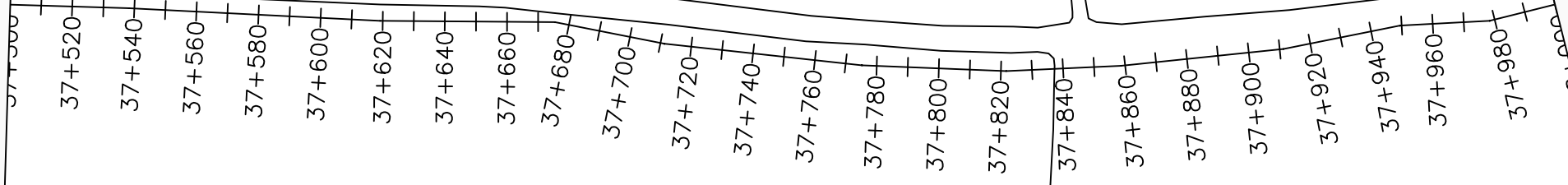
Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
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Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
56+000	677.34	675.34	-4.91%	OD200PN16, uPVC
56+020	676.40		-4.84%	
56+040	675.48			
56+060	674.43	672.43	-5.33%	
56+080	673.32			
56+100	672.28			
56+120	671.23	669.20	-4.45%	
56+140	670.47			
56+160	669.61			
56+180	668.66			
56+200	667.67	665.67	-6.47%	
56+220	666.41			
56+240	665.12		-3.80%	OD140PN16, uPVC
56+260	663.89	661.78	-1.33%	
56+280	663.03			
56+300	662.22			
56+320	661.50	659.50	-1.53%	
56+340	661.02			
56+360	660.98	658.95	-0.62%	
56+380	659.73			
56+400	660.09	658.06	0.45%	
56+420	660.06			
56+440	659.84			
56+460	659.71			
56+480	659.69	657.69		
56+500	659.81	657.78		

BARIBU SUPPLY AREA

BARIBU TANK



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

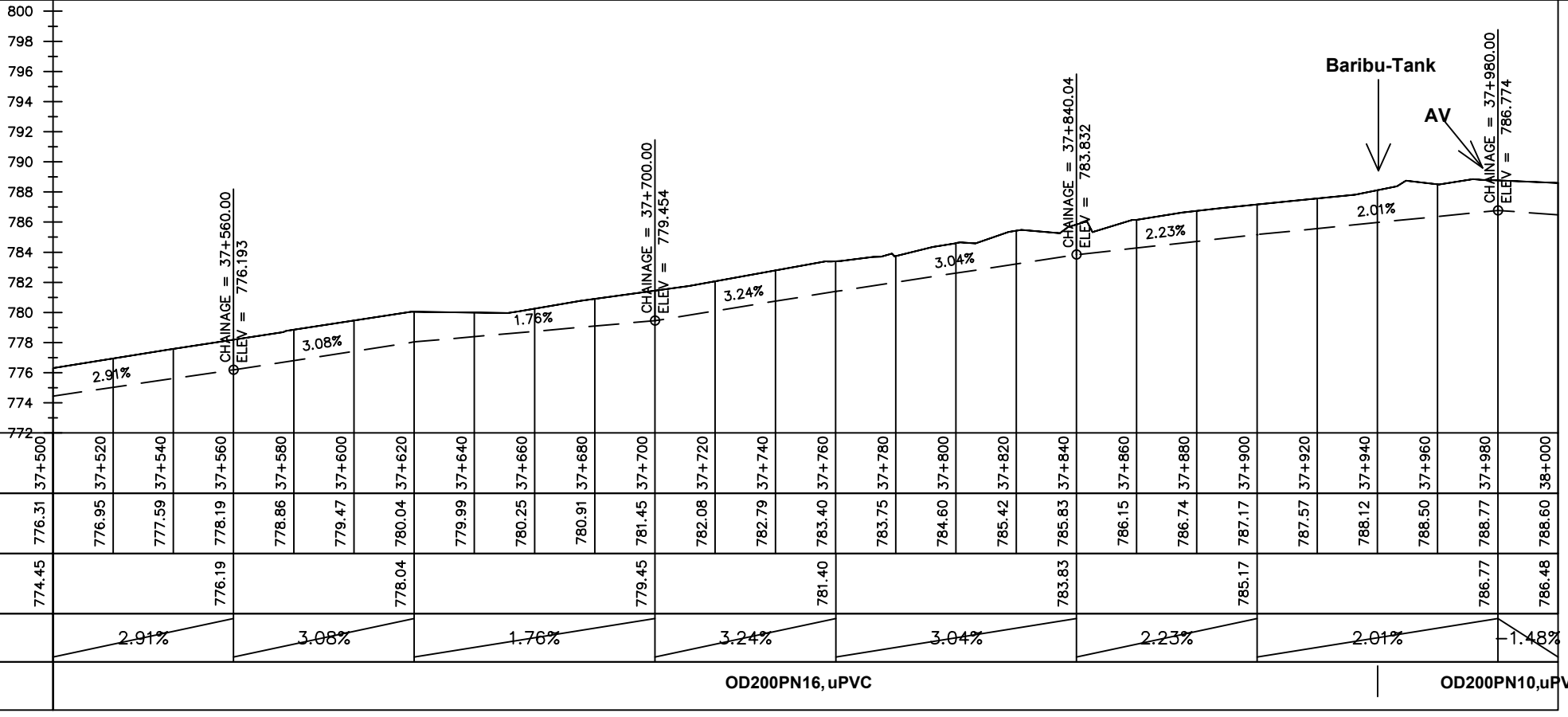
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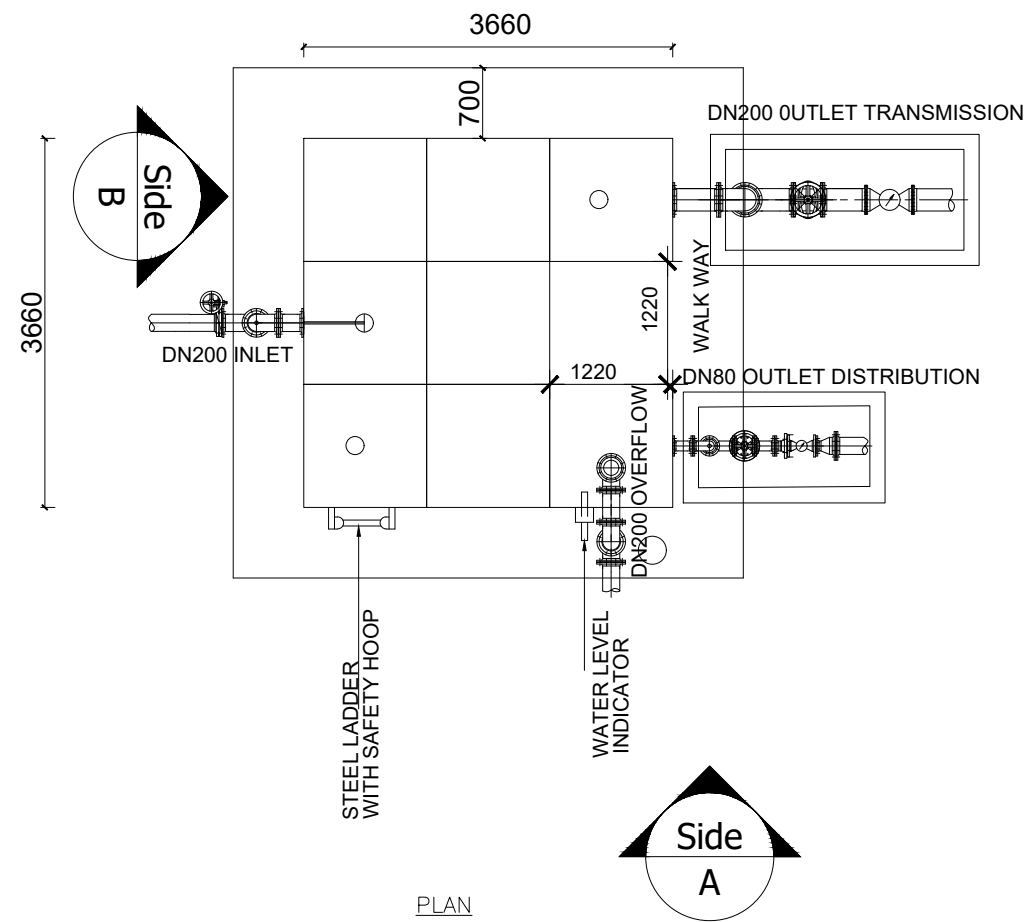
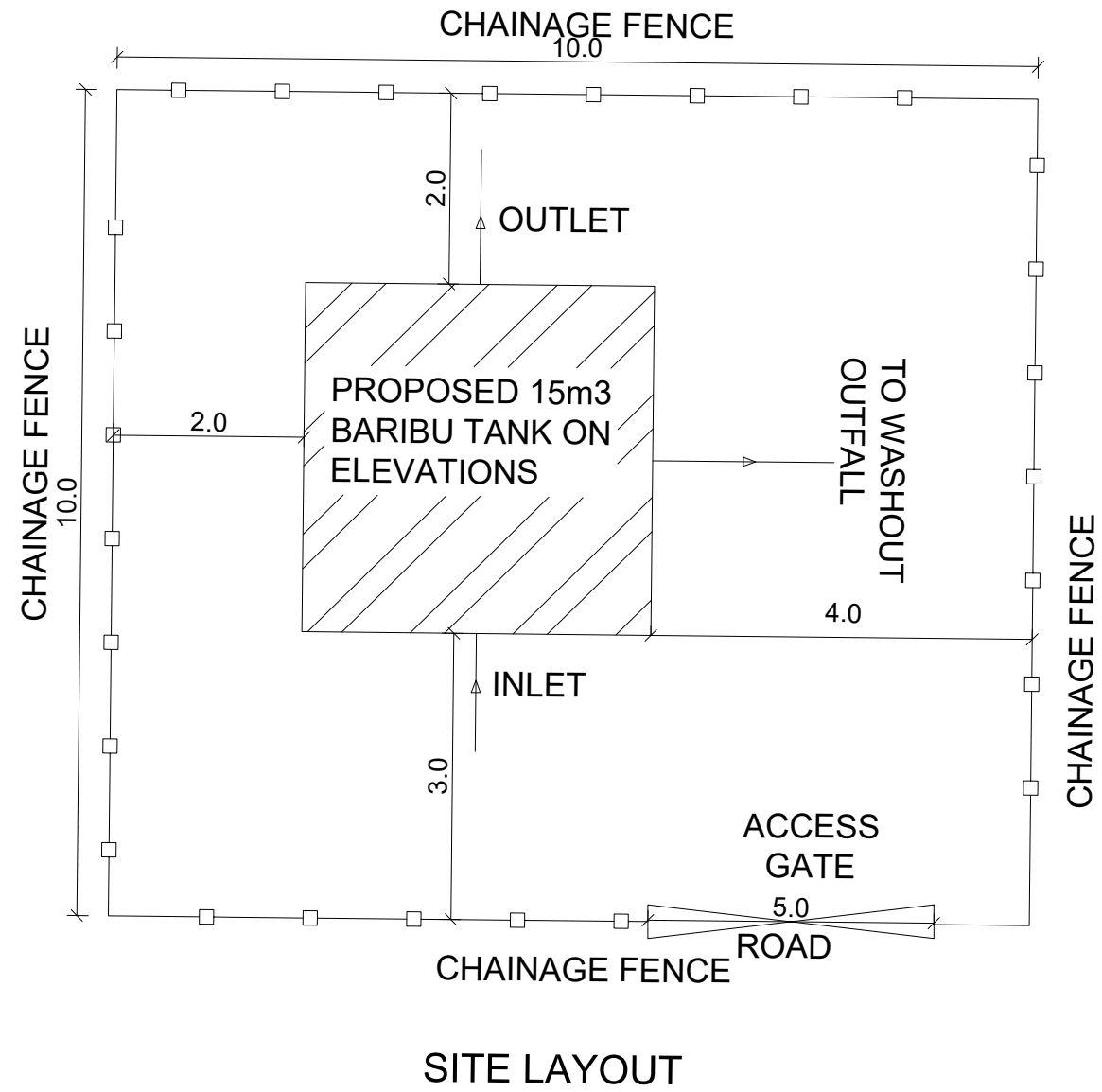
No	Date	Description

DRAWING TITLE :

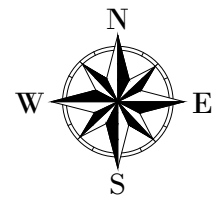
TRANSMISSION MAIN 3 (WTP TO BARIBU TANK)
37+500 - 38+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	29 of 88





LEGEND



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CONSULTANT :
 Alliance Consultants Ltd
In Association with
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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

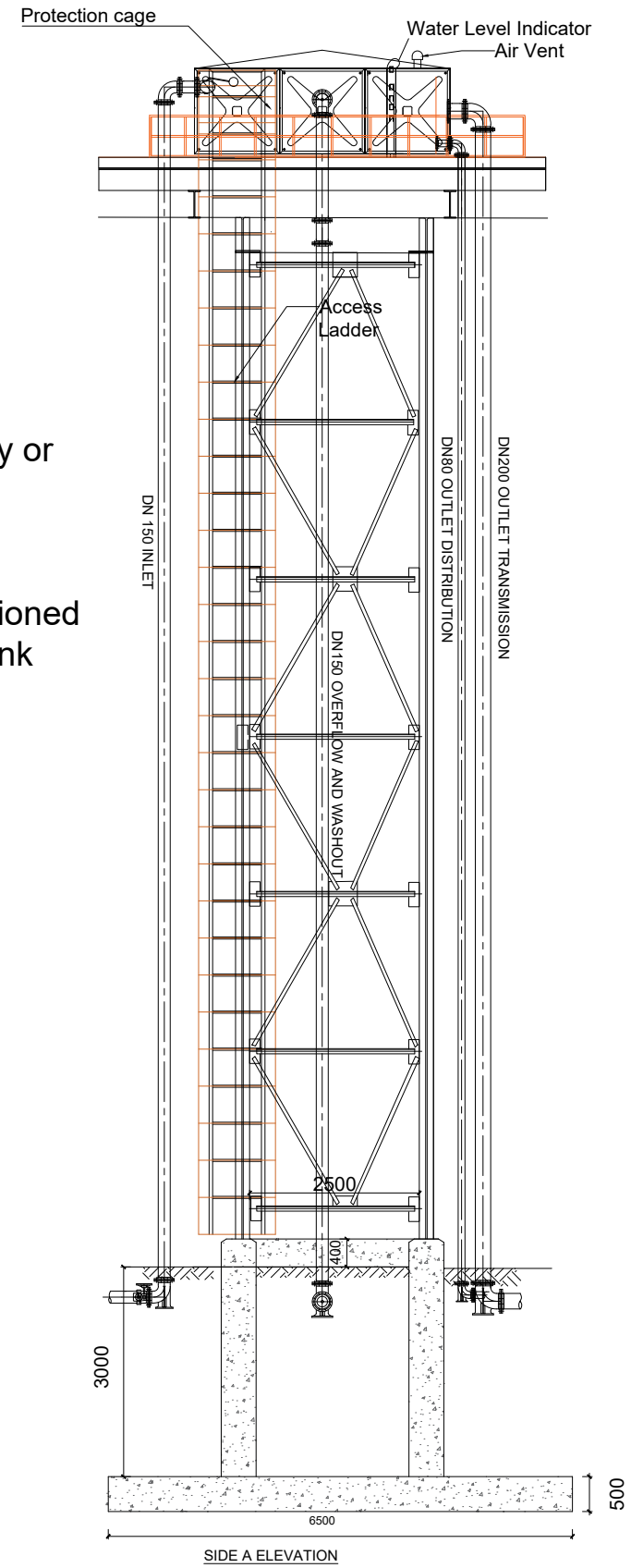
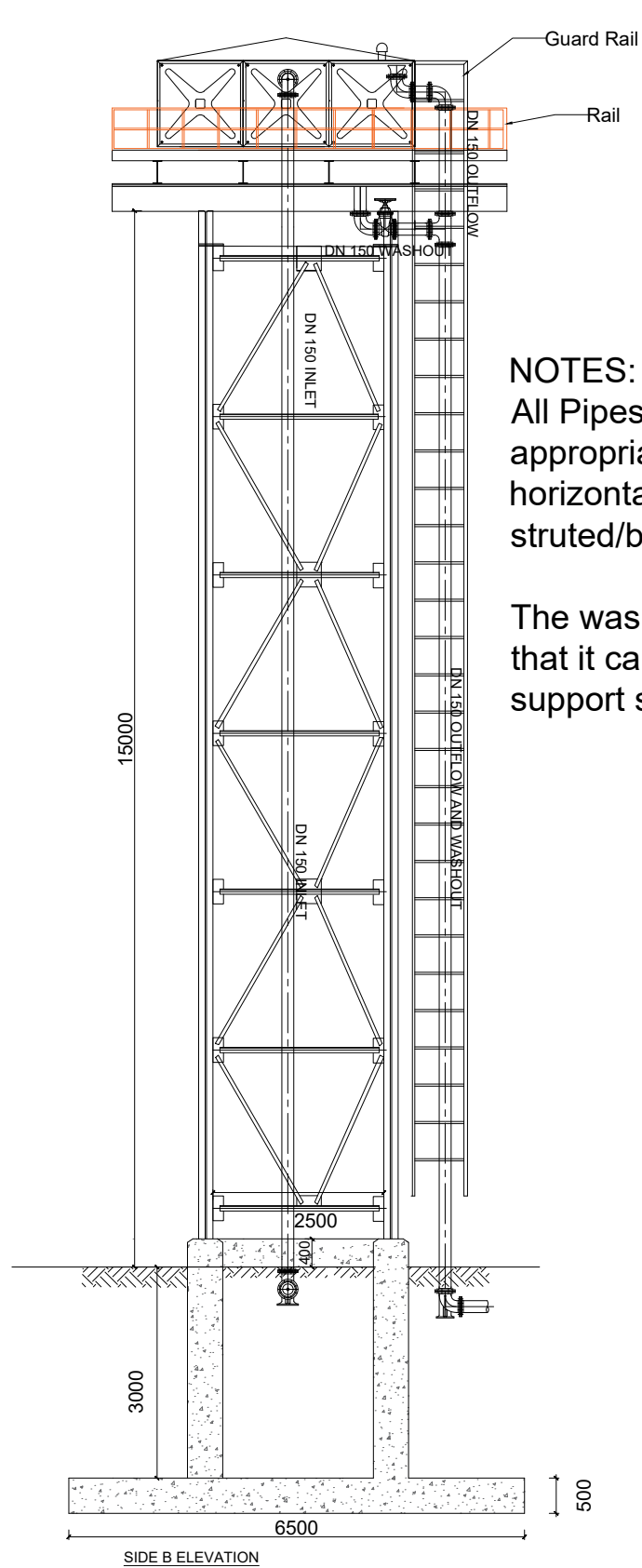
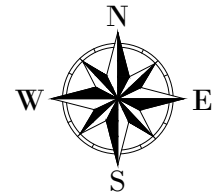
REVISIONS :

No	Date	Description

DRAWING TITLE :
**BARIBU RESERVOIR TANK - 15m³
 PLAN AND SITE LAYOUT**

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_BAR_004**
 Scale: 1:75 Sheet No.: 1 of 3

LEGEND



NOTES:
 All Pipes and fittings shall be appropriately aligned vertically or horizontally and strutted/braced to approval

The washout shall be so positioned that it can access using the tank support structure ladder

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CONSULTANT :

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 In Association with

 Infra-Consult Ltd

PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

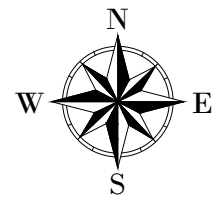
REVISIONS :

No	Date	Description

DRAWING TITLE **BARIBU RESERVOIR TANK- 15m³
 ELEVATIONS**

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_BAR_004**
 Scale: 1:100 Sheet No.: 2 of 3

LEGEND



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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

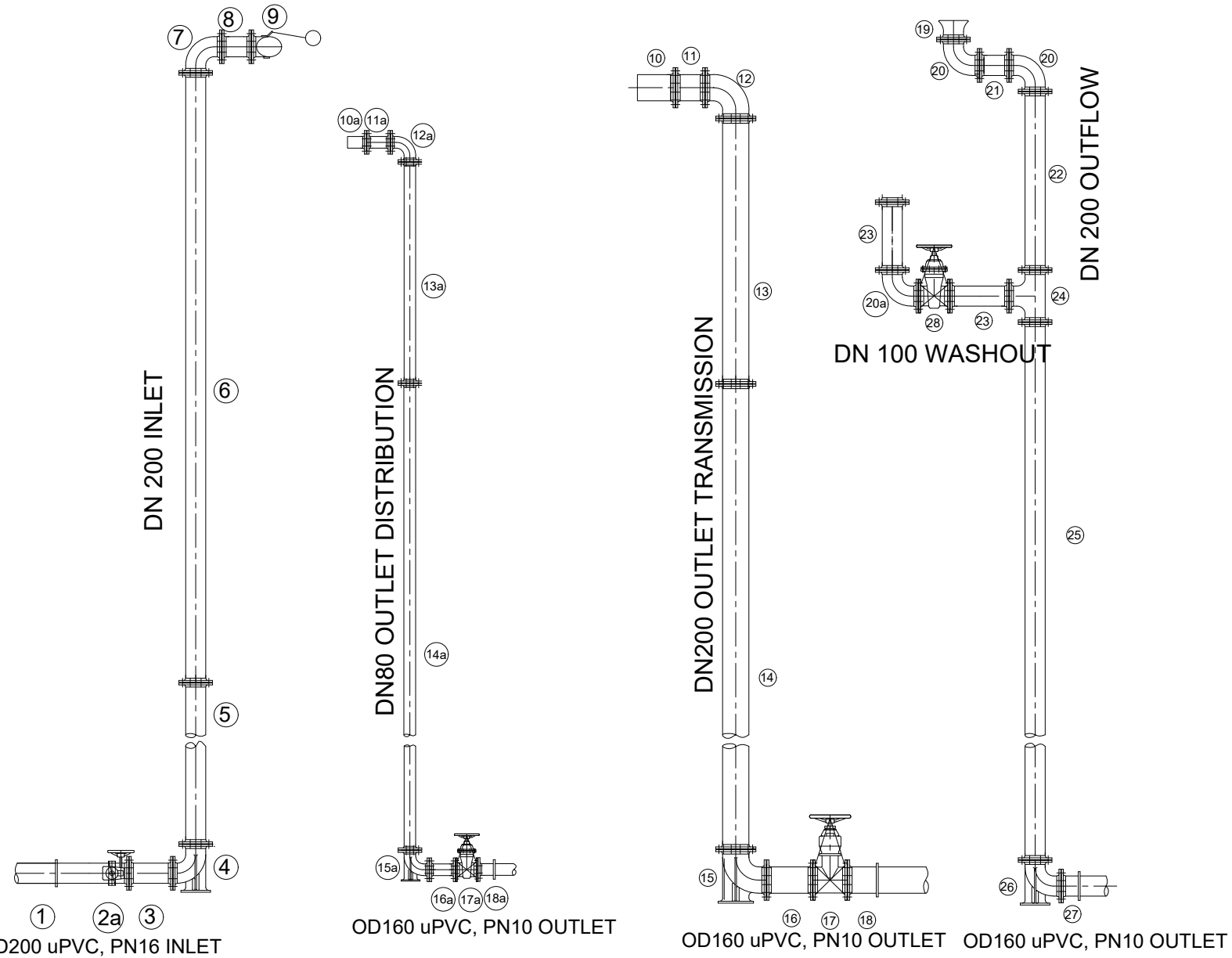
No	Date	Description

DRAWING TITLE :
BARIBU RESERVOIR TANK- 15m³ PIPE FITTINGS

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_BAR_004**
 Scale: 1:50 Sheet No.: 3 of 3

PIPE AND FITTINGS SCHEDULE

Mark	Description	Material	DN	PN	Qty.
INLET					
1	Flanged Adapter	DI	200		1
2	Flanged Gate Valve	CI	200		1
3	Flanged Pipe Piece, Length - 0.3m	DI	200		1
4	90° Flanged Duckfoot Bend	DI	200		1
5	Flanged Pipe, Length - n.e 6.0m	DI	200		16
7	90° Flanged Bend	DI	200		1
8	Flanged Pipe Piece, Length - 0.2m	DI	200		1
9	Flanged Float Valve	CI	200		1
OUTLET					
10	Flanged Strainer	SS	200		1
11	Flanged Pipe Piece, Length - 0.2m	DI	200		1
12	90° Flanged Bend	DI	200		1
13	Flanged Pipe, Length n.e - 3.0m	DI	200		10
15	90° Flanged Duckfoot Bend	DI	200		1
16	Flanged Pipe Piece, Length - 0.3m	DI	200		1
17	Flanged Gate Valve	CI	200		1
18	Flanged Adapter	DI	200		1
WASHOUT & OVERFLOW					
19	Flanged Bellmouth	DI	250		1
20	90° Flanged Bend	DI	250		2
21	Flanged Pipe, Length n.e - 0.2m	DI	250		1
22	Flanged Pipe Piece, Length n.e - 1.0m	DI	250		2
20a	90° Flanged Bend	DI	200		10
23	Flanged Pipe Piece, Length n.e - 3.0m	DI	200		1
24	Flanged Tee	DI	250/200		1
26	90° Flanged Duckfoot Bend	DI	250		1
27	Flanged Adapter	DI	250		1
28	Flanged Gate Valve	CI	200		1

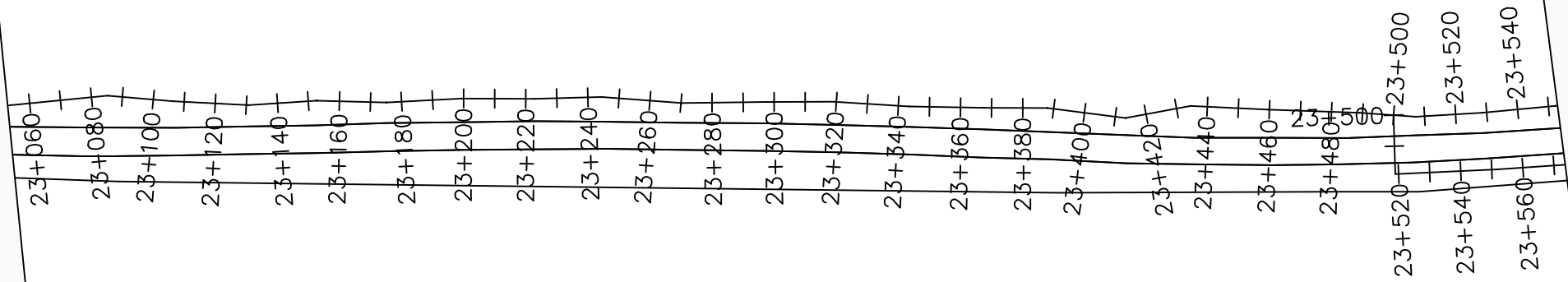


① ②a ③
 OD200 uPVC, PN16 INLET

⑩a ⑪a ⑫a
 ⑬a ⑭a ⑮a ⑯a ⑰a ⑱a
 OD160 uPVC, PN10 OUTLET

⑩ ⑪ ⑫
 ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕
 ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙
 OD160 uPVC, PN10 OUTLET OD160 uPVC, PN10 OUTLET

GOLI SUPPLY AREA



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

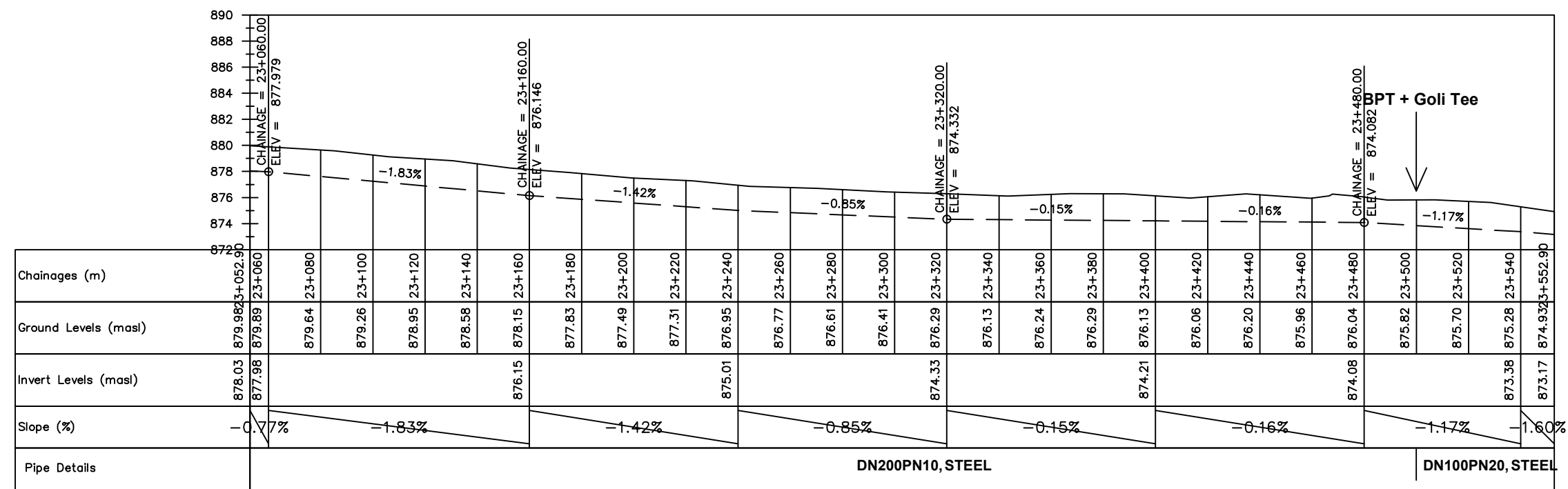
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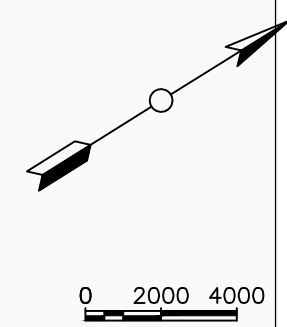
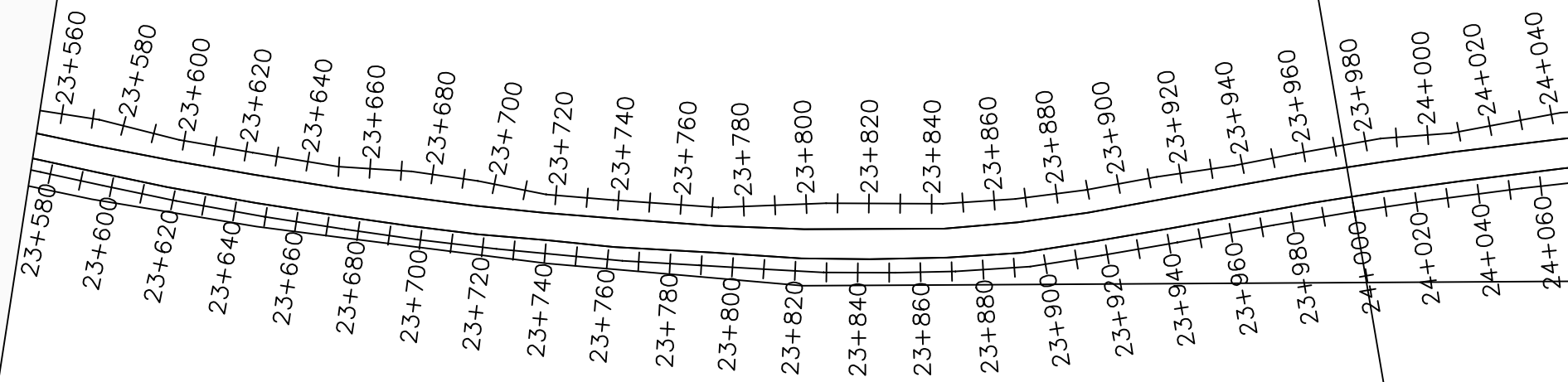
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (WTP TO BARIBU TANK)
23+052.9 - 23+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	31 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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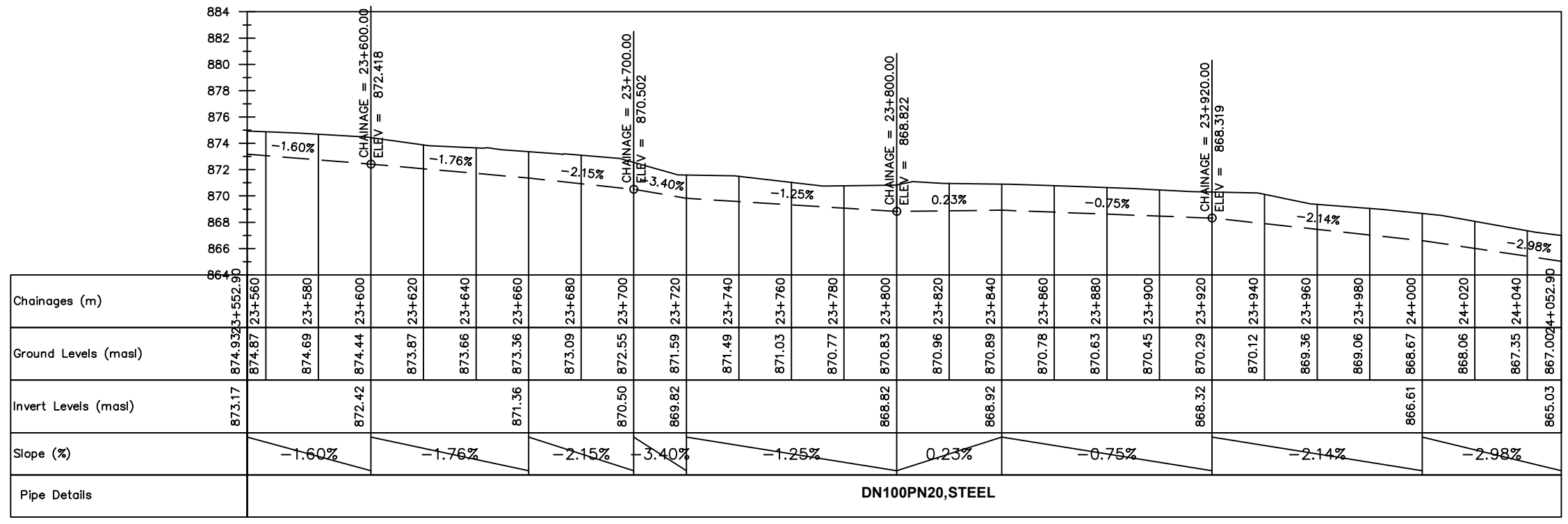
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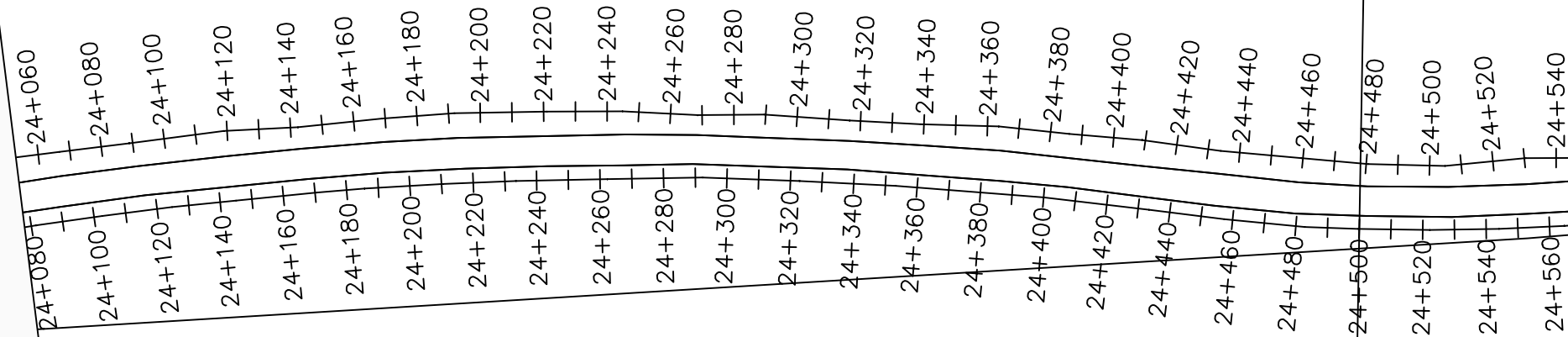
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
23+552.9 - 24+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	32 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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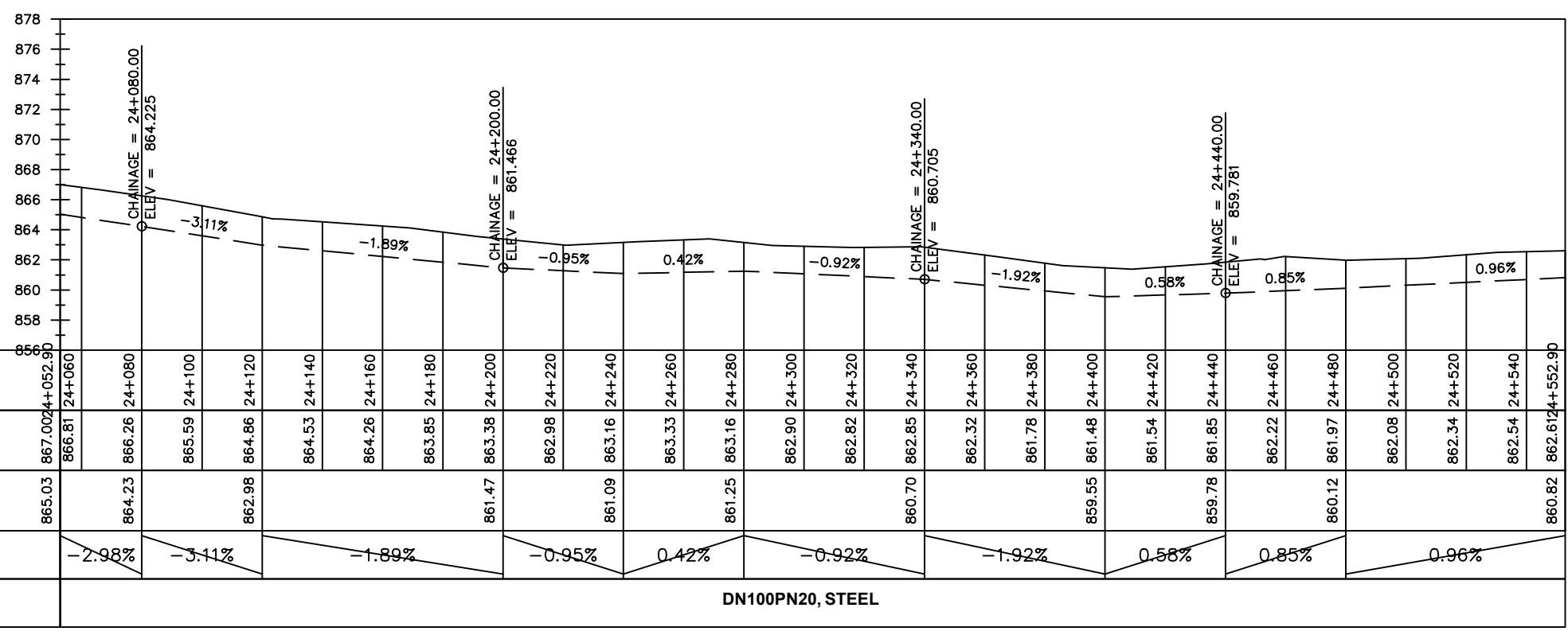
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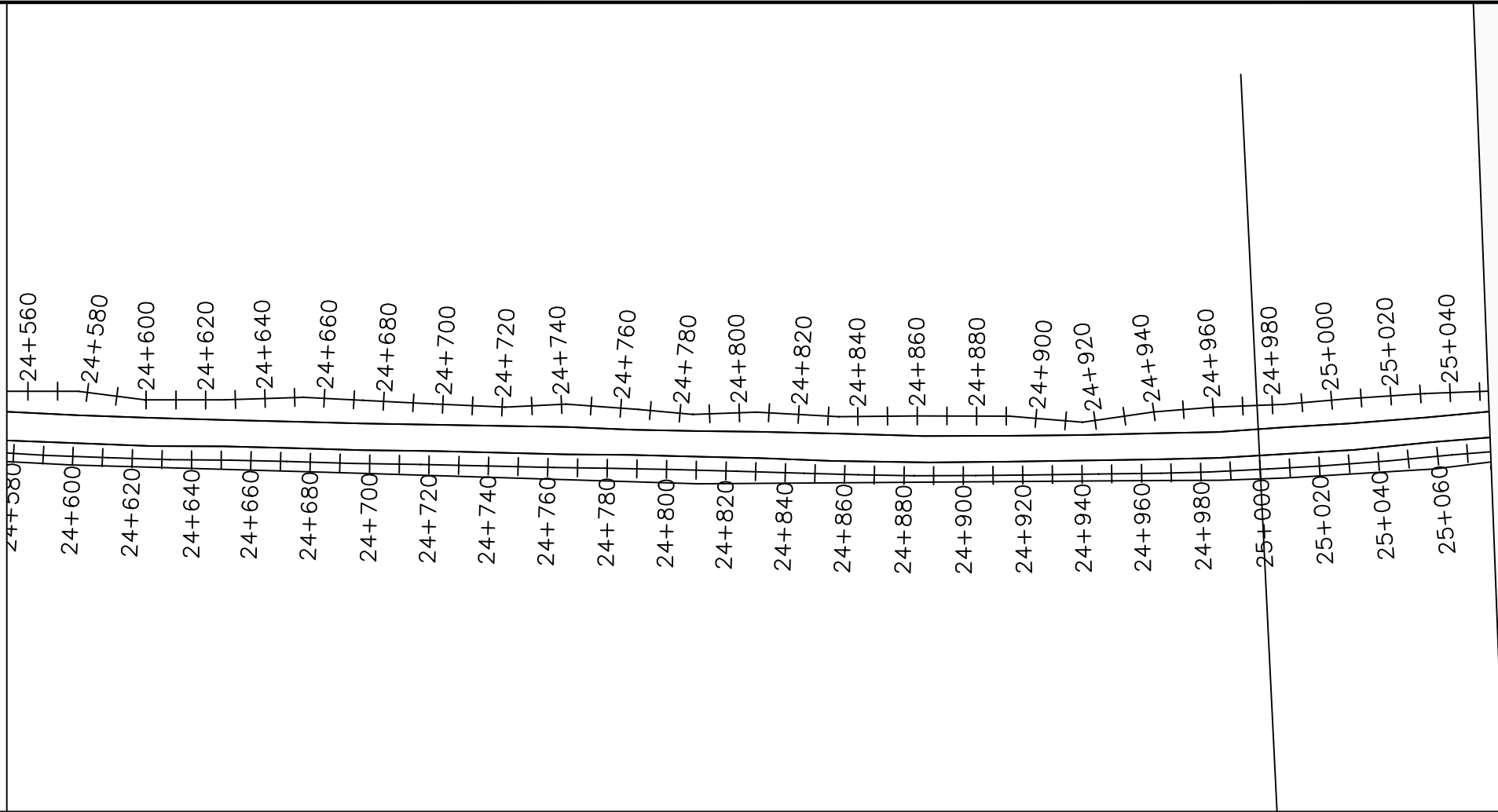
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
24+052.9 - 24+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	33 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

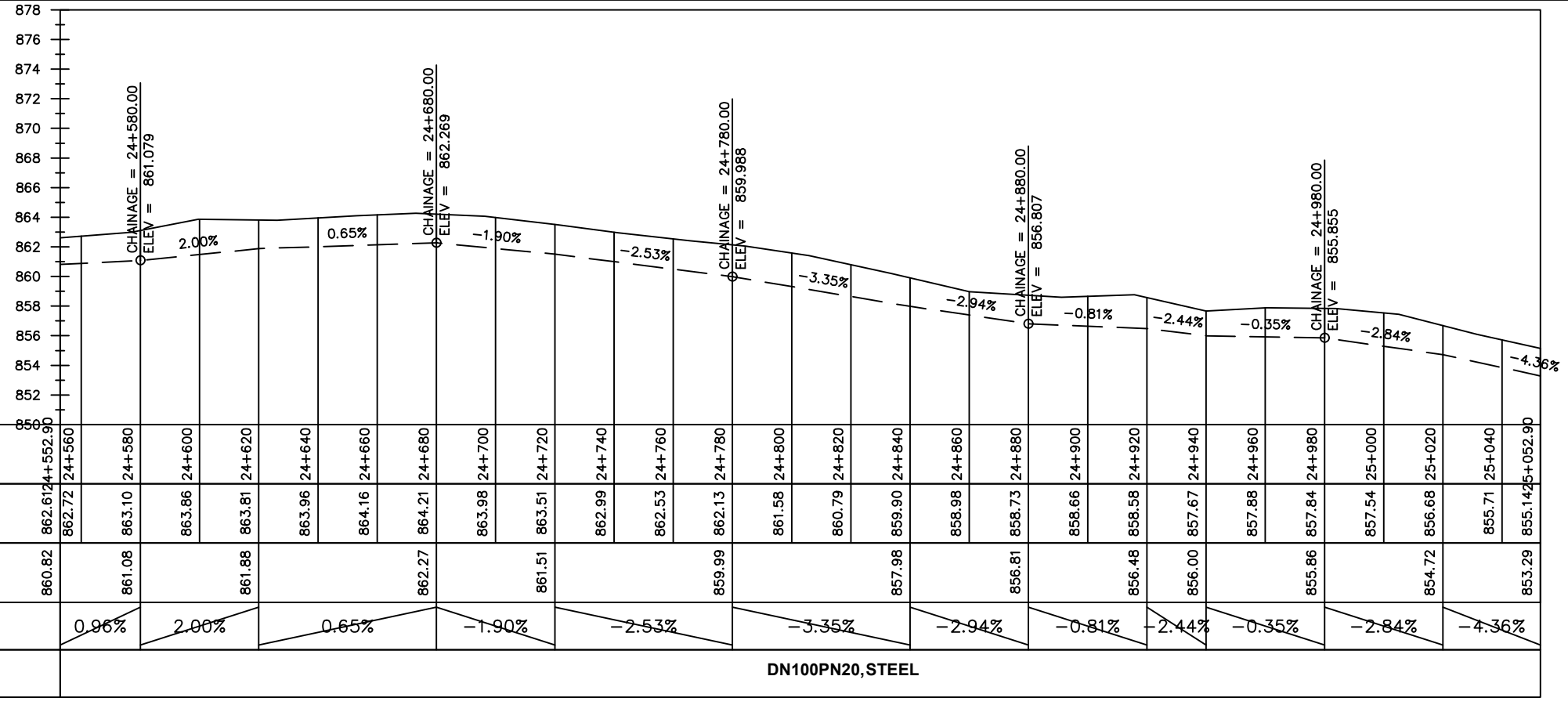
REVISIONS :

No	Date	Description

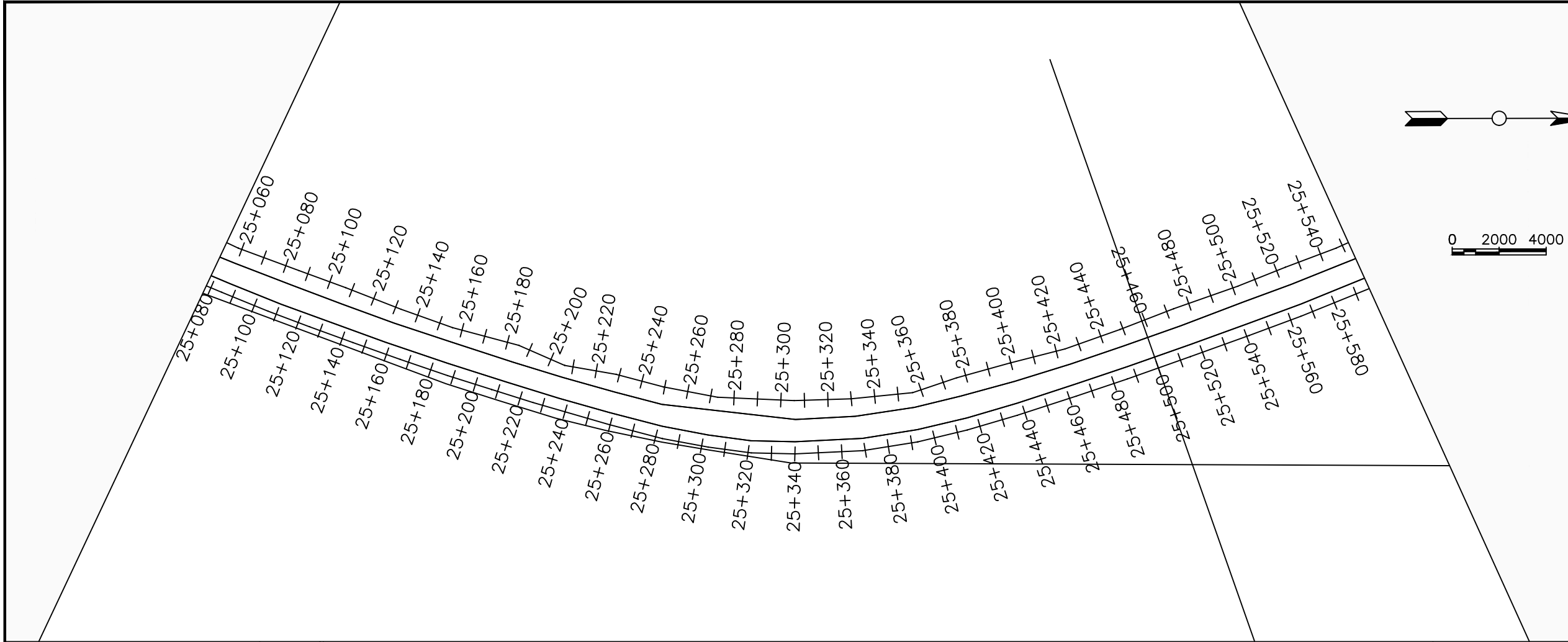
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
24+552.9 - 25+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	34 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

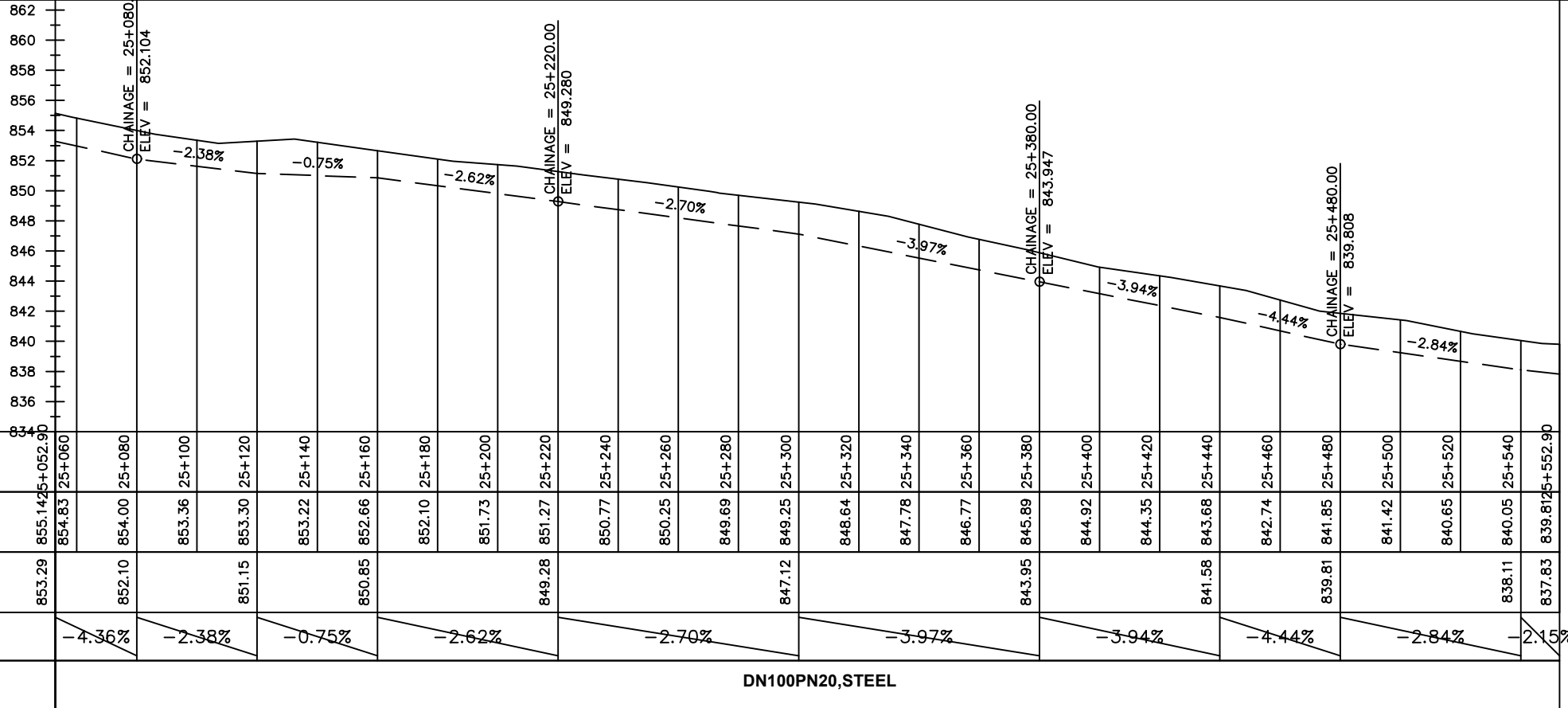
REVISIONS :

No	Date	Description

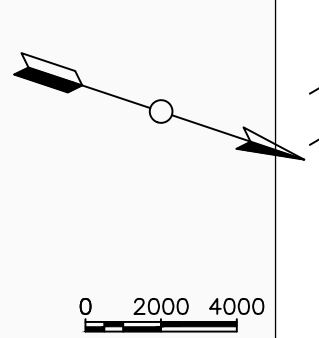
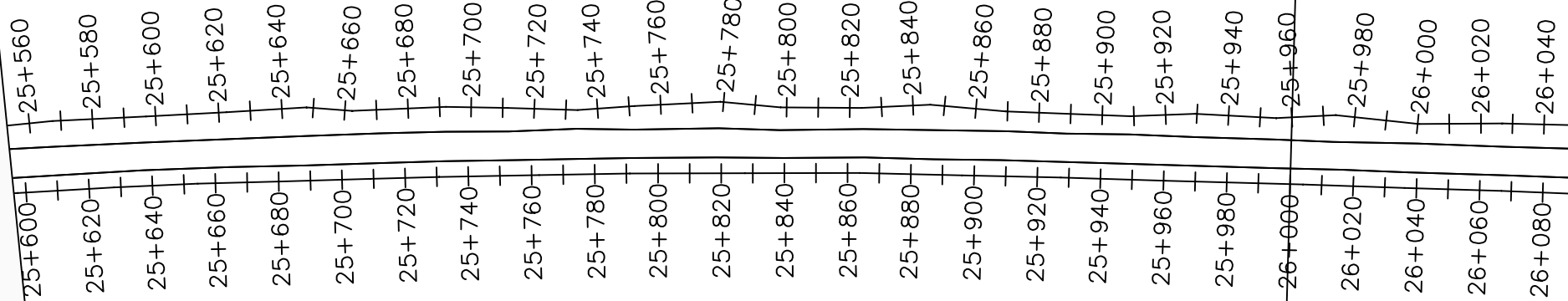
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
25+052.9 - 25+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	35 of 54



Chainages (m)	855.1425+052.90	25+060	25+080	25+100	25+120	25+140	25+160	25+180	25+200	25+220	25+240	25+260	25+280	25+300	25+320	25+340	25+360	25+380	25+400	25+420	25+440	25+460	25+480	25+500	25+520	25+540	839.8125+552.90	
Ground Levels (masl)	854.83	854.00	853.36	853.30	853.22	852.66	852.10	851.73	851.27	850.77	850.25	849.69	849.25	848.64	847.78	846.77	845.89	844.92	844.35	843.68	842.74	841.85	841.42	840.65	840.05	839.8125+552.90		
Invert Levels (masl)	853.29	852.10	851.15	850.85	849.28	847.12	843.95	841.58	839.81	838.11	837.83																	
Slope (%)	-4.36%	-2.38%	-0.75%	-2.62%	-2.70%	-3.97%	-3.94%	-4.44%	-2.84%	-2.15%																		
Pipe Details	DN100PN20, STEEL																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

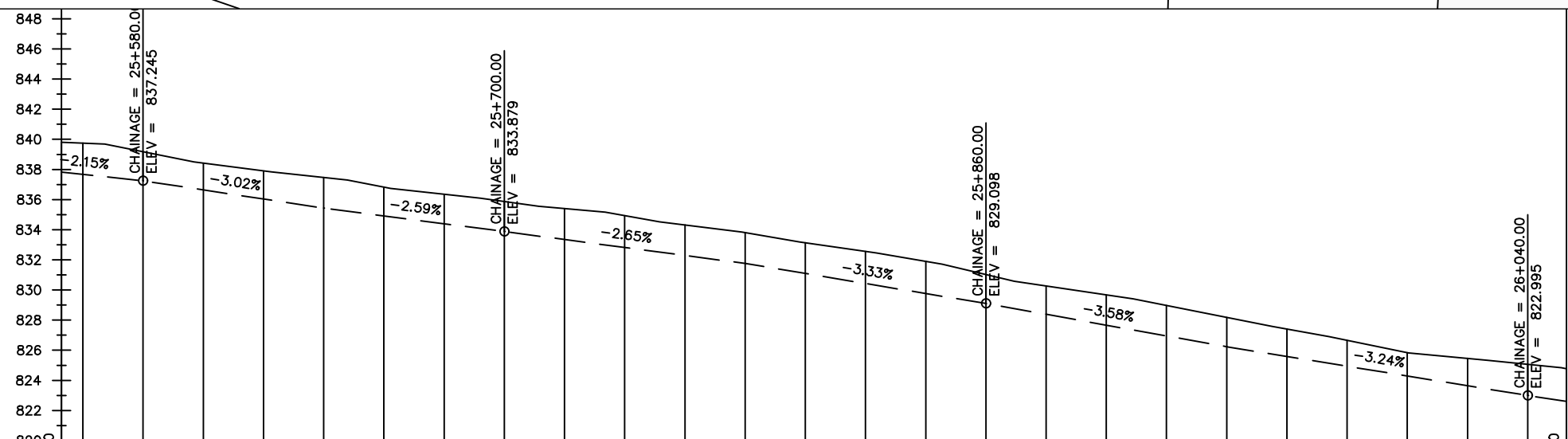
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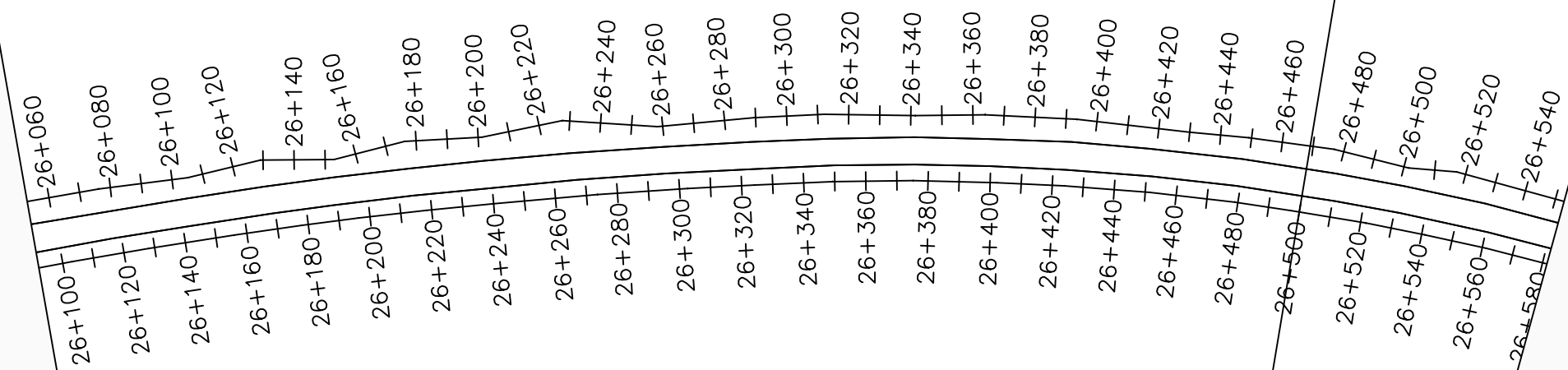
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
25+552.9 - 26+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	36 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
25+560	839.75	837.83	-2.15%	DN100PN20, STEEL
25+580	839.18	837.24	-3.02%	
25+600	838.42	835.43	-2.59%	
25+620	837.90	833.88	-2.65%	
25+640	837.47	831.76	-3.33%	
25+660	836.83	829.10	-3.58%	
25+680	836.35	826.23	-3.24%	
25+700	835.87	823.00	-3.01%	
25+720	835.40	822.61		
25+740	834.94			
25+760	834.32			
25+780	833.81			
25+800	833.13			
25+820	832.56			
25+840	831.89			
25+860	831.02			
25+880	830.26			
25+900	829.67			
25+920	828.97			
25+940	828.18			
25+960	827.41			
25+980	826.66			
26+000	825.84			
26+020	825.46			
26+040	825.06			
26+052.9	824.78			



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

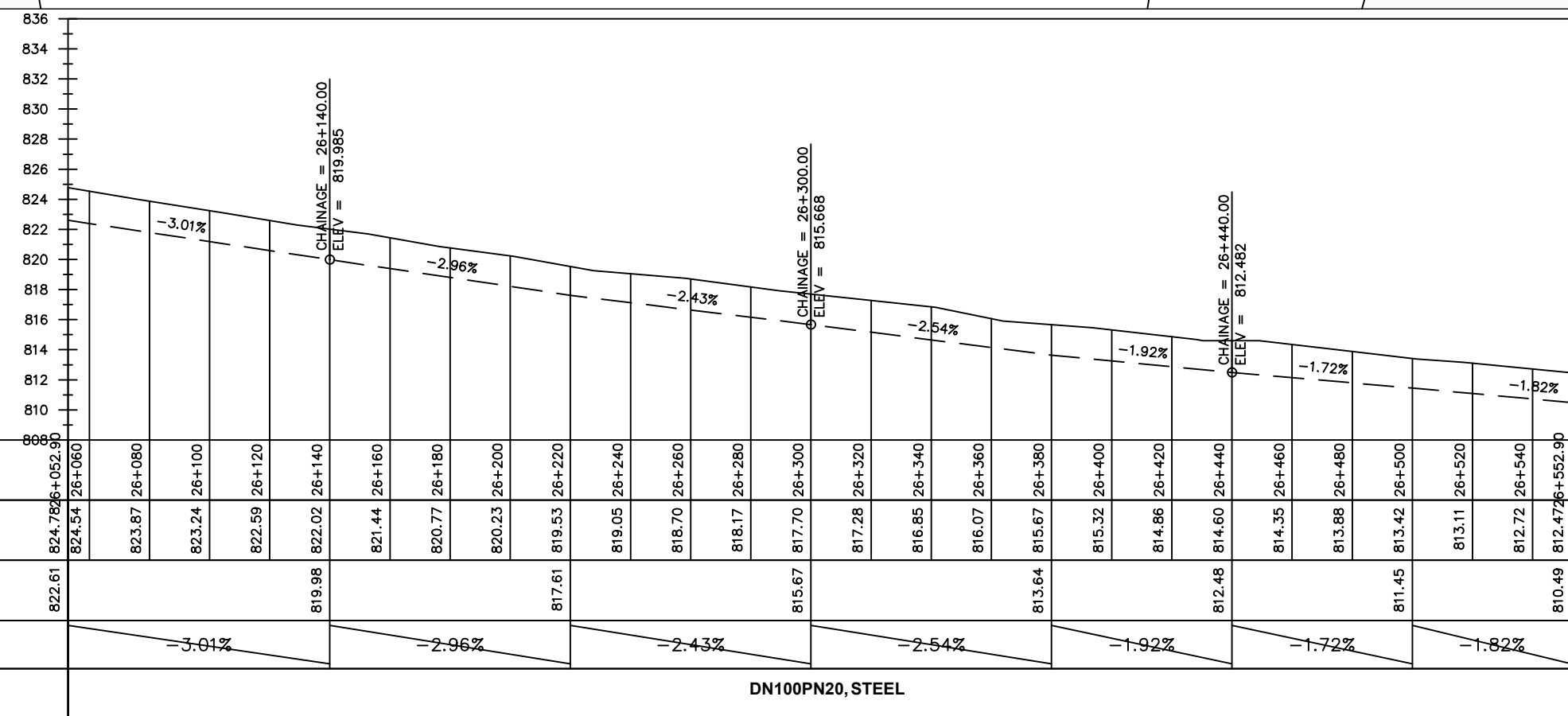
REVISIONS :

No	Date	Description

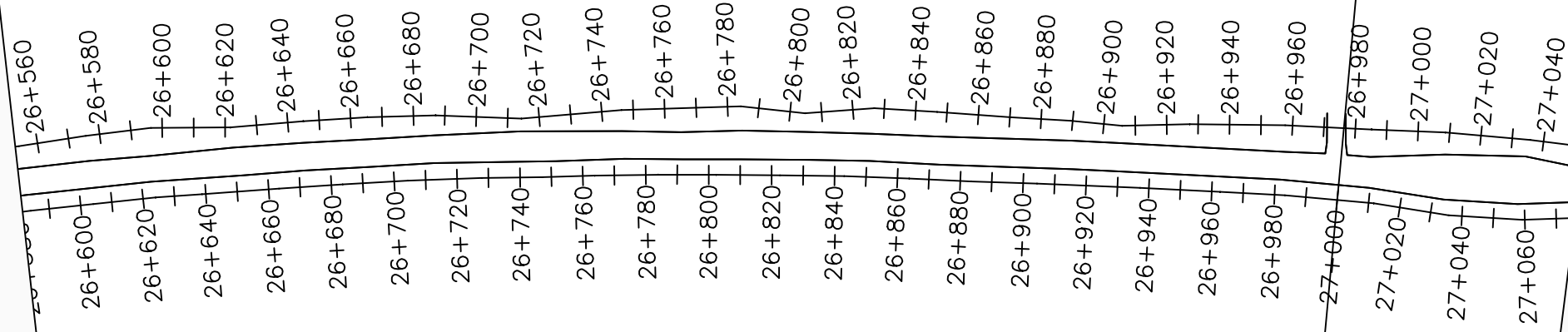
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
26+052.9 - 26+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	37 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

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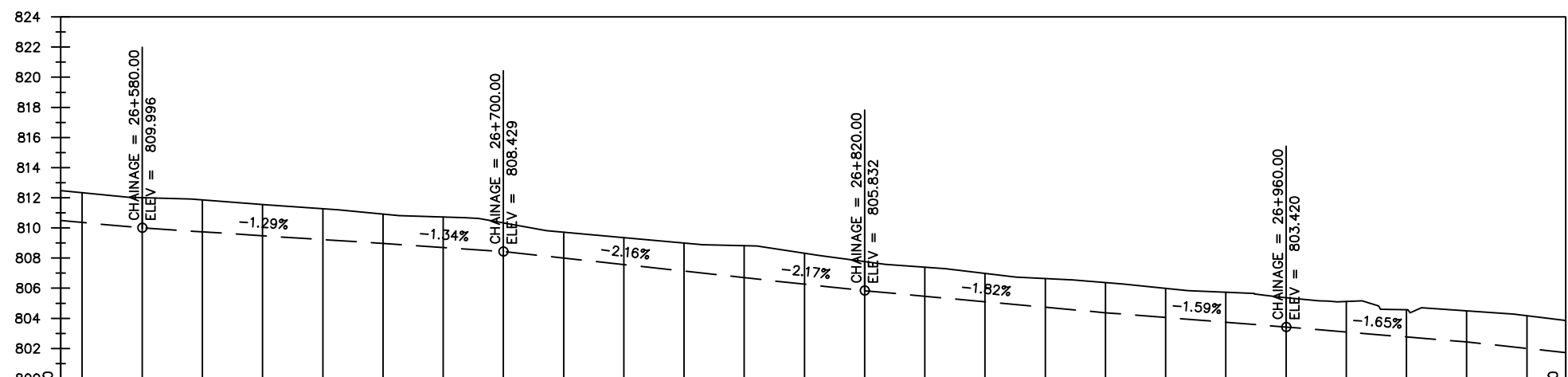
REVISIONS :

No	Date	Description

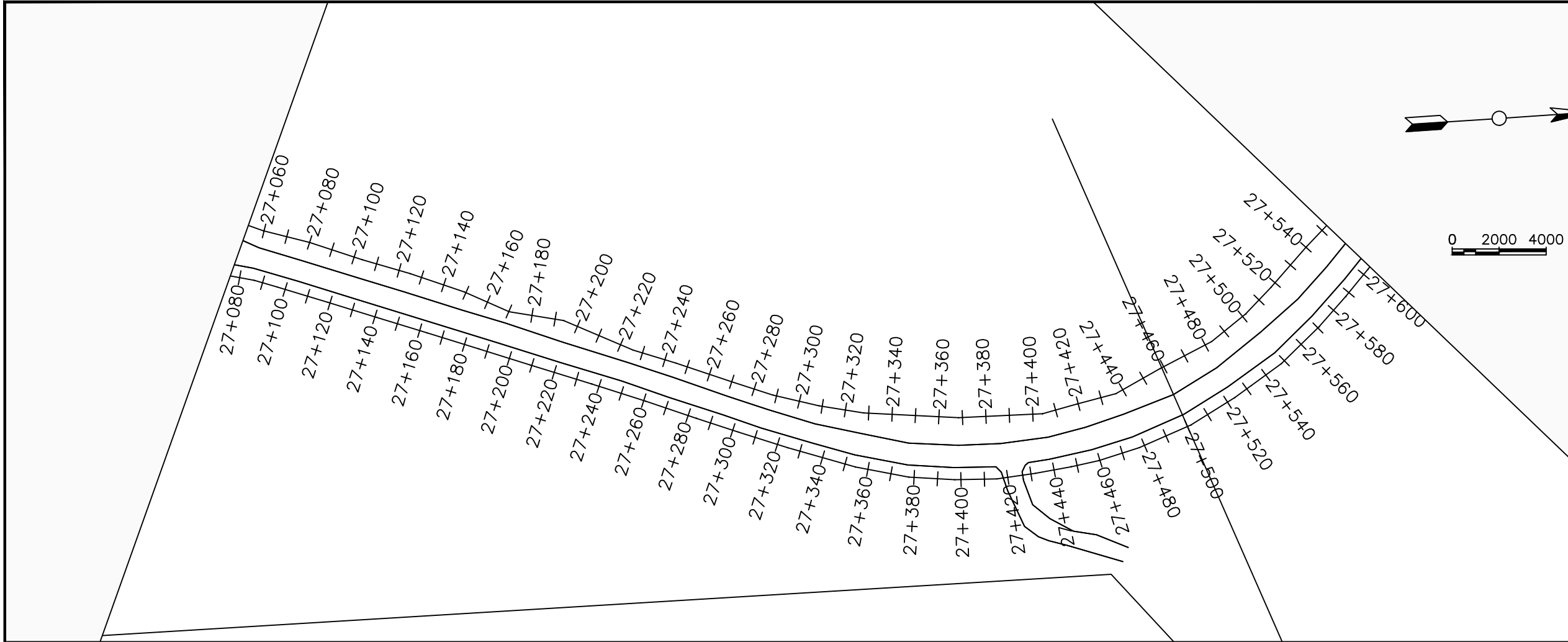
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
26+552.9 - 27+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	38 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
812.47/26+552.90	812.33	810.49	-1.82%	DN100PN20, STEEL
26+560	812.01	810.00	-1.29%	
26+580	811.86	808.97	-1.34%	
26+600	811.55	808.43	-2.16%	
26+620	811.27	808.70	-2.17%	
26+640	810.92	808.83	-1.82%	
26+660	810.73	808.37	-1.59%	
26+680	810.33	808.42	-1.65%	
26+700	809.72	808.43	-2.14%	
26+720	809.35	808.43	-2.14%	
26+740	808.99	808.43	-2.14%	
26+760	808.82	808.43	-2.14%	
26+780	808.33	808.43	-2.14%	
26+800	807.77	808.43	-2.14%	
26+820	807.40	808.43	-2.14%	
26+840	806.98	808.43	-2.14%	
26+860	806.64	808.43	-2.14%	
26+880	806.37	808.43	-2.14%	
26+900	805.99	808.43	-2.14%	
26+920	805.73	808.43	-2.14%	
26+940	805.37	808.43	-2.14%	
26+960	805.11	808.43	-2.14%	
26+980	804.58	808.43	-2.14%	
27+000	804.49	808.43	-2.14%	
27+020	804.17	808.43	-2.14%	
27+040	803.86	808.43	-2.14%	
27+052.90	803.86	808.43	-2.14%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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CONSULTANT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

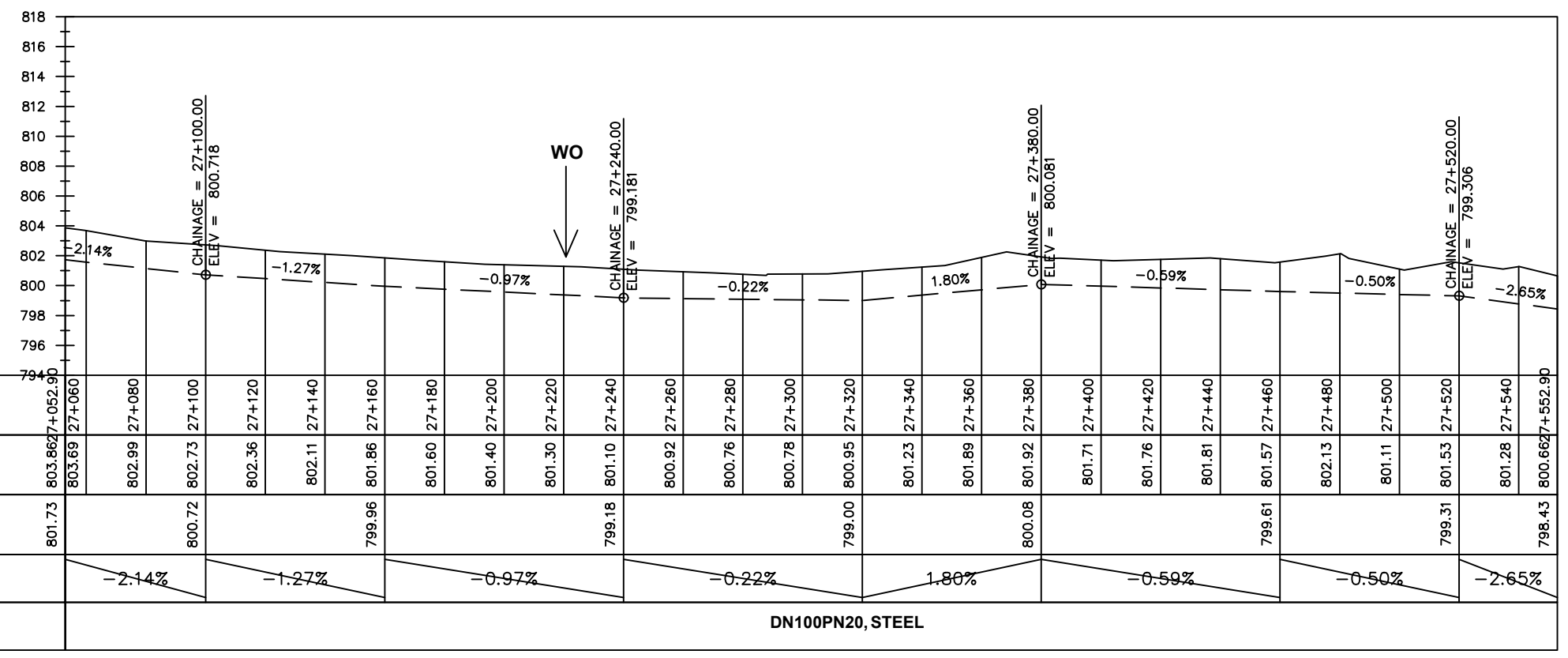
REVISIONS :

No	Date	Description

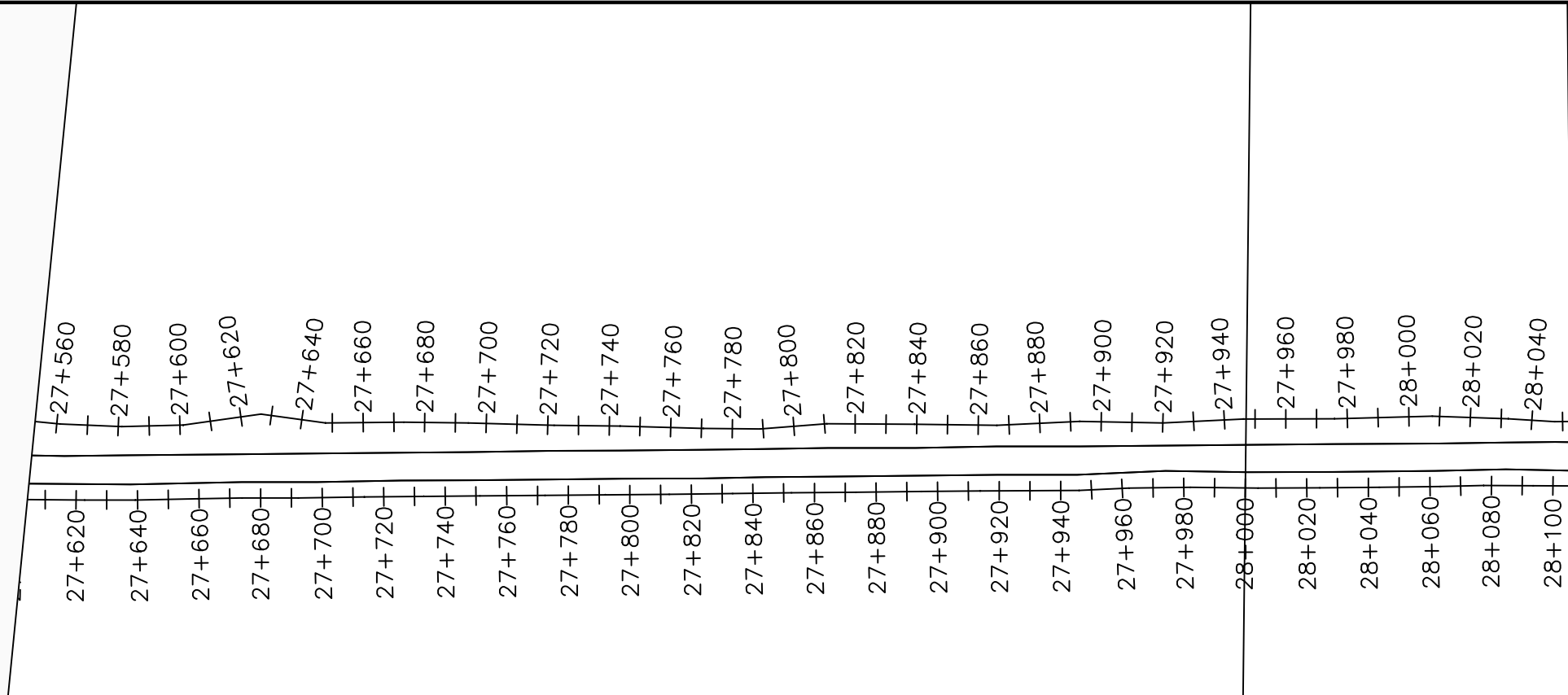
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
27+052.9 - 27+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	39 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

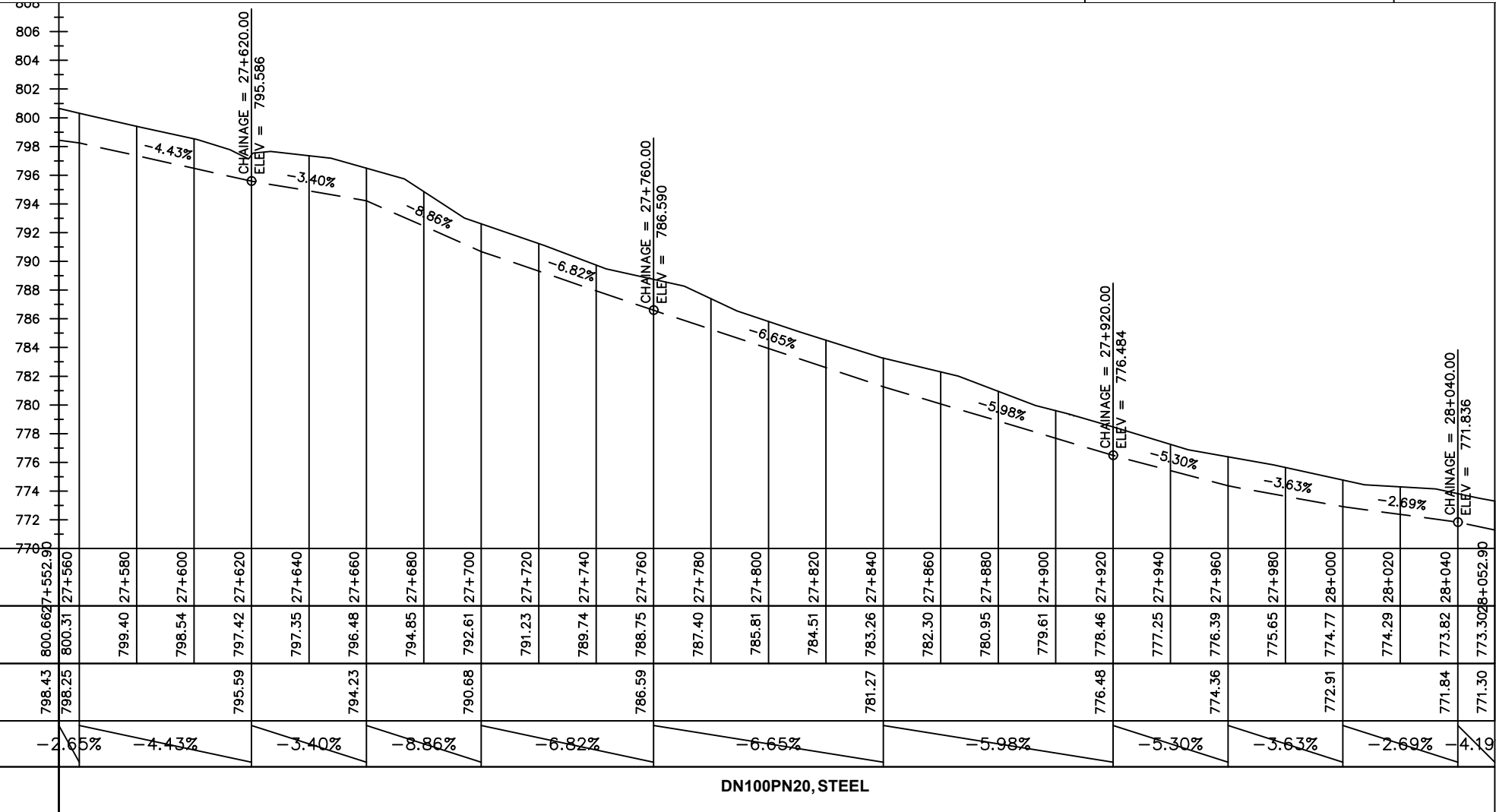
REVISIONS :

No	Date	Description

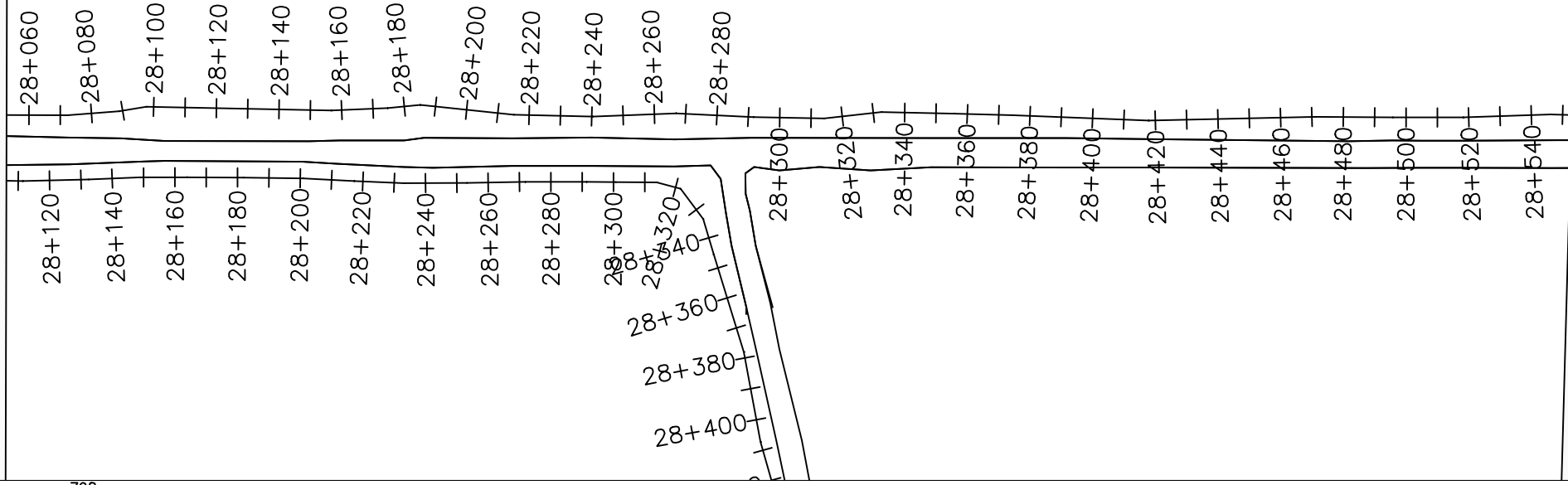
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
27+552.9 - 28+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	40 of 54



Chainages (m)	27+560	27+580	27+600	27+620	27+640	27+660	27+680	27+700	27+720	27+740	27+760	27+780	27+800	27+820	27+840	27+860	27+880	27+900	27+920	27+940	27+960	27+980	28+000	28+020	28+040	28+052.9		
Ground Levels (masl)	800.66	799.40	798.54	797.42	797.35	796.48	794.85	792.61	791.23	789.74	788.75	787.40	785.81	784.51	783.26	782.30	780.95	779.61	778.46	777.25	776.39	775.65	774.77	774.29	773.82	773.30		
Invert Levels (masl)	798.43	798.25	795.59	794.23	790.68	786.59	781.27	776.48	774.36	772.91	771.84	771.30																
Slope (%)	-2.65%	-4.43%	-3.40%	-8.86%	-6.82%	-6.65%	-5.98%	-5.30%	-3.63%	-2.69%	-4.19%																	
Pipe Details	DN100PN20, STEEL																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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CONSULTANT :

Alliance Consultants Ltd
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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

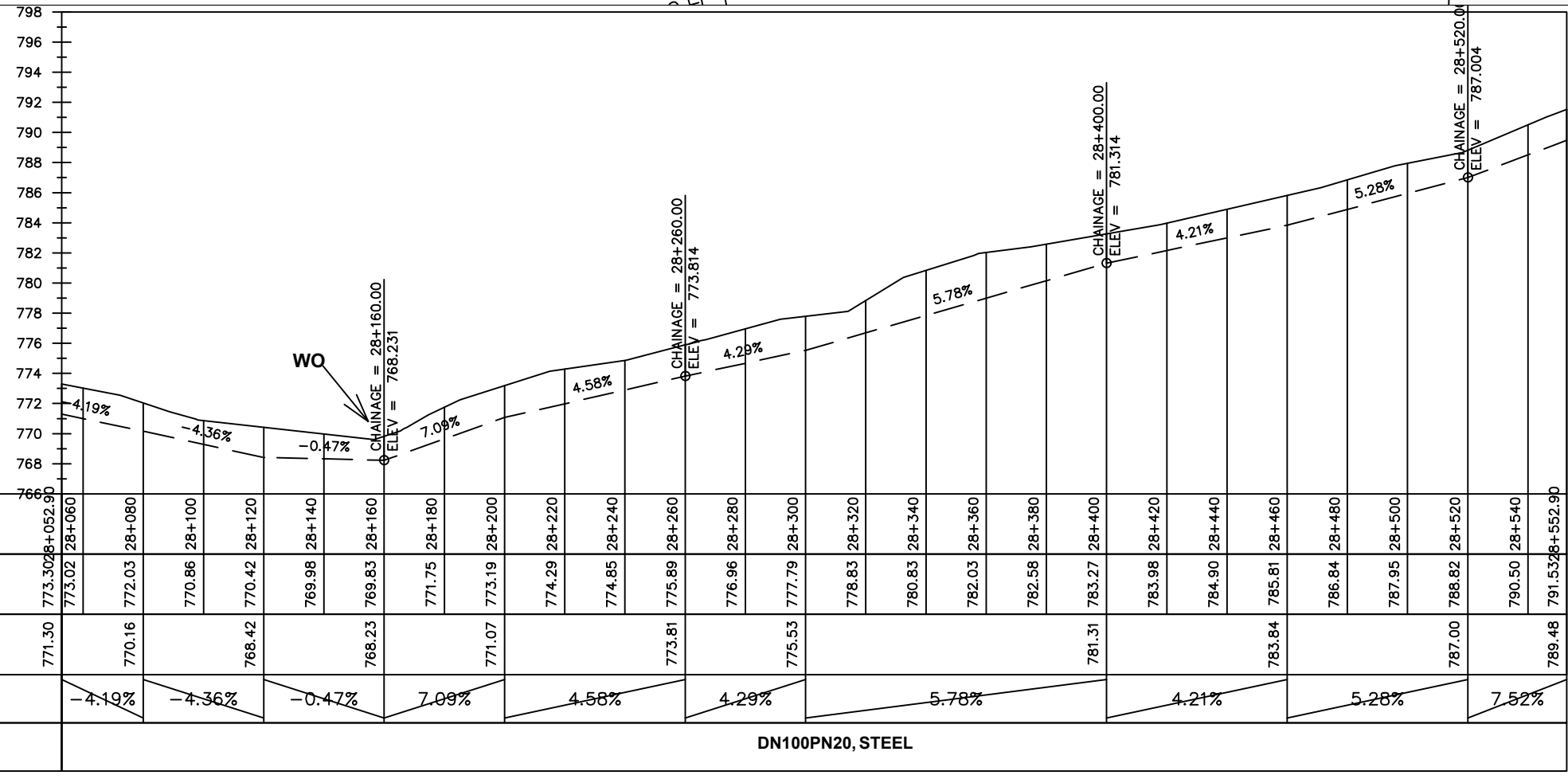
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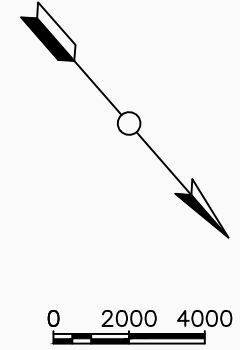
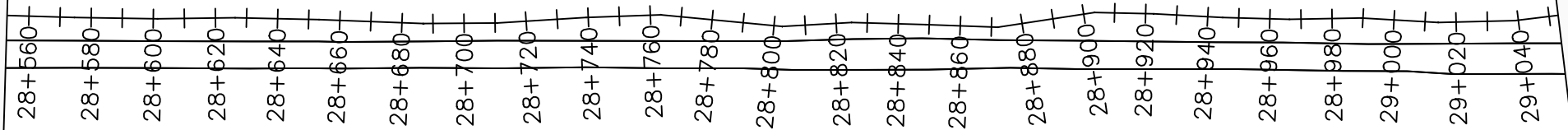
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
28+052.9 - 28+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	41 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

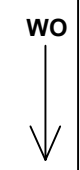
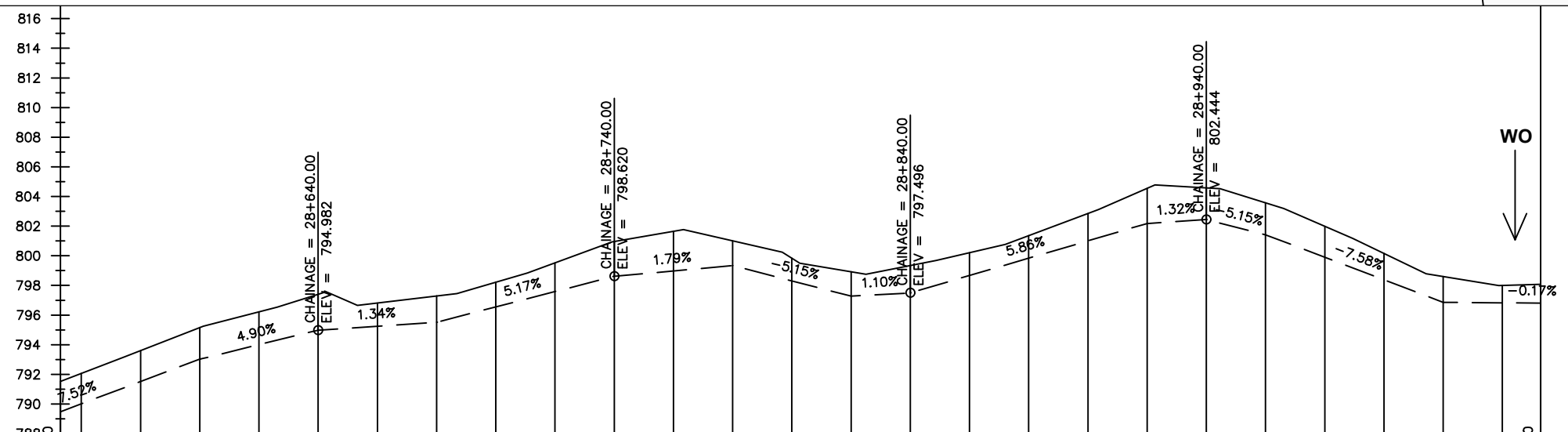
REVISIONS :

No	Date	Description

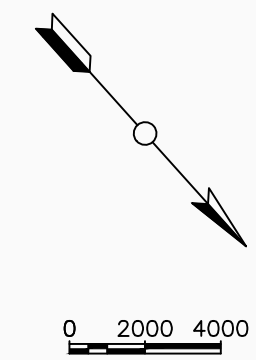
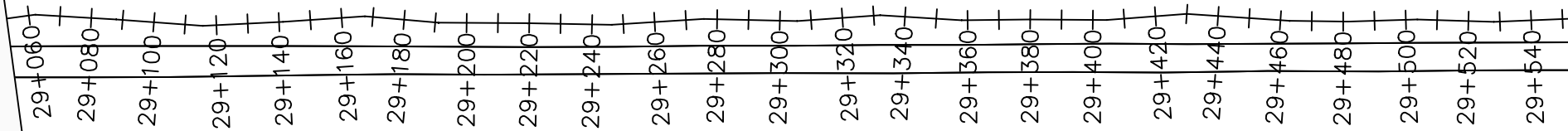
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
28+552.9 - 29+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
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Chainages (m)	788.90	791.53	792.07	28+560	28+580	28+600	28+620	28+640	28+660	28+680	28+700	28+720	28+740	28+760	28+780	28+800	28+820	28+840	28+860	28+880	28+900	28+920	28+940	28+960	28+980	29+000	29+020	29+040	29+052.90		
Ground Levels (masl)	789.48	791.53	792.07	793.60	795.16	796.21	797.40	796.81	797.29	798.22	799.52	800.96	801.65	801.01	799.83	798.92	799.34	800.21	801.36	802.86	804.55	804.58	803.57	801.99	800.16	798.60	797.99	798.07			
Invert Levels (masl)	789.48	793.02	794.98	795.52	796.62	797.33	797.28	797.50	802.18	802.44	801.41	796.86	796.81																		
Slope (%)		7.52%	4.90%	1.34%	5.17%	1.79%	-5.15%	1.10%	5.86%	1.32%	-5.15%	-7.58%	-0.17%																		
Pipe Details	DN100PN20, STEEL																														



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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CONSULTANT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

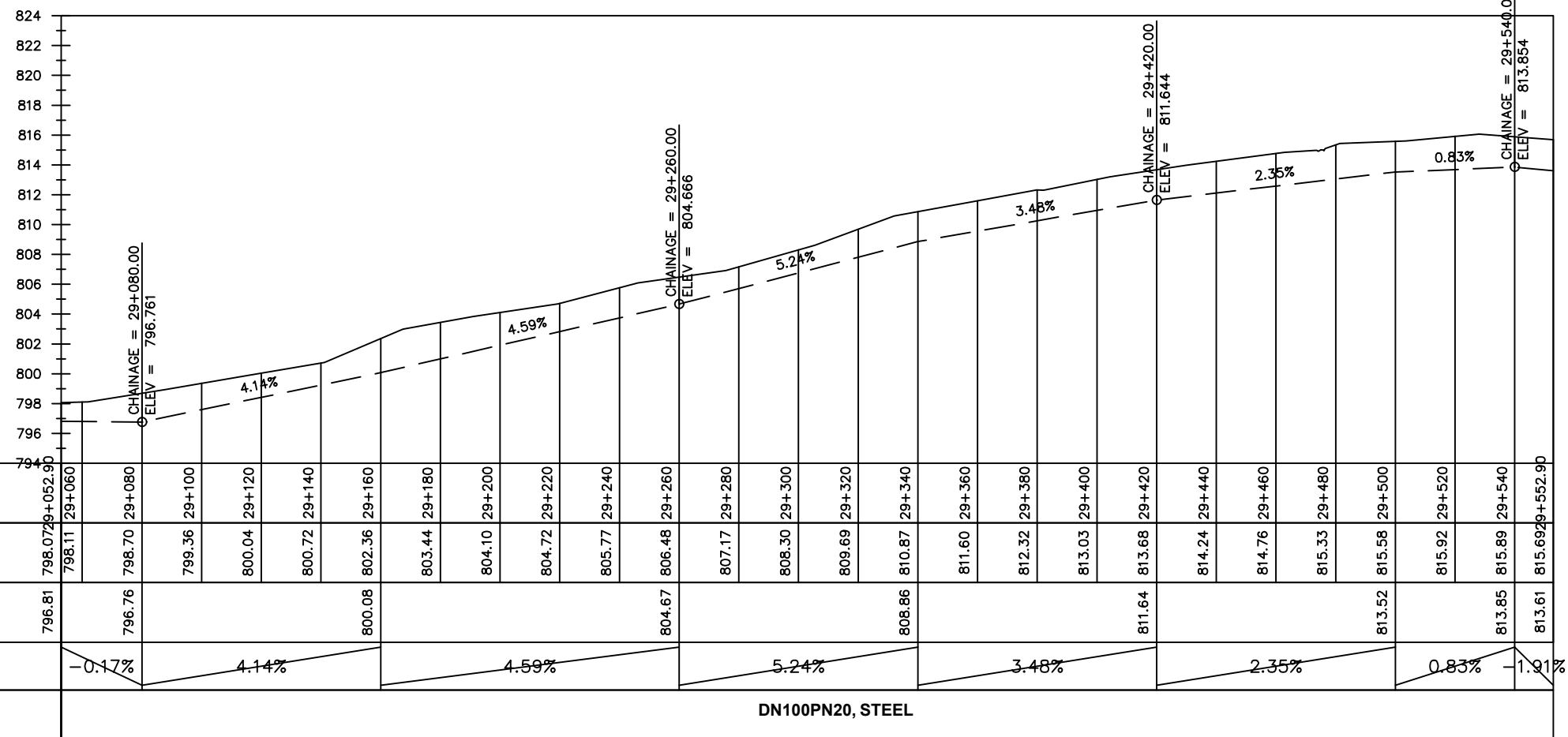
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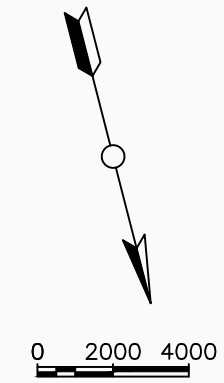
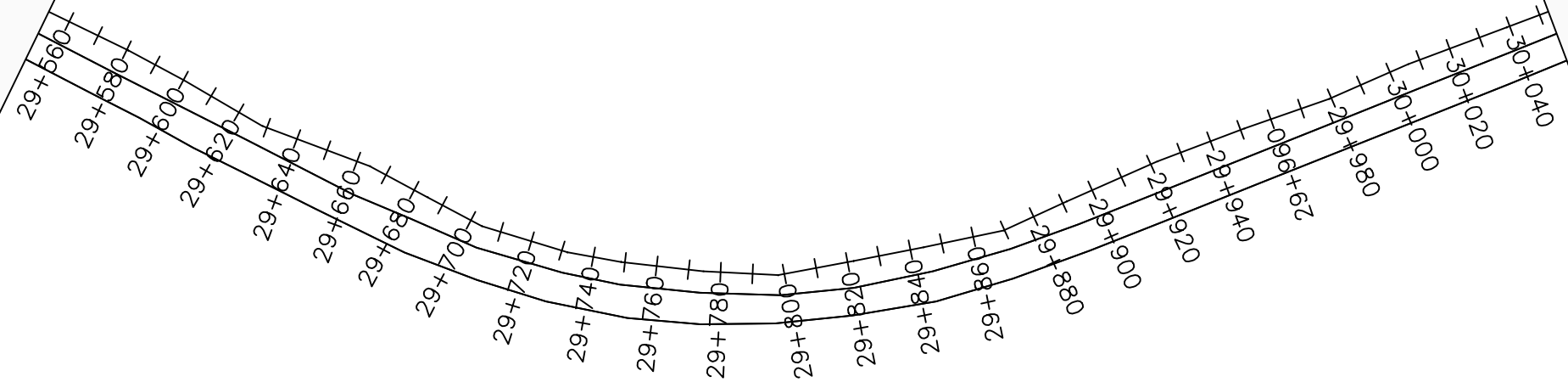
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
29+052.9 - 29+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	43 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

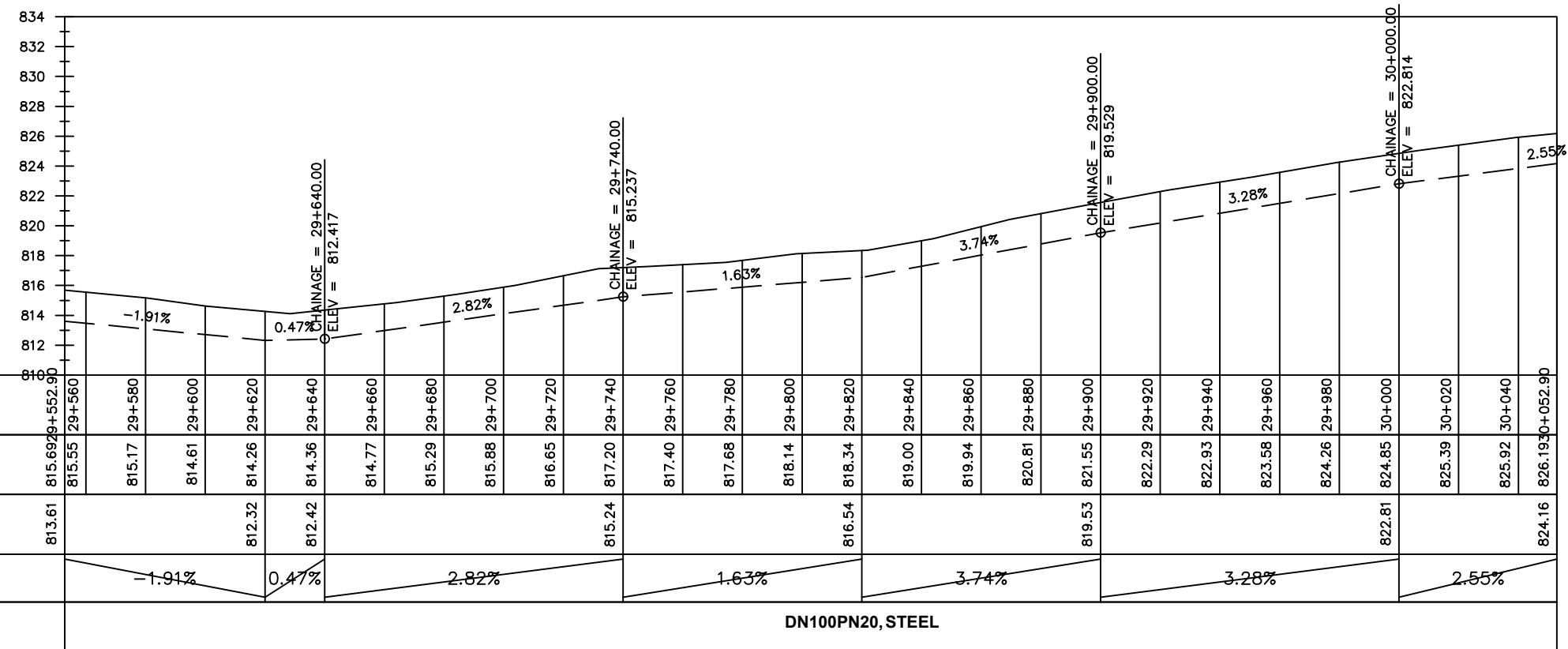
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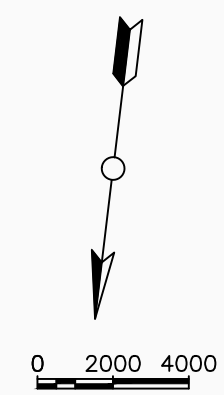
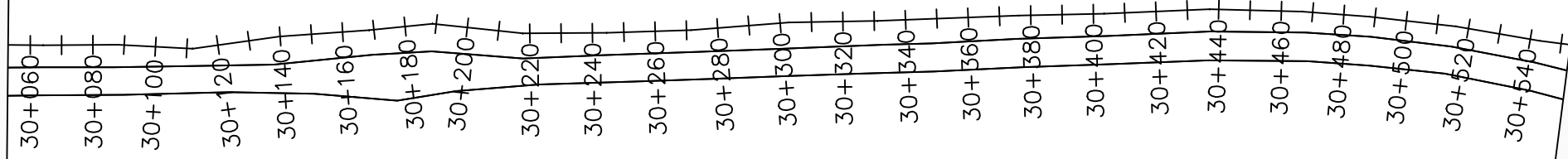
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
29+552.9 - 30+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

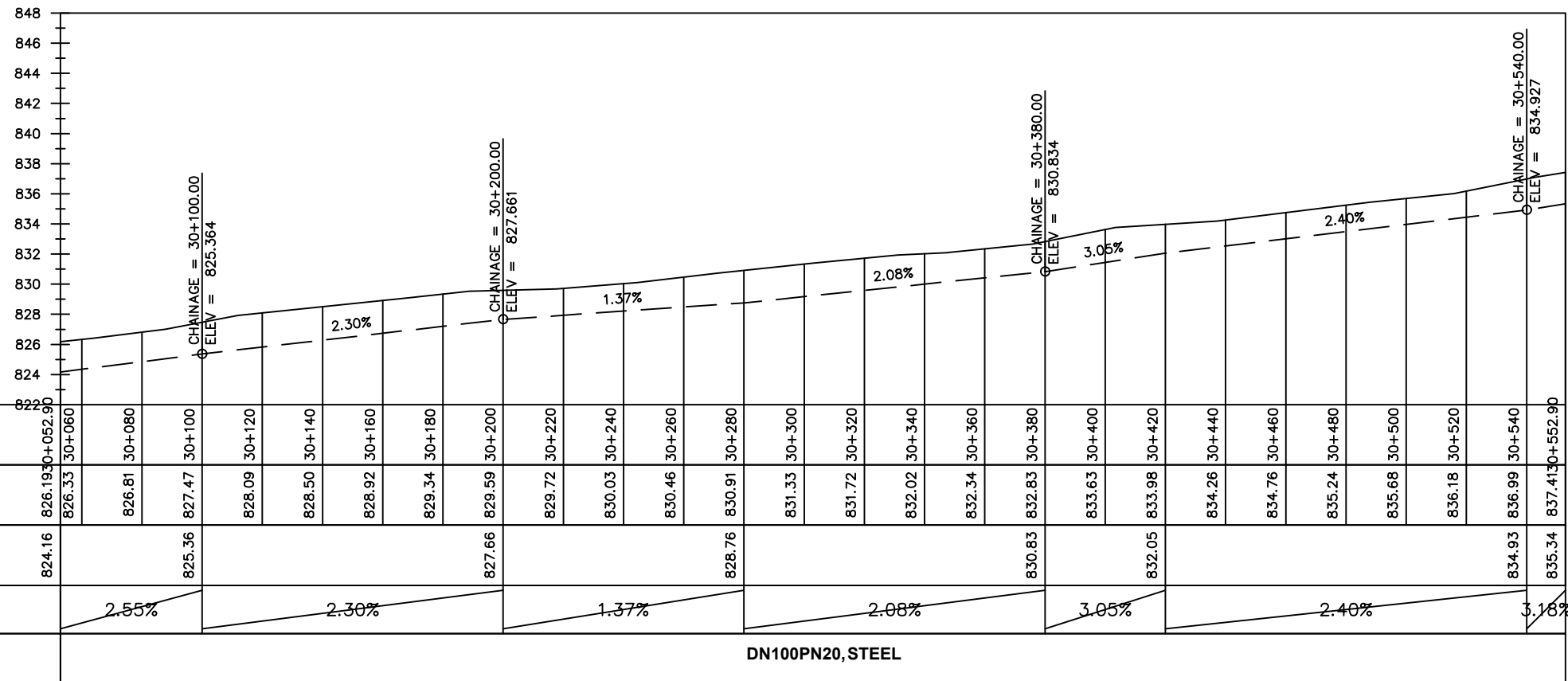
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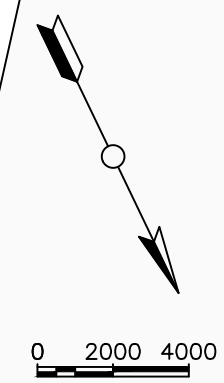
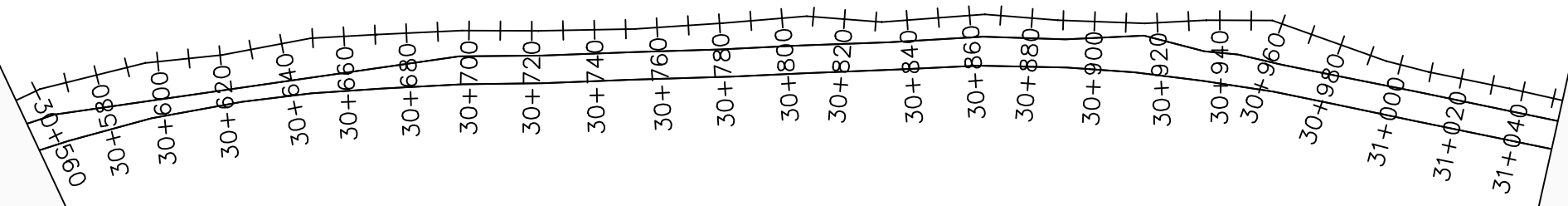
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
30+052.9 - 30+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	45 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

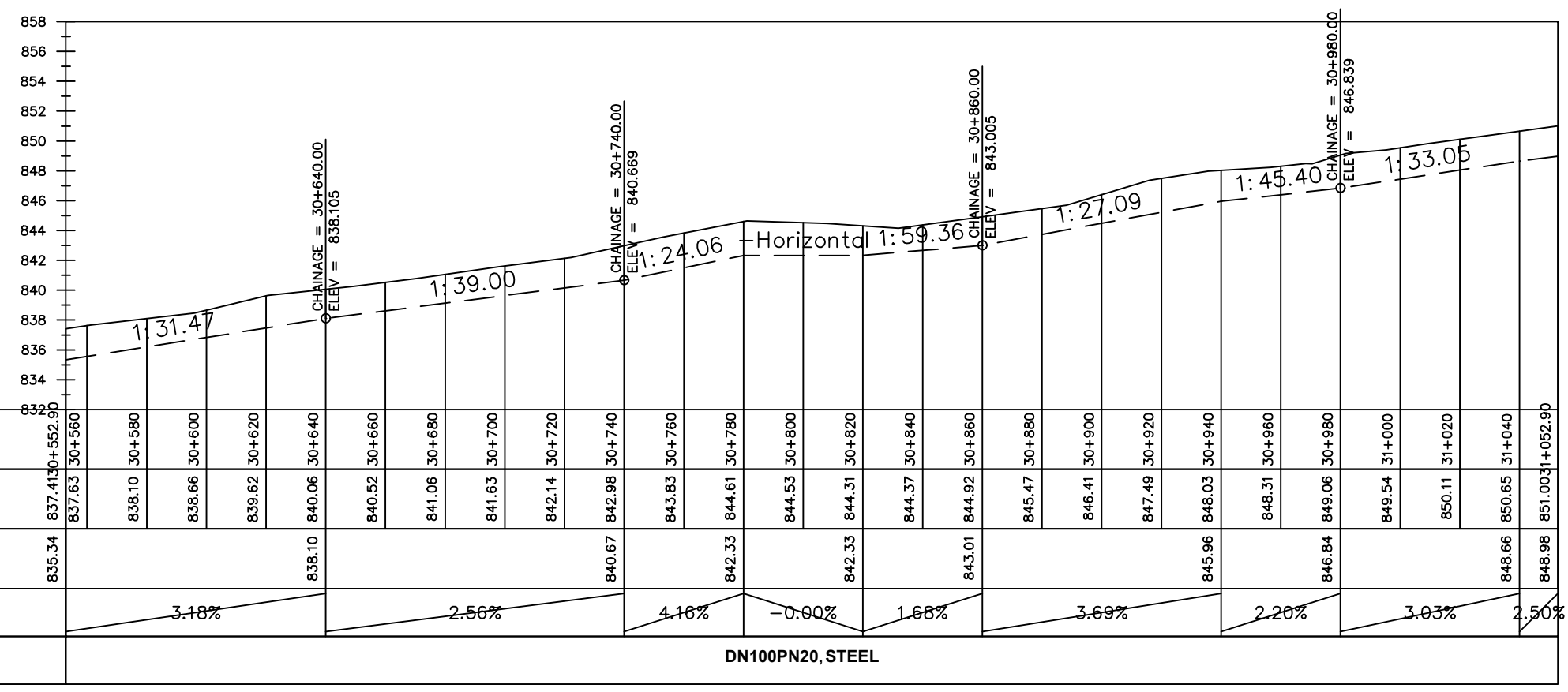
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No	Date	Description

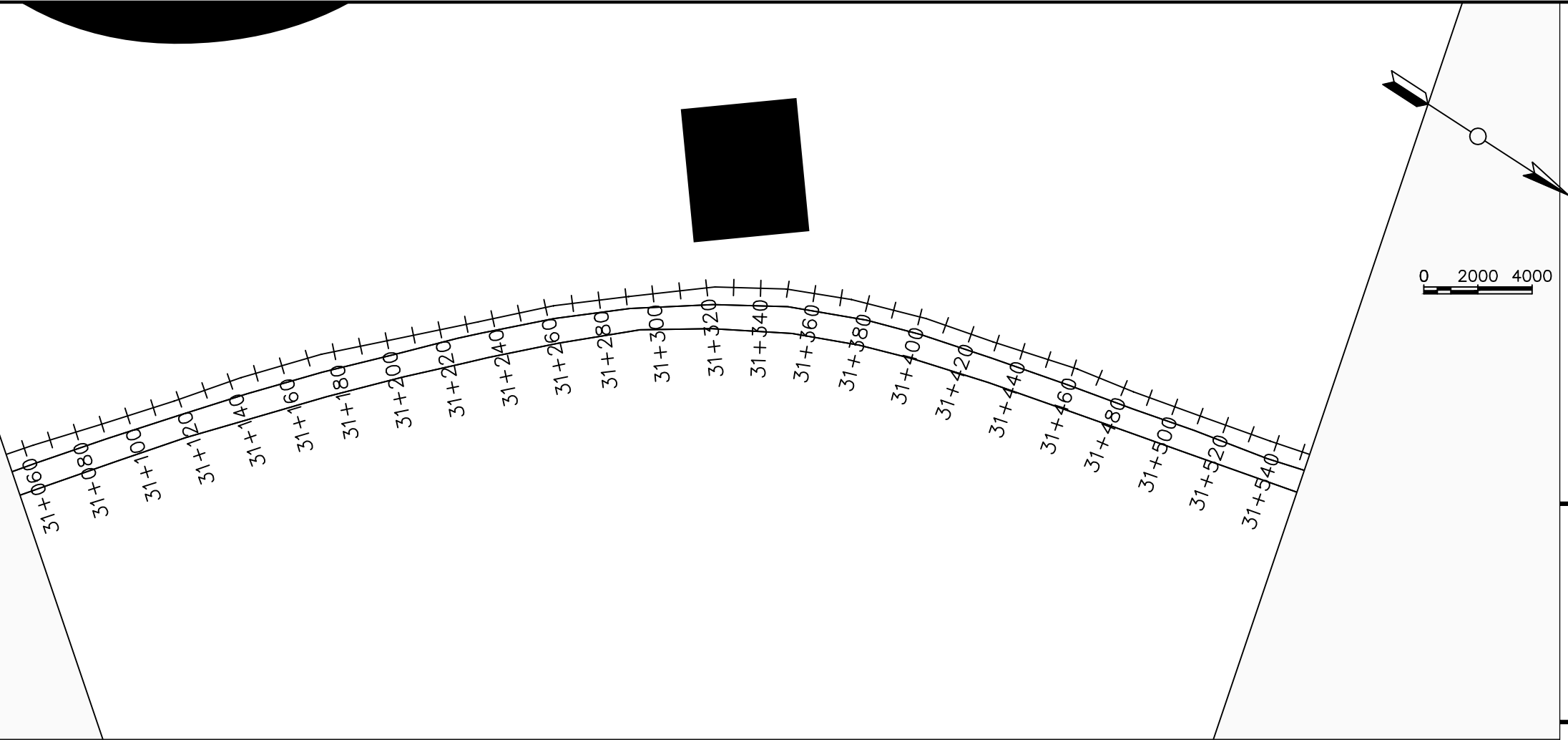
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
30+552.9 - 31+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	46 of 54



DN100PN20, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

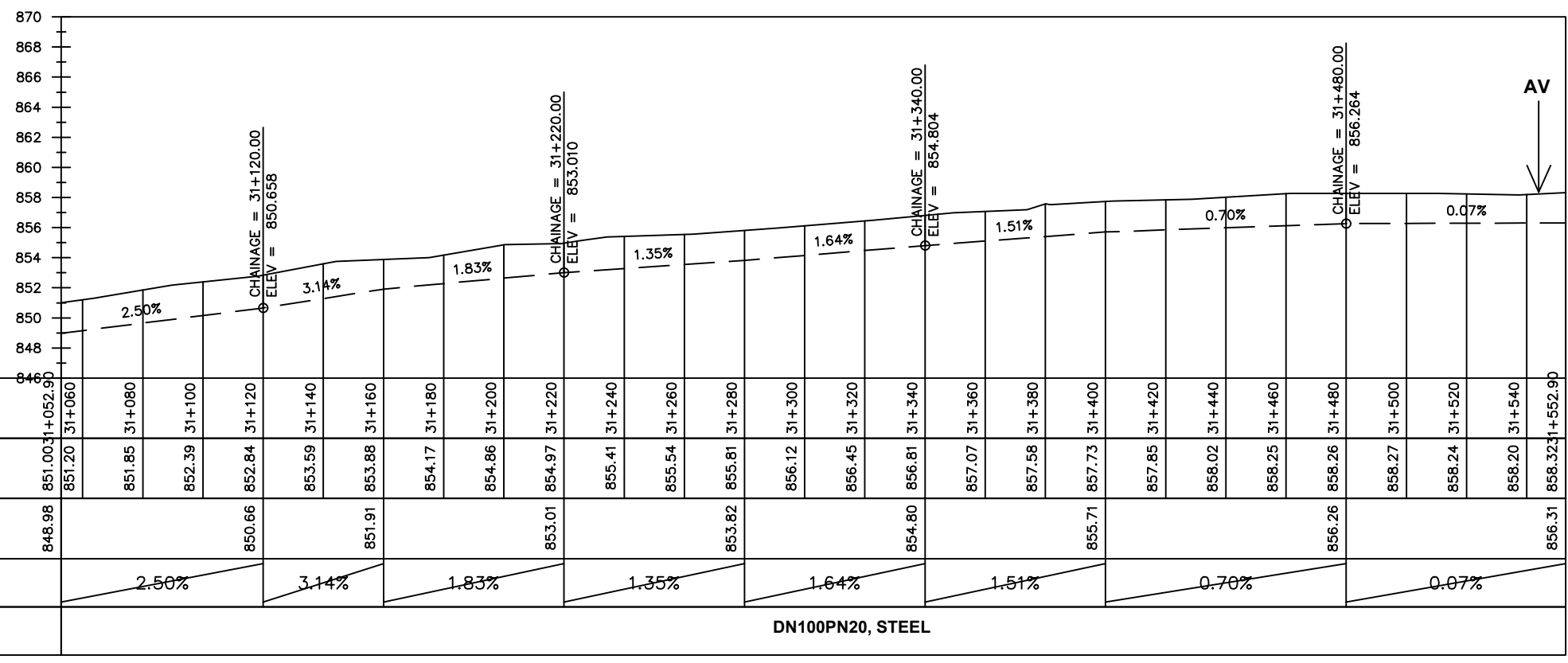
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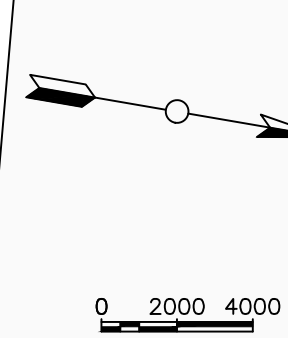
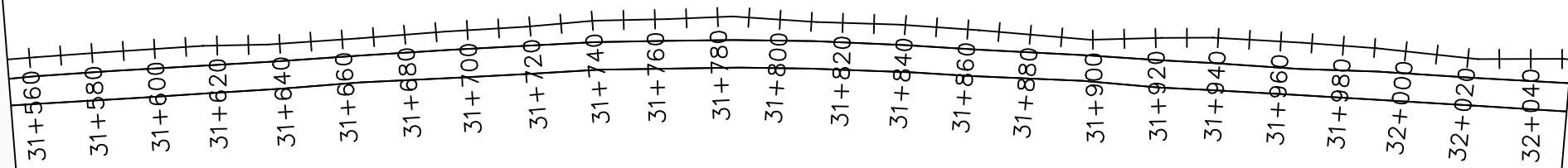
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
31+052.9 - 31+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	47 of 54





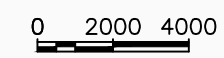
LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.



CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

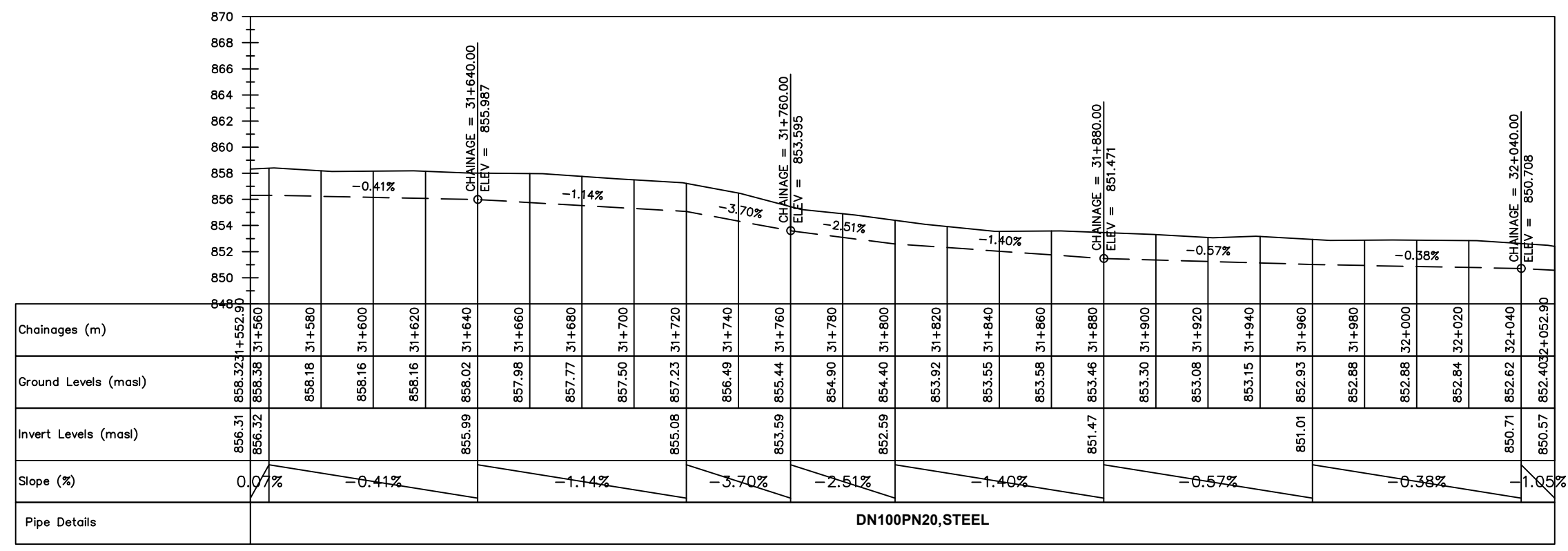
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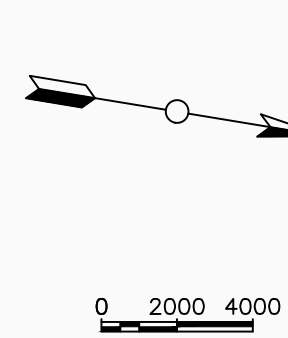
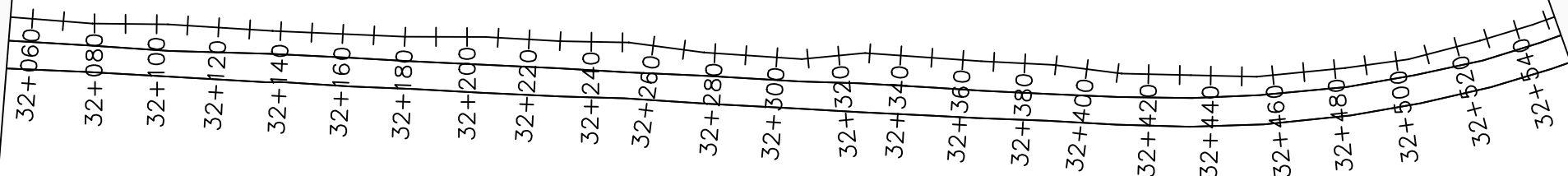
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
31+552.9 - 32+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	48 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

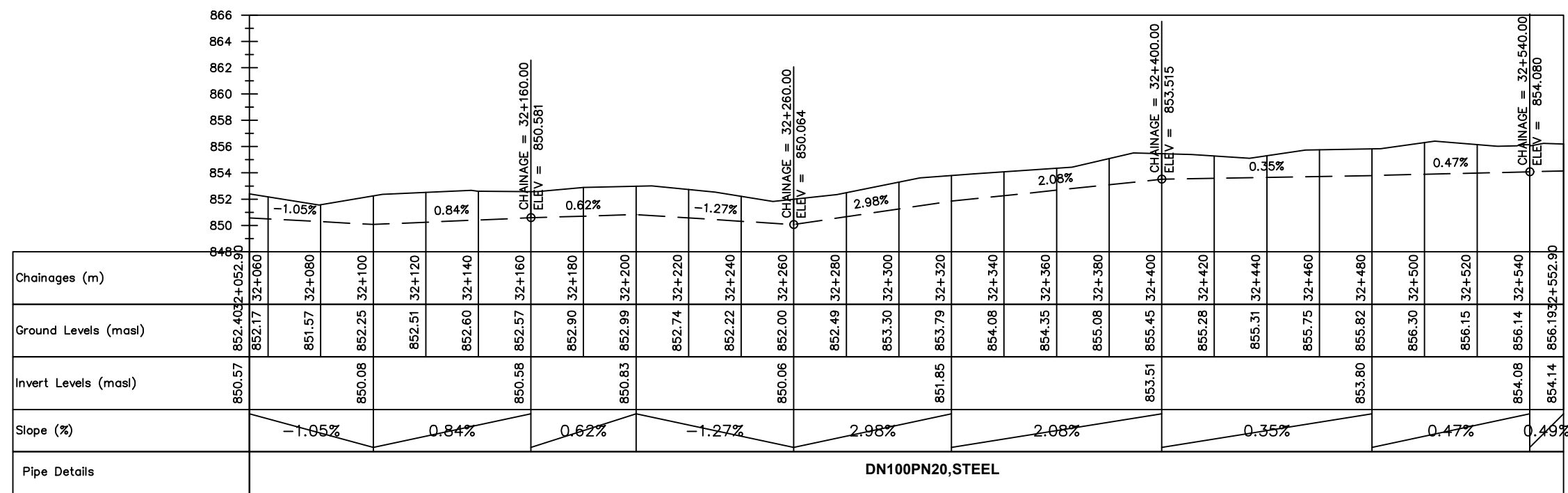
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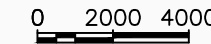
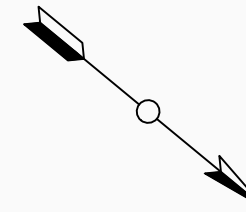
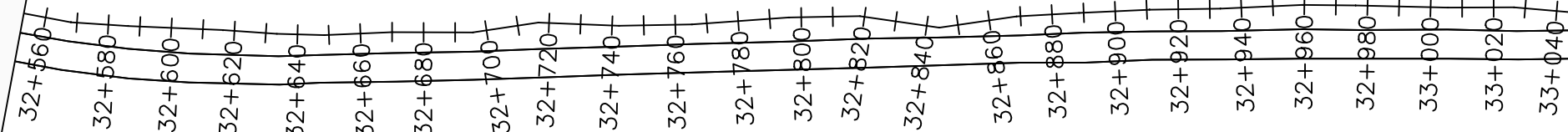
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
32+052.9 - 32+552.9

Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	49 of 54





LEGEND

- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - AV Air Valve
 - WO Washout
 - Node detail No.

CLIENT :



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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

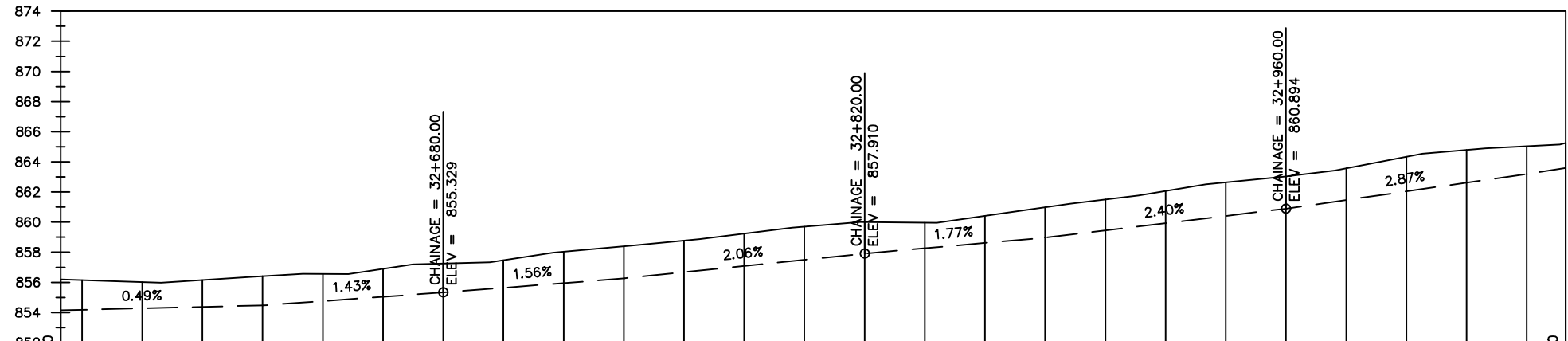
REVISIONS :

No	Date	Description

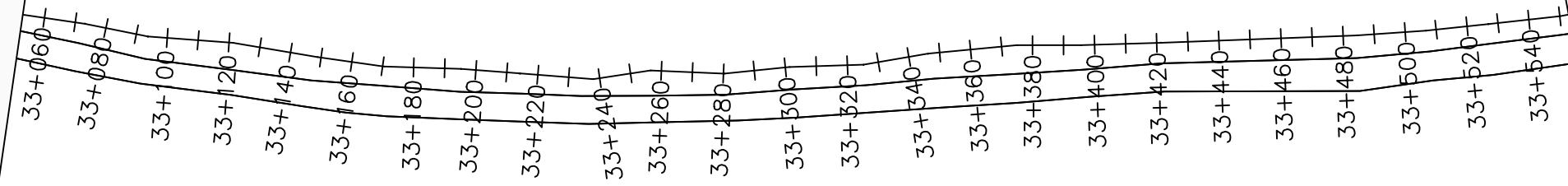
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Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	50 of 54



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
32+560	856.14	854.14	0.49%	DN100PN20, STEEL
32+580	856.01	854.47		
32+600	856.15	854.47	1.43%	
32+620	856.41	854.47	1.56%	
32+640	856.57	854.47		
32+660	856.90	855.33	2.06%	
32+680	857.24	855.33		
32+700	857.47	856.26	1.77%	
32+720	858.03	856.26		
32+740	858.39	856.26	2.40%	
32+760	858.77	856.26		
32+780	859.24	857.91	2.87%	
32+800	859.70	857.91		
32+820	860.00	857.91	3.10%	
32+840	859.97	858.97		
32+860	860.42	858.97	2.87%	
32+880	860.99	858.97		
32+900	861.51	860.89	2.87%	
32+920	862.07	860.89		
32+940	862.64	860.89	2.87%	
32+960	863.04	860.89		
32+980	863.58	863.19	2.87%	
32+1000	864.34	863.19		
33+020	864.79	863.19	2.87%	
33+040	865.04	863.19		
33+052.9	865.25	863.59	3.10%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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- Contours

Profile

- Ground Level
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CLIENT :

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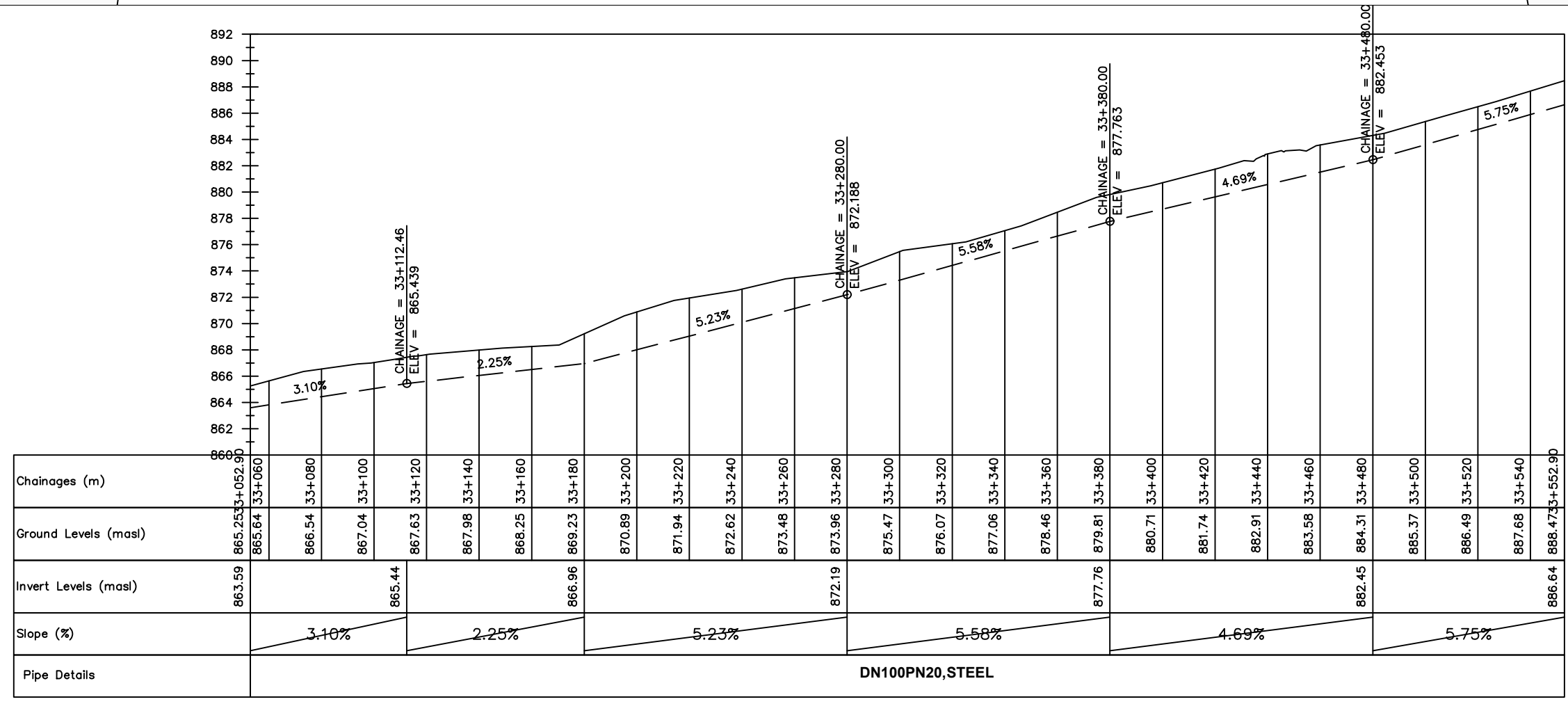
REVISIONS :

No	Date	Description

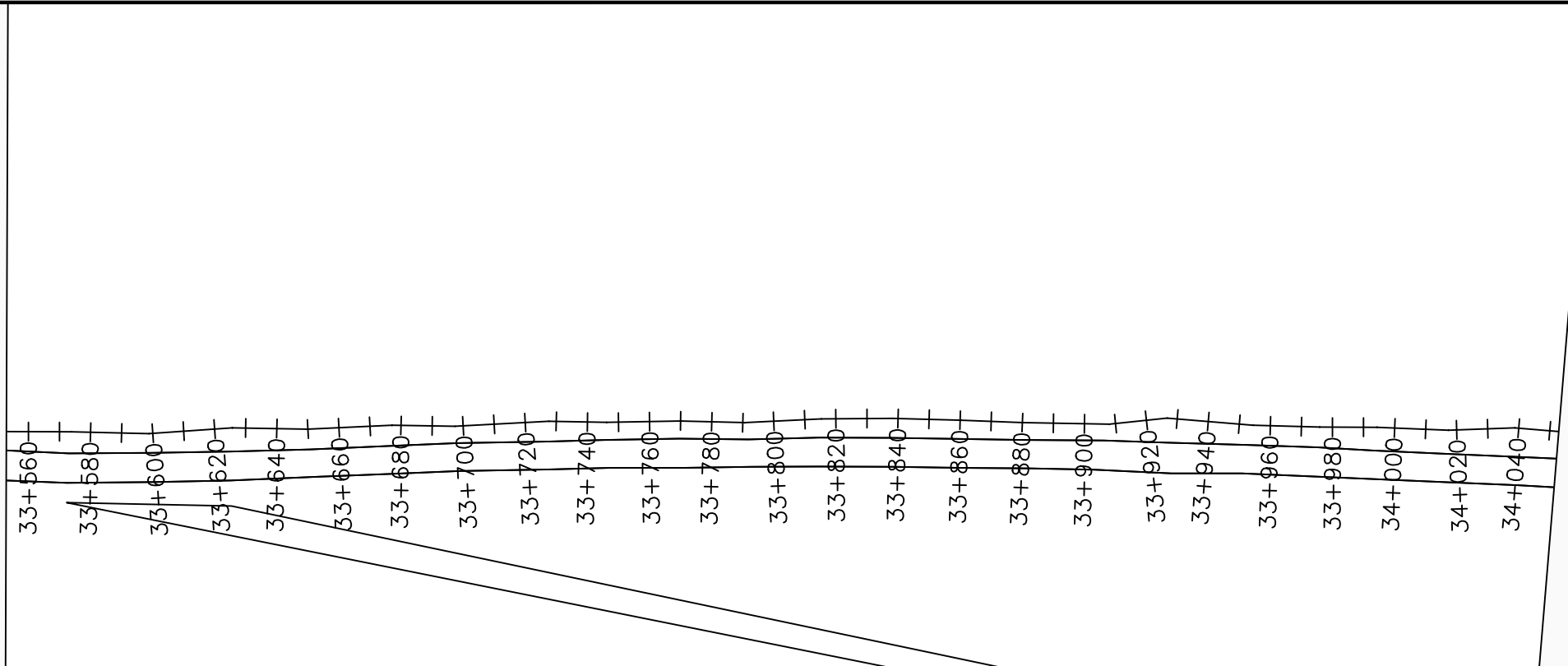
DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
33+052.9 - 33+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	51 of 54



DN100PN20, STEEL



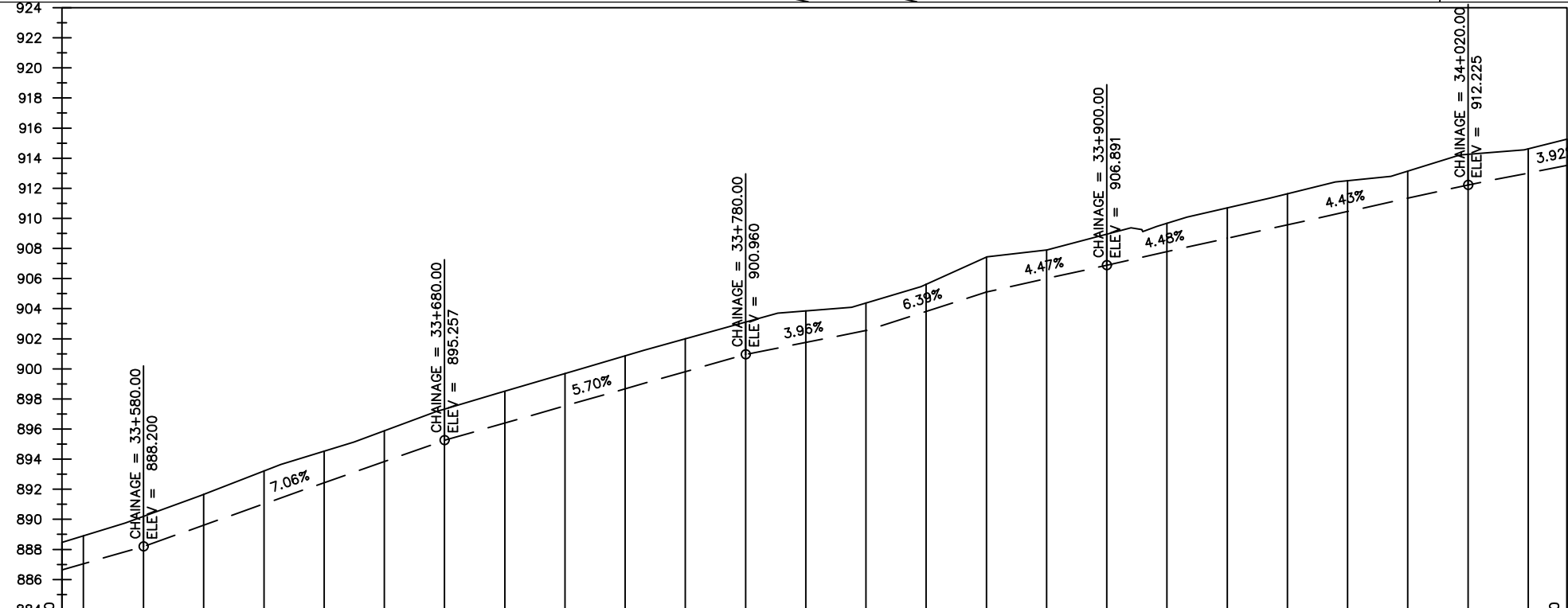
LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.



Chainages (m)	33+560	33+580	33+600	33+620	33+640	33+660	33+680	33+700	33+720	33+740	33+760	33+780	33+800	33+820	33+840	33+860	33+880	33+900	33+920	33+940	33+960	33+980	34+000	34+020	34+040	34+052.9		
Ground Levels (masl)	888.47	888.91	890.20	891.67	893.22	894.53	895.89	897.32	898.51	899.68	900.86	902.00	903.12	903.86	904.38	905.62	907.42	907.89	908.95	909.68	910.69	911.64	912.50	913.14	914.26	914.62	915.26	
Invert Levels (masl)	886.64	888.20					895.26					900.96		902.55		905.10		906.89		908.68					912.23		913.52	
Slope (%)		5.75%		7.06%			5.70%				3.96%		6.39%		4.47%		4.48%		4.43%						3.92%			
Pipe Details	DN100PN20, STEEL																											

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

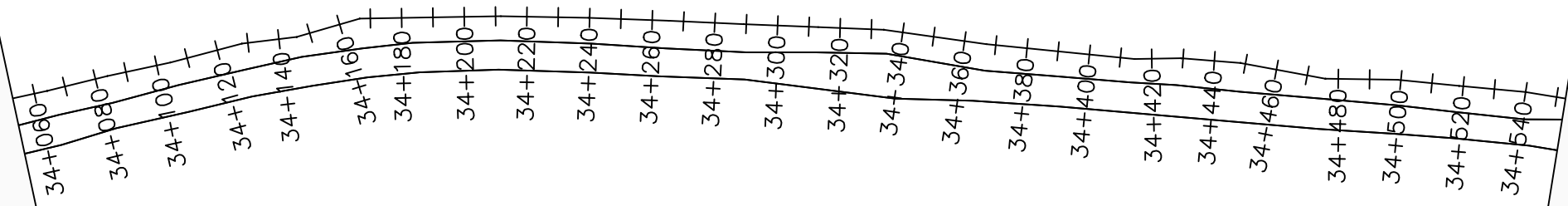
REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
33+552.9 - 34+052.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	52 of 54



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

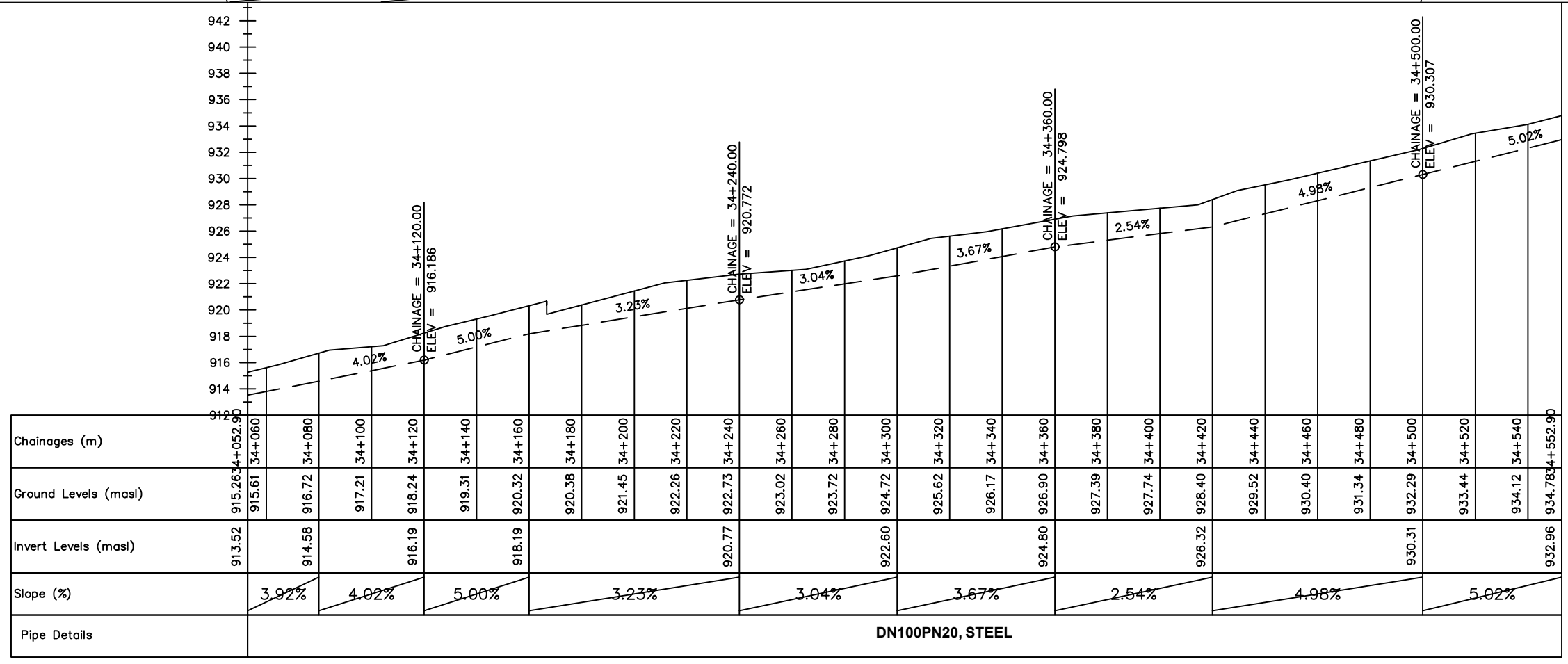
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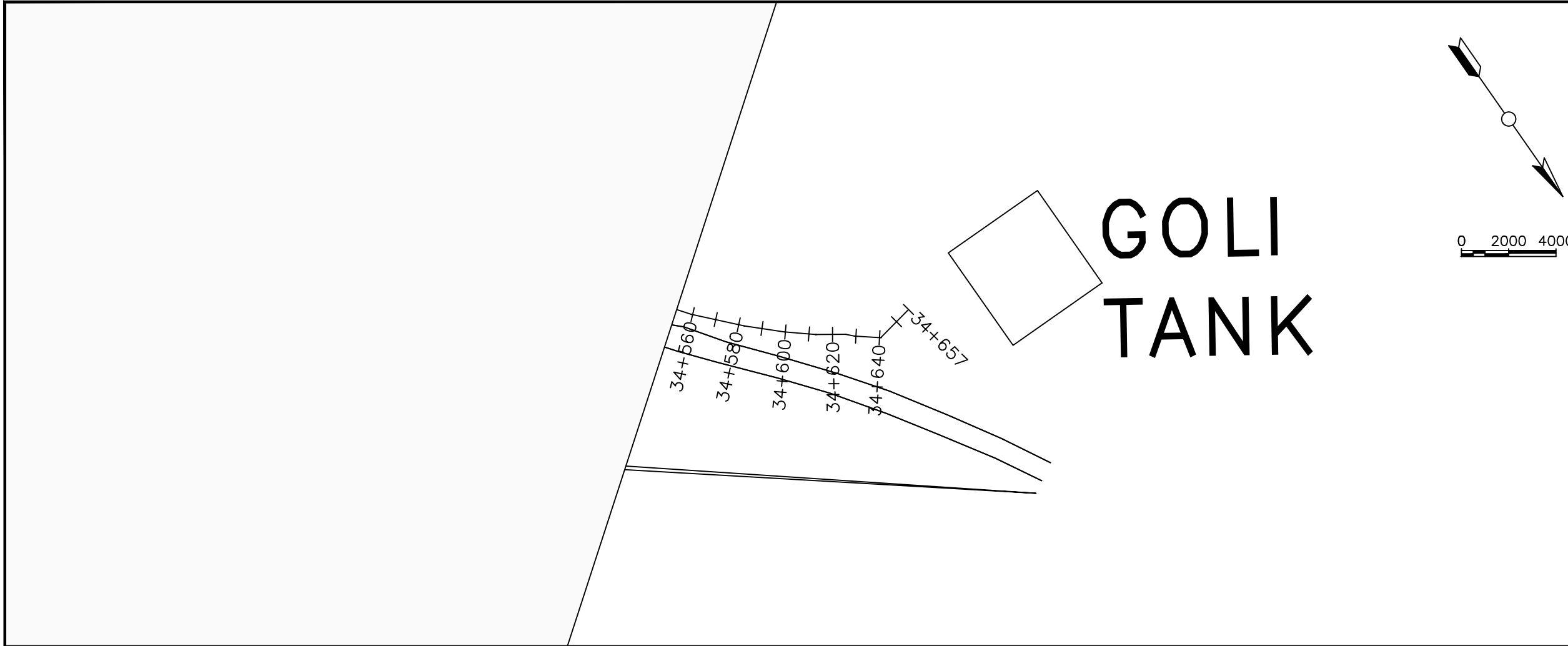
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
34+052.9 - 34+552.9

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	53 of 54





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

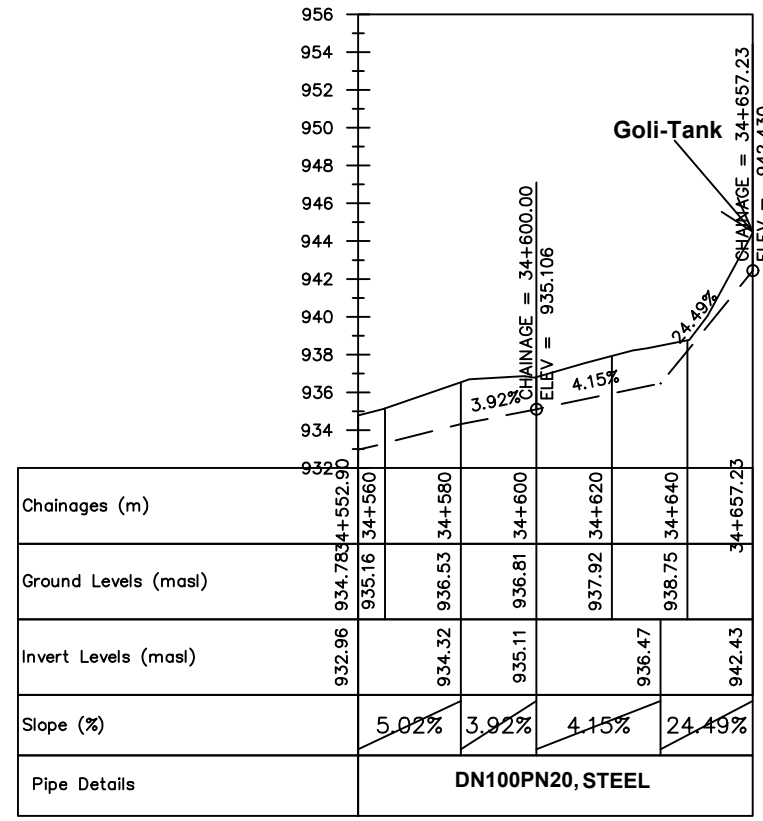
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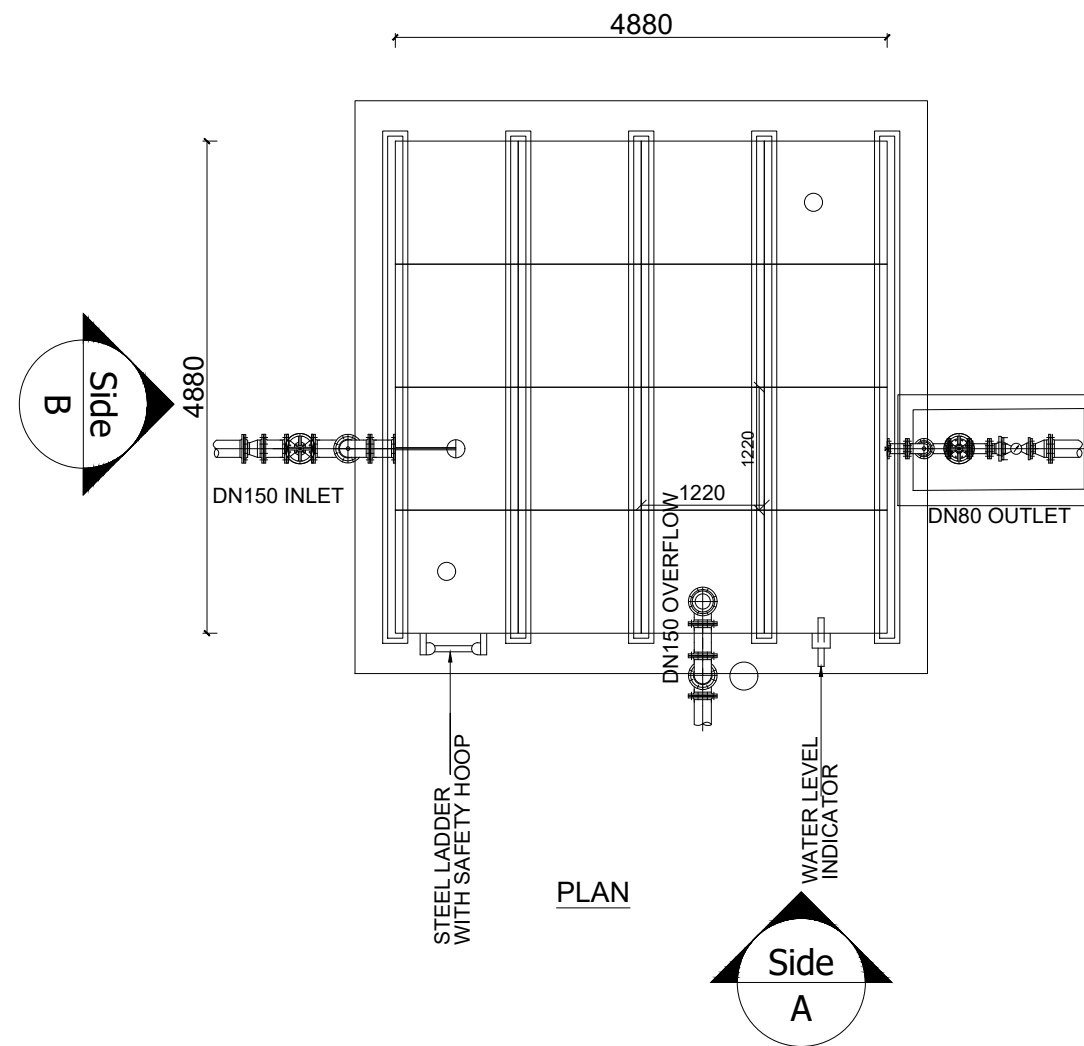
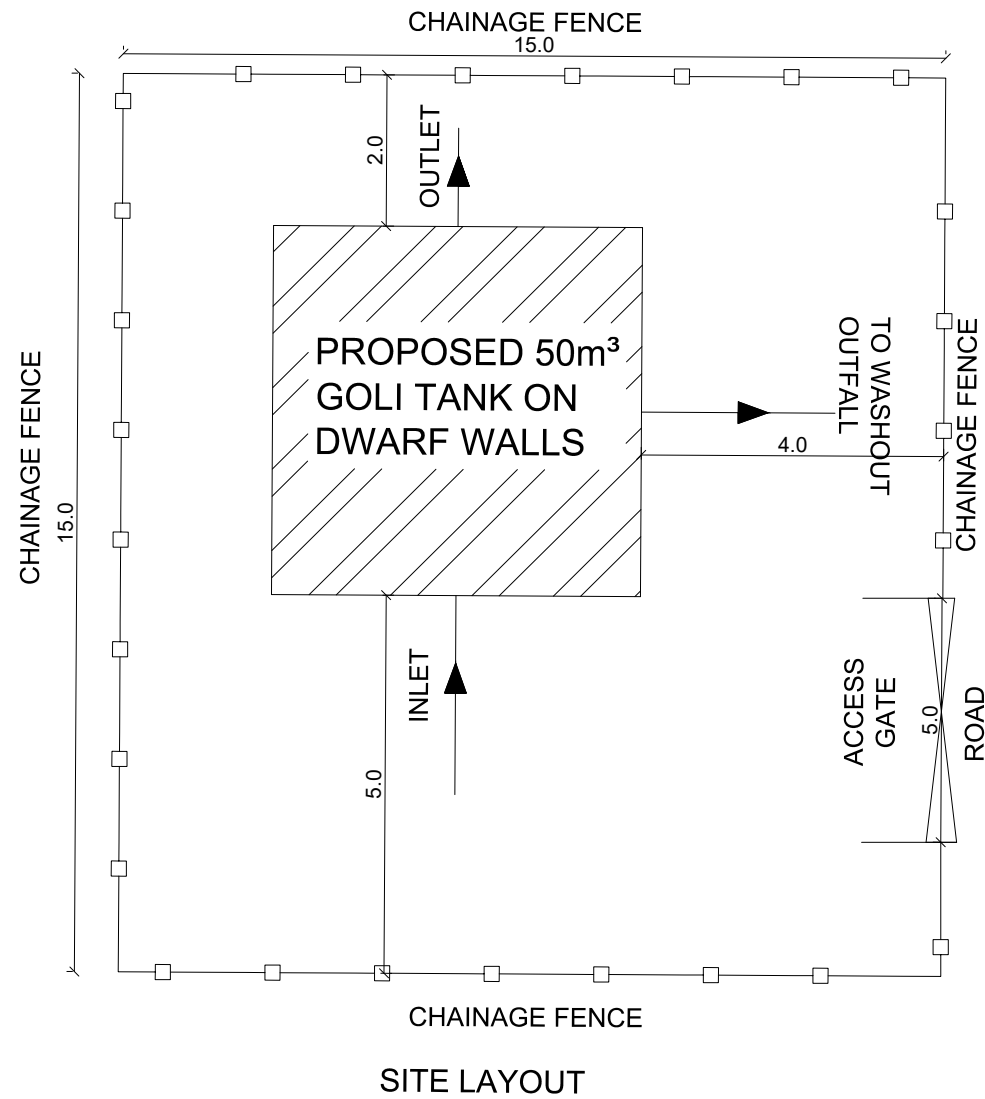
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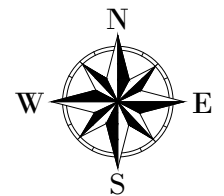
TRANSMISSION MAIN 2 (GOLI-TEE TO GOLI TANK)
34+552.9 - 34+657.23

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-002
Scale:	1:2000
Sheet No.:	54 of 54





LEGEND



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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

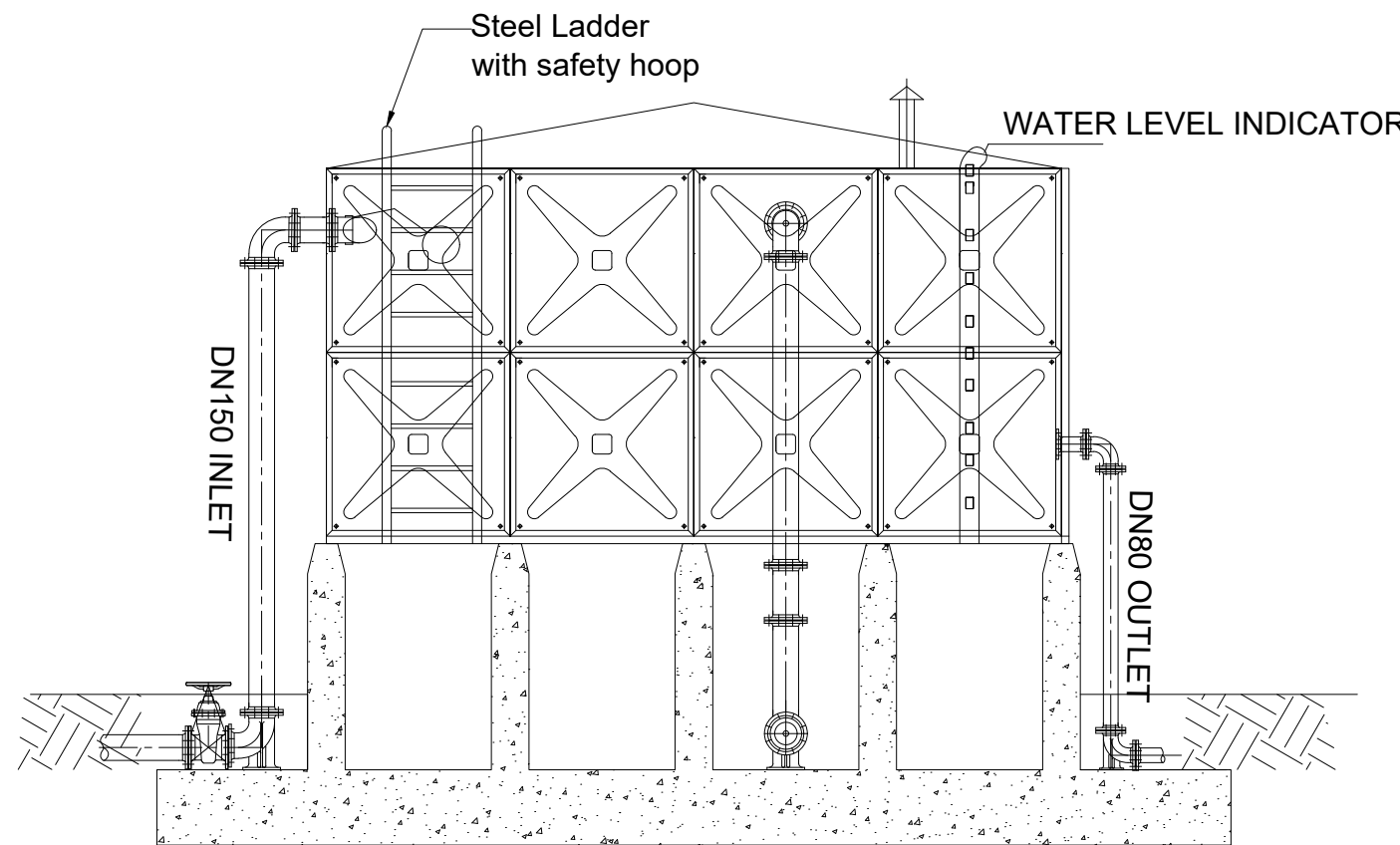
**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

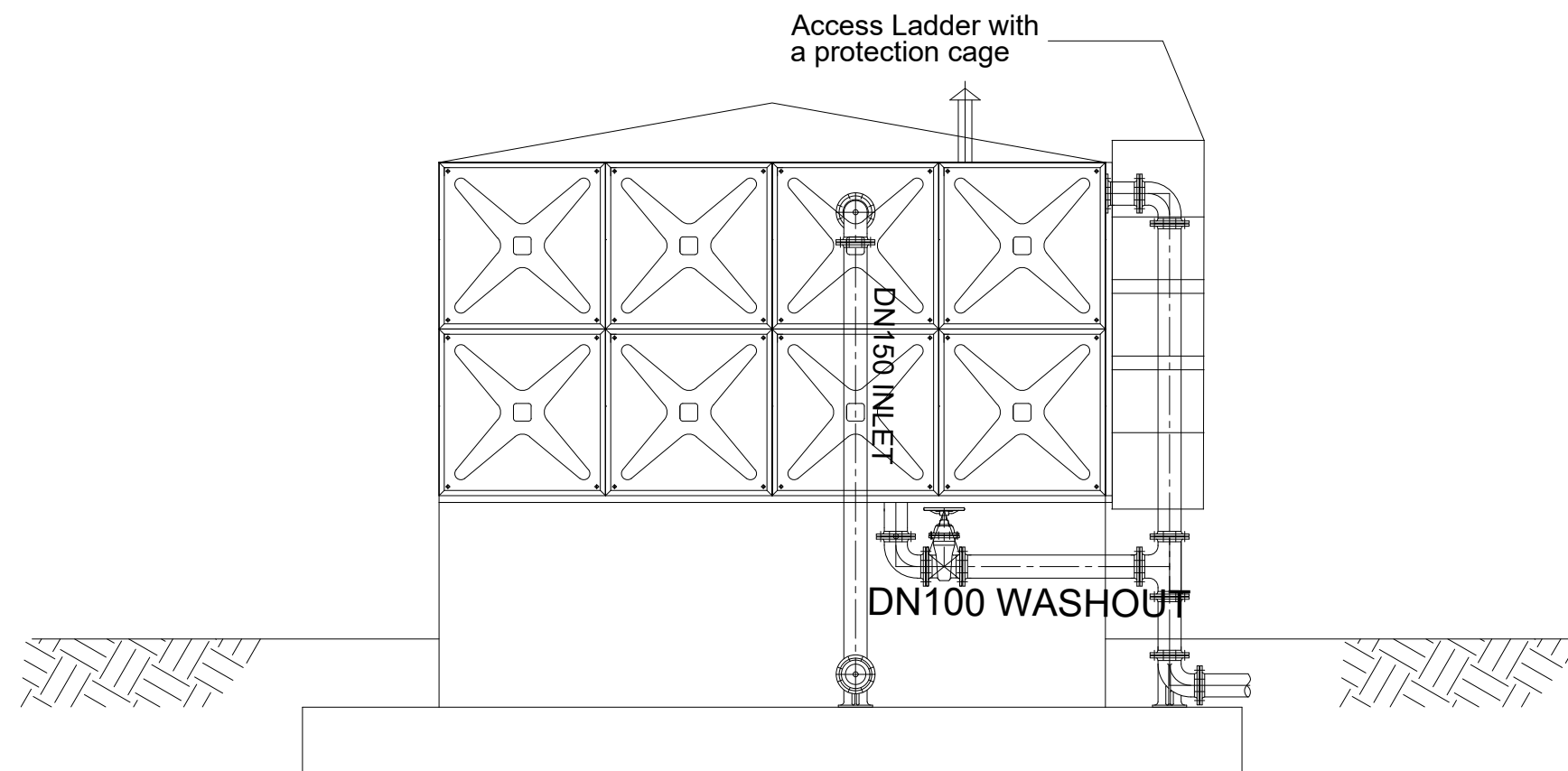
No	Date	Description

DRAWING TITLE : **GOLI RESERVOIR TANK - 50m³**
PLAN AND SITE LAYOUT

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA_RES_GOL_003
Scale:	1:100 1:75
Sheet No.:	1 of 3

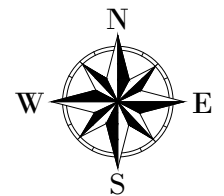


ELEVATION A



ELEVATION B

LEGEND



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PROJECT :

ALA-ORA WATER SUPPLY AND
SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **GOLI RESERVOIR TANK - 50m³
DWARF WALLS**

Surveyed by:

R.K

Drawn by:

N.R

Designed by:

W.G.M

Checked by:

J.K.K

Date:

January 2023

DRG. No.:

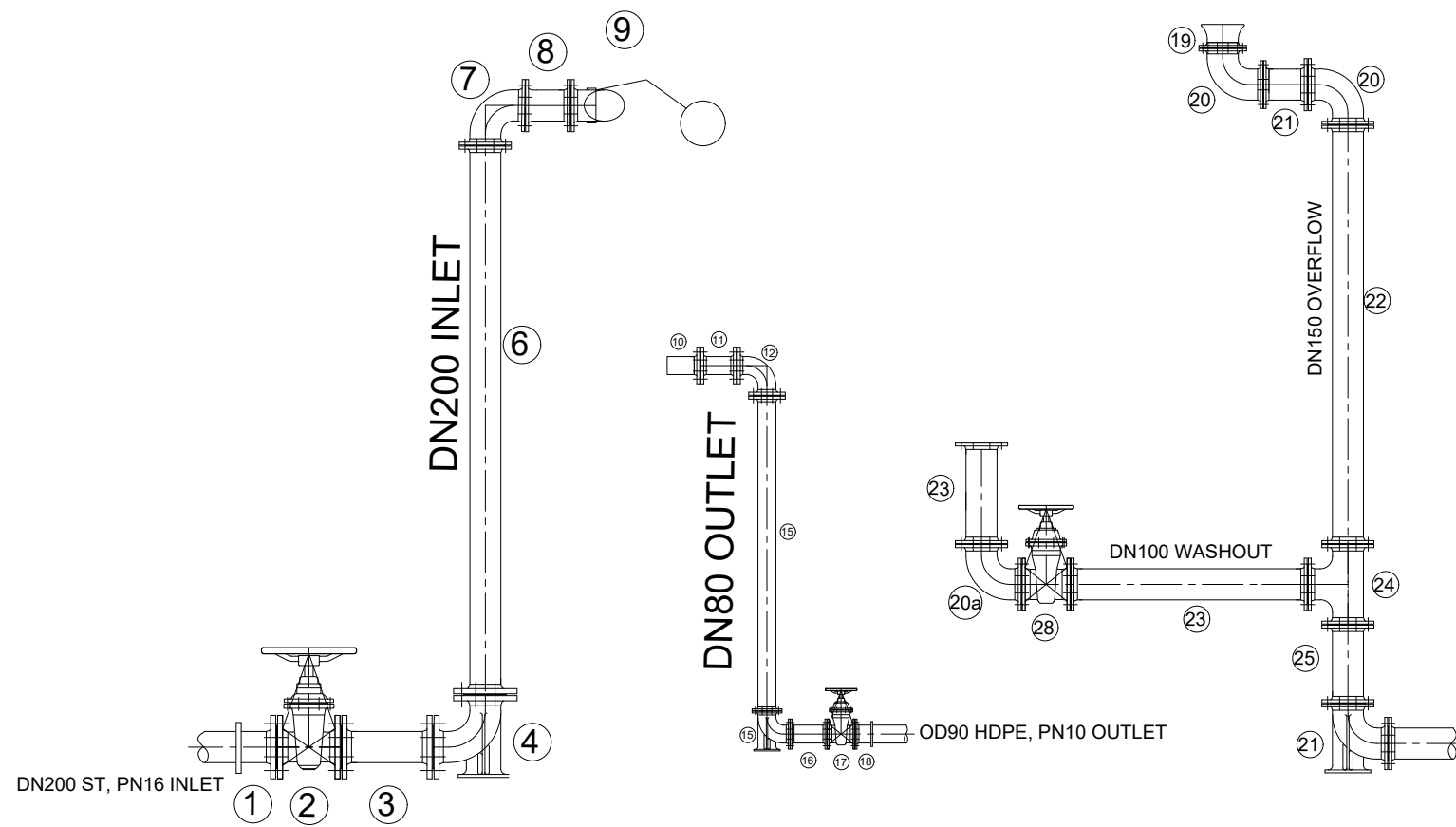
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Scale:

1:50

Sheet No.:

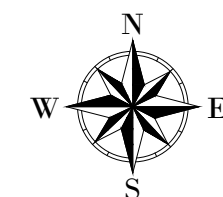
2 of 3



PIPE AND FITTINGS SCHEDULE

Mark	Description	Material	DN	PN	Qty.
INLET					
1	Flanged Adapter	DI	200		0
2	Flanged Gate Valve	CI	200		1
3	Flanged Pipe Piece, Length - 0.3m	DI	200		1
4	90° Flanged Duckfoot Bend	DI	200		1
5	Flanged Pipe, Length - 6.0m	DI	200	16	0
6	Flanged Pipe, Length n.e - 6.0m	DI	200		1
7	90° Flanged Bend	DI	200		1
8	Flanged Pipe Piece, Length - 0.2m	DI	200		1
9	Flanged Float Valve	CI	200		1
OUTLET					
10	Flanged Strainer	SS	80		1
11	Flanged Pipe Piece, Length - 0.2m	DI	80		1
12	90° Flanged Bend	DI	80		1
13	Flanged Pipe, Length n.e - 3.0m	DI	80		1
14	Flanged Pipe, Length - 6.0m	DI	80	10	0
15	90° Flanged Duckfoot Bend	DI	80		1
16	Flanged Pipe Piece, Length - 0.3m	DI	80		1
17	Flanged Gate Valve	CI	80		1
18	Flanged Adapter	DI	80		1
WASHOUT & OVERFLOW					
19	Flanged Bellmouth	DI	250		1
20	90° Flanged Bend	DI	250		2
20a	90° Flanged Bend	DI	100		1
21	Flanged Pipe, Length n.e - 0.2m	DI	250		1
22	Flanged Pipe Piece, Length n.e - 3.0m	DI	250		1
23	Flanged Pipe Piece, Length n.e - 1.0m	DI	100	10	2
24	Flanged Tee	DI	250/100		1
25	Flanged Pipe Piece, Length n.e - 4.0m	DI	250		1
26	90° Flanged Duckfoot Bend	DI	250		1
27	Flanged Adapter	DI	250		1
28	Flanged Gate Valve	CI	100		1

LEGEND





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PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

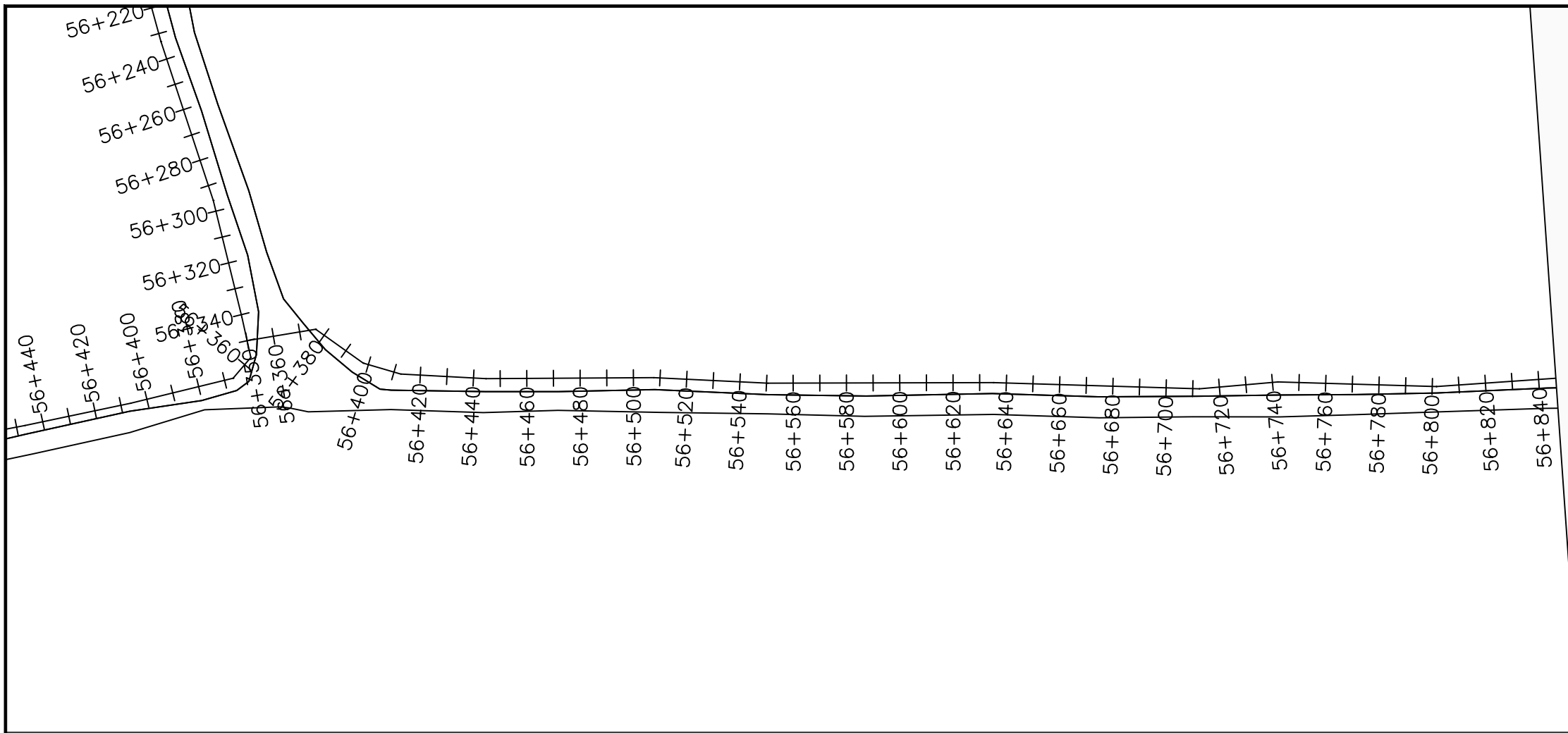
REVISIONS :

No	Date	Description

DRAWING TITLE : **GOLI RESERVOIR TANK - 50m³ PIPE FITTINGS**

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_GOL_003**
 Scale: 1:50 Sheet No.: 3 of 3

INDE SUPPLY AREA



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

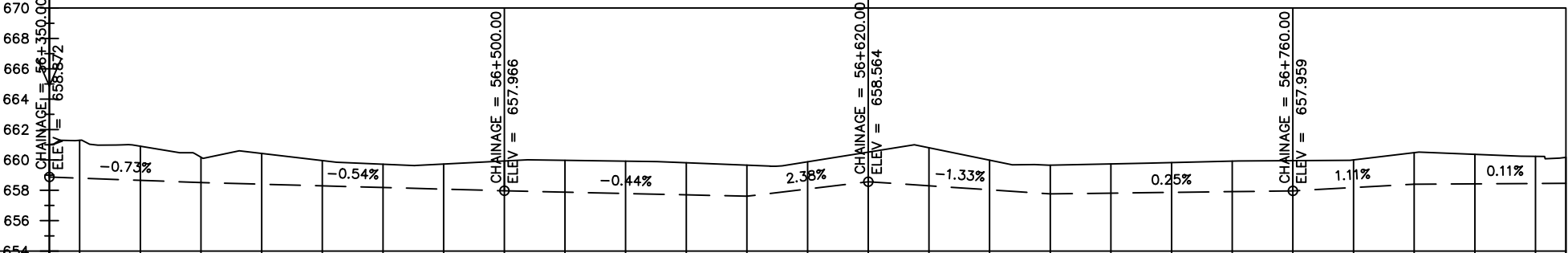
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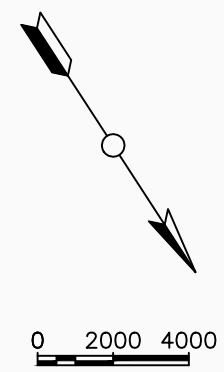
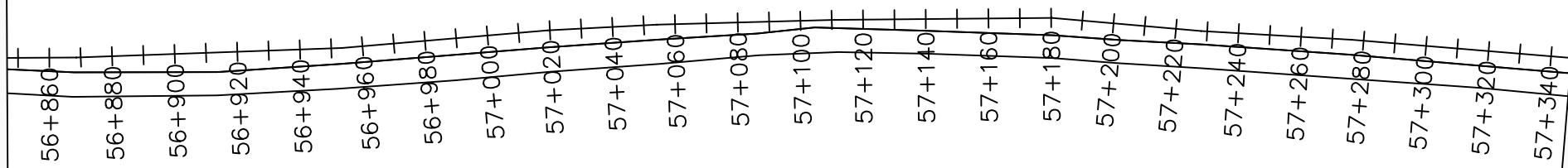
TRANSMISSION MAIN 4 TO INDE TANK
56+350 - 56+850

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	1 of 20

Ipfe-Tee



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
56+350	661.02			OD180PN16, uPVC
56+360	661.29		-0.73%	
56+380	660.90			
56+400	660.17	658.51	-0.54%	
56+420	660.42			
56+440	659.95			
56+460	659.72			
56+480	659.73			
56+500	659.93	657.97	-0.44%	
56+520	659.97			
56+540	659.92			
56+560	659.82			
56+580	659.66	657.61	2.38%	
56+600	659.87			
56+620	660.51	658.56	-1.33%	
56+640	660.80			
56+660	659.98			
56+680	659.65	657.76	0.25%	
56+700	659.73			
56+720	659.82			
56+740	659.92			
56+760	659.95	657.96	1.11%	
56+780	660.00			
56+800	660.48	658.40		
56+820	660.37			
56+840	660.23		0.11%	
56+850	660.16	658.46		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

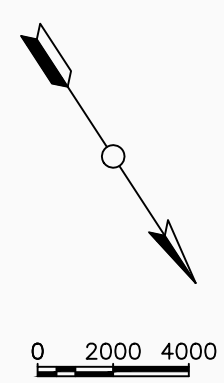
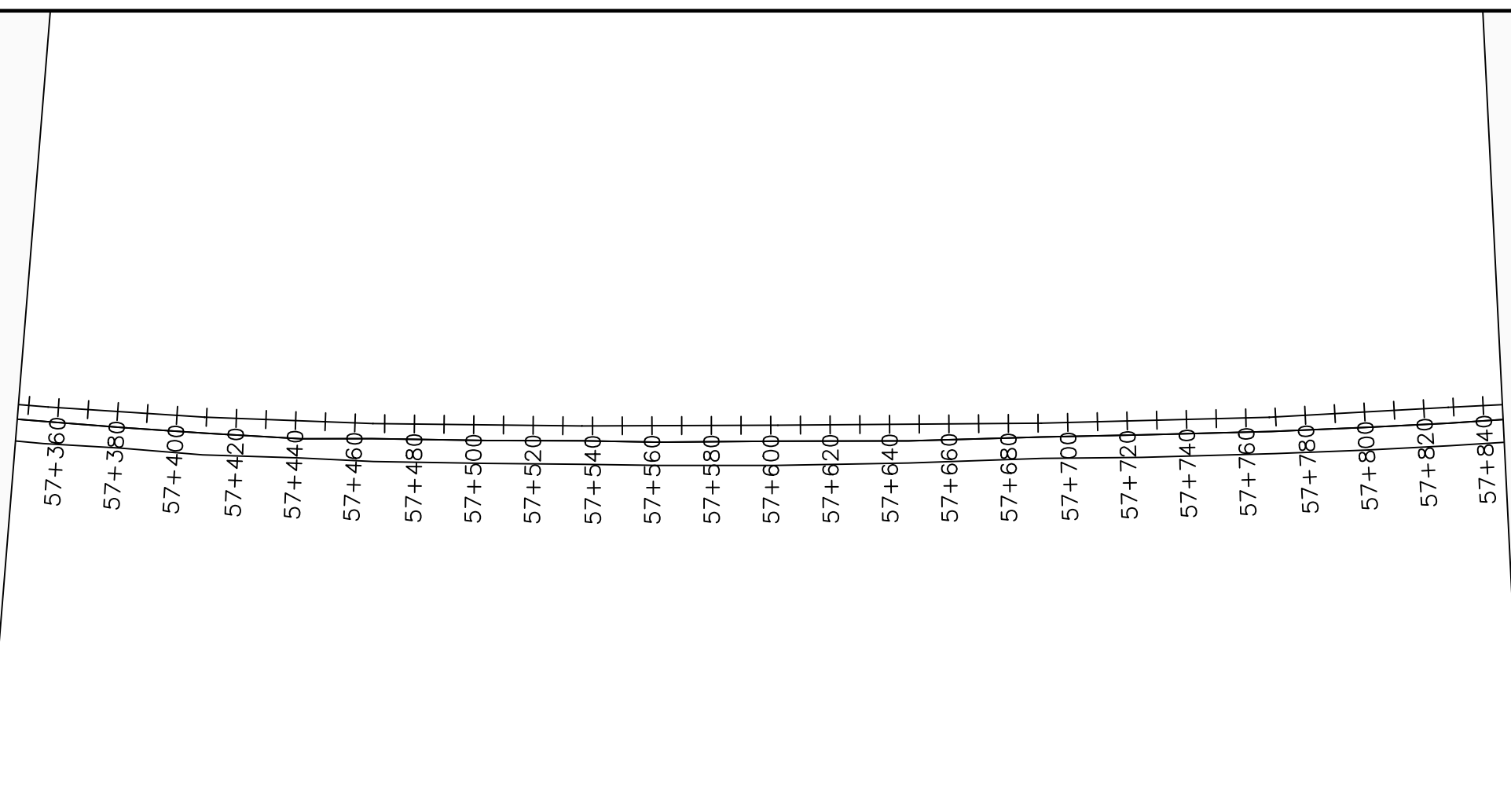
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
56+850 - 57+350

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	2 of 20

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
56+850	660.16	658.46	0.11%	OD180PN16, uPVC
56+860	660.35	658.47		
56+880	660.51	658.72	0.21%	AV
56+900	660.52			
56+920	660.53			
56+940	660.54			
56+960	660.59	659.01	0.20%	WO
56+980	660.70			
57+000	660.80			
57+020	660.88			
57+040	660.90	659.23	0.16%	AV
57+060	660.96			
57+080	660.99			
57+100	661.04			
57+120	661.04	659.01	0.04%	WO
57+140	661.12			
57+160	660.88			
57+180	660.81			
57+200	660.91	659.04	0.31%	AV
57+220	661.01			
57+240	661.12			
57+260	661.22			
57+280	661.28	659.30	0.10%	WO
57+300	661.19			
57+320	661.10			
57+340	661.19			
57+350	661.24	659.30		



LEGEND

Plan

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CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

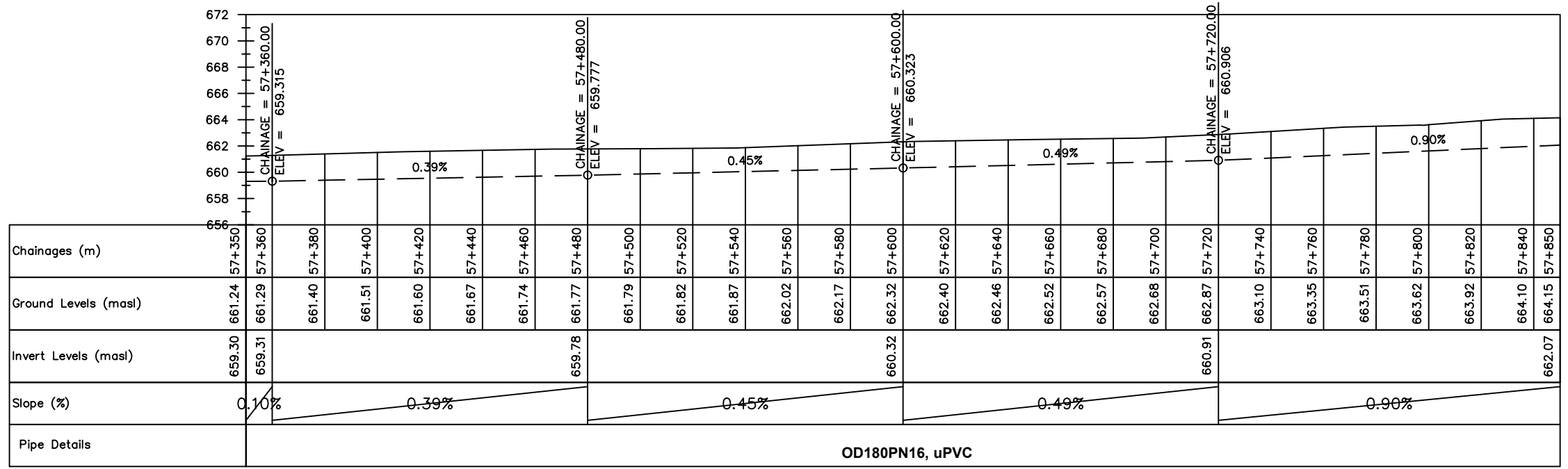
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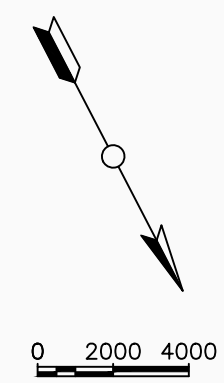
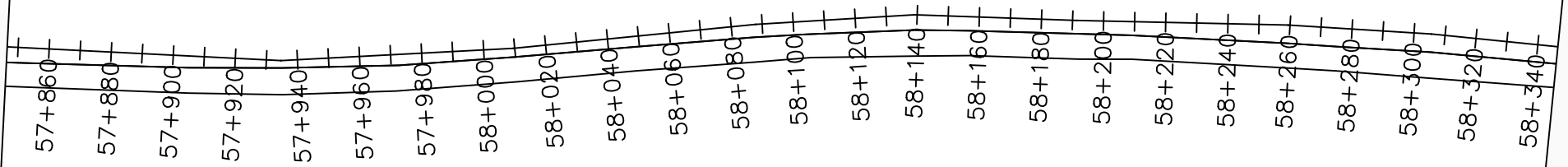
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
57+350 - 57+850

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	3 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
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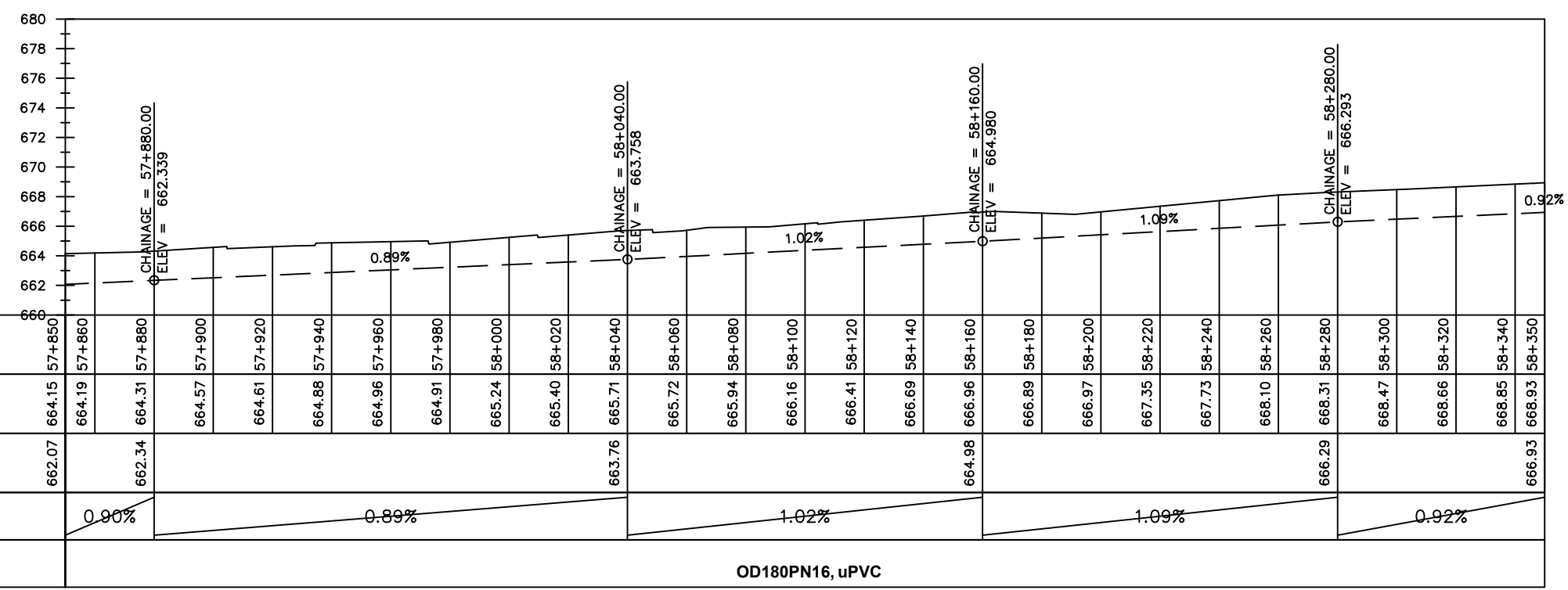
REVISIONS :

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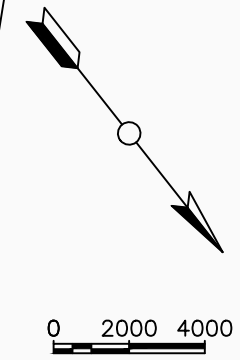
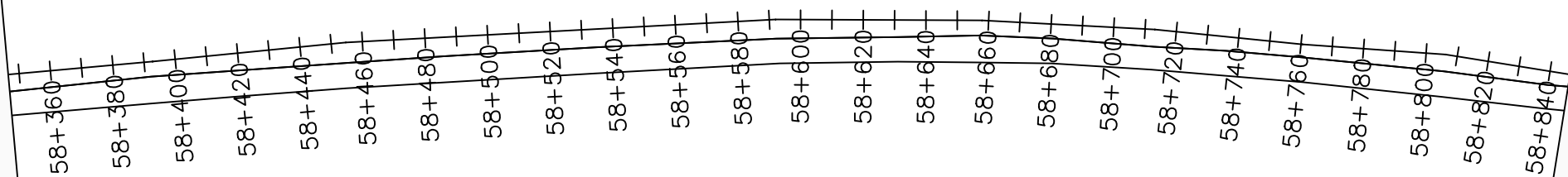
DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
57+850 - 58+350

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	4 of 20



OD180PN16, uPVC



LEGEND

Plan

- Transmission Main
- Distribution Main
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CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

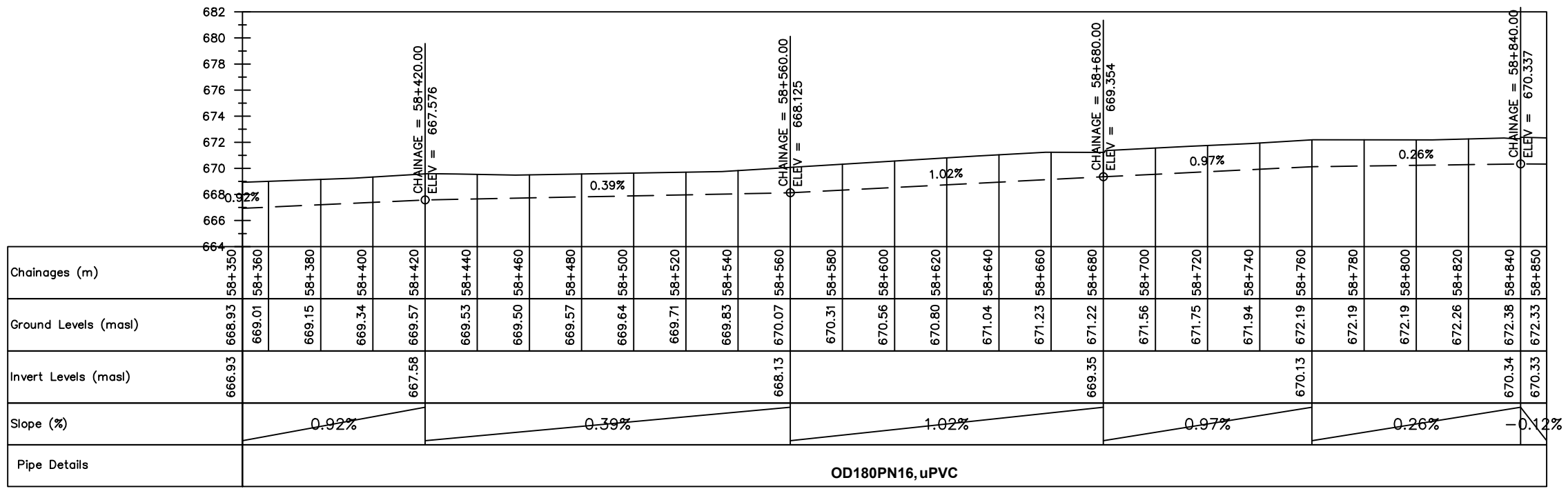
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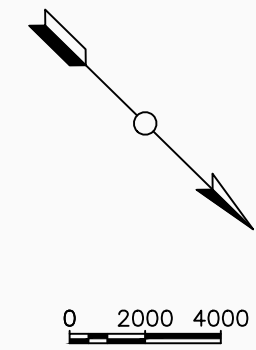
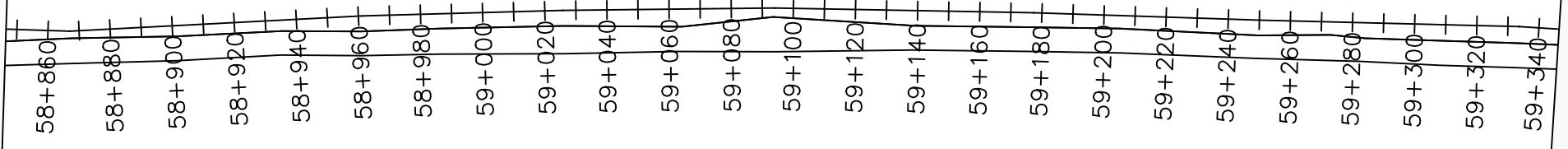
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
58+350 - 58+850

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	5 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
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Profile

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- Invert Level
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- WO Washout
- Node detail No.

CLIENT :

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

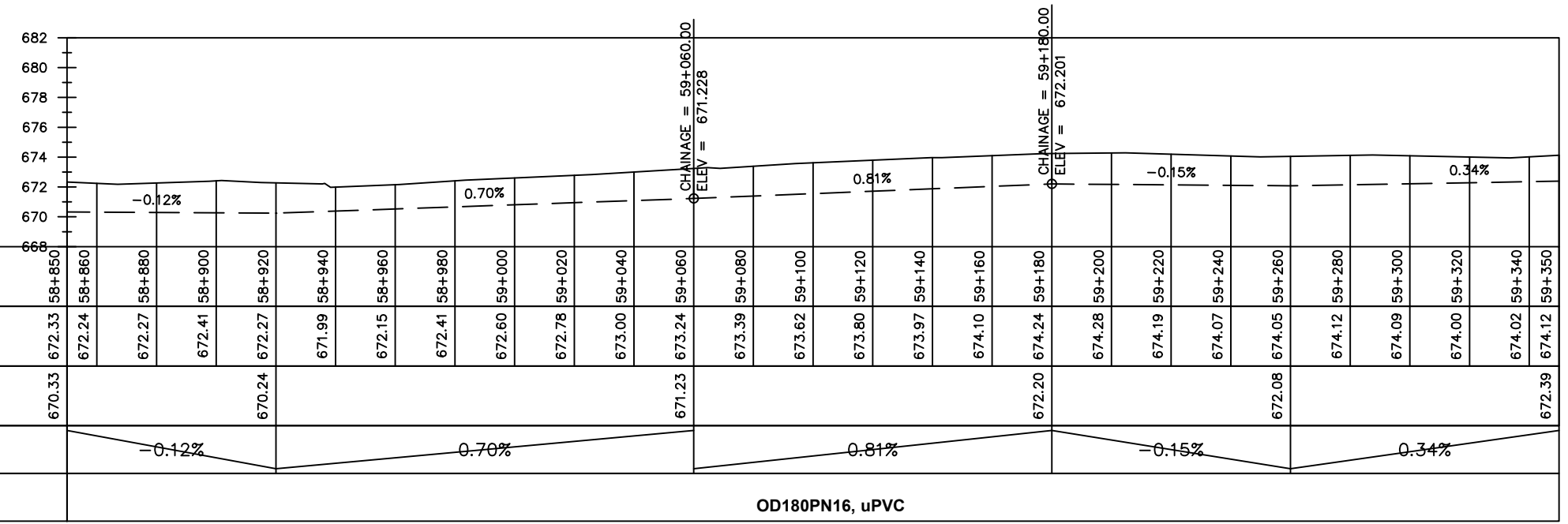
REVISIONS :

No	Date	Description

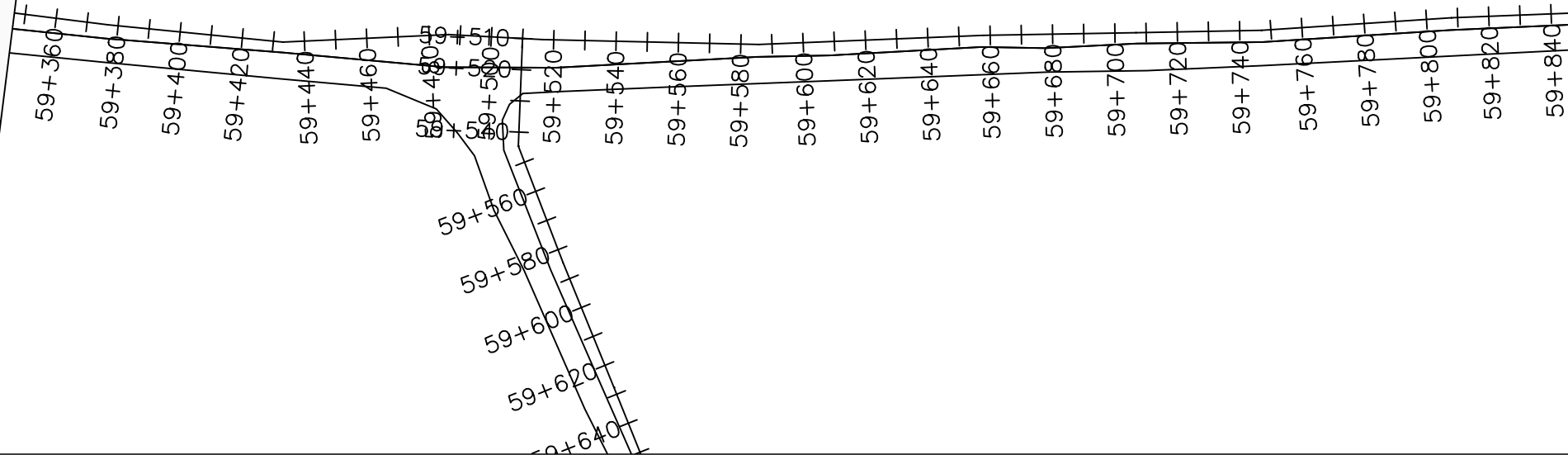
DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
58+850 - 59+350

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	6 of 20




OD180PN16, uPVC



LEGEND

- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - AV Air Valve
 - WO Washout
 - Node detail No.

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CONSULTANT :



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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

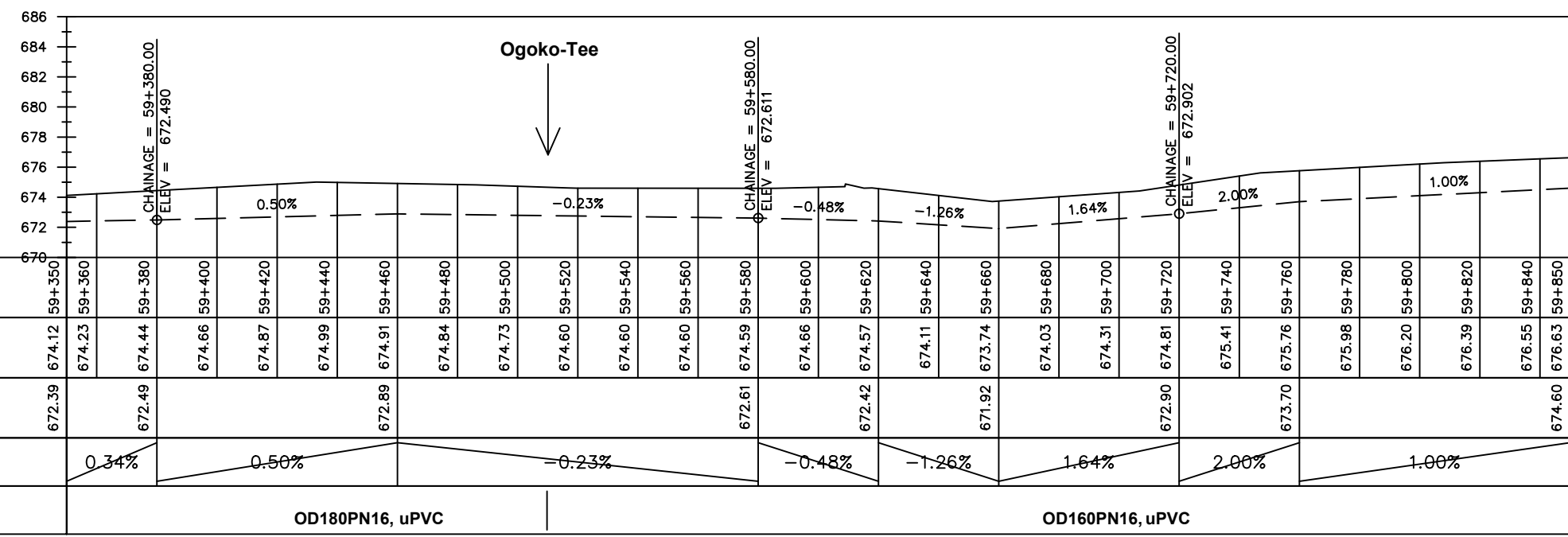
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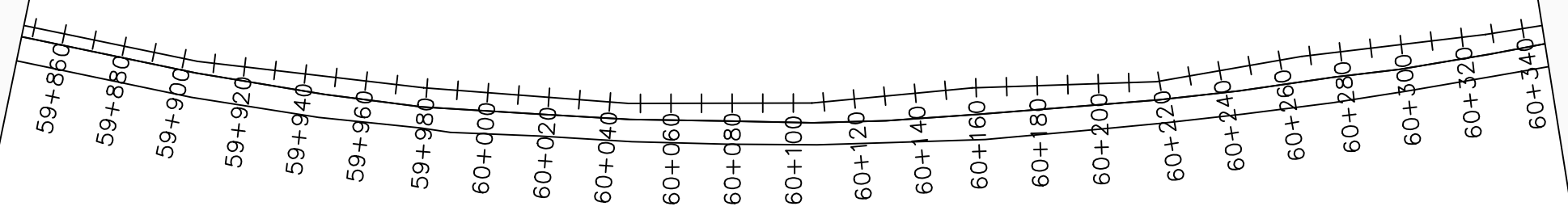
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
59+350 - 59+850

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	7 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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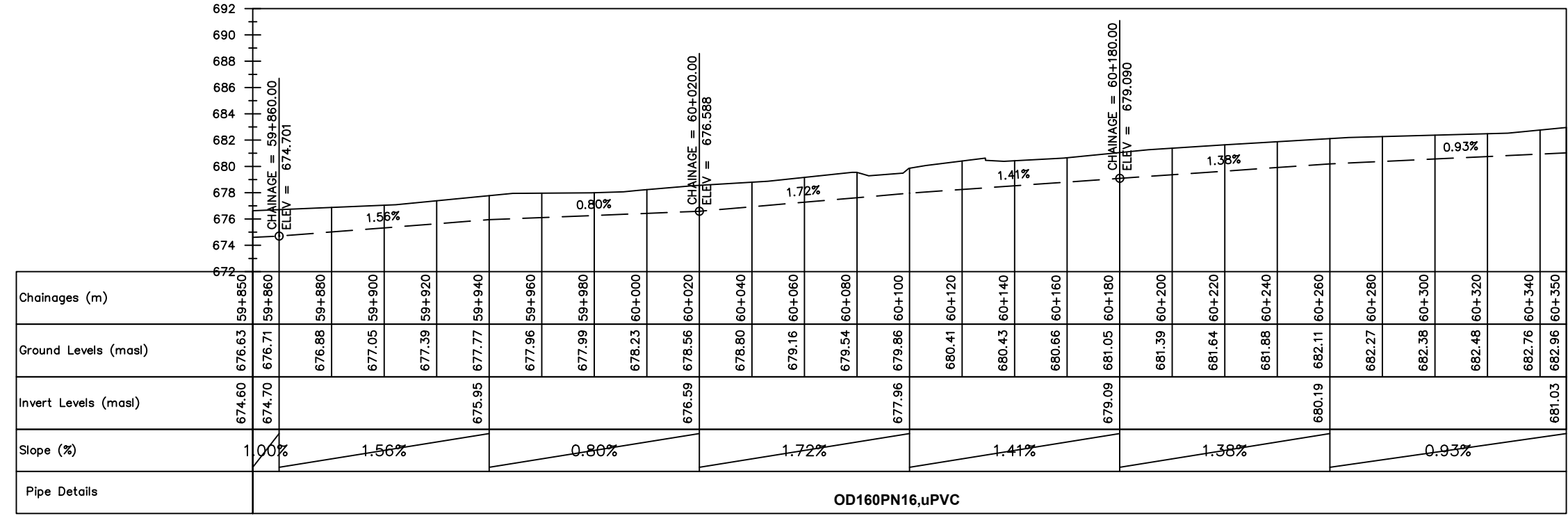
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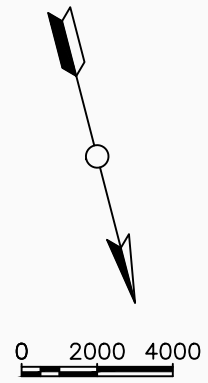
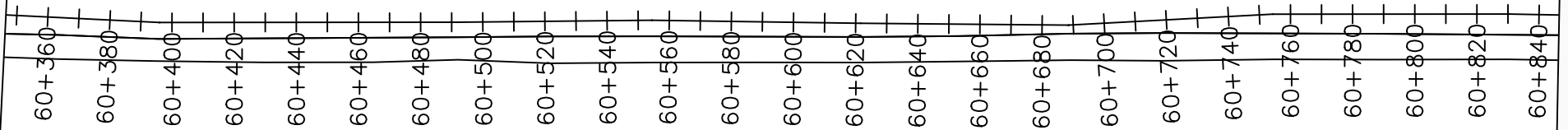
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
58+850 - 60+350

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
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DRG. No.:	NYA-GTM-004
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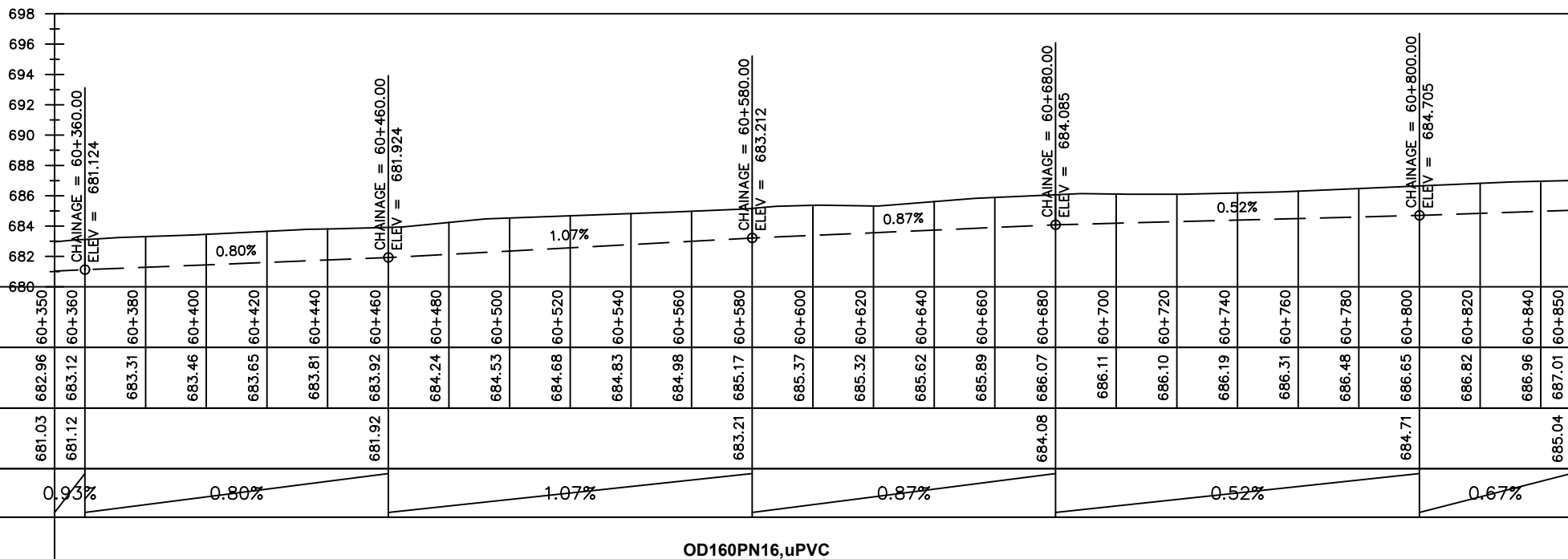
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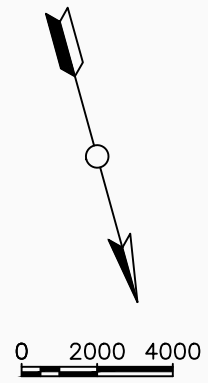
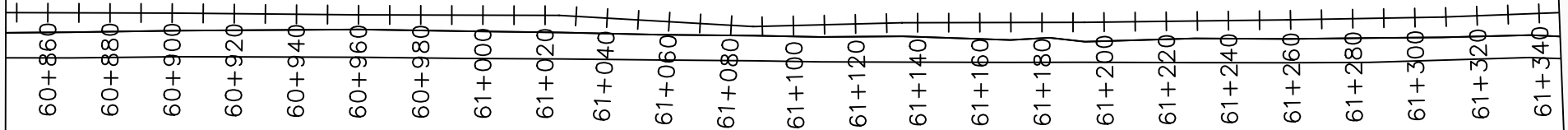
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TRANSMISSION MAIN 4 (TO INDE TANK)
60+350 - 60+850

Surveyed by:	R.K
Drawn by:	M.K
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LEGEND

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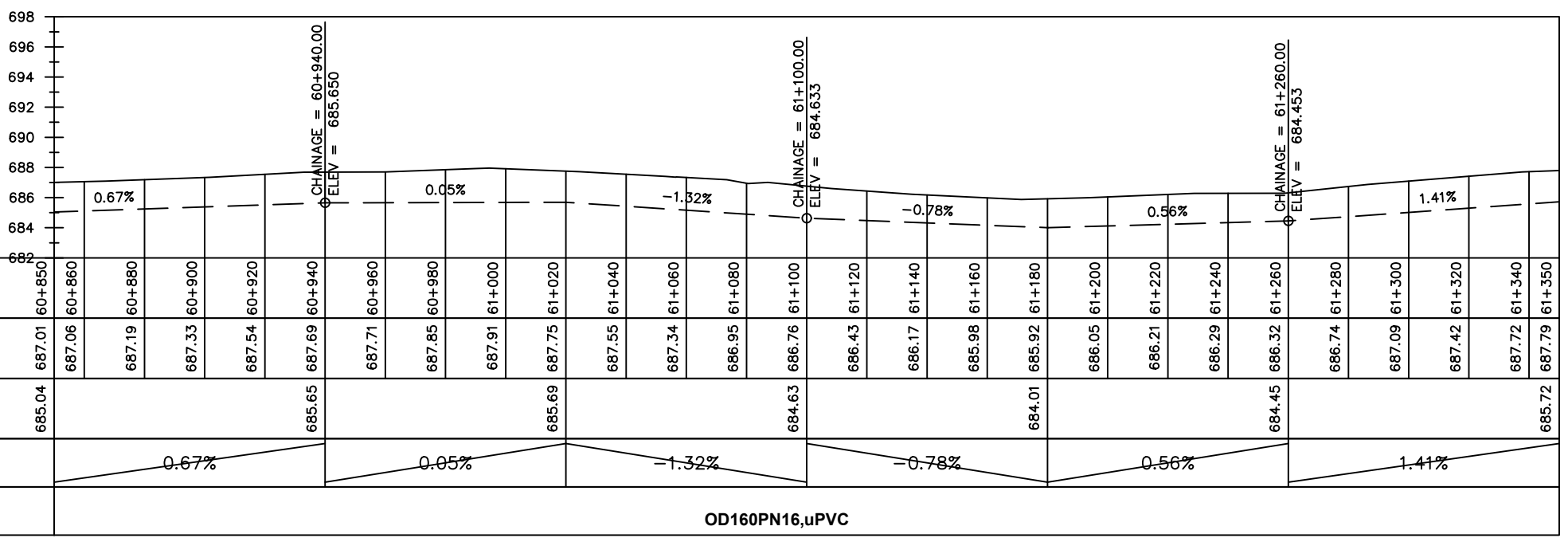
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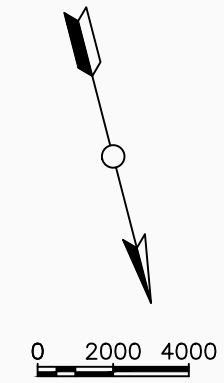
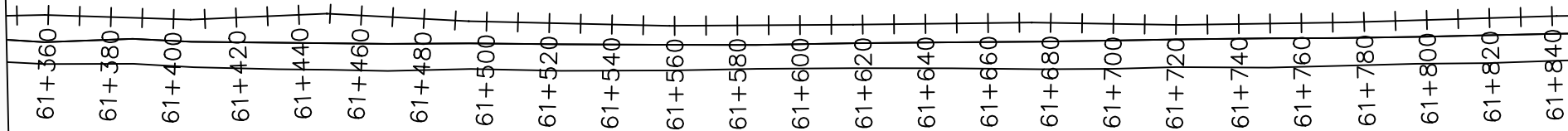
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DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
60+850 - 61+350

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
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LEGEND

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Profile

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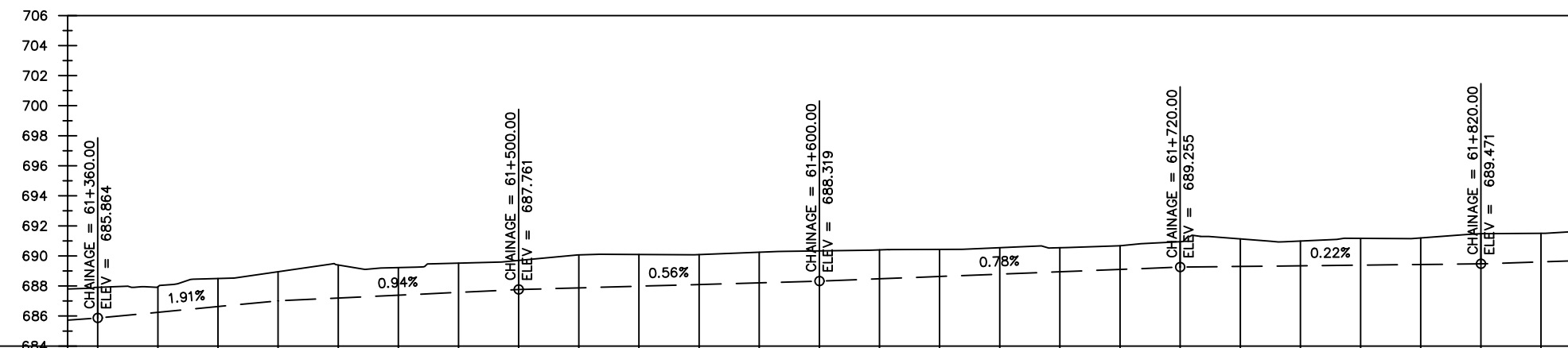
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No	Date	Description

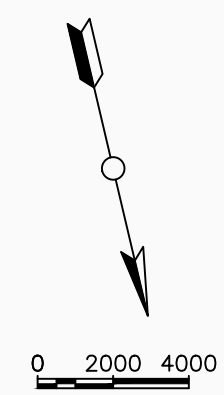
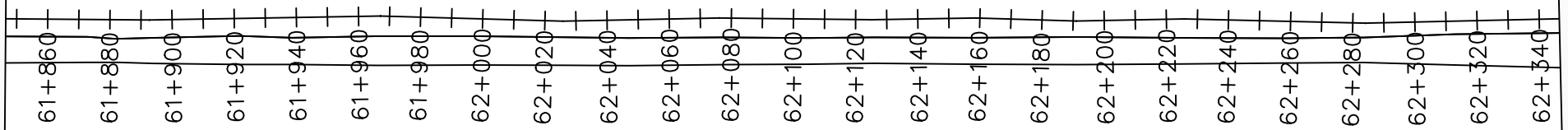
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TRANSMISSION MAIN 4 (TO INDE TANK)
61+350 - 61+850

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Chainages (m)	61+350	61+360	61+380	61+400	61+420	61+440	61+460	61+480	61+500	61+520	61+540	61+560	61+580	61+600	61+620	61+640	61+660	61+680	61+700	61+720	61+740	61+760	61+780	61+800	61+820	61+840	61+850	
Ground Levels (masl)	687.79	687.91	687.94	688.49	688.94	689.39	689.22	689.52	689.70	690.07	690.09	690.08	690.25	690.34	690.40	690.43	690.54	690.55	690.67	690.94	691.13	690.99	691.17	691.19	691.48	691.50	691.60	
Invert Levels (masl)	685.72	685.86	687.01	687.76	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	688.32	
Slope (%)	1.41%	1.91%	1.91%	0.94%	0.94%	0.94%	0.94%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.22%	0.22%	0.22%	0.22%	0.22%	0.67%	0.67%		
Pipe Details	OD160PN16, uPVC																											



LEGEND

Plan

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

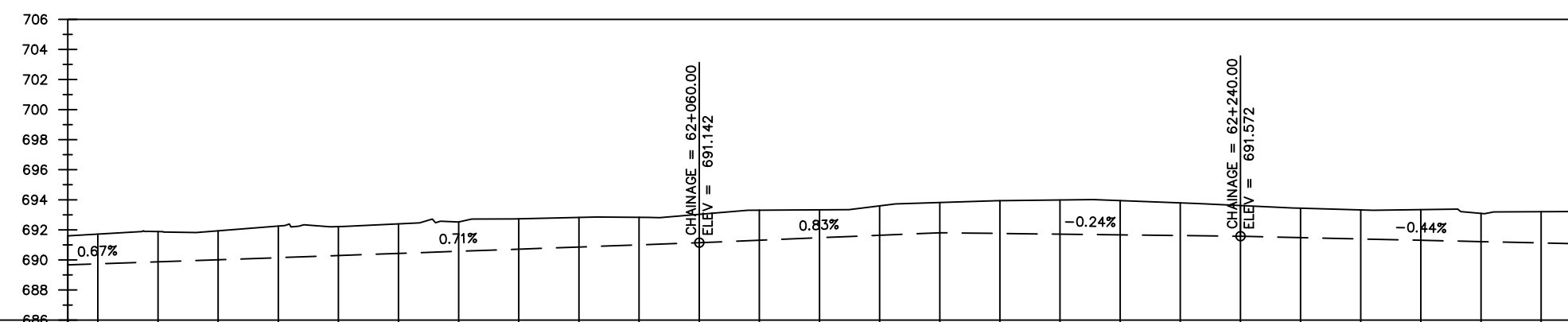
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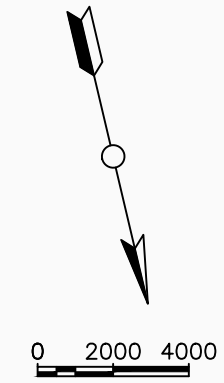
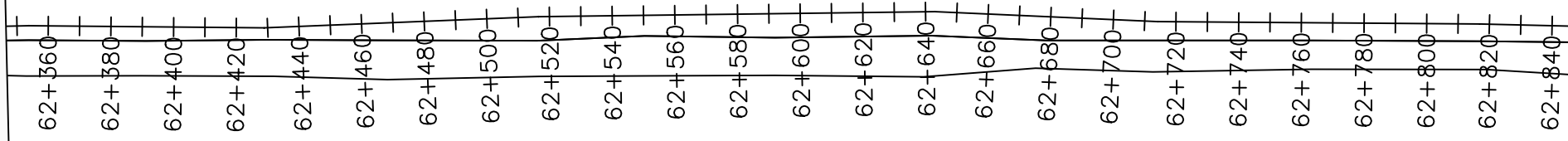
DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
61+850 - 62+350

Surveyed by:	R.K
Drawn by:	M.K
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Date:	January 2023
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Scale:	1:2000
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Chainages (m)	61+850	61+860	61+880	61+900	61+920	61+940	61+960	61+980	62+000	62+020	62+040	62+060	62+080	62+100	62+120	62+140	62+160	62+180	62+200	62+220	62+240	62+260	62+280	62+300	62+320	62+340	62+350	
Ground Levels (masl)	691.60	691.72	691.89	691.93	692.25	692.22	692.40	692.52	692.73	692.83	692.83	693.03	693.31	693.33	693.60	693.82	693.94	693.99	693.95	693.80	693.62	693.44	693.33	693.35	693.10	693.21	693.22	
Invert Levels (masl)	689.67	690.01	690.01	690.01	690.01	690.01	690.01	690.01	691.14	691.14	691.14	691.14	691.81	691.81	691.81	691.81	691.81	691.81	691.81	691.57	691.57	691.57	691.57	691.57	691.57	691.57	691.08	
Slope (%)		0.67%						0.71%						0.83%						-0.24%							-0.44%	
Pipe Details	OD160PN16, uPVC																											



LEGEND

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

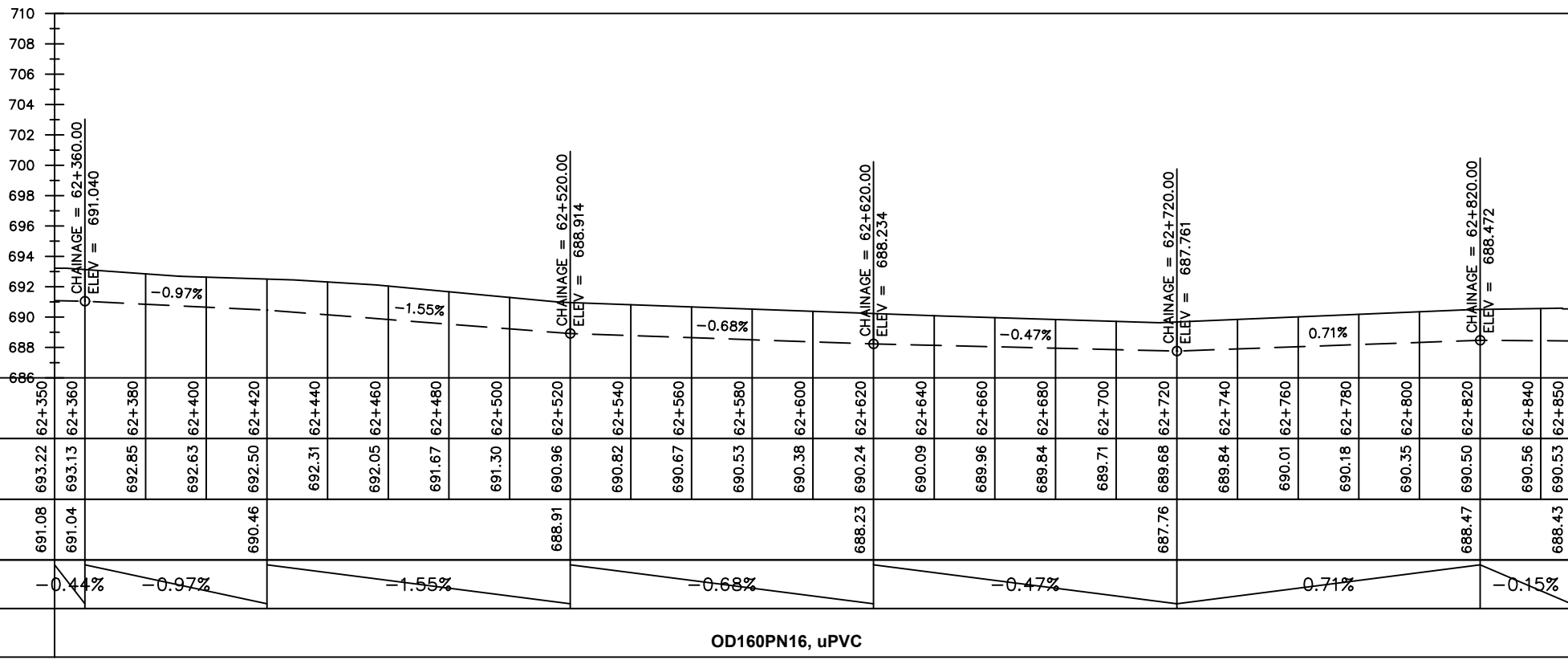
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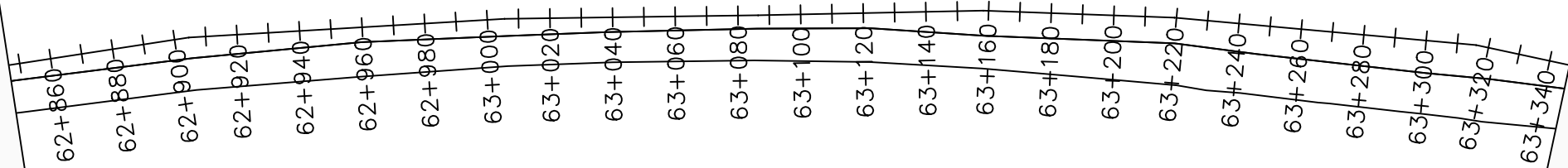
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TRANSMISSION MAIN 4 (TO INDE TANK)
62+350 - 62+850

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DRG. No.:	NYA-GTM-004
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LEGEND

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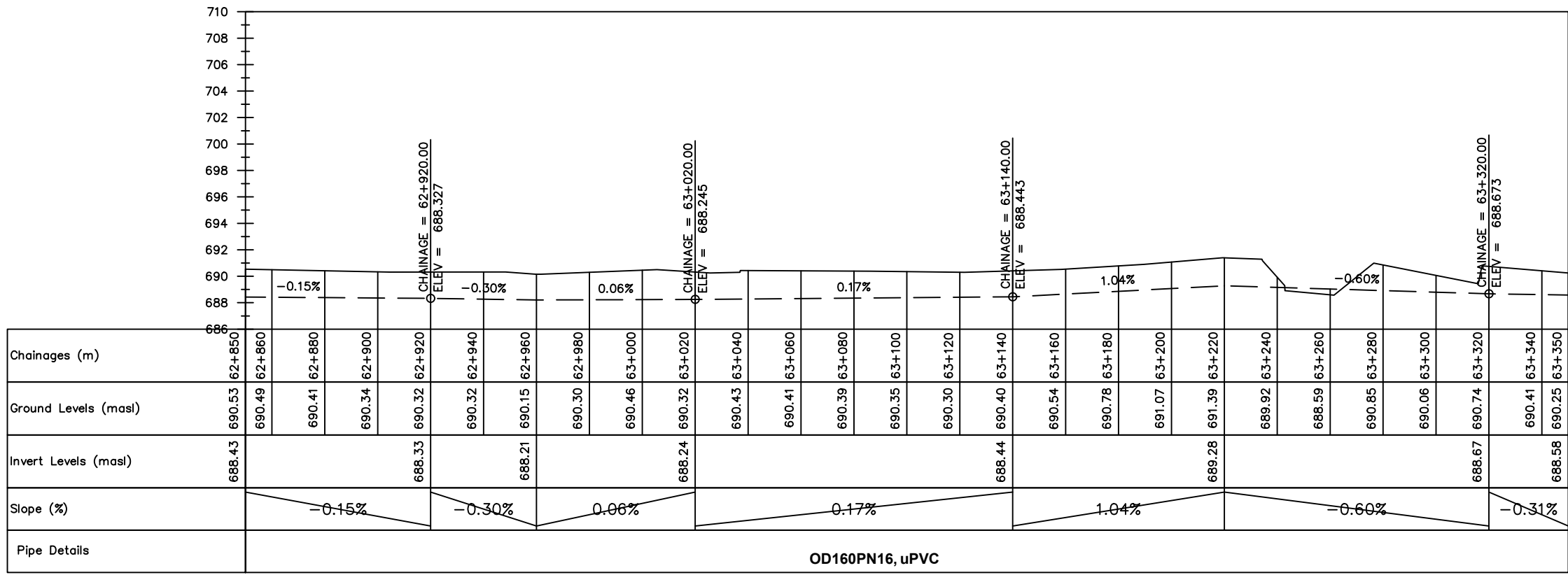
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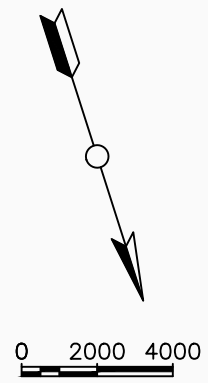
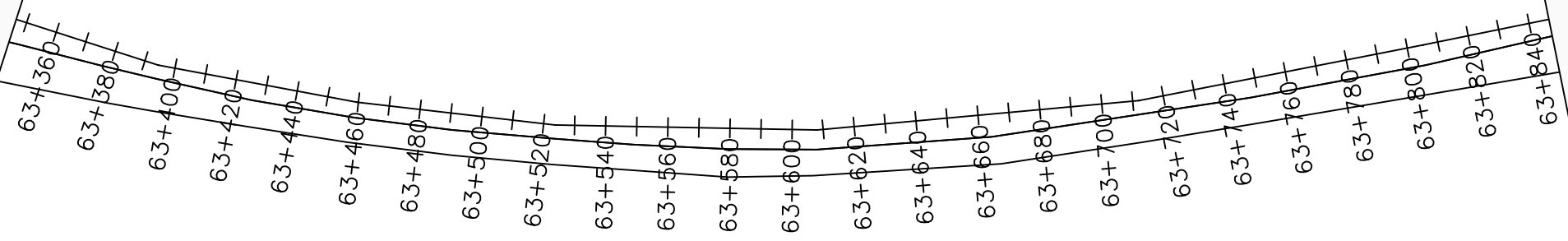
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DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
62+850 - 63+350

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Date:	January 2023
DRG. No.:	NYA-GTM-004
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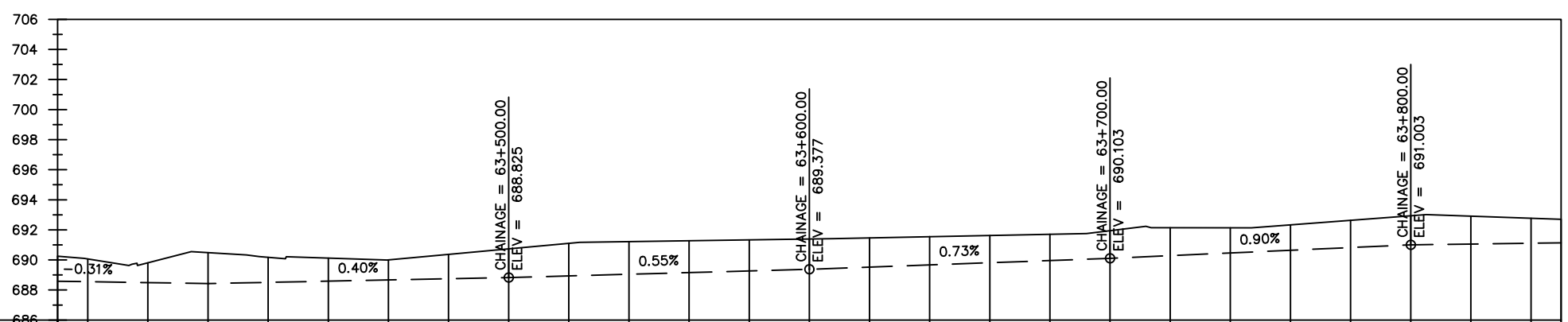
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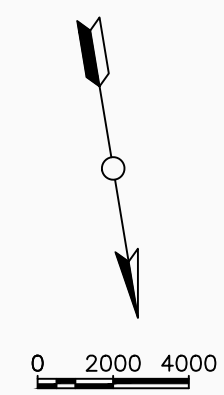
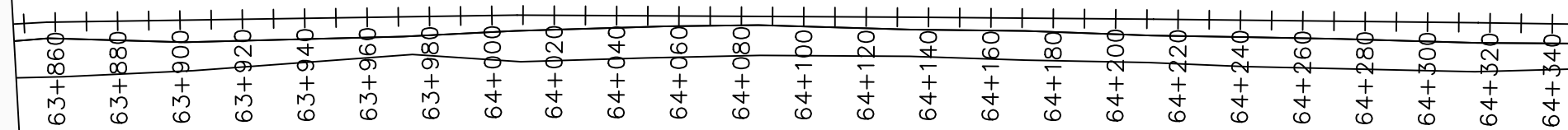
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Scale:	1:2000
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Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
63+350	690.25	686.58	-0.31%	OD160PN16, uPVC
63+360	690.06	686.43		
63+380	689.80	686.43	0.40%	
63+400	690.48	686.43		
63+420	690.17	686.83	0.55%	
63+440	690.12	686.83		
63+460	690.00	689.38	0.73%	
63+480	690.37	689.38		
63+500	690.73	690.10	0.90%	
63+520	691.10	690.10		
63+540	691.21	691.14	0.27%	
63+560	691.27	691.14		
63+580	691.33	691.14		
63+600	691.39	691.14		
63+620	691.47	691.14		
63+640	691.55	691.14		
63+660	691.63	691.14		
63+680	691.71	691.14		
63+700	691.95	691.14		
63+720	692.14	691.14		
63+740	692.14	691.14		
63+760	692.33	691.14		
63+780	692.63	691.14		
63+800	692.93	691.14		
63+820	692.91	691.14		
63+840	692.77	691.14		
63+850	692.70	691.14		



LEGEND

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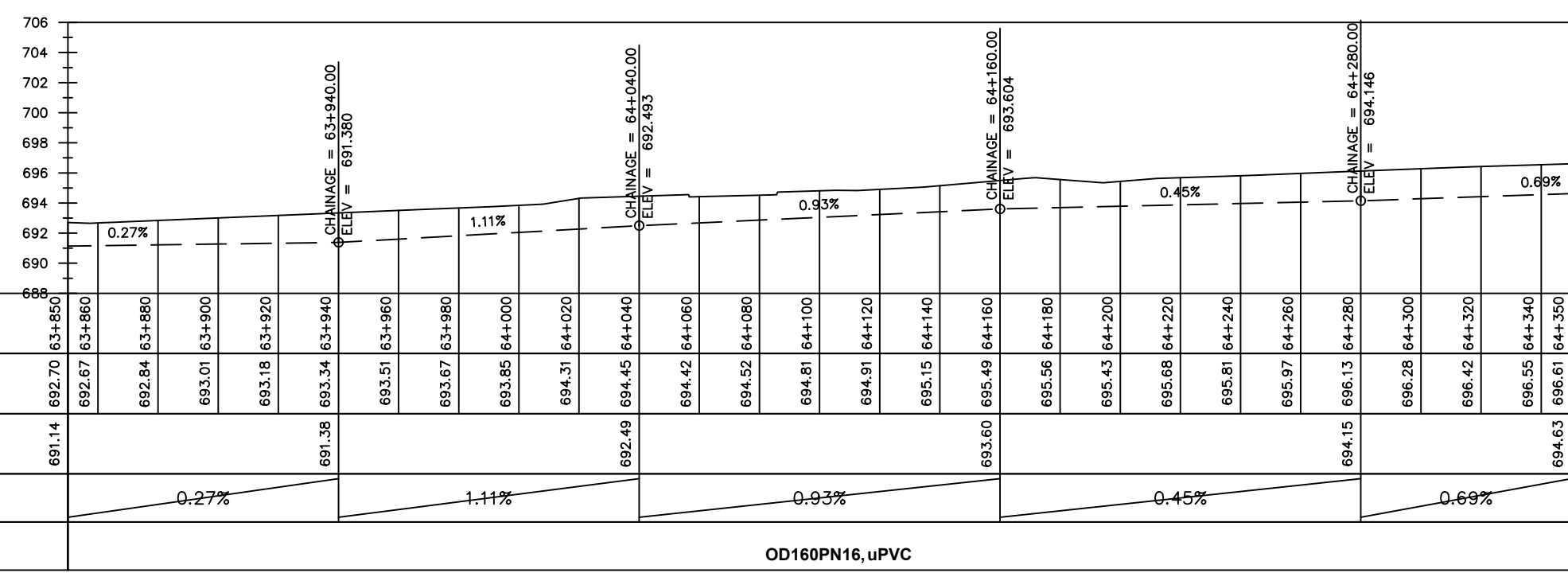
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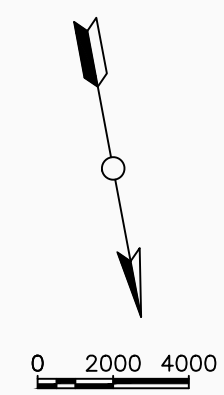
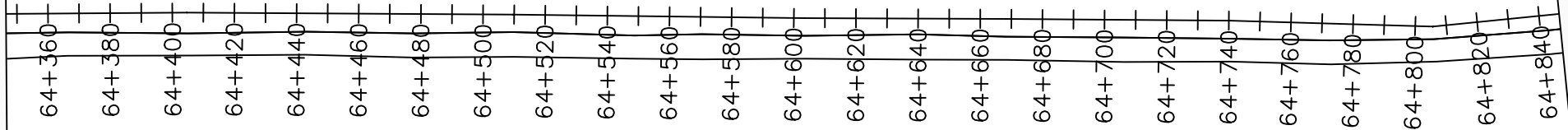
DRAWING TITLE :

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63+850 - 64+350

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OD160PN16, uPVC



LEGEND

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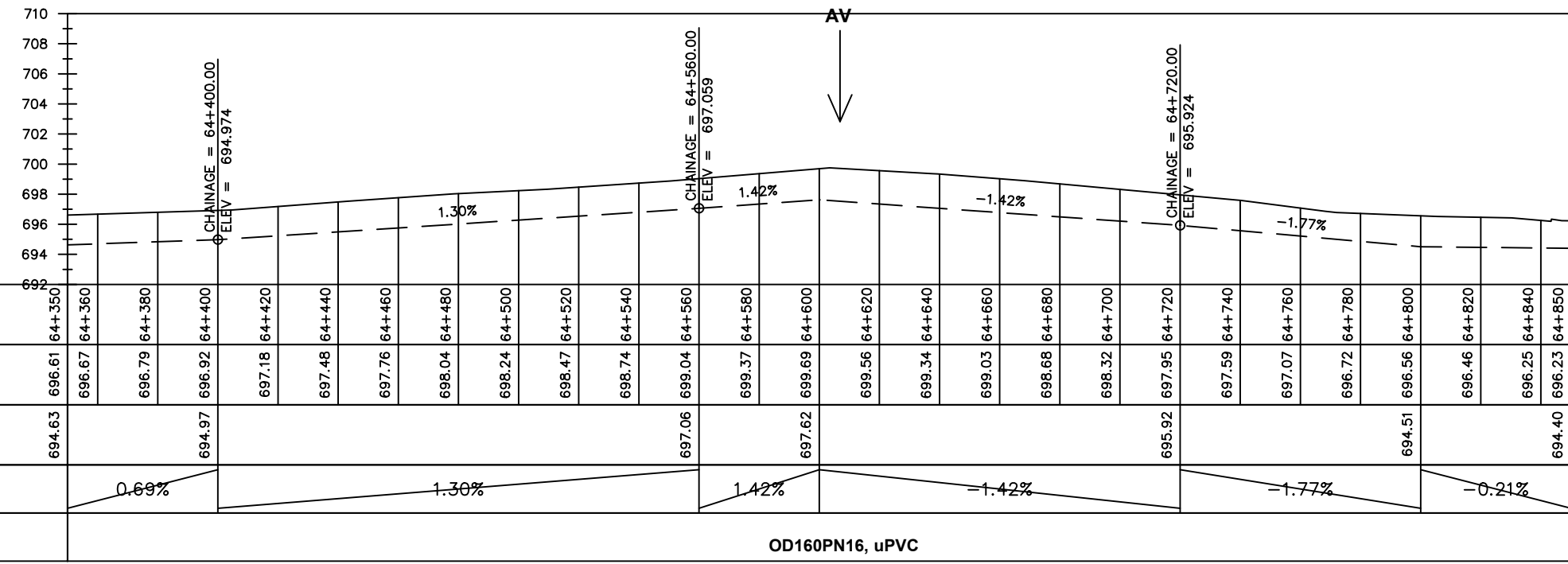
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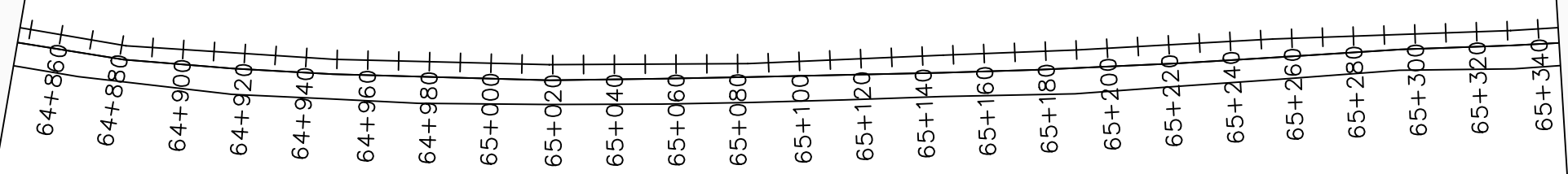
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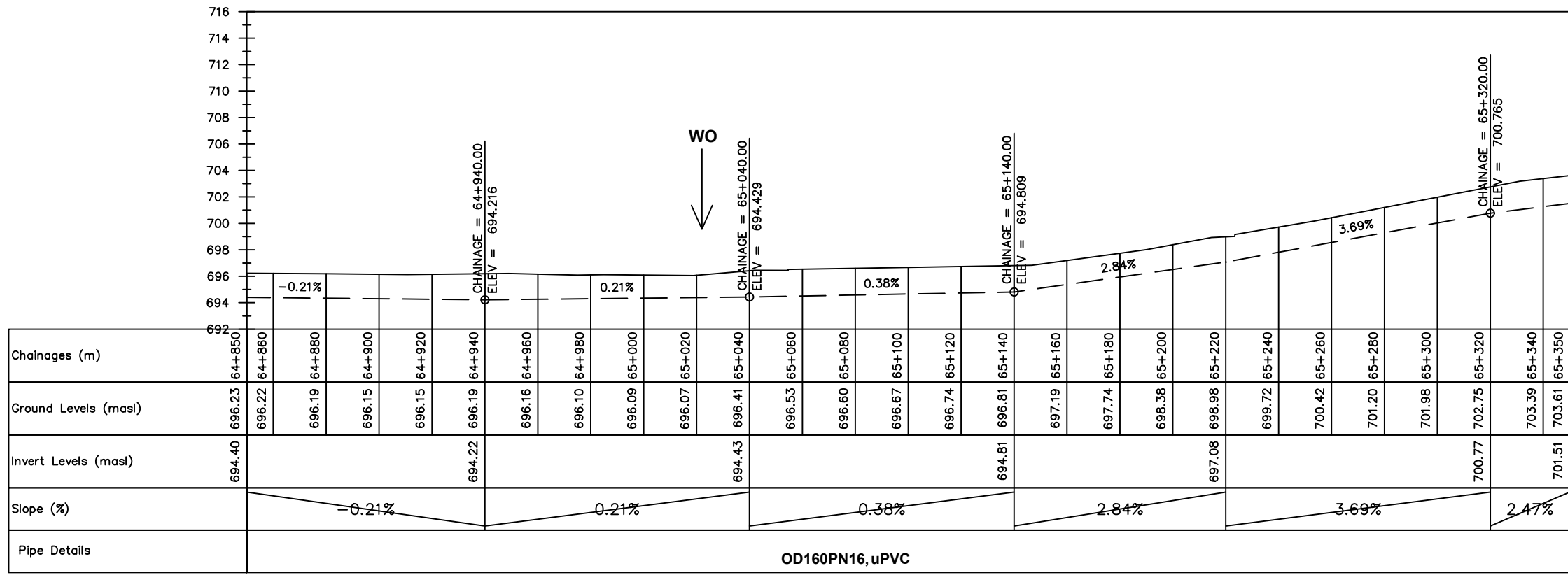
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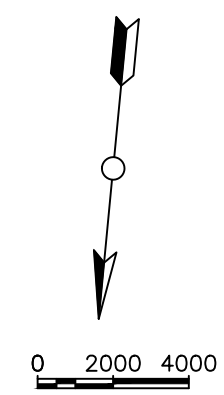
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DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
64+850 - 65+350

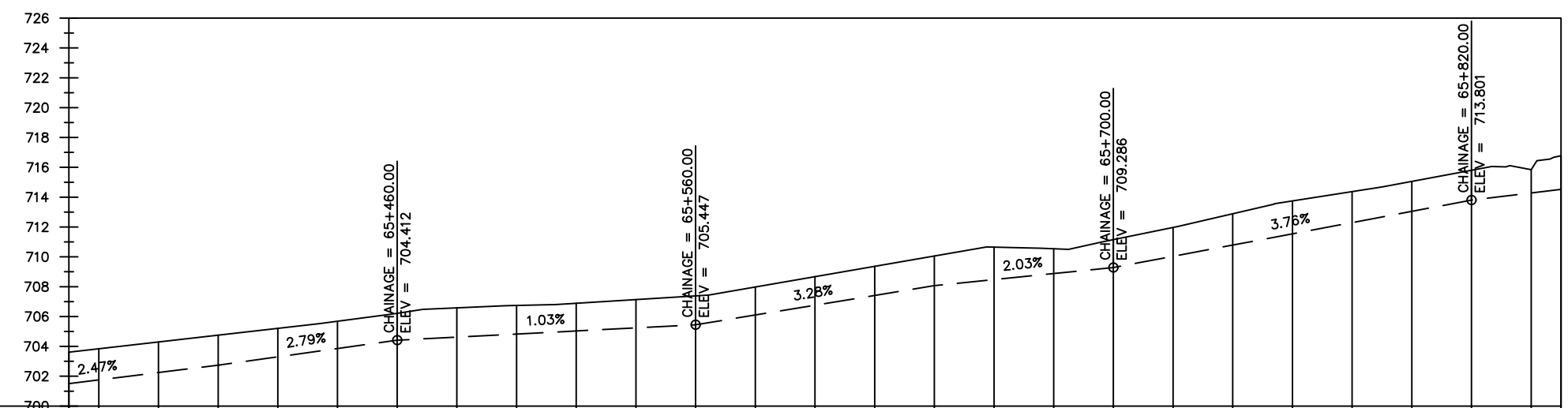
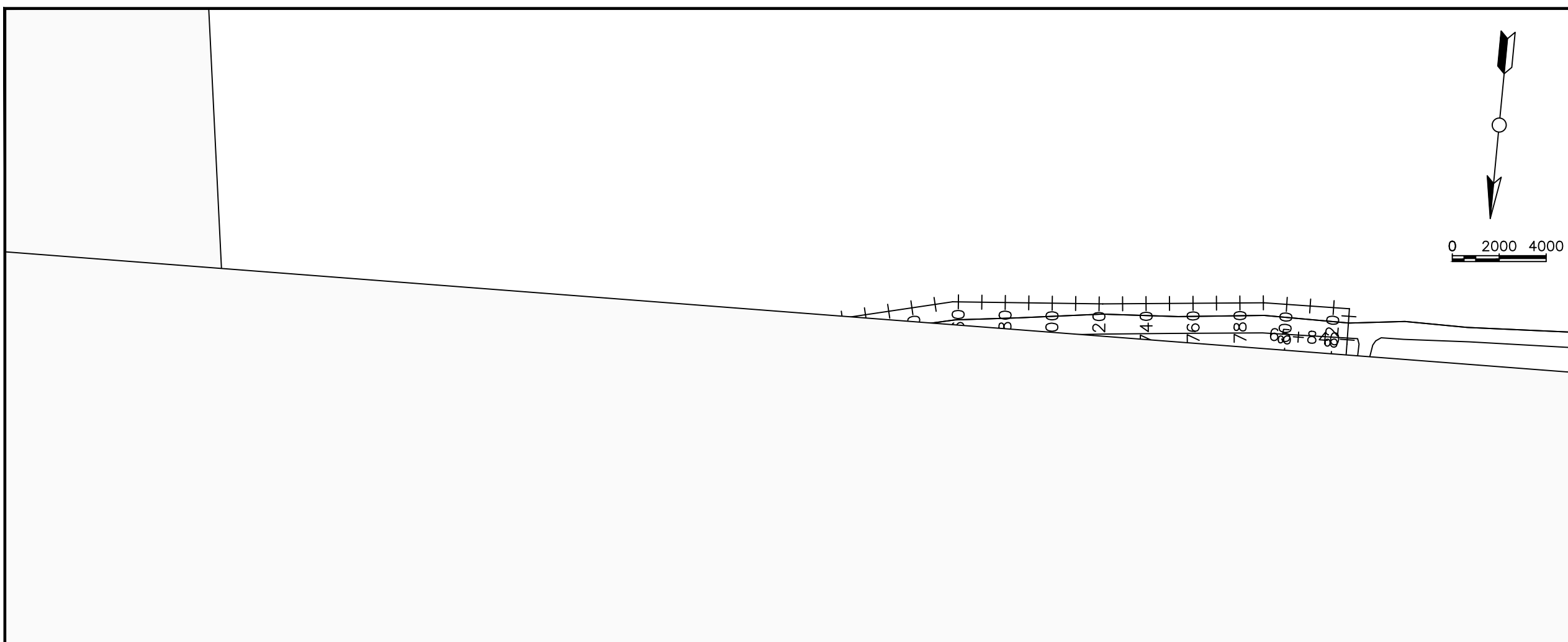
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LEGEND

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 - Node detail No.



Chainages (m)	65+350	65+360	65+380	65+400	65+420	65+440	65+460	65+480	65+500	65+520	65+540	65+560	65+580	65+600	65+620	65+640	65+660	65+680	65+700	65+720	65+740	65+760	65+780	65+800	65+820	65+840	65+850	
Ground Levels (masl)	703.61	703.84	704.30	704.75	705.21	705.68	706.21	706.58	706.74	706.89	707.14	707.39	707.98	708.67	709.37	710.06	710.65	710.55	711.15	711.97	712.89	713.75	714.37	715.05	715.80	715.84	716.77	
Invert Levels (masl)	701.51			702.74			704.41					705.45				708.07			709.29						713.80		714.52	
Slope (%)		2.47%		2.79%			1.03%					3.28%			2.03%				3.76%							2.40%		
Pipe Details	OD160PN16, uPVC																											

CLIENT :

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MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

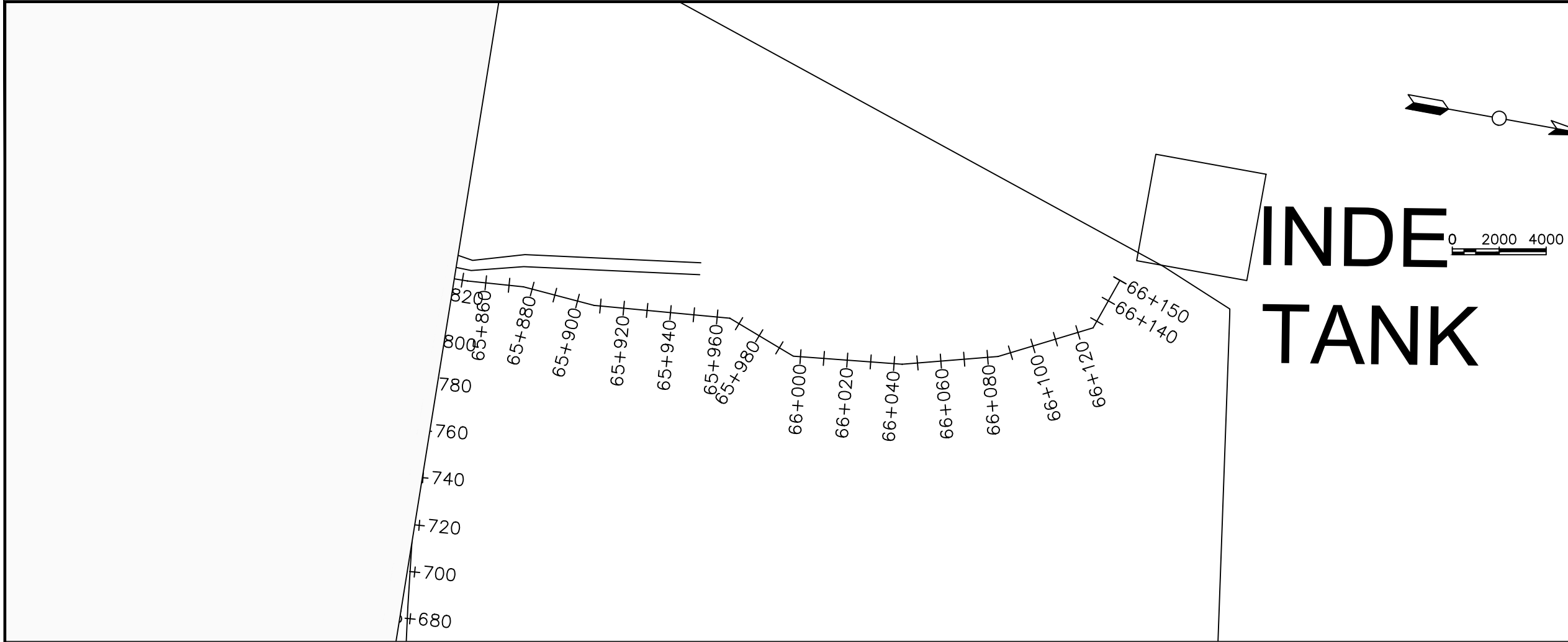
REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 4 (TO INDE TANK)
65+350 - 65+850

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	19 of 20



INDE TANK

LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

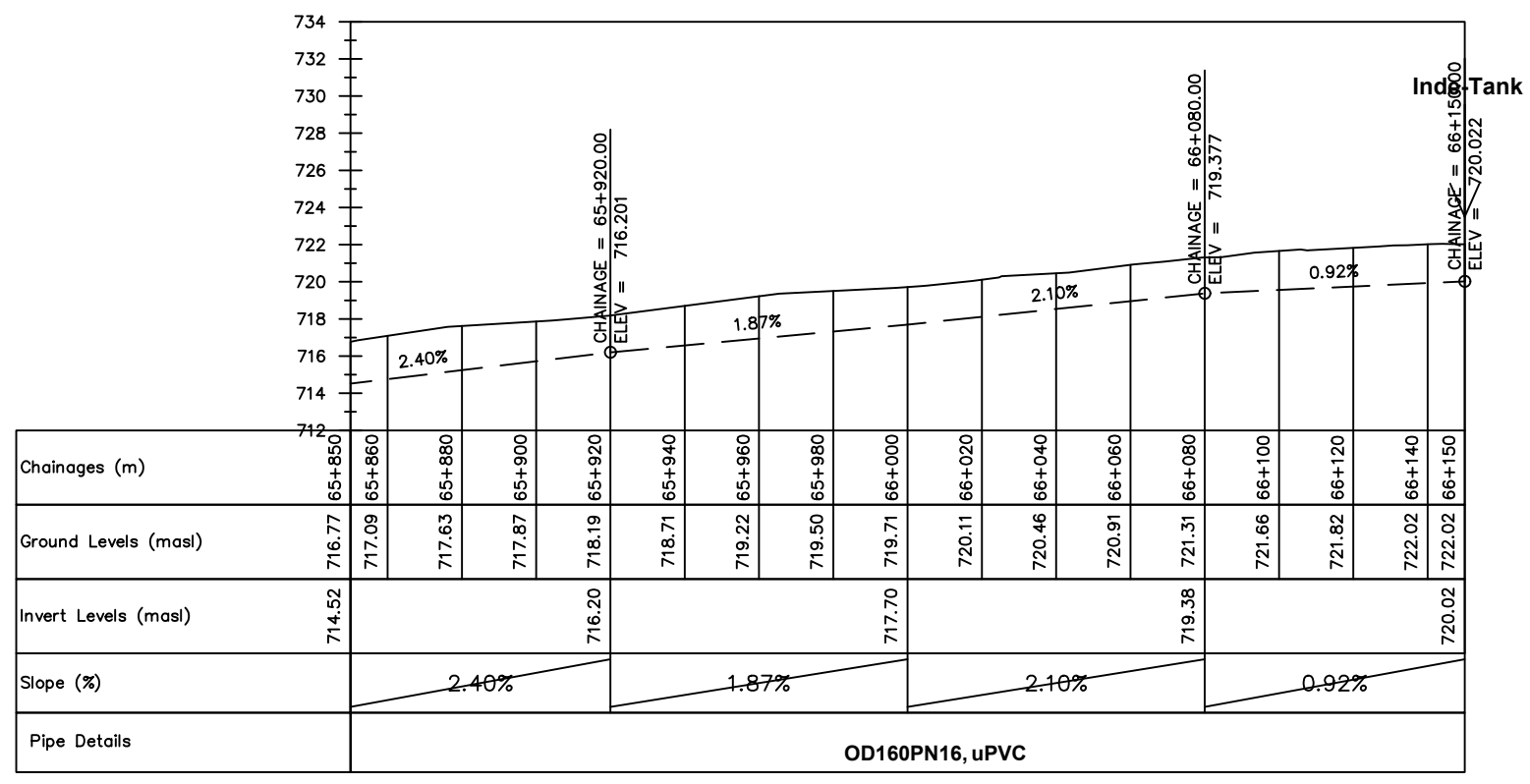
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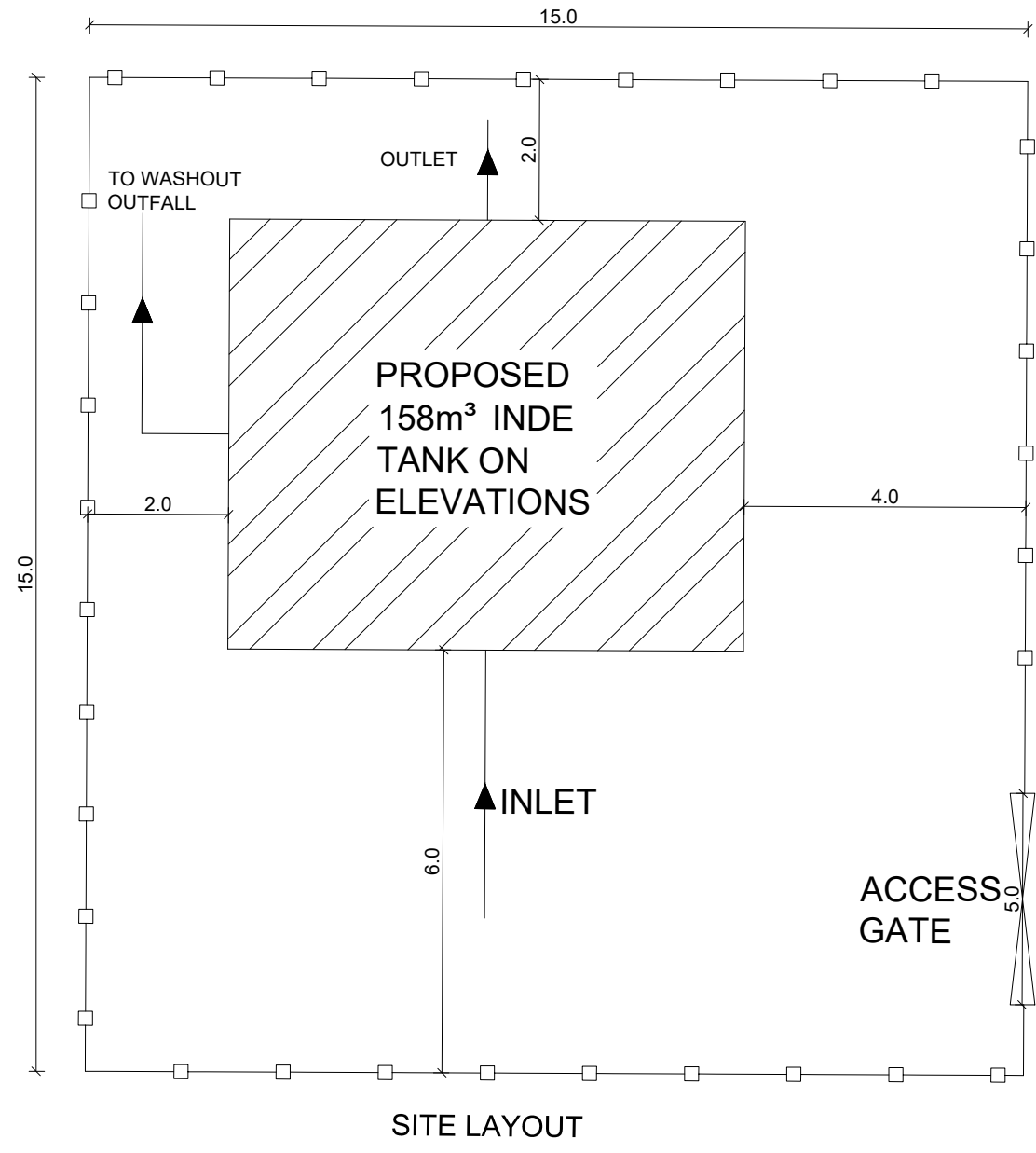
No	Date	Description

DRAWING TITLE :

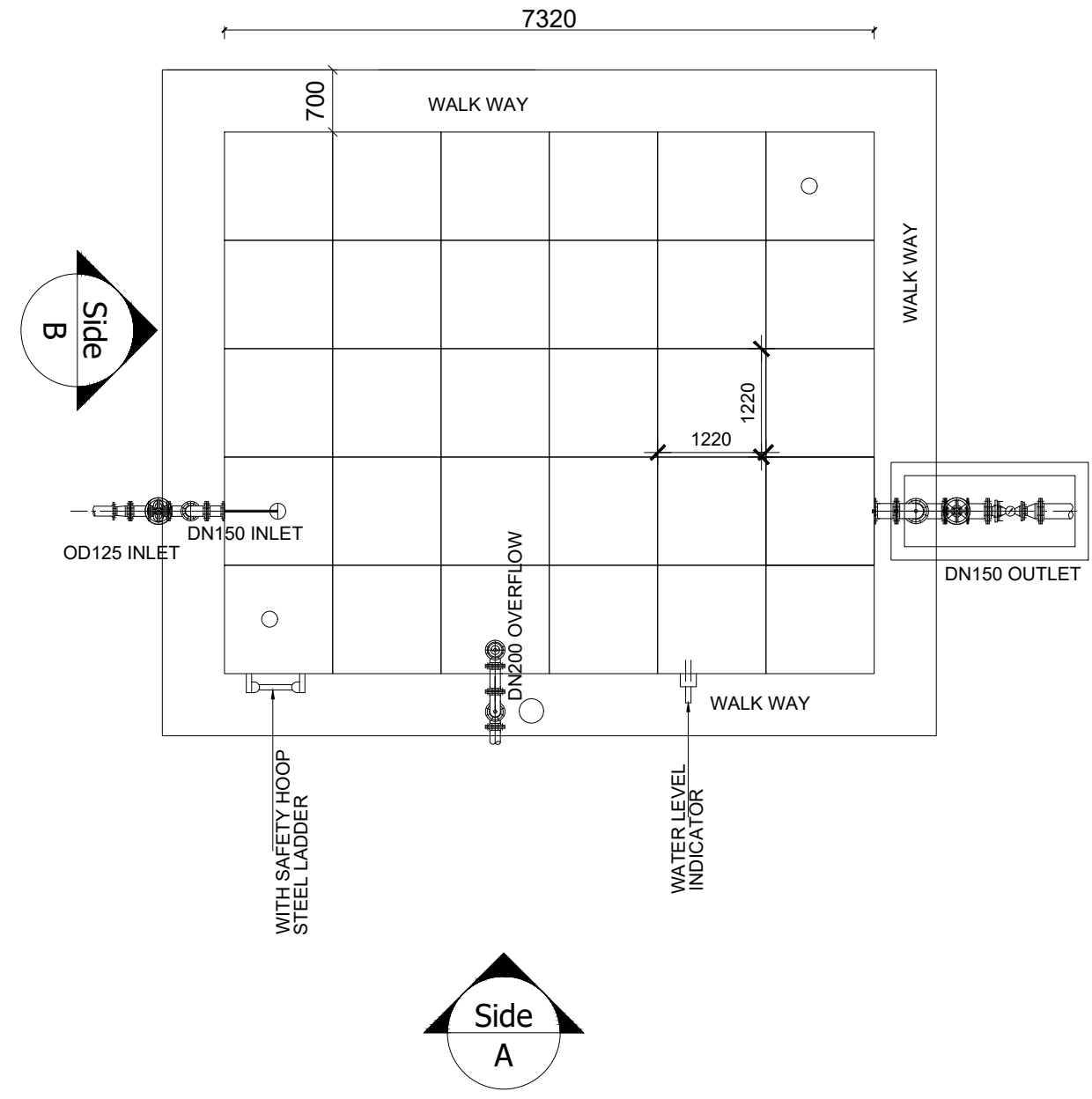
TRANSMISSION MAIN 4 (TO INDE TANK)
65+850 - 66+150

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-004
Scale:	1:2000
Sheet No.:	20 of 20



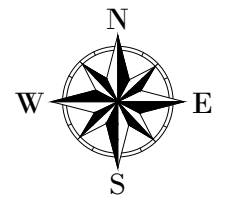


SITE LAYOUT



PLAN LAYOUT

LEGEND



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PROJECT :
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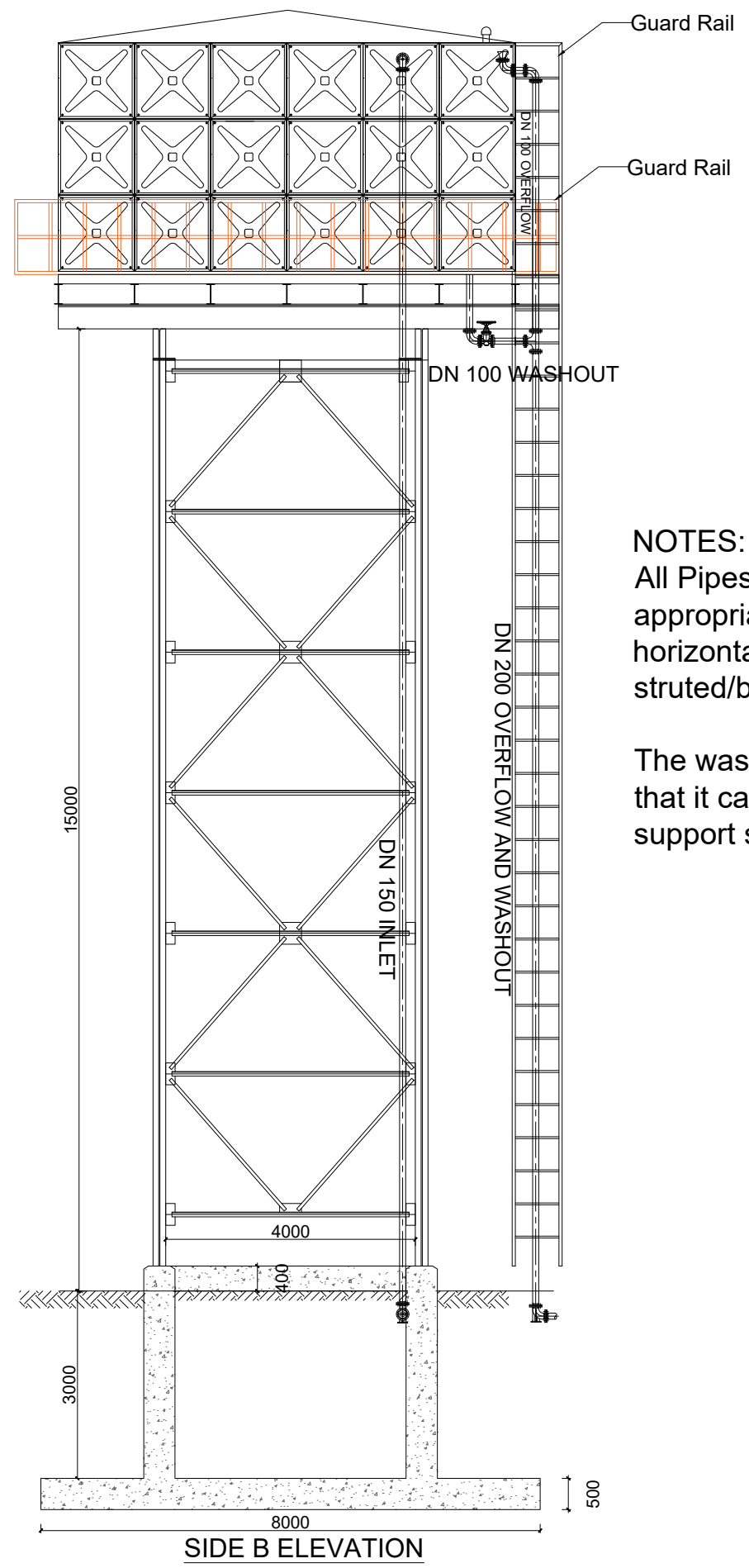
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

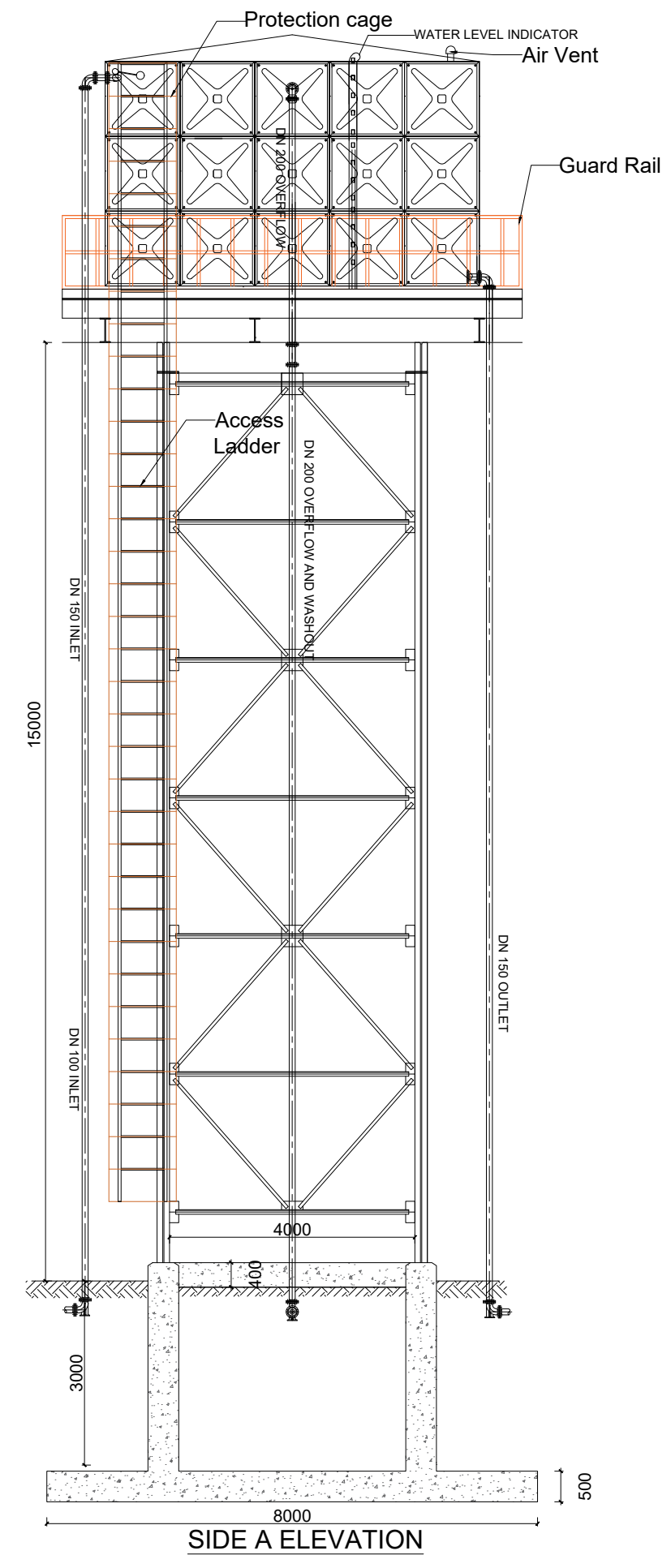
DRAWING TITLE : **INDE RESERVOIR TANK- 158m³**
PLAN AND SITE LAYOUT

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA_RES_IND_006
Scale: 1:100	Sheet No.:
1:75	1 of 3

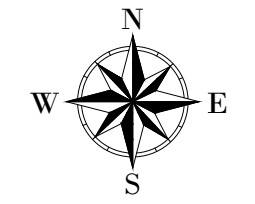


NOTES:
 All Pipes and fittings shall be appropriately aligned vertically or horizontally and strutted/braced to approval

The washout shall be so positioned that it can access using the tank support structure ladder



LEGEND



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PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

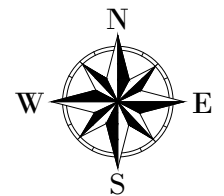
REVISIONS :

No	Date	Description

DRAWING TITLE : **INDE RESERVOIR TANK- 158m³ ELEVATIONS**

Surveyed by: R.K
 Drawn by: A.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_IND_006**
 Scale: 1:100 Sheet No.: 2 of 3

LEGEND



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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

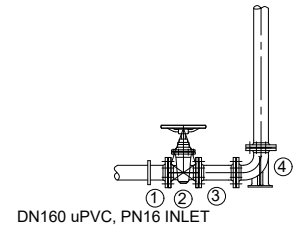
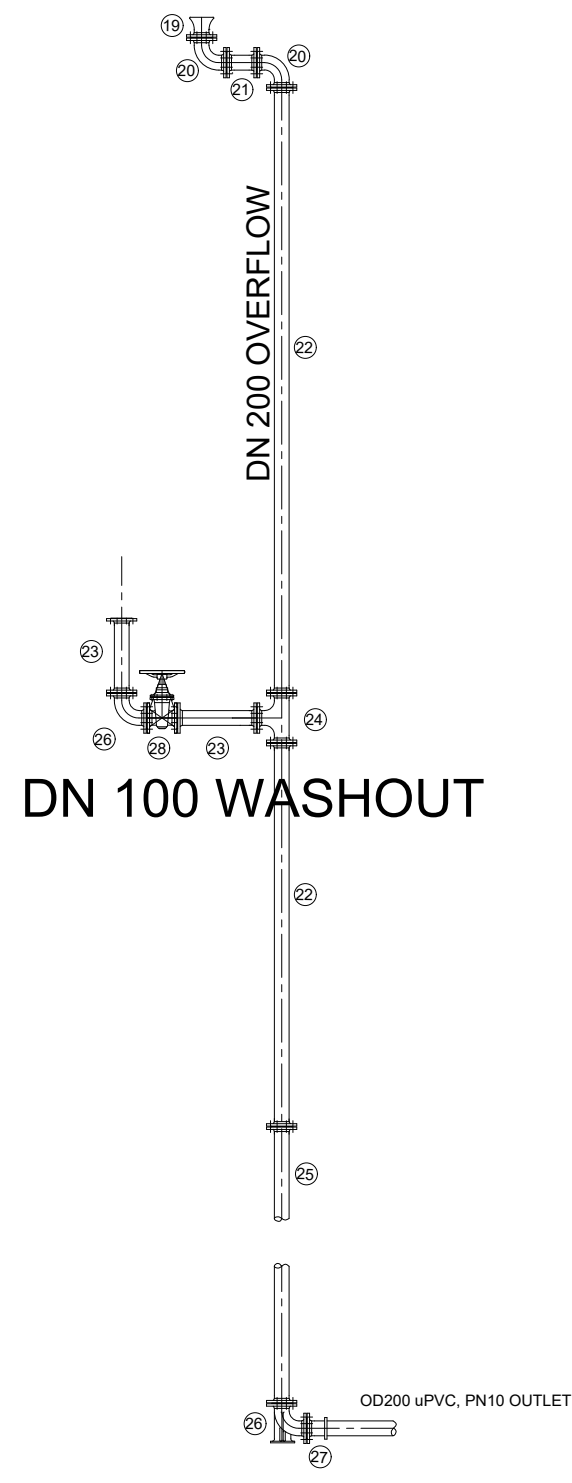
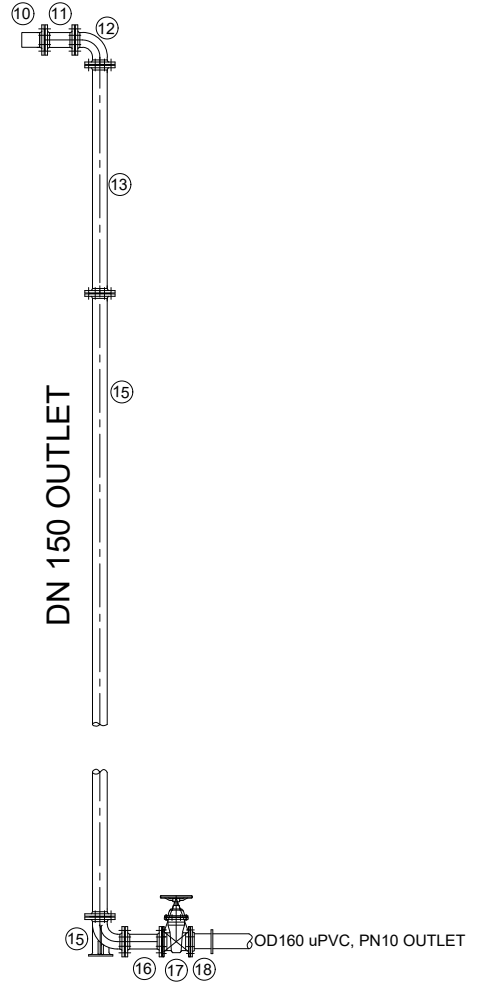
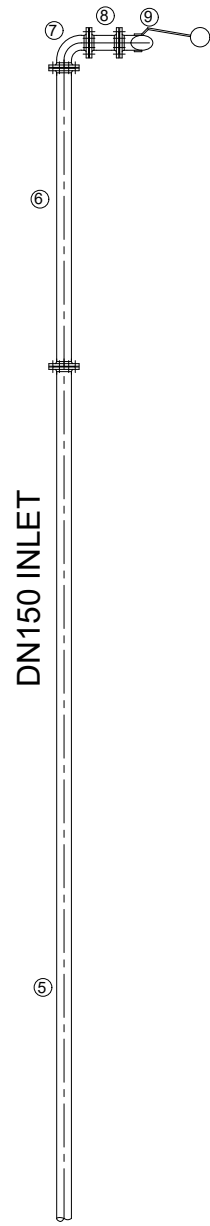
No	Date	Description

DRAWING TITLE : **INDE RESERVOIR TANK- 158m³ PIPE FITTINGS**

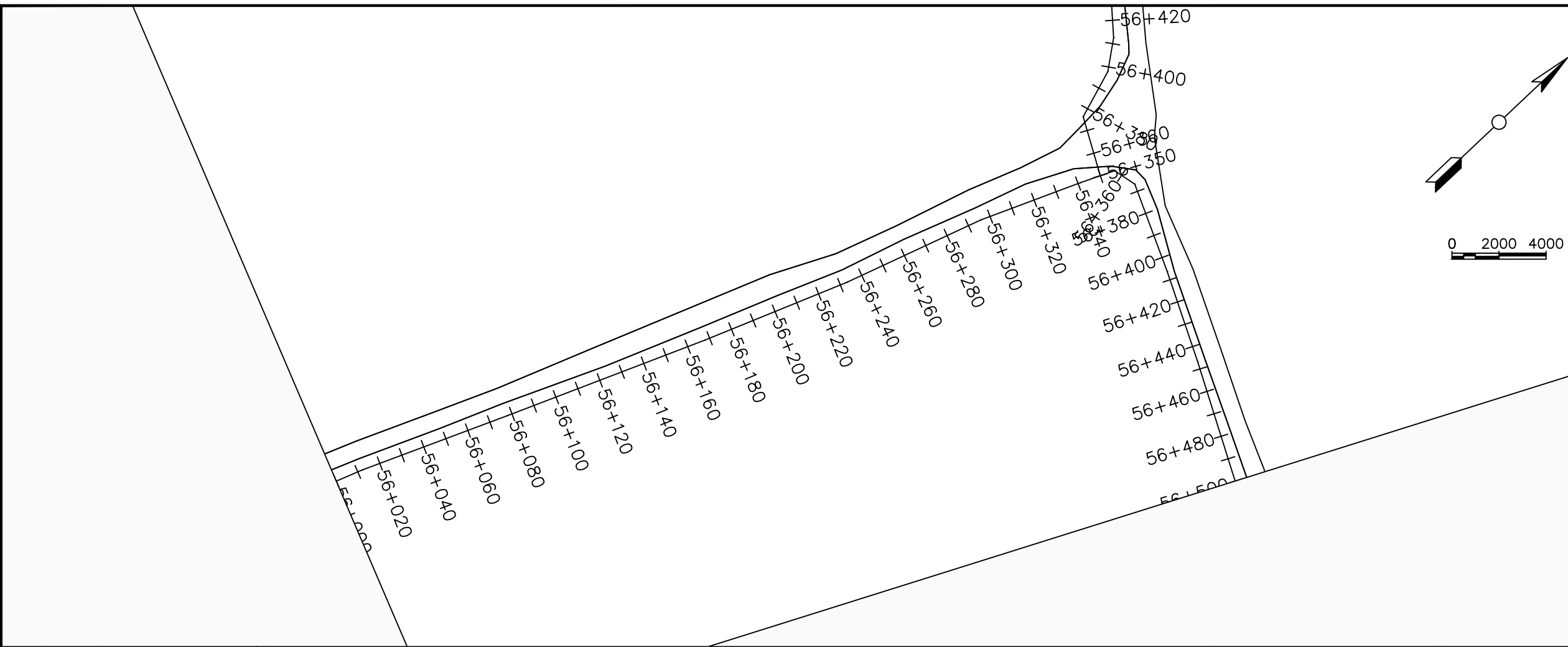
Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_IND_006**
 Scale: 1:75 Sheet No.: 3 of 3

PIPE AND FITTINGS SCHEDULE

Mark	Description	Material	DN	PN	Qty.
INLET					
1	Flanged Adapter	DI	200		0
2	Flanged Gate Valve	CI	200		1
3	Flanged Pipe Piece, Length - 0.3m	DI	200		1
4	90° Flanged Duckfoot Bend	DI	200		1
5	Flanged Pipe, Length - 6.0m	DI	200		16
6	Flanged Pipe, Length n.e - 6.0m	DI	200		1
7	90° Flanged Bend	DI	200		1
8	Flanged Pipe Piece, Length - 0.2m	DI	200		1
9	Flanged Float Valve	CI	200		1
OUTLET					
10	Flanged Strainer	SS	200		1
11	Flanged Pipe Piece, Length - 0.2m	DI	200		1
12	90° Flanged Bend	DI	200		1
13	Flanged Pipe, Length n.e - 3.0m	DI	200		1
14	Flanged Pipe, Length - 6.0m	DI	200		10
15	90° Flanged Duckfoot Bend	DI	200		1
16	Flanged Pipe Piece, Length - 0.3m	DI	200		1
17	Flanged Gate Valve	CI	200		1
18	Flanged Adapter	DI	200		1
WASHOUT & OVERFLOW					
19	Flanged Bellmouth	DI	250		1
20	90° Flanged Bend	DI	250		2
20a	90° Flanged Bend	DI	100		1
21	Flanged Pipe, Length n.e - 0.2m	DI	250		1
22	Flanged Pipe Piece, Length n.e - 3.0m	DI	250		1
23	Flanged Pipe Piece, Length n.e - 1.0m	DI	100		10
24	Flanged Tee	DI	250/100		1
25	Flanged Pipe Piece, Length n.e - 4.0m	DI	250		1
26	90° Flanged Duckfoot Bend	DI	250		1
27	Flanged Adapter	DI	250		1
28	Flanged Gate Valve	CI	100		1



PAWOR SUPPLY AREA



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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In Association with

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

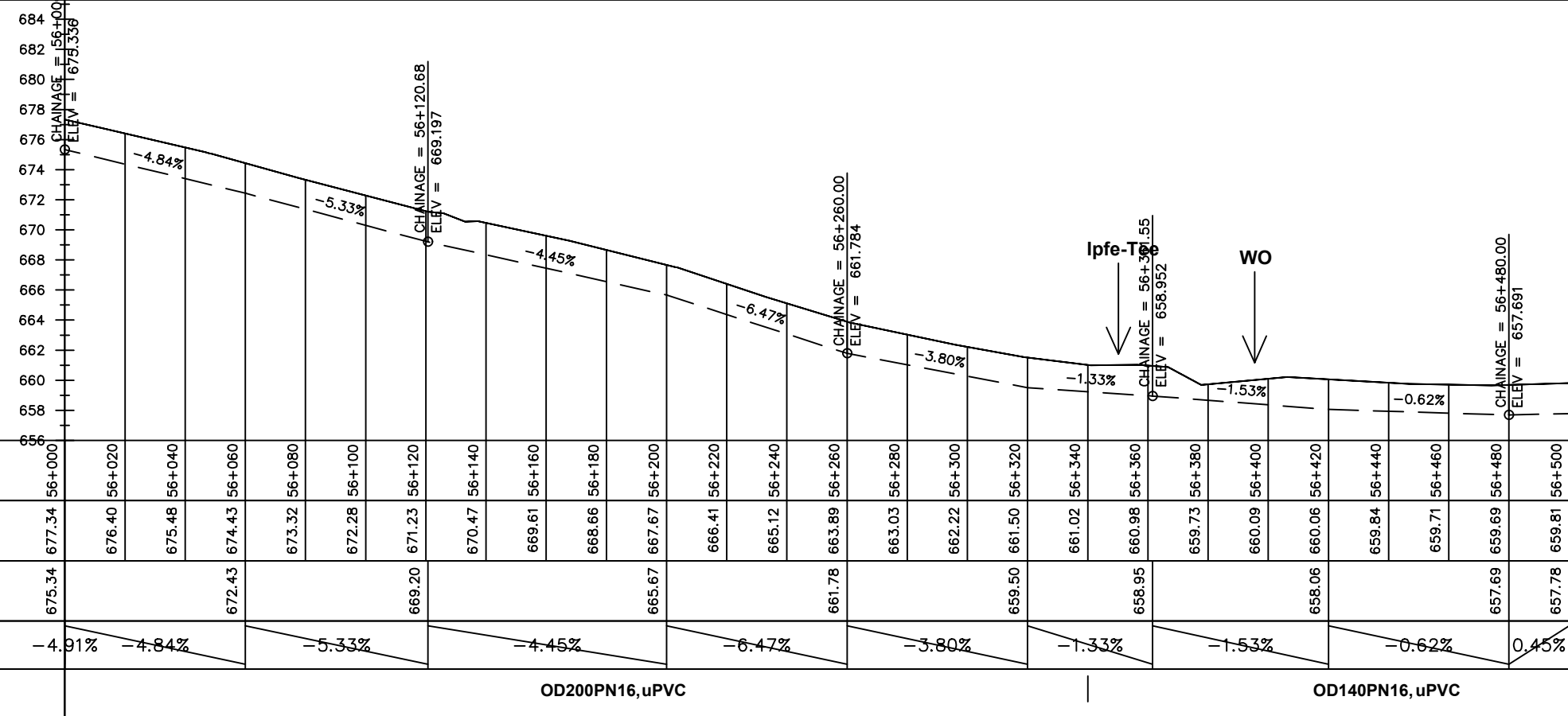
REVISIONS :

No	Date	Description

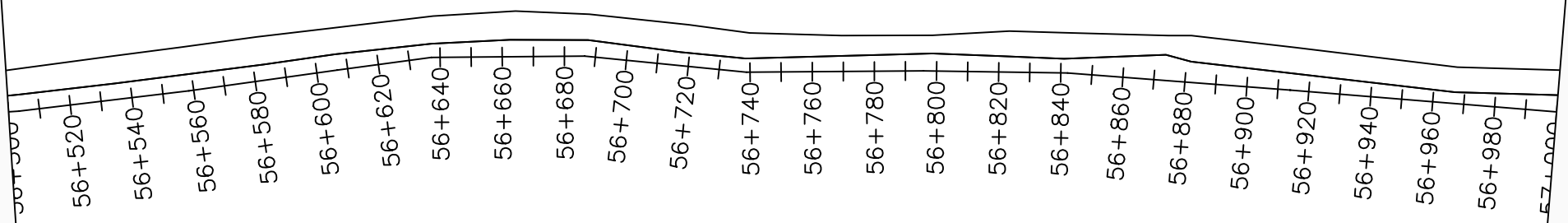
DRAWING TITLE :

TRANSMISSION MAIN 3 (TO INDE TANK)
56+000 - 56+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	66 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
56+000	677.34	675.34	-4.91%	OD200PN16, uPVC
56+020	676.40	672.43	-4.84%	
56+040	675.48	672.43	-5.33%	
56+060	674.43	669.20	-4.45%	
56+080	673.32	669.20	-6.47%	
56+100	672.28	669.20	-3.80%	
56+120	671.23	669.20	-1.33%	
56+140	670.47	665.67	-1.53%	
56+160	669.61	665.67	-0.62%	
56+180	668.66	665.67	0.45%	
56+200	667.67	665.67		OD140PN16, uPVC
56+220	666.41	661.78		
56+240	665.12	661.78		
56+260	663.89	661.78		
56+280	663.03	661.78		
56+300	662.22	661.78		
56+320	661.50	659.50		
56+340	661.02	659.50		
56+360	660.98	658.95		
56+380	659.73	658.95		
56+400	660.09	658.06		
56+420	660.06	658.06		
56+440	659.84	657.69		
56+460	659.71	657.69		
56+480	659.69	657.69		
56+500	659.81	657.78		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

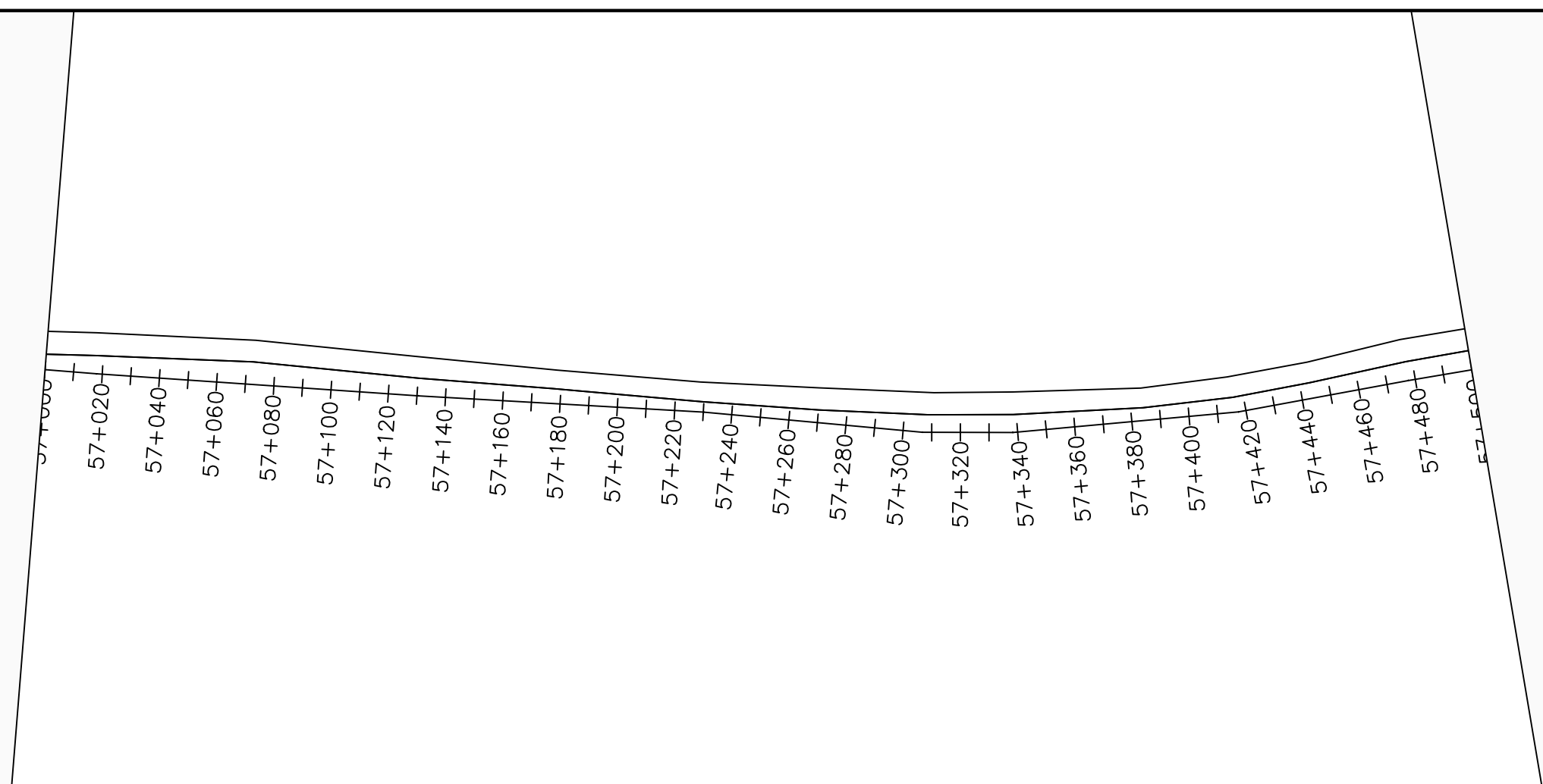
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 (TO PAWOR TANK)
56+500 - 57+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	67 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
56+500	659.81	657.78	0.45%	OD140PN16, uPVC
56+520	659.92	657.96		
56+540	659.96	657.96	0.51%	OD140PN16, uPVC
56+560	659.89	657.96		
56+580	659.79	657.96	-0.46%	OD140PN16, uPVC
56+600	660.27	658.27		
56+620	660.36	658.27	0.34%	OD140PN16, uPVC
56+640	660.18	658.27		
56+660	659.86	658.27	0.11%	OD140PN16, uPVC
56+680	659.80	658.27		
56+700	659.81	657.81	0.50%	OD140PN16, uPVC
56+720	659.85	657.81		
56+740	659.92	658.01	0.86%	OD140PN16, uPVC
56+760	660.01	658.01		
56+780	660.07	658.01	0.86%	OD140PN16, uPVC
56+800	659.95	658.01		
56+820	660.03	658.01	0.86%	OD140PN16, uPVC
56+840	660.10	658.10		
56+860	660.20	658.50	0.86%	OD140PN16, uPVC
56+880	660.30	658.50		
56+900	660.39	658.50	0.86%	OD140PN16, uPVC
56+920	660.50	658.50		
56+940	660.64	658.50	0.86%	OD140PN16, uPVC
56+960	660.77	658.50		
56+980	660.84	658.50	0.86%	OD140PN16, uPVC
57+000	661.16	659.19		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

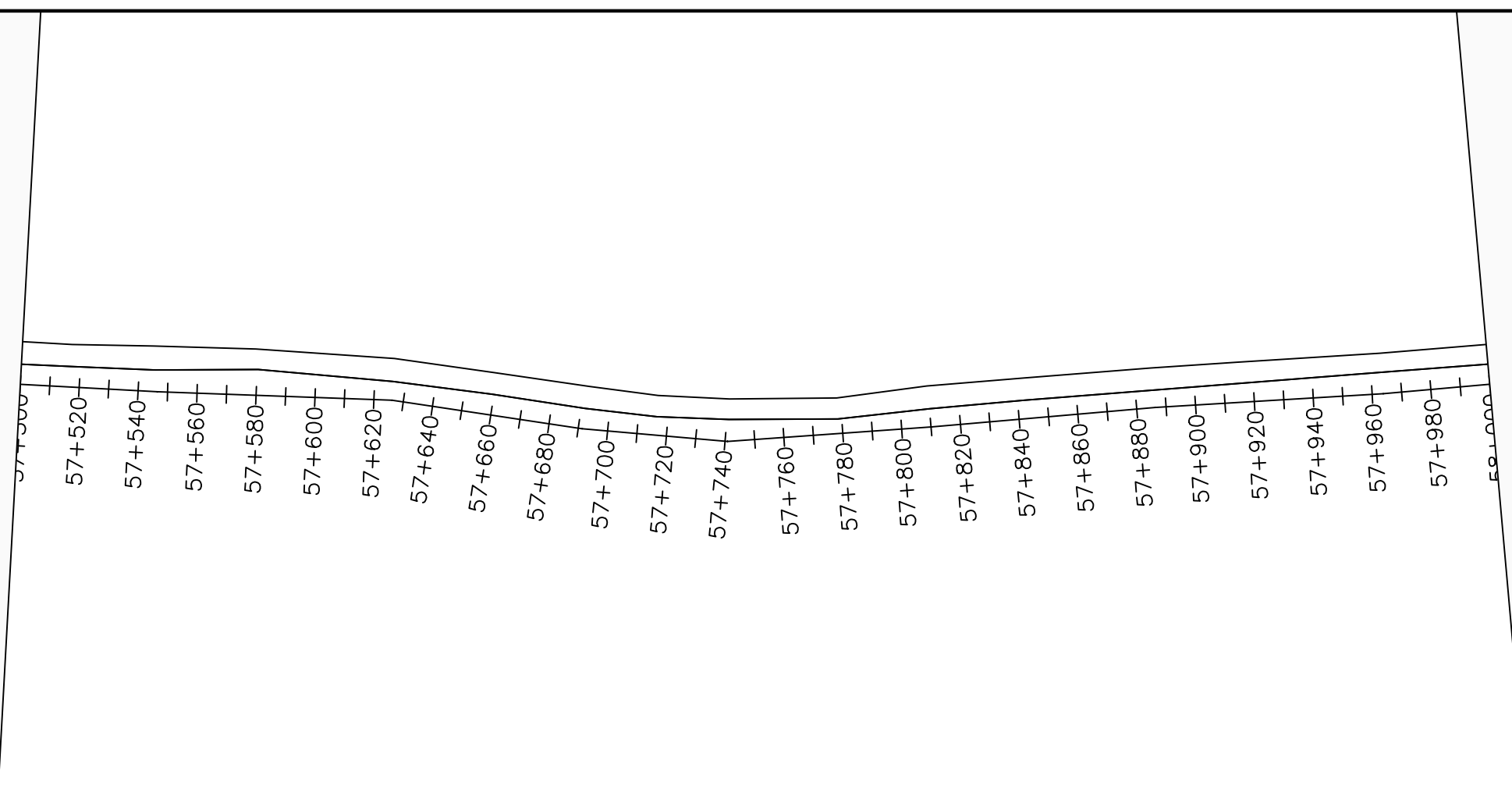
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
57+000 - 57+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	68 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
57+000	661.16	659.19	0.86%	OD140PN16, uPVC
57+020	661.36	659.36	0.21%	
57+040	661.40	659.53	0.32%	
57+060	661.44	659.78	1.13%	
57+080	661.48	660.46	3.57%	
57+100	661.53	662.60	2.39%	
57+120	661.57	664.04	2.34%	
57+140	661.62	665.29	3.08%	
57+160	661.67	666.65		
57+180	661.78	667.15		
57+200	661.96	667.91		
57+220	662.12	668.66		
57+240	662.46	669.39		
57+260	662.99	669.92		
57+280	663.65	669.92		
57+300	664.60	669.92		
57+320	665.29	669.92		
57+340	665.83	669.92		
57+360	666.04	669.92		
57+380	666.24	669.92		
57+400	666.65	669.92		
57+420	667.15	669.92		
57+440	667.91	669.92		
57+460	668.66	669.92		
57+480	669.39	669.92		
57+500	669.92	669.92		



LEGEND

Plan

- Transmission Main
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- Ground Level
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- Node detail No.

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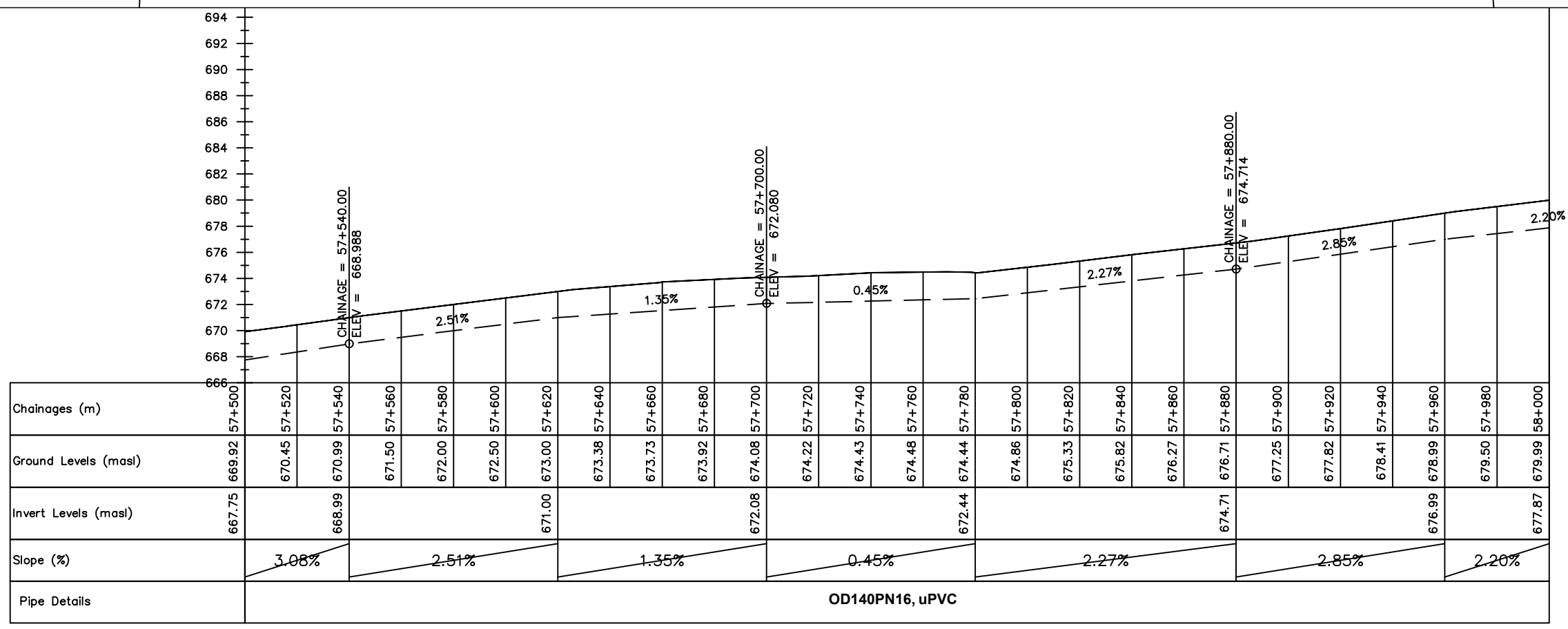
REVISIONS :

No	Date	Description

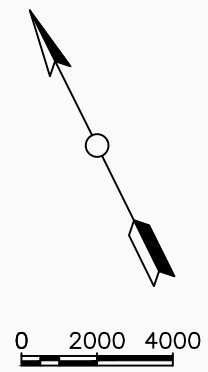
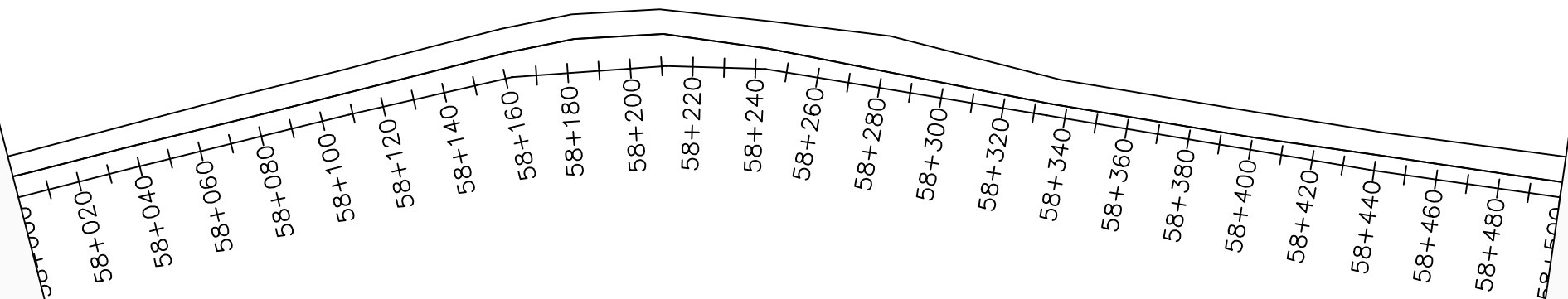
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
57+500 - 58+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	69 of 88



Chainages (m)	57+500	57+520	57+540	57+560	57+580	57+600	57+620	57+640	57+660	57+680	57+700	57+720	57+740	57+760	57+780	57+800	57+820	57+840	57+860	57+880	57+900	57+920	57+940	57+960	57+980	58+000		
Ground Levels (masl)	669.92	670.45	670.99	671.50	672.00	672.50	673.00	673.38	673.73	673.92	674.08	674.22	674.43	674.48	674.44	674.86	675.33	675.82	676.27	676.71	677.25	677.82	678.41	678.99	679.50	679.99		
Invert Levels (masl)	667.75	668.99	671.00	672.08	674.44	676.71	678.99	679.50	679.99	677.87																		
Slope (%)		3.08%	2.51%	1.35%	0.45%	2.27%	2.85%	2.20%																				
Pipe Details	OD140PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

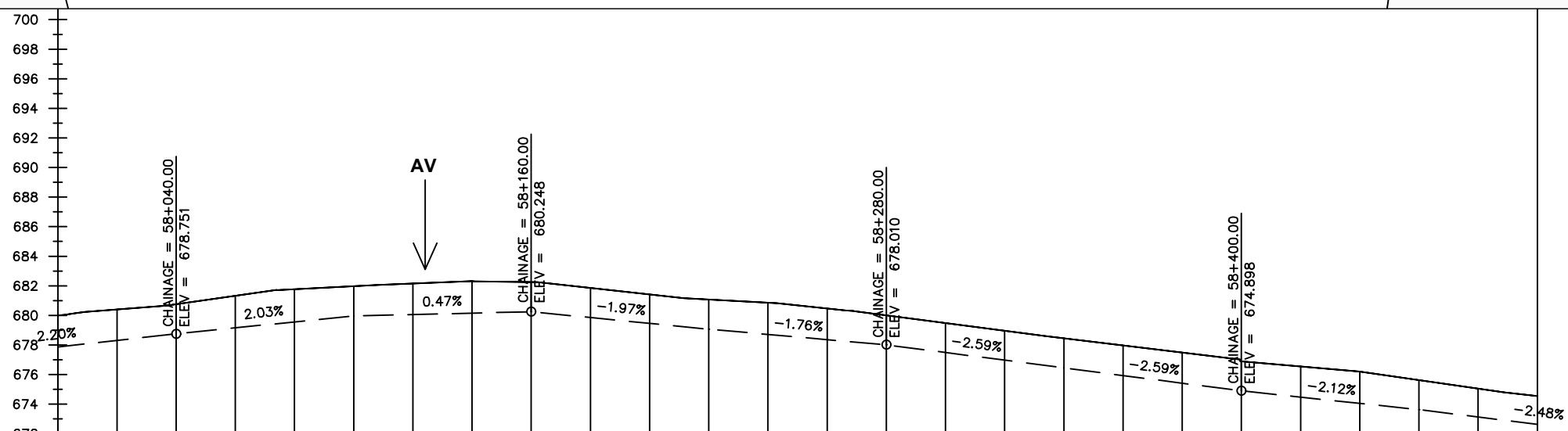
REVISIONS :

No	Date	Description

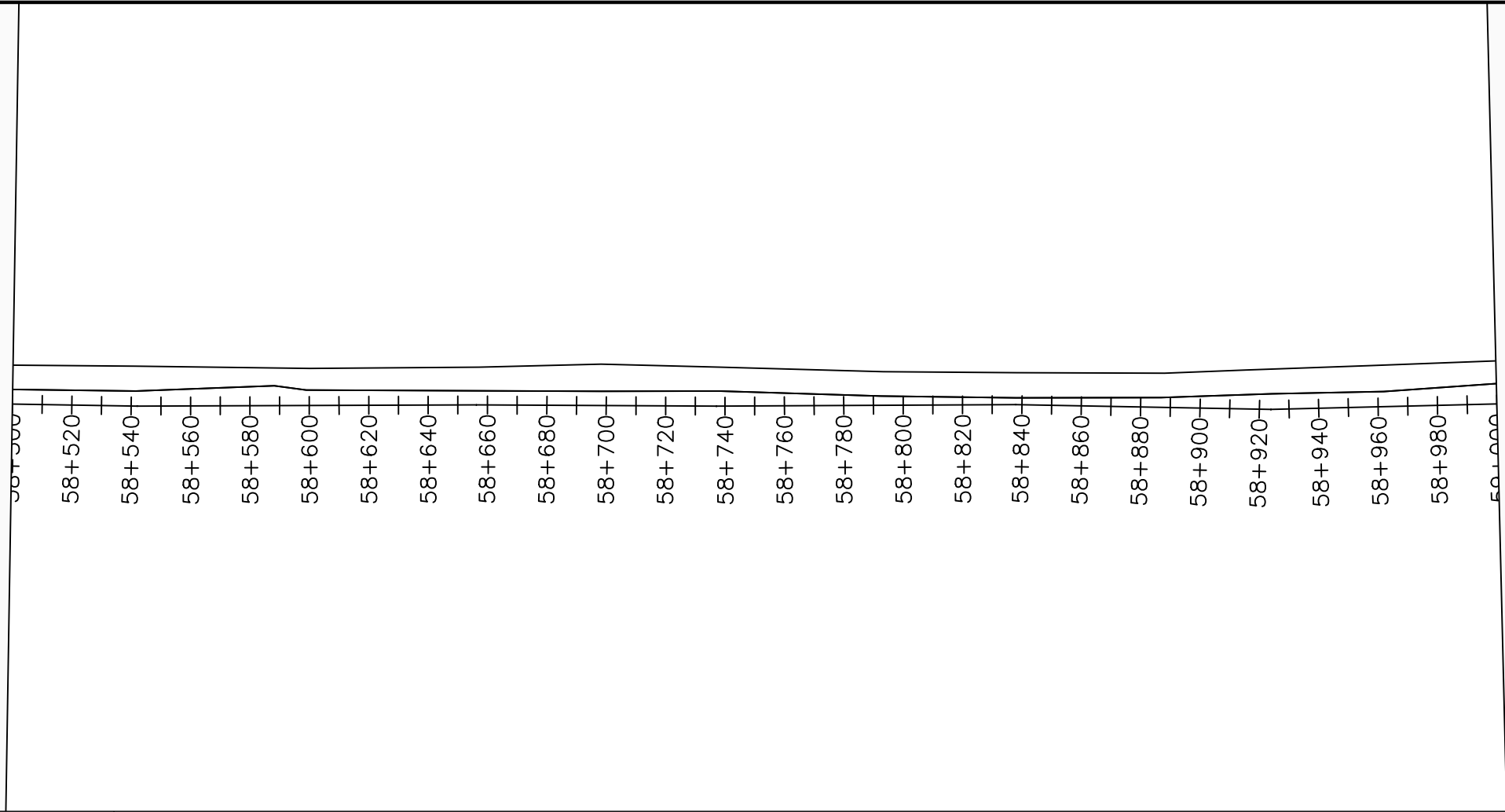
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
58+000 - 58+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	70 of 88



Chainages (m)	58+000	58+020	58+040	58+060	58+080	58+100	58+120	58+140	58+160	58+180	58+200	58+220	58+240	58+260	58+280	58+300	58+320	58+340	58+360	58+380	58+400	58+420	58+440	58+460	58+480	58+500
Ground Levels (masl)	679.99	680.40	680.75	681.32	681.77	681.97	682.15	682.32	682.25	681.85	681.41	681.07	680.85	680.47	680.01	679.49	678.96	678.45	677.97	677.49	676.90	676.55	676.20	675.63	675.05	674.54
Invert Levels (masl)	677.87		678.75			679.97			680.25			679.07			678.01			676.45			674.90			673.63		672.64
Slope (%)		2.20%		2.03%			0.47%			-1.97%			-1.76%			-2.59%			-2.59%			-2.12%			-2.48%	
Pipe Details	OD140PN16, uPVC																									



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
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Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

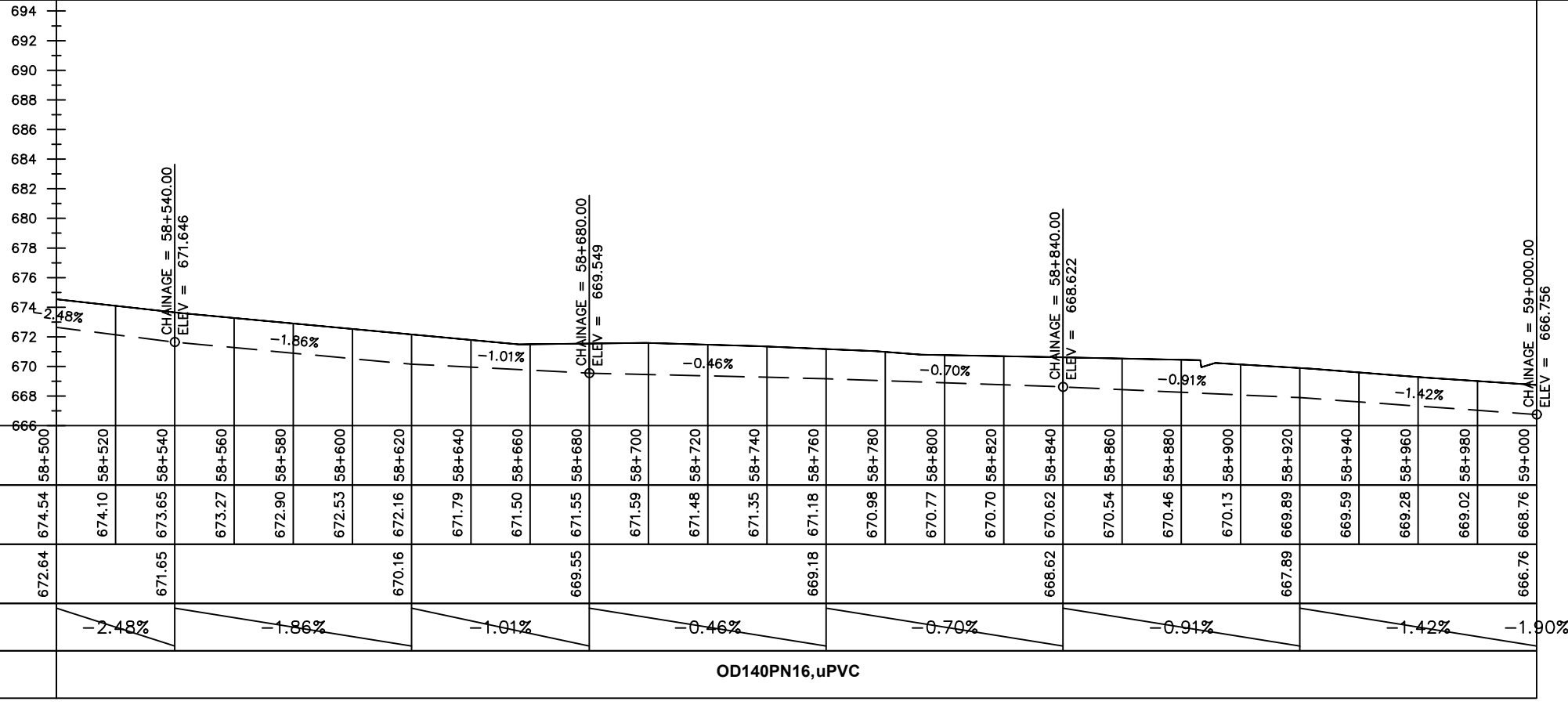
REVISIONS :

No	Date	Description

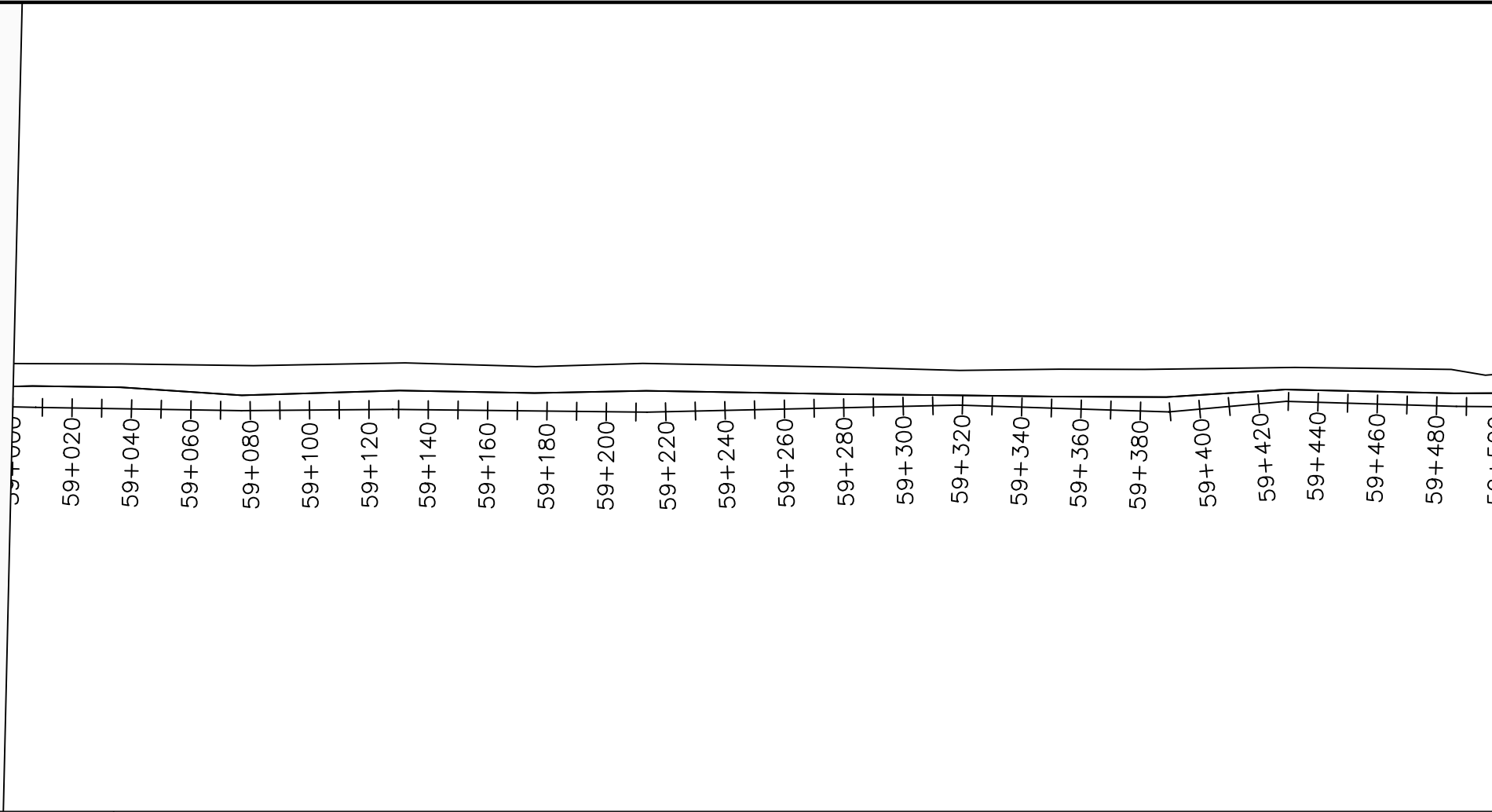
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
58+500 - 59+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	71 of 88



Chainages (m)	58+500	58+520	58+540	58+560	58+580	58+600	58+620	58+640	58+660	58+680	58+700	58+720	58+740	58+760	58+780	58+800	58+820	58+840	58+860	58+880	58+900	58+920	58+940	58+960	58+980	59+000		
Ground Levels (masl)	674.54	674.10	673.65	673.27	672.90	672.53	672.16	671.79	671.50	671.55	671.59	671.48	671.35	671.18	670.98	670.77	670.70	670.62	670.54	670.46	670.13	669.89	669.59	669.28	669.02	668.76		
Invert Levels (masl)	672.64	671.65	670.16	669.55	669.18	668.62	667.89	667.89	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	666.76	
Slope (%)	-2.48%	-1.86%	-1.01%	-0.46%	-0.70%	-0.91%	-1.42%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%		
Pipe Details	OD140PN16,uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

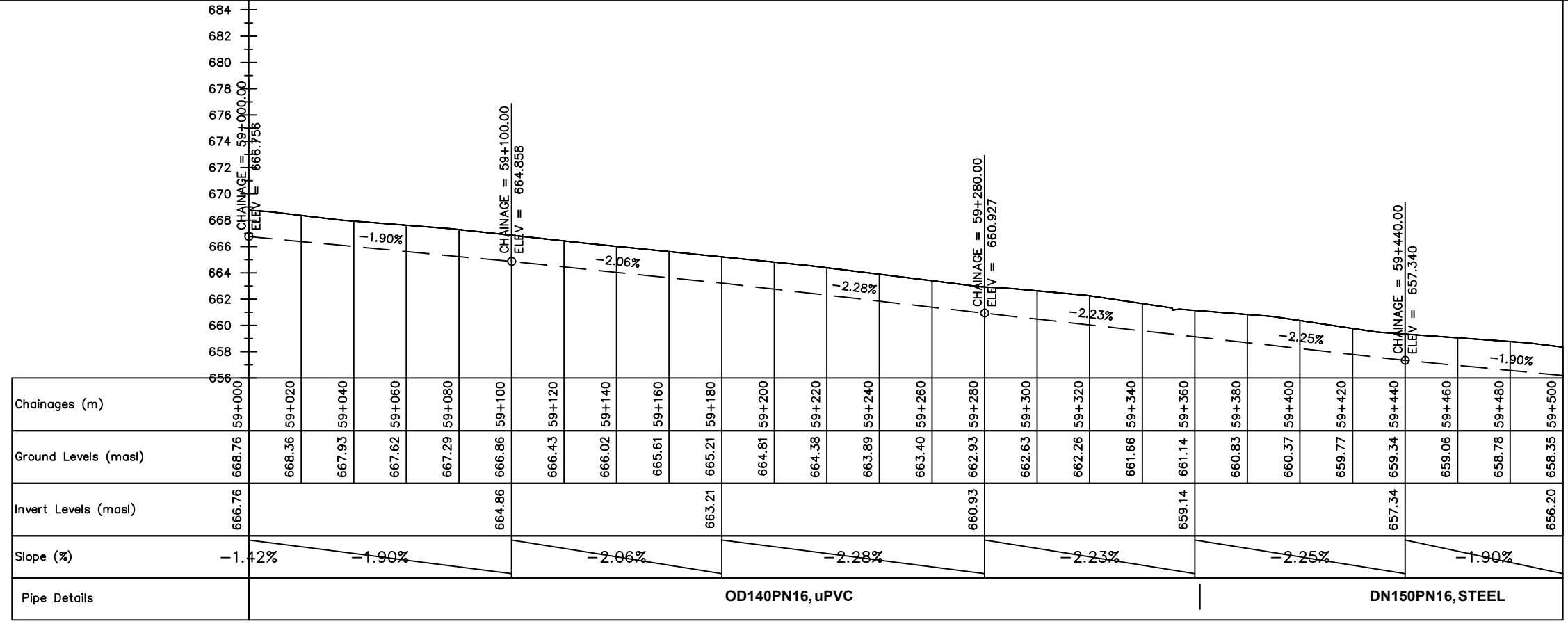
REVISIONS :

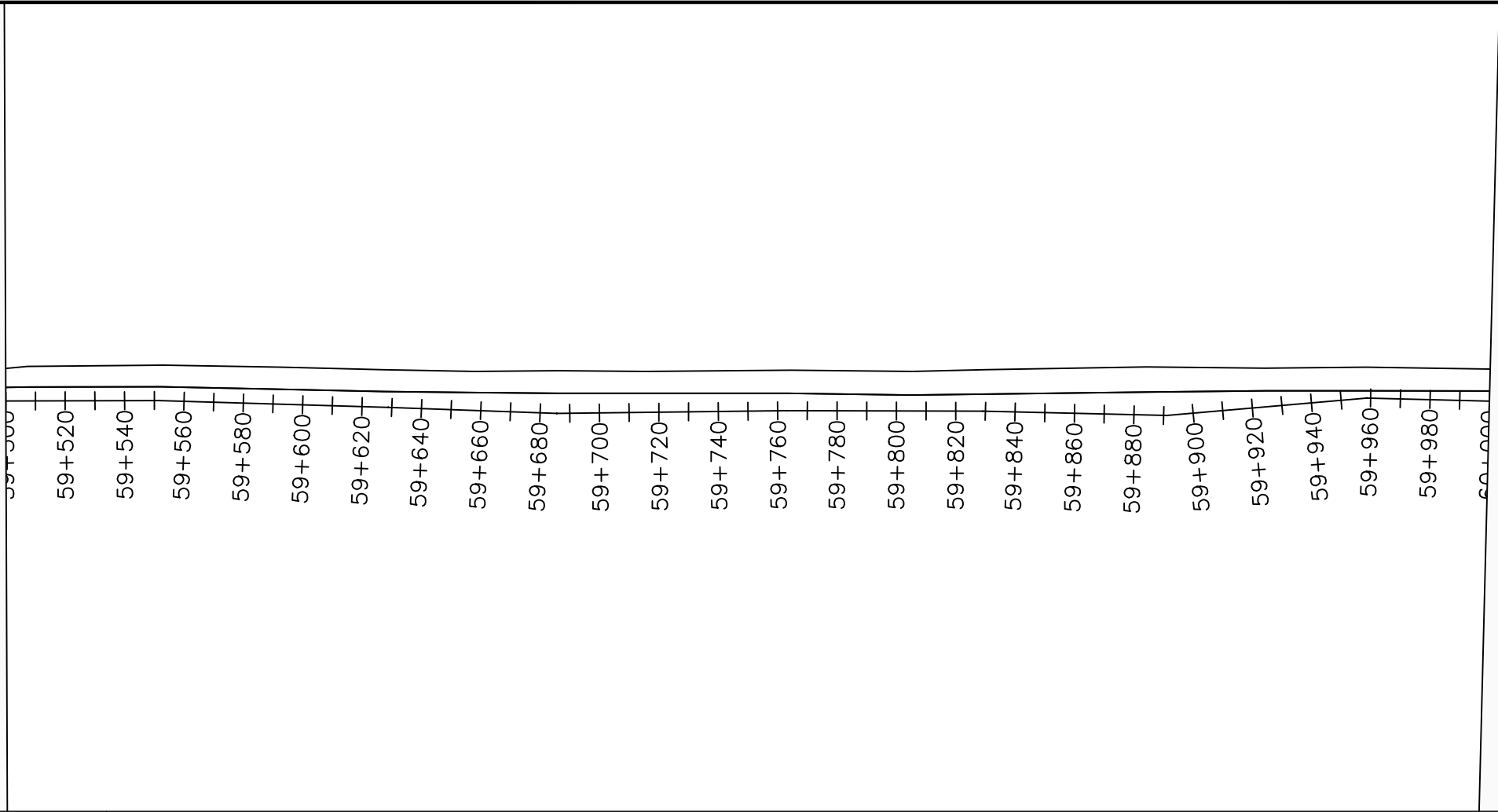
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
59+000 - 59+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	72 of 88





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

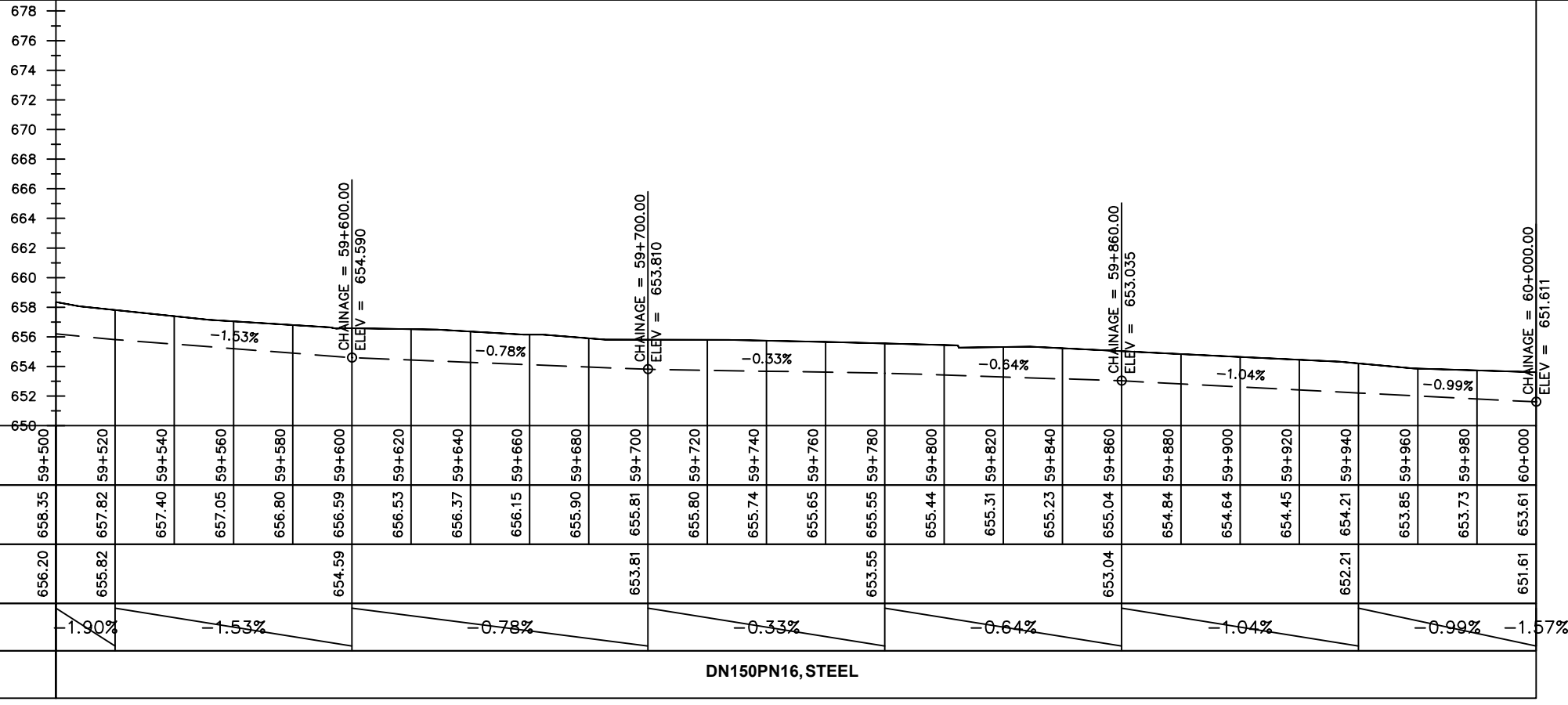
REVISIONS :

No	Date	Description

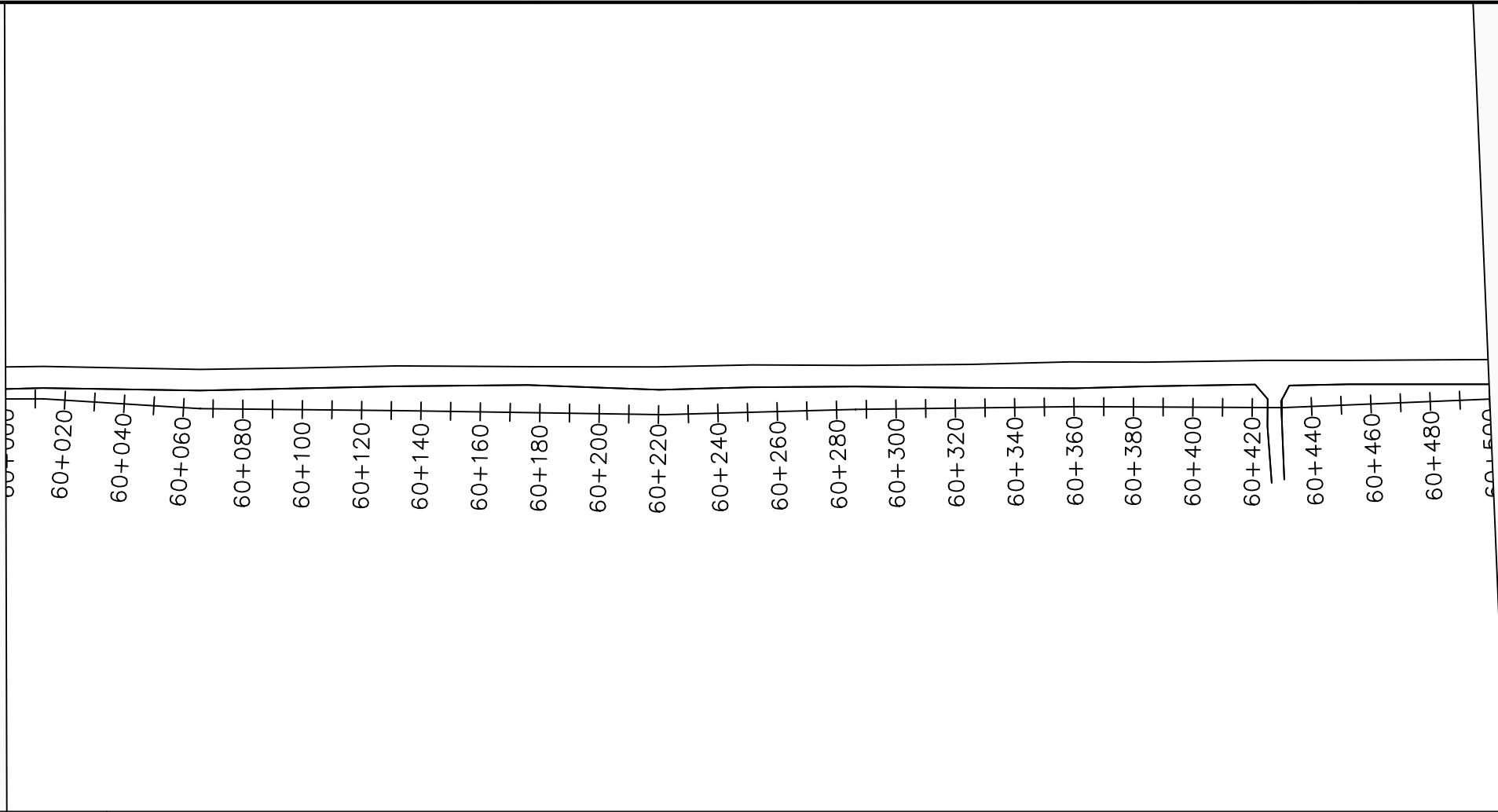
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
59+500 - 60+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	73 of 88



DN150PN16, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

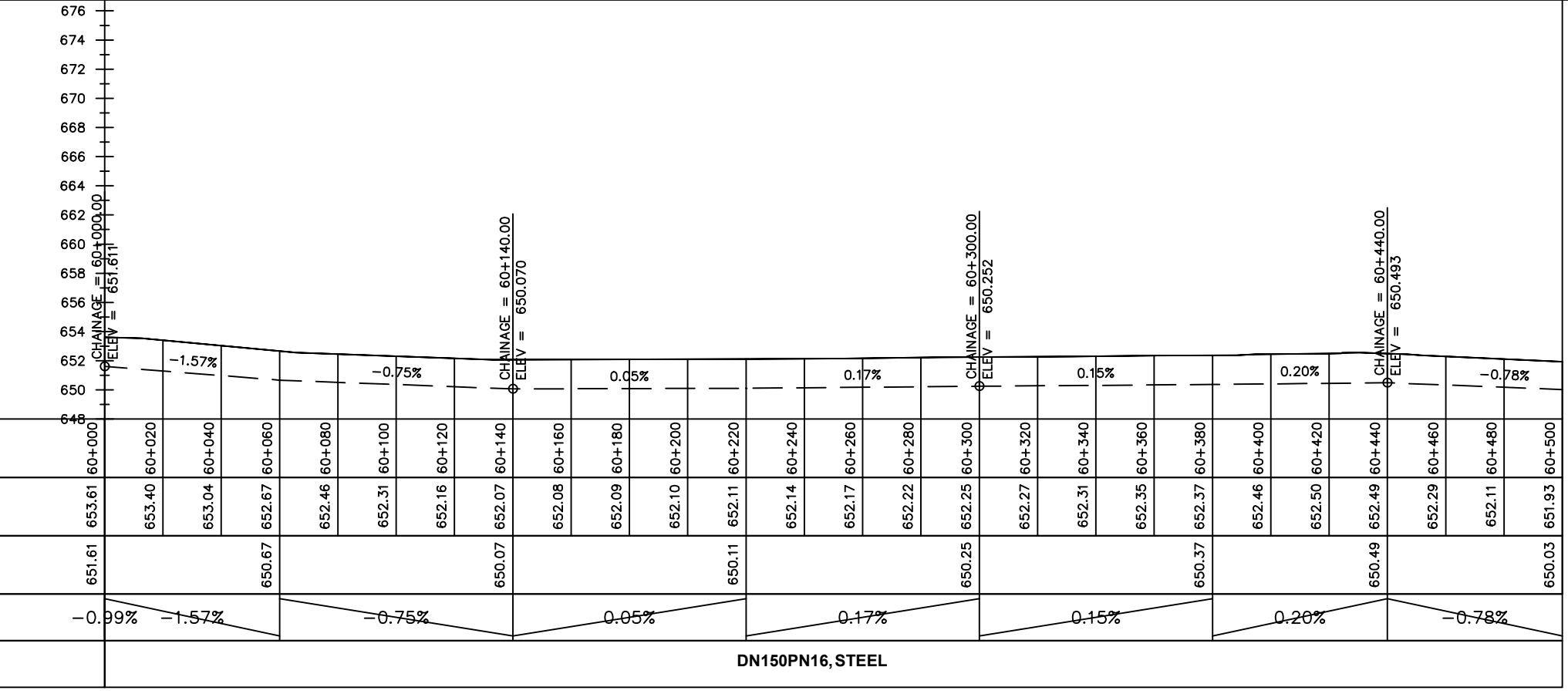
REVISIONS :

No	Date	Description

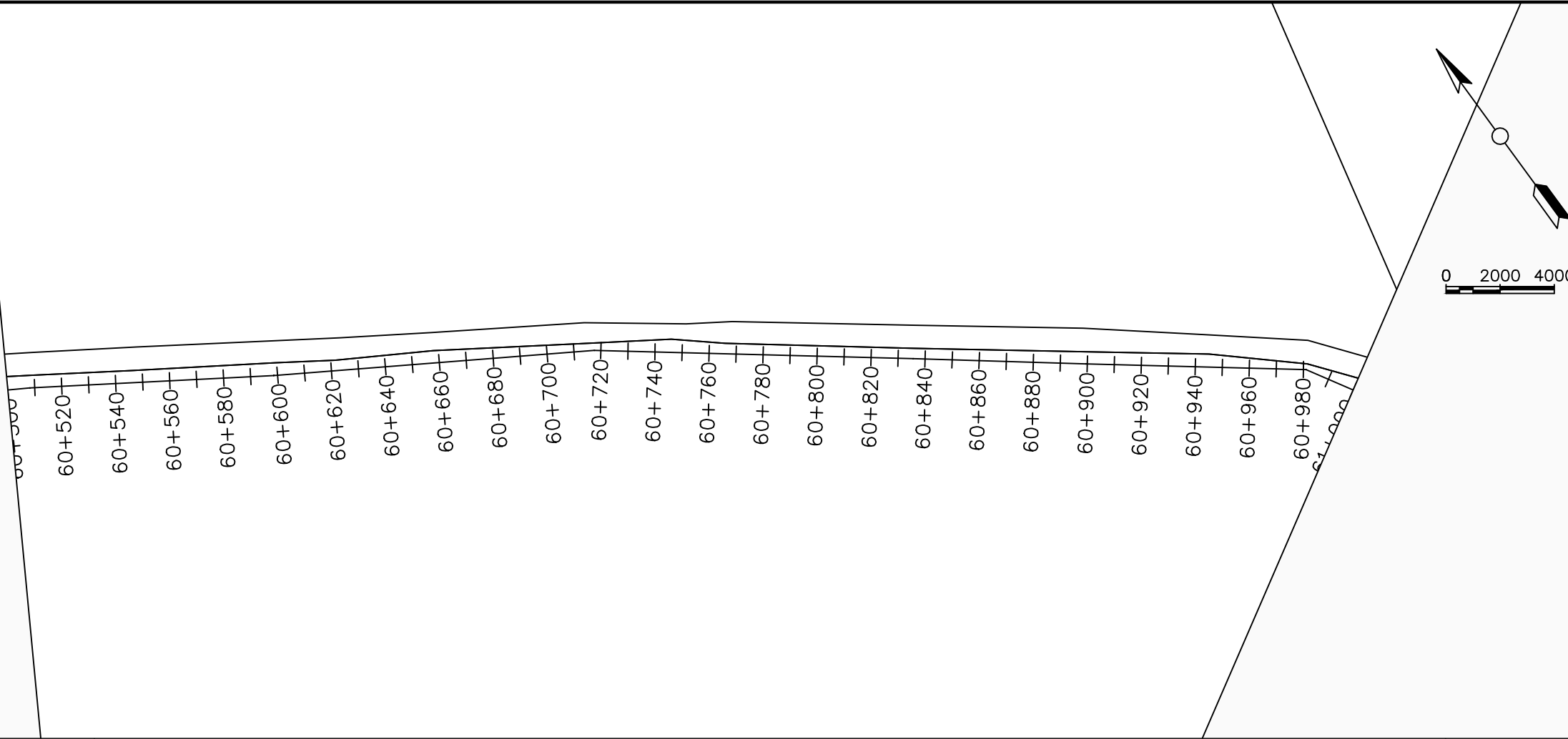
DRAWING TITLE :

GRAVITY TRANSMISSION MAIN 3
60+000 - 60+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	74 of 88



DN150PN16, STEEL



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

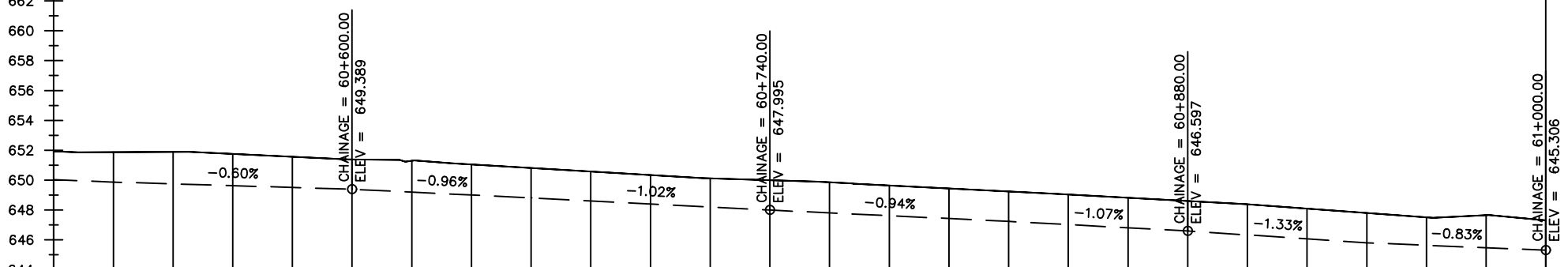
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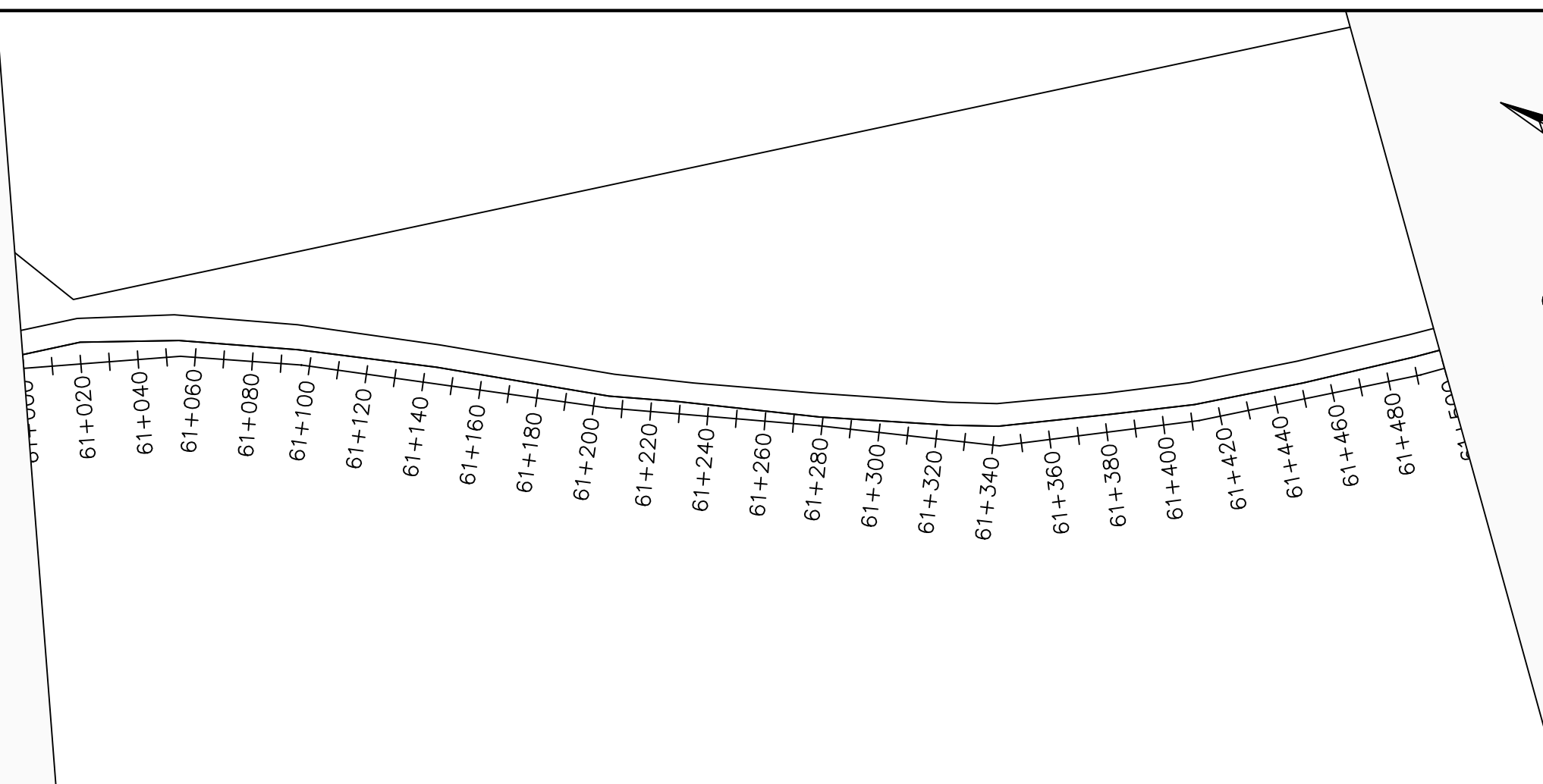
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
60+500 - 61+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	75 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
60+500	651.93	650.03	-0.78%	DN150PN16,STEEL
60+520	651.87	649.87	-0.60%	
60+540	651.89	649.39	-0.96%	
60+560	651.76	648.81	-1.02%	
60+580	651.57	647.99	-0.94%	
60+600	651.39	647.24	-1.07%	
60+620	651.30	646.60	-1.33%	
60+640	651.05	645.80	-0.83%	
60+660	650.81	645.31	-0.89%	
60+680	650.58			
60+700	650.34			
60+720	650.12			
60+740	649.99			
60+760	649.85			
60+780	649.65			
60+800	649.44			
60+820	649.24			
60+840	649.03			
60+860	648.82			
60+880	648.60			
60+900	648.38			
60+920	648.09			
60+940	647.80			
60+960	647.51			
60+980	647.66			
61+000	647.31			





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
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- WO Washout
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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

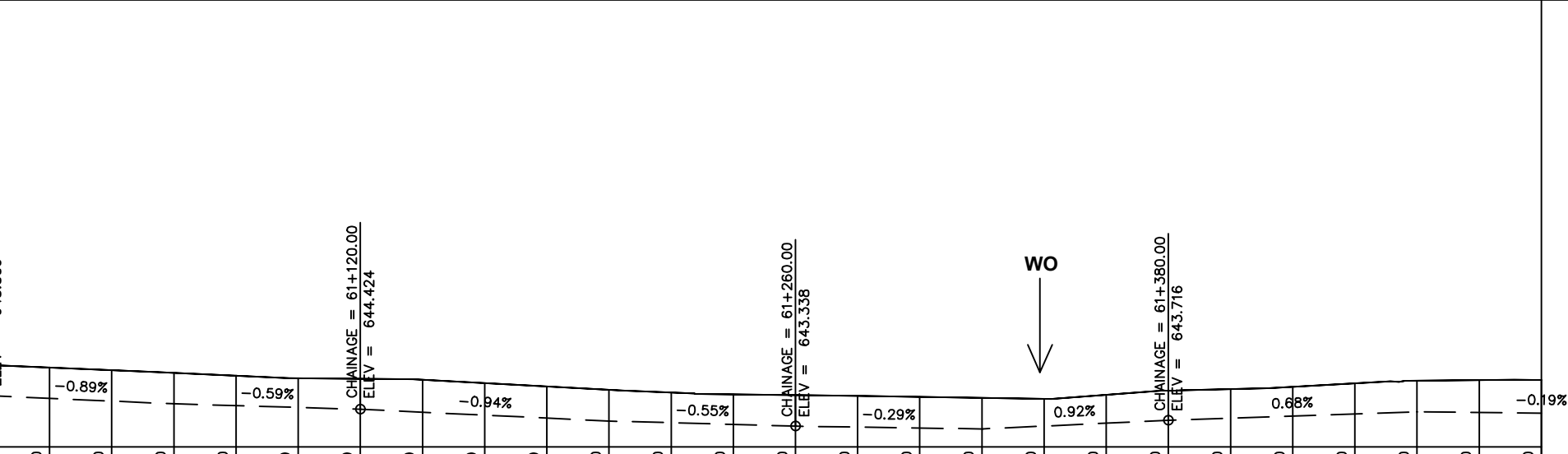
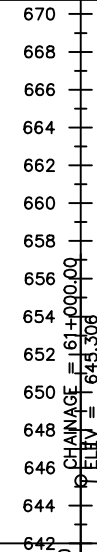
No	Date	Description

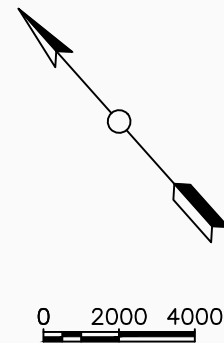
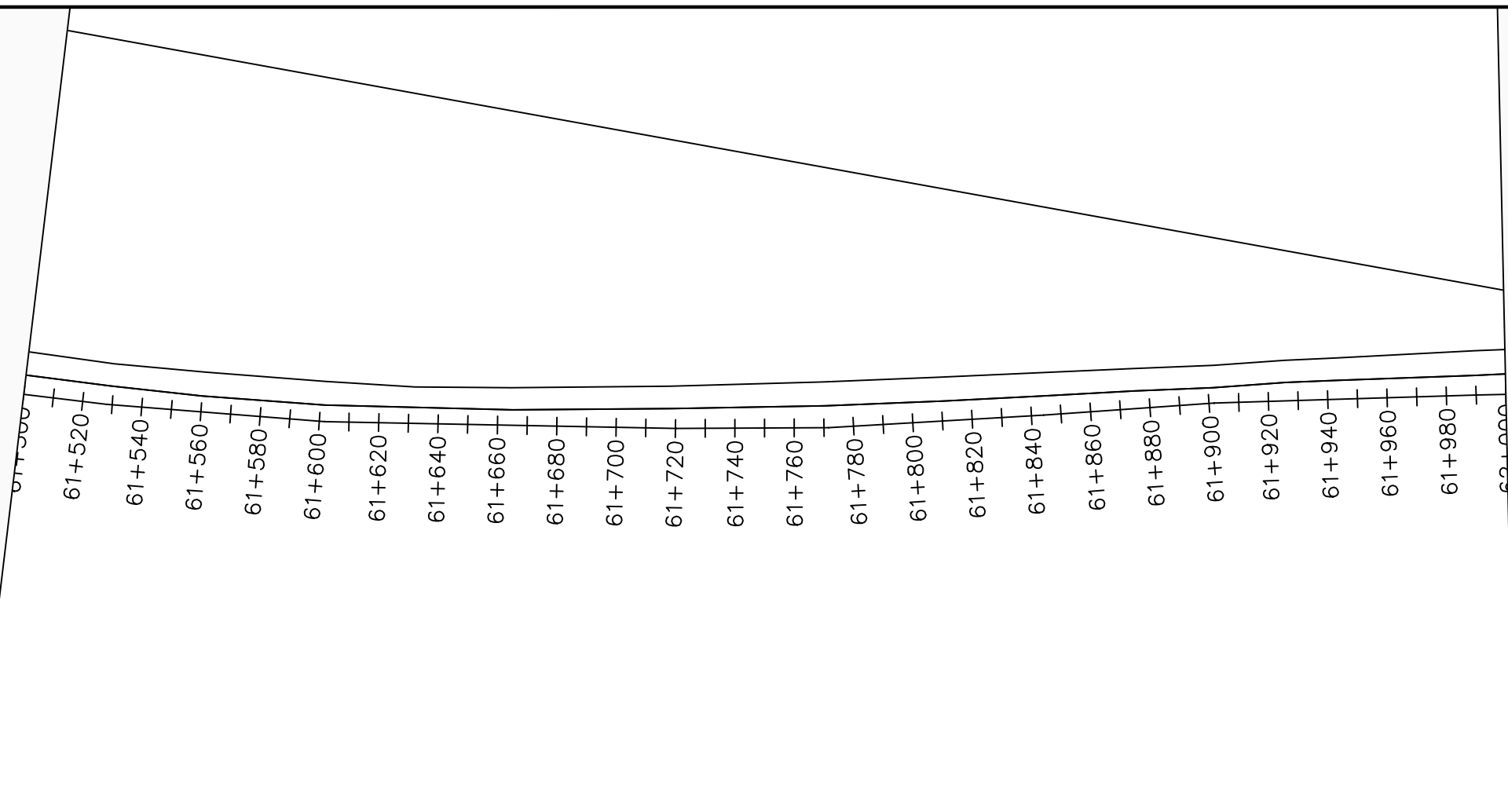
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
61+000 - 61+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	76 of 88

Chainages (m)	61+000	61+020	61+040	61+060	61+080	61+100	61+120	61+140	61+160	61+180	61+200	61+220	61+240	61+260	61+280	61+300	61+320	61+340	61+360	61+380	61+400	61+420	61+440	61+460	61+480	61+500		
Ground Levels (masl)	647.31	647.11	646.95	646.77	646.59	646.42	646.39	646.32	646.10	645.89	645.67	645.50	645.39	645.34	645.29	645.23	645.16	645.10	645.36	645.62	645.72	645.86	646.09	646.26	646.30	646.31		
Invert Levels (masl)	645.31			644.77			644.42				643.67			643.34			643.16			643.72			644.26			644.18		
Slope (%)	-0.33%	-0.89%			-0.59%				-0.94%			-0.55%			-0.29%			0.92%			0.68%					-0.19%		
Pipe Details	DN150PN16, STEEL																											





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

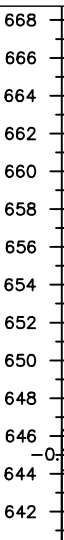
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
61+500 - 62+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	77 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
61+500	646.31	644.18	-0.19%	DN150PN16,STEEL
61+520	646.25	644.11	-1.03%	
61+540	646.11	643.49	0.29%	
61+560	645.90	643.66	0.14%	
61+580	645.70	643.75	-0.14%	
61+600	645.49	643.63	-0.53%	
61+620	645.71	643.21	-0.86%	
61+640	645.66	642.69	-0.78%	
61+660	645.66	644.22	0.47%	
61+680	645.69			
61+700	645.72			
61+720	645.75			
61+740	645.75			
61+760	645.75			
61+780	645.72			
61+800	645.63			
61+820	645.55			
61+840	645.46			
61+860	645.34			
61+880	645.21			
61+900	644.70			
61+920	644.88			
61+940	644.69			
61+960	644.47			
61+980	644.25			
62+000	644.22			

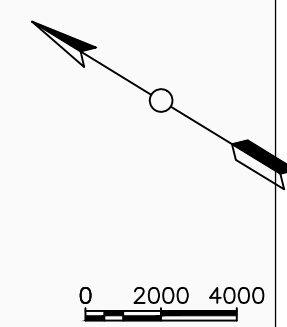
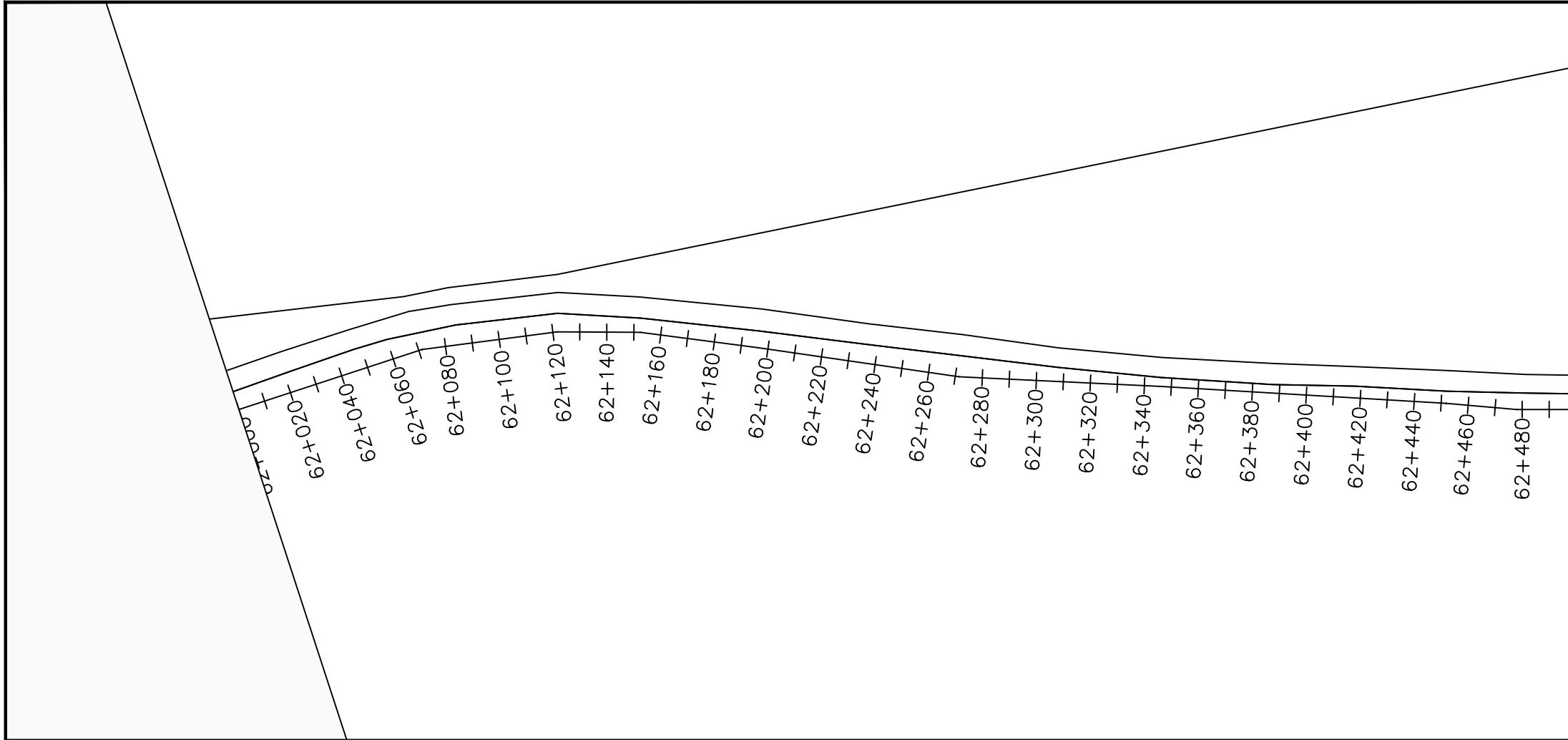


CHAINAGE = 61+540.00
ELEV = 644.107

CHAINAGE = 61+660.00
ELEV = 643.661

CHAINAGE = 61+800.00
ELEV = 643.632

CHAINAGE = 61+940.00
ELEV = 642.692



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

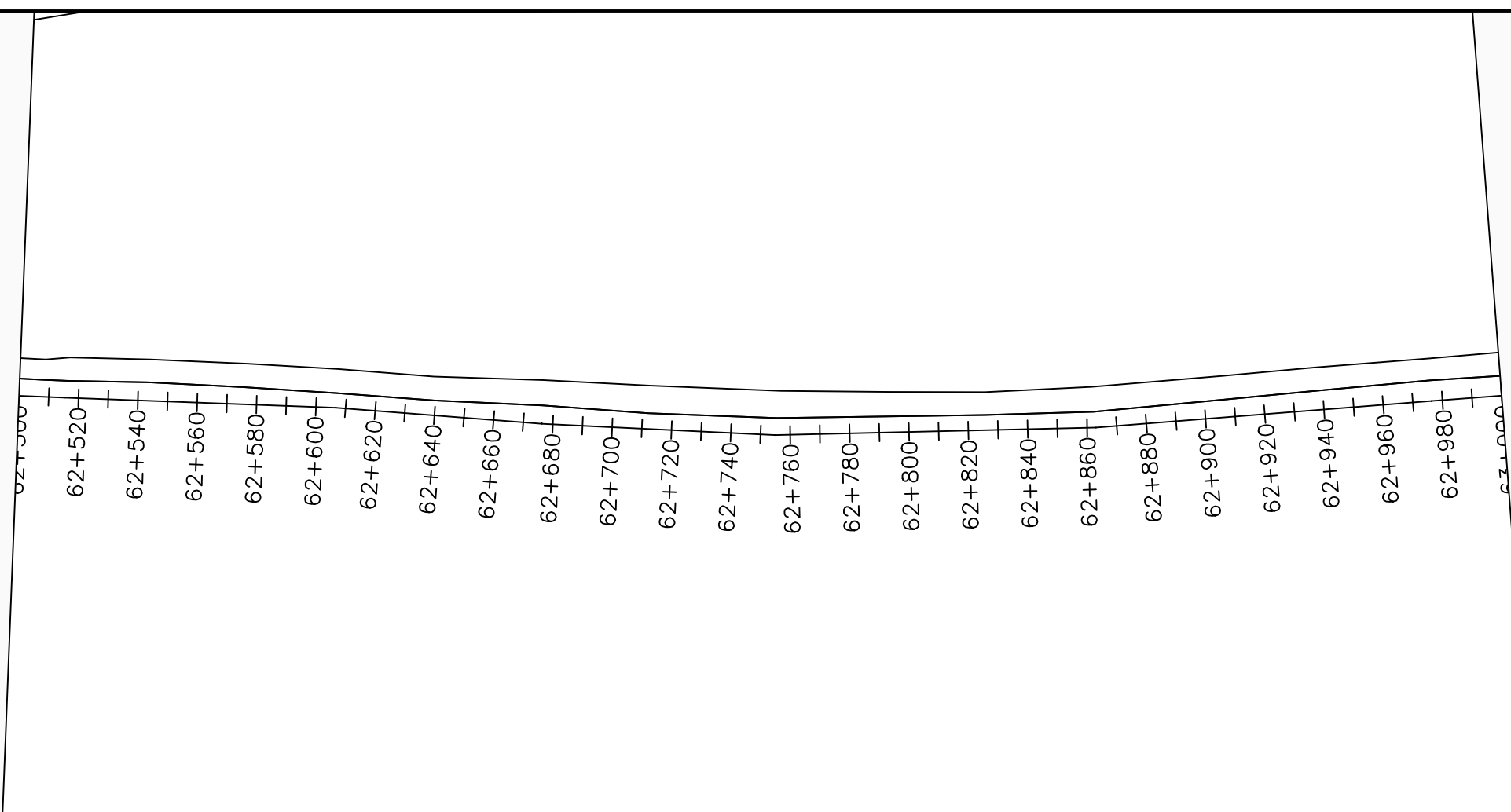
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
62+000 - 62+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	78 of 88

Chainages (m)	62+000	62+020	62+040	62+060	62+080	62+100	62+120	62+140	62+160	62+180	62+200	62+220	62+240	62+260	62+280	62+300	62+320	62+340	62+360	62+380	62+400	62+420	62+440	62+460	62+480	62+500		
Ground Levels (masl)	644.22	644.39	644.48	644.51	644.55	644.76	645.28	645.20	645.12	645.12	645.11	645.04	644.87	644.51	644.38	644.56	644.52	644.33	644.21	644.12	643.95	644.05	644.01	644.02	644.09	644.01		
Invert Levels (masl)	642.22			642.51			643.28				643.11			642.51			642.52			642.12			642.01			641.97		
Slope (%)	-0.78%	0.47%		1.28%			-0.21%			-0.99%			0.01%			-0.66%			-0.19%			-0.07%						
Pipe Details	DN150PN16,STEEL																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

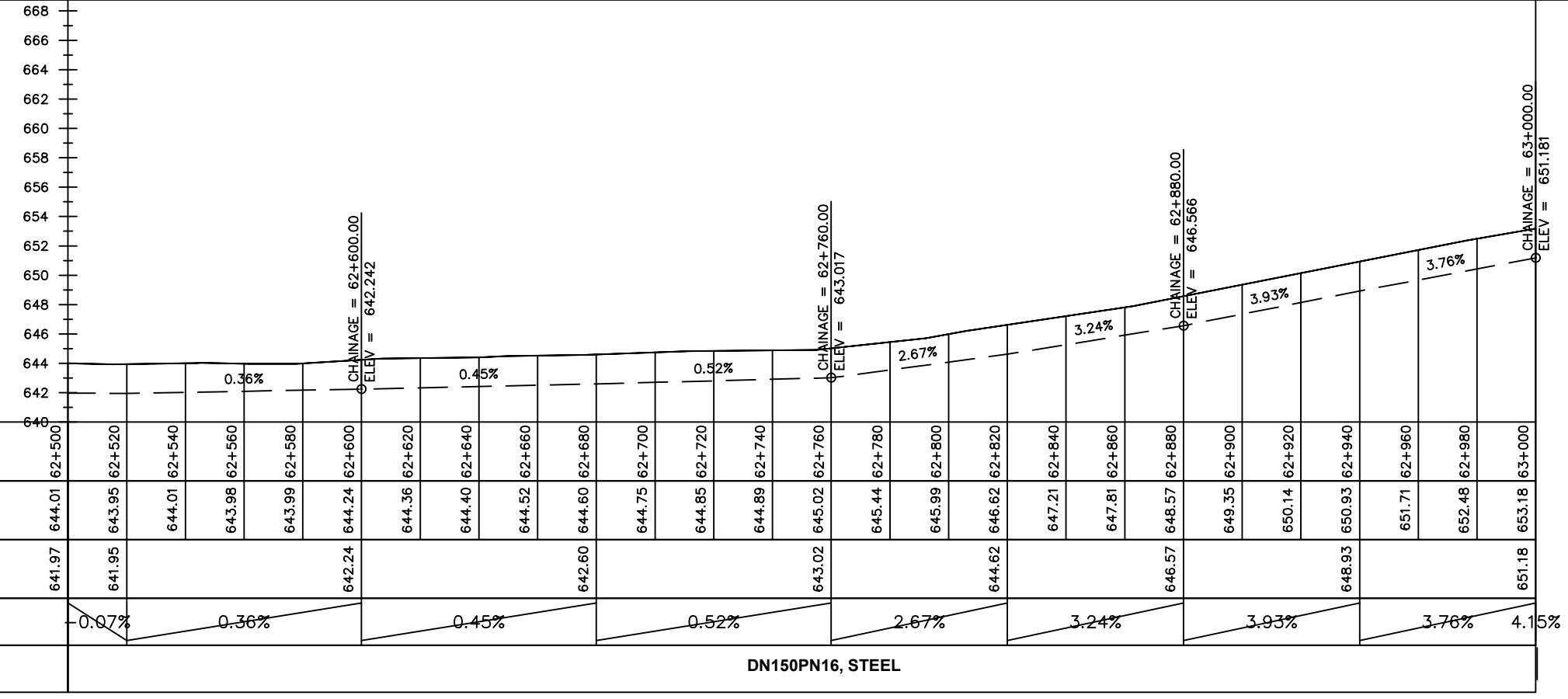
REVISIONS :

No	Date	Description

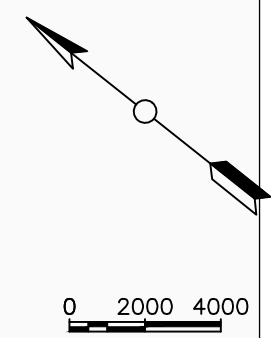
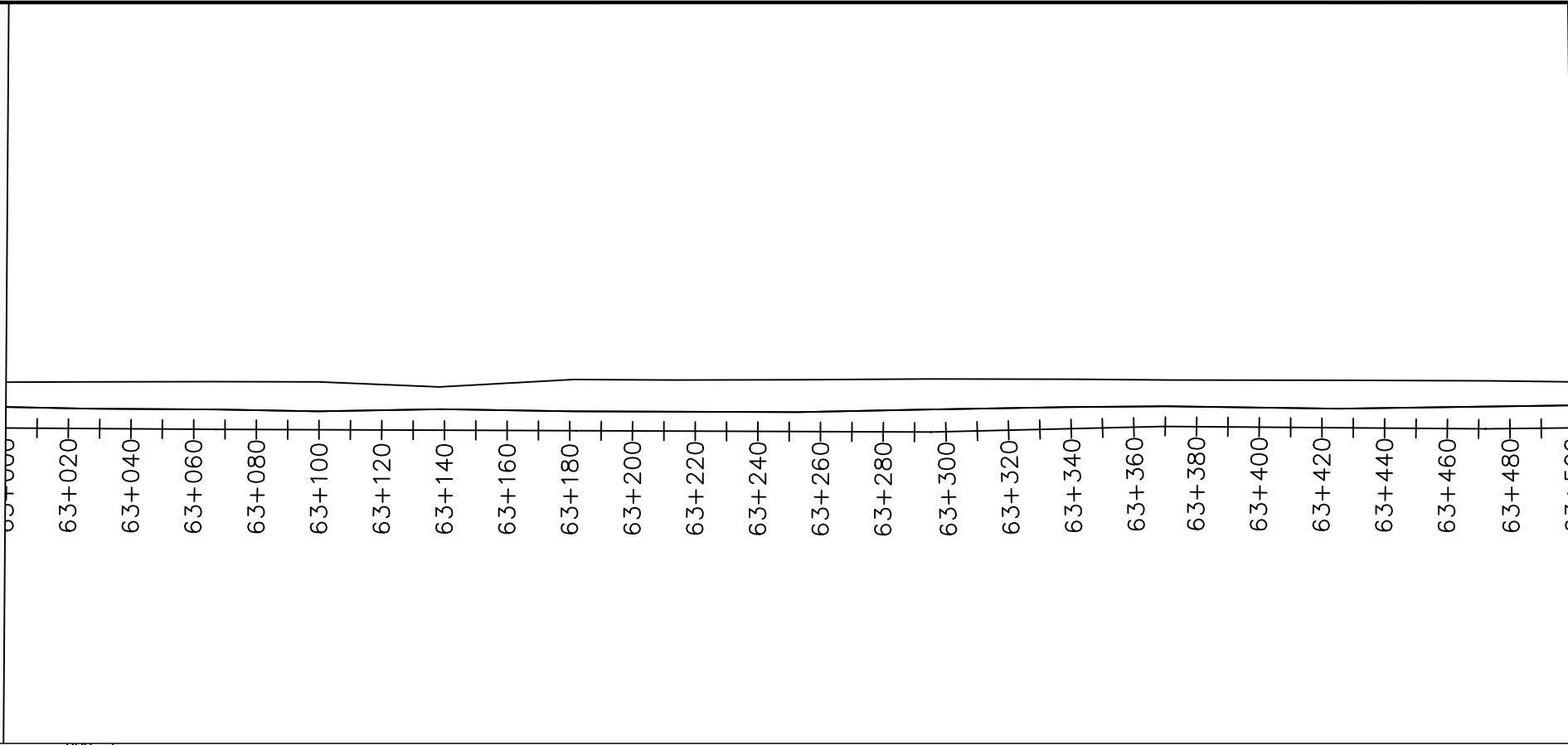
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
62+500 - 63+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	79 of 88



Chainages (m)	62+500	62+520	62+540	62+560	62+580	62+600	62+620	62+640	62+660	62+680	62+700	62+720	62+740	62+760	62+780	62+800	62+820	62+840	62+860	62+880	62+900	62+920	62+940	62+960	62+980	63+000		
Ground Levels (masl)	644.01	643.95	644.01	643.98	643.99	644.24	644.36	644.40	644.52	644.60	644.75	644.85	644.89	645.02	645.44	645.99	646.62	647.21	647.81	648.57	649.35	650.14	650.93	651.71	652.48	653.18		
Invert Levels (masl)	641.97	641.95	642.24	642.60	643.02	643.02	644.62	646.57	648.93	651.18																		
Slope (%)	0.07%	0.36%	0.45%	0.52%	2.67%	3.24%	3.93%	3.76%	4.15%																			
Pipe Details	DN150PN16, STEEL																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

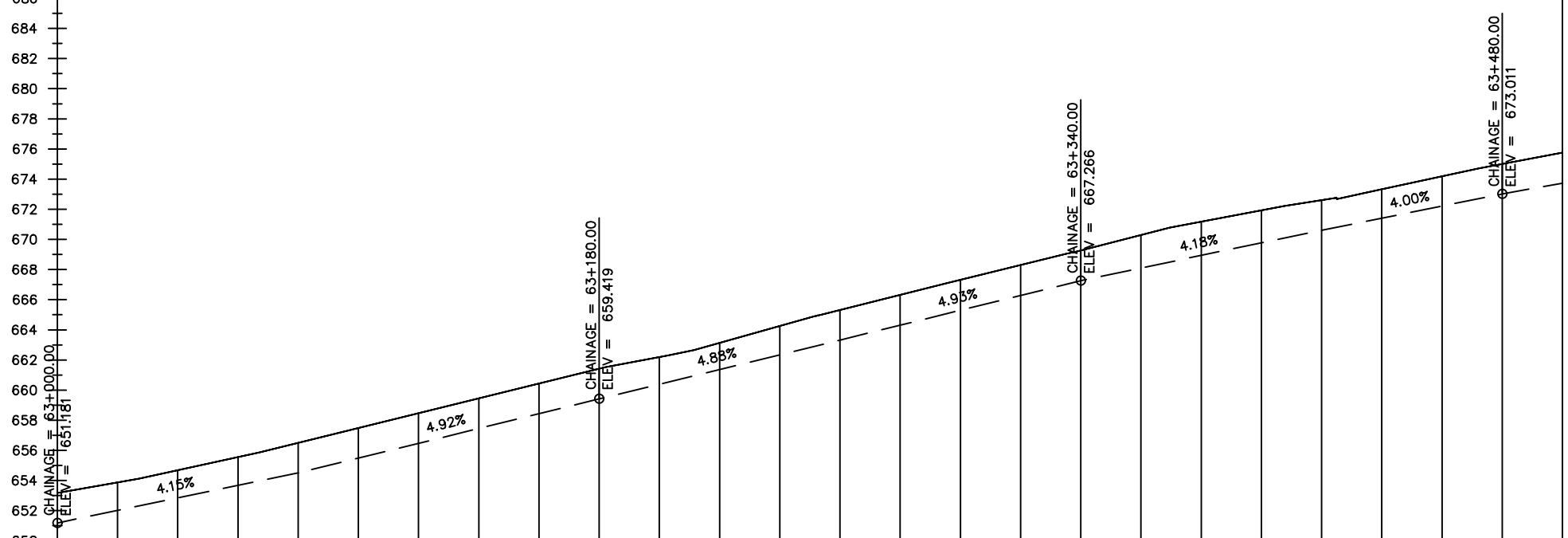
REVISIONS :

No	Date	Description

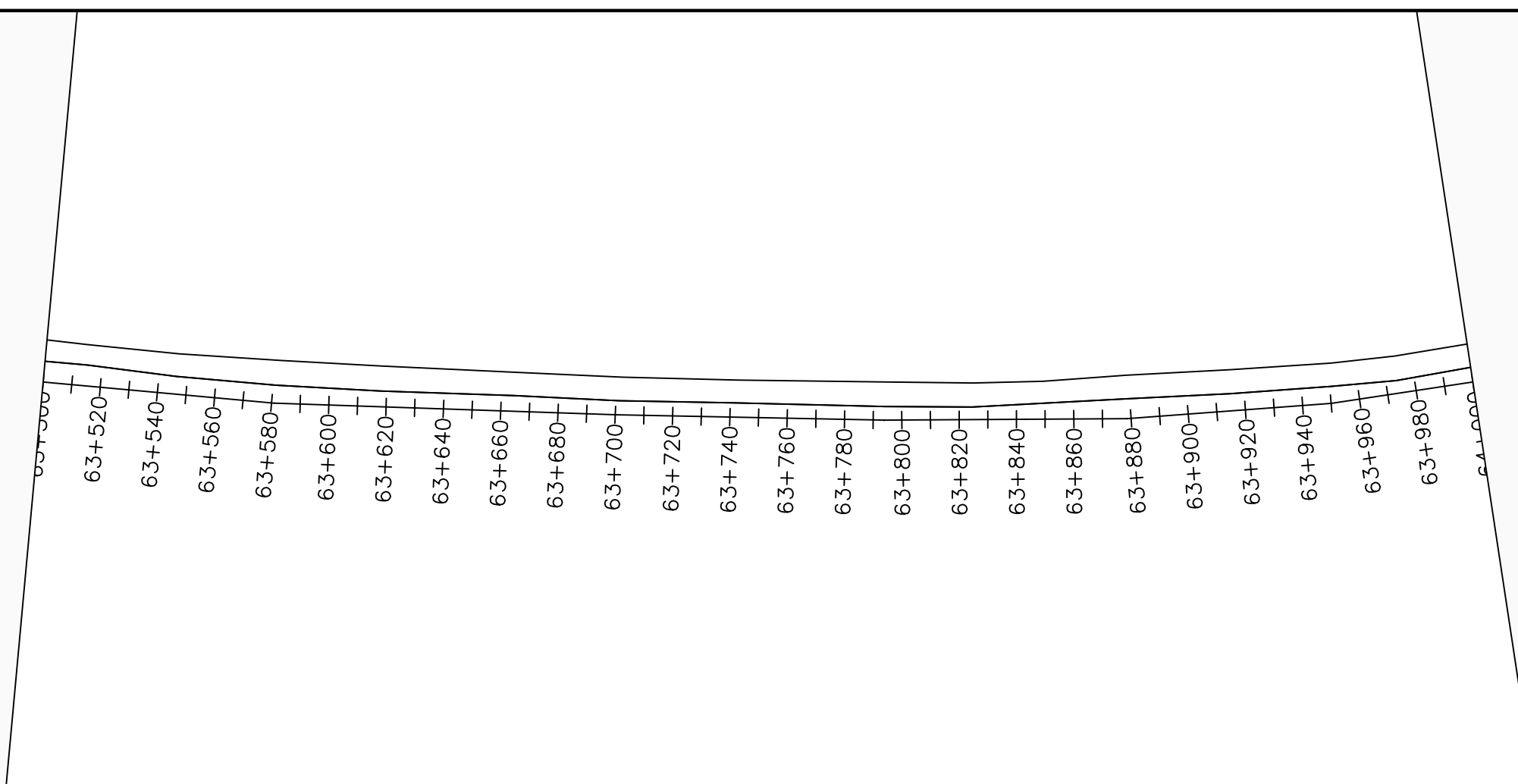
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
63+000 - 63+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	80 of 88



Chainages (m)	63+000	63+020	63+040	63+060	63+080	63+100	63+120	63+140	63+160	63+180	63+200	63+220	63+240	63+260	63+280	63+300	63+320	63+340	63+360	63+380	63+400	63+420	63+440	63+460	63+480	63+500		
Ground Levels (masl)	653.18	653.88	654.69	655.56	656.50	657.49	658.47	659.45	660.44	661.42	662.19	663.13	664.25	665.32	666.33	667.32	668.30	669.27	670.30	671.18	671.93	672.61	673.33	674.19	675.01	675.76		
Invert Levels (masl)	651.18				654.50					659.42				663.32				667.27				670.61				673.01	673.73	
Slope (%)	3.76%	4.15%				4.92%					4.88%				4.93%				4.18%				4.00%			3.60%		
Pipe Details	OD125PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

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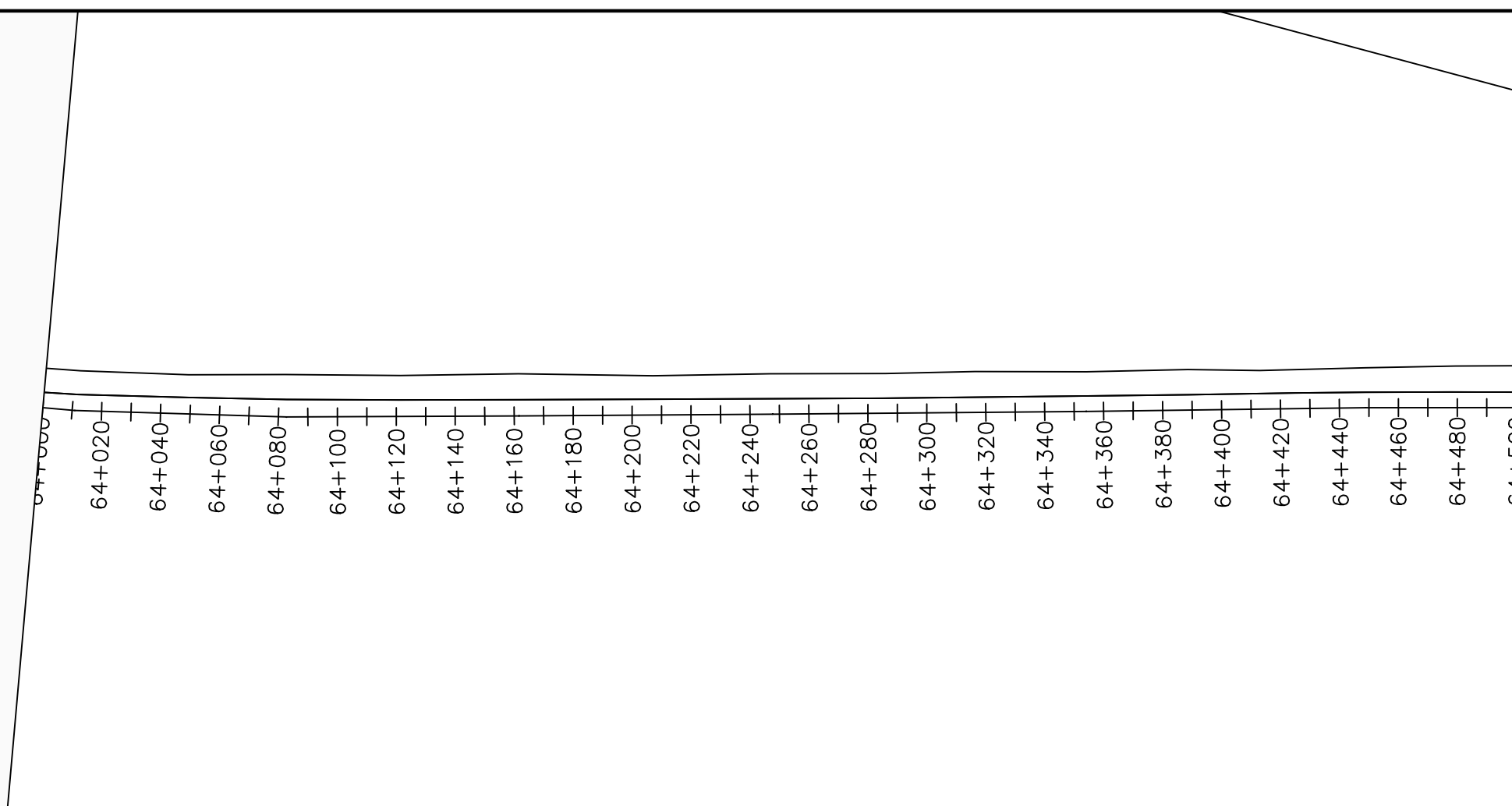
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
63+500 - 64+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	81 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
63+500	675.76	673.73		OD125PN16, uPVC
63+520	676.50		3.60%	
63+540	677.19			
63+560	677.89	675.89		
63+580	678.59		3.59%	
63+600	679.31			
63+620	679.88			
63+640	680.76	678.76		
63+660	681.48		3.15%	
63+680	682.07			
63+700	682.67			
63+720	683.28	681.28		
63+740	683.86		2.56%	
63+760	684.38			
63+780	684.86			
63+800	685.33	683.33		
63+820	685.91		3.99%	
63+840	686.87			
63+860	687.73	685.73		
63+880	688.59		3.80%	
63+900	689.30			
63+920	690.01	688.01		
63+940	690.72		2.96%	
63+960	691.33			
63+980	691.78	689.78		
64+000	691.88	689.84	0.30%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

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CONSULTANT :

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In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

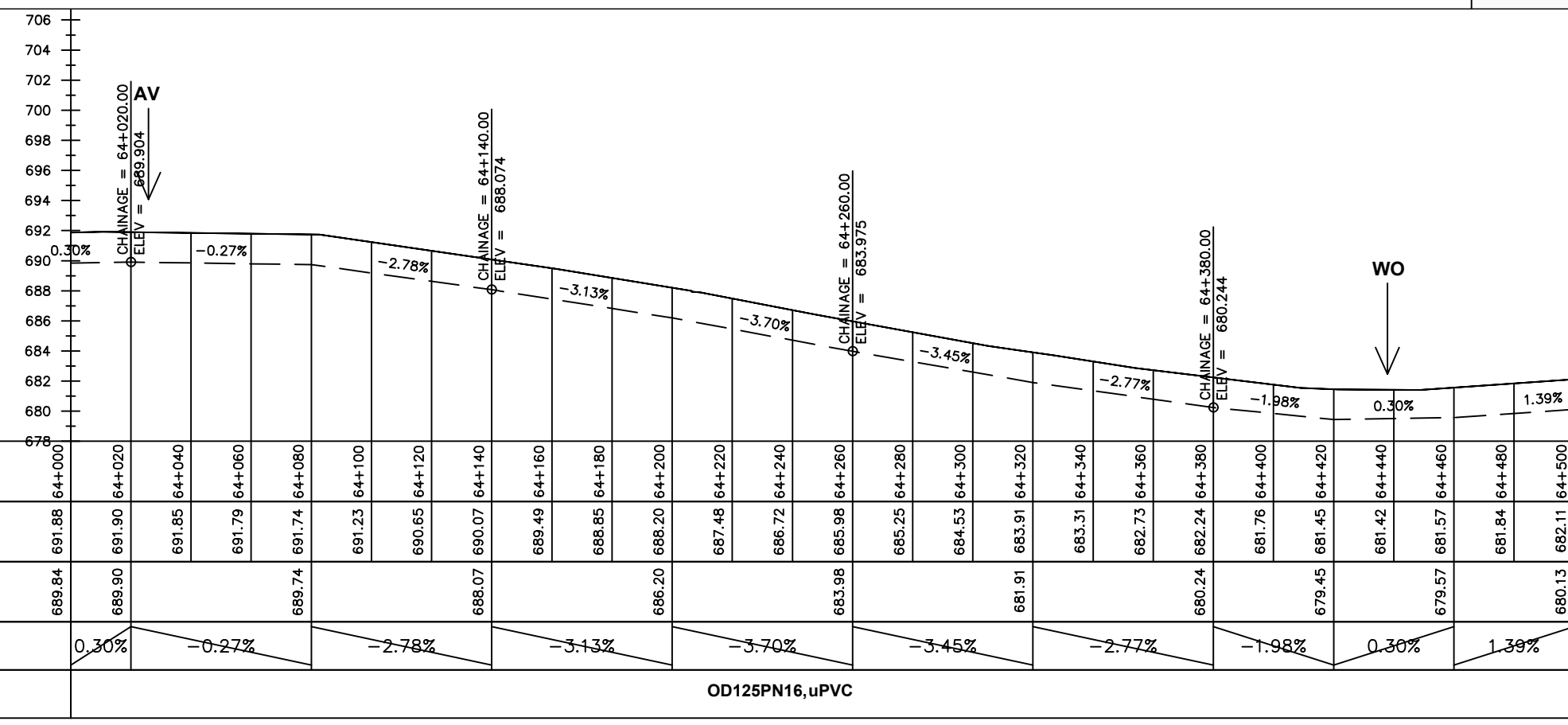
REVISIONS :

No	Date	Description

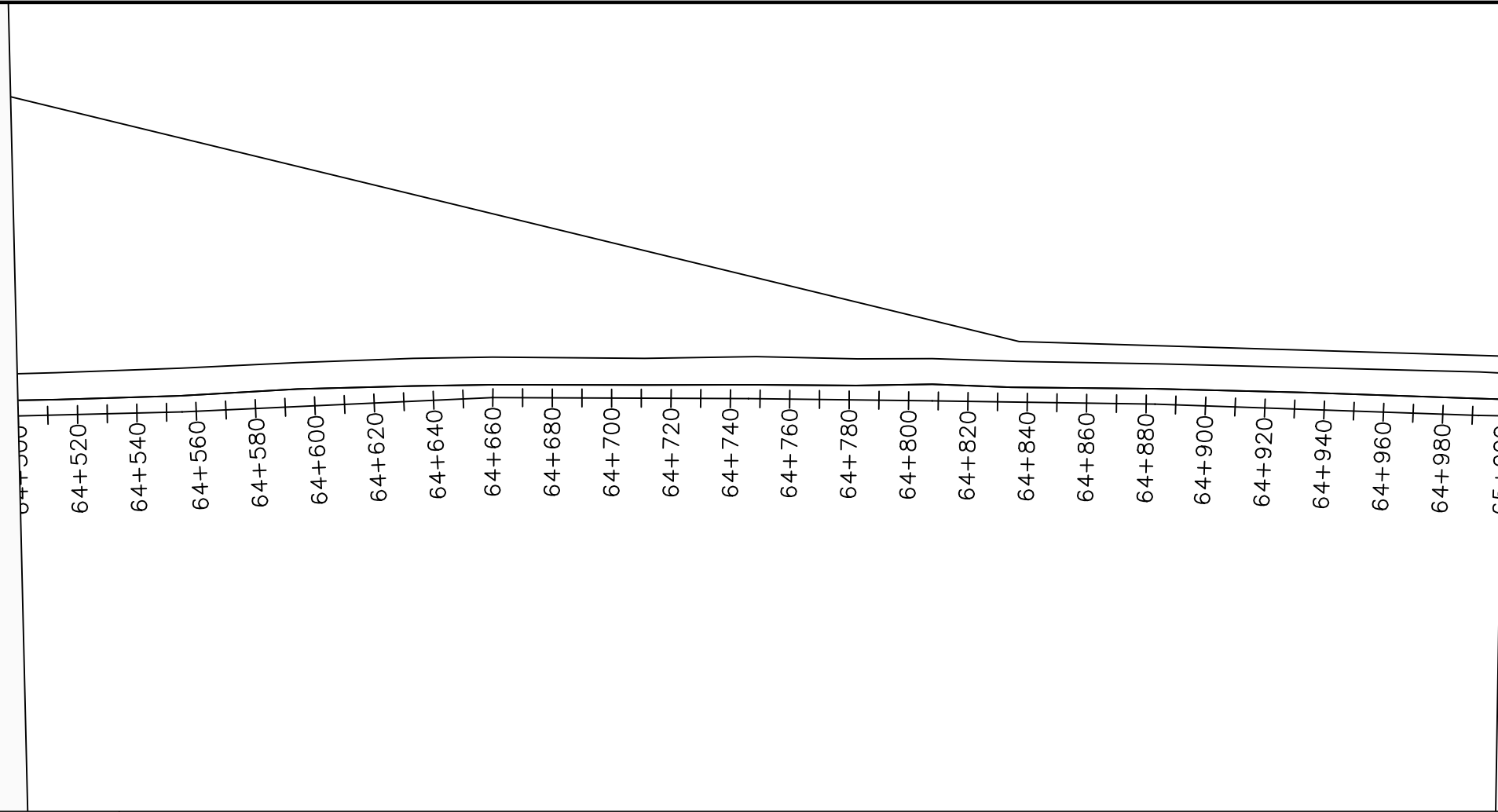
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
64+000 - 64+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	82 of 88



OD125PN16,uPVC



LEGEND


Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile


- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- ⑩ Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

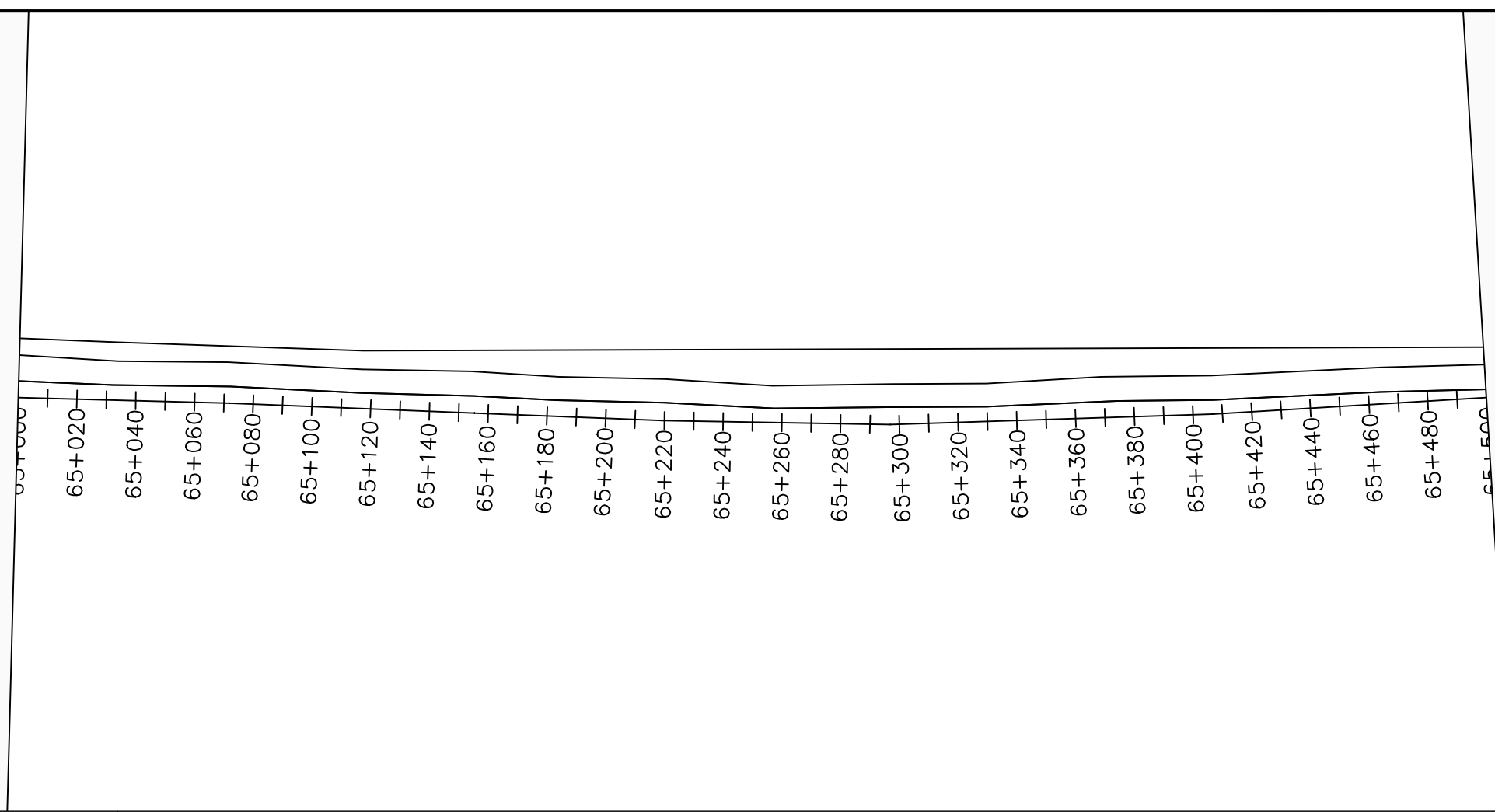
No	Date	Description

DRAWING TITLE :

GRAVITY TRANSMISSION MAIN 3
64+500 - 65+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	83 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
64+500	682.11	680.13	1.39%	OD125PN16, uPVC
64+520	682.40	680.40	1.83%	
64+540	682.83	681.87	1.24%	
64+560	683.24	682.61	-0.19%	
64+580	683.55	682.50	-0.24%	
64+600	683.87	682.35	-1.35%	
64+620	684.15	681.54	-0.99%	
64+640	684.41	681.03	0.13%	
64+660	684.61	681.51	1.20%	
64+680	684.55			
64+700	684.49			
64+720	684.50			
64+740	684.66			
64+760	684.57			
64+780	684.35			
64+800	684.31			
64+820	683.89			
64+840	683.54			
64+860	683.29			
64+880	683.04			
64+900	682.95			
64+920	682.89			
64+940	682.89			
64+960	683.03			
64+980	683.17			
65+000	683.36			



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

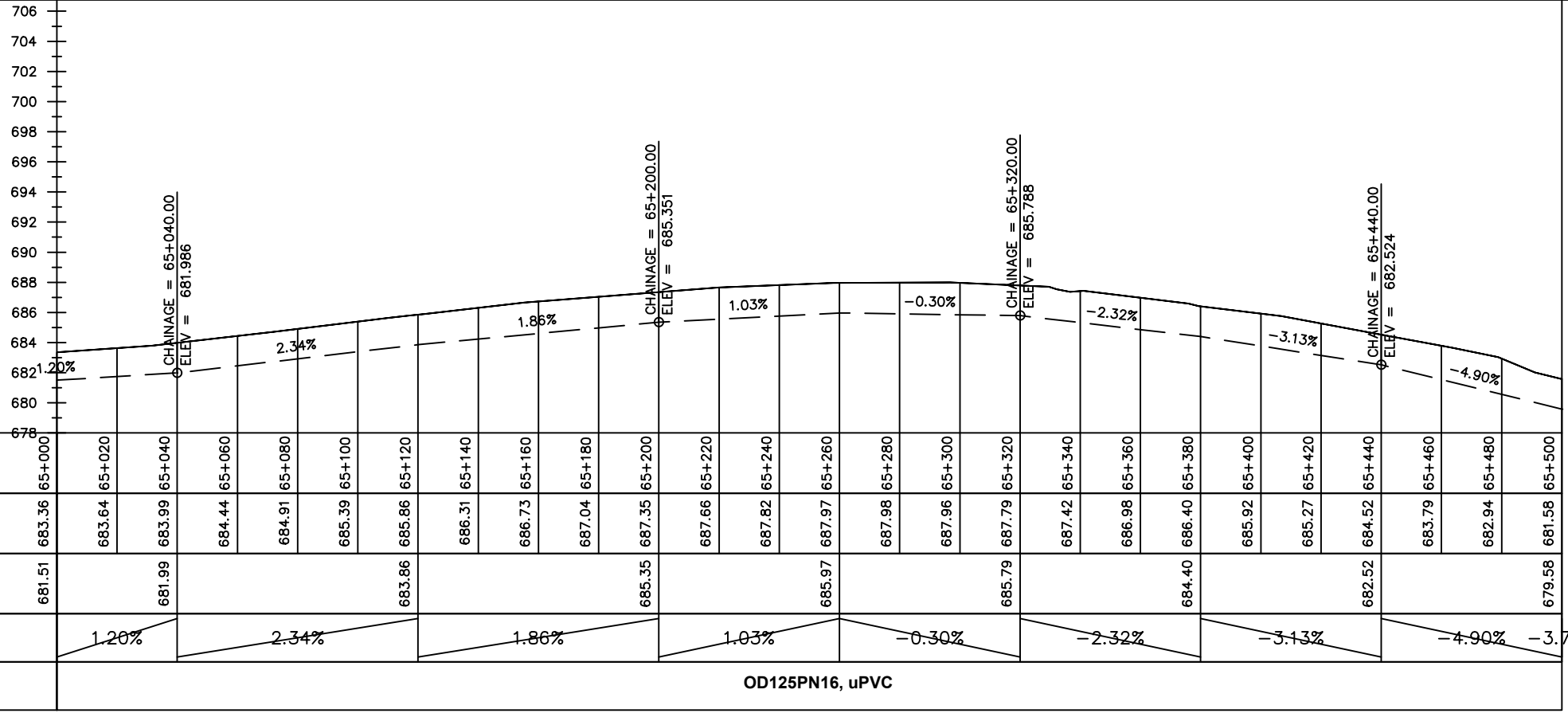
REVISIONS :

No	Date	Description

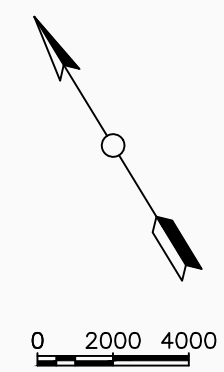
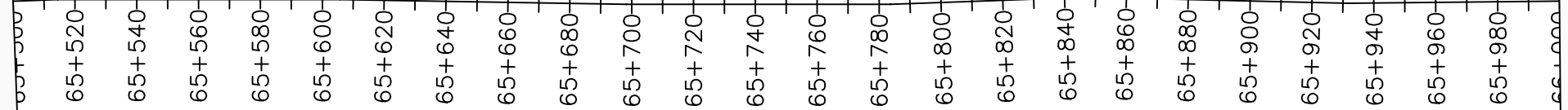
DRAWING TITLE :

GRAVITY TRANSMISSION MAIN 3
65+000 - 65+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	84 of 88



Chainages (m)	65+000	65+020	65+040	65+060	65+080	65+100	65+120	65+140	65+160	65+180	65+200	65+220	65+240	65+260	65+280	65+300	65+320	65+340	65+360	65+380	65+400	65+420	65+440	65+460	65+480	65+500		
Ground Levels (masl)	683.36	683.64	683.99	684.44	684.91	685.39	685.86	686.31	686.73	687.04	687.35	687.66	687.82	687.97	687.98	687.96	687.79	687.42	686.98	686.40	685.92	685.27	684.52	683.79	682.94	681.58		
Invert Levels (masl)	681.51	681.99	683.86	685.35	687.04	687.97	687.98	687.96	687.79	687.42	686.98	686.40	685.92	685.27	684.52	683.79	682.94	681.58										
Slope (%)	1.20%	2.34%	1.86%	1.03%	-0.30%	-2.32%	-3.13%	-4.90%	-3.76%																			
Pipe Details	OD125PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

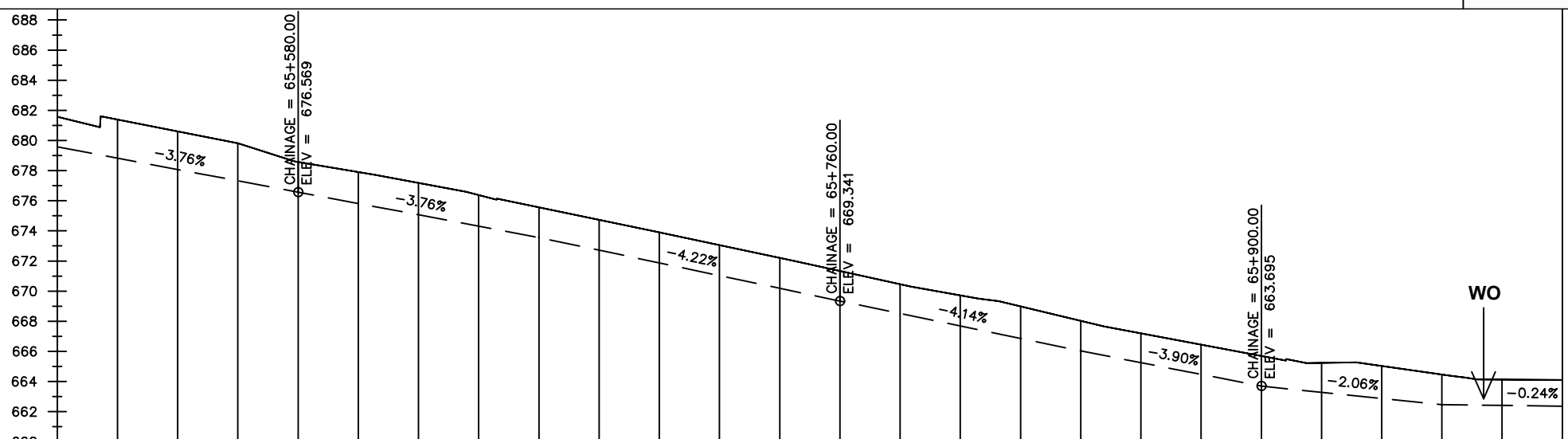
REVISIONS :

No	Date	Description

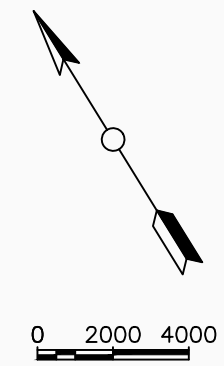
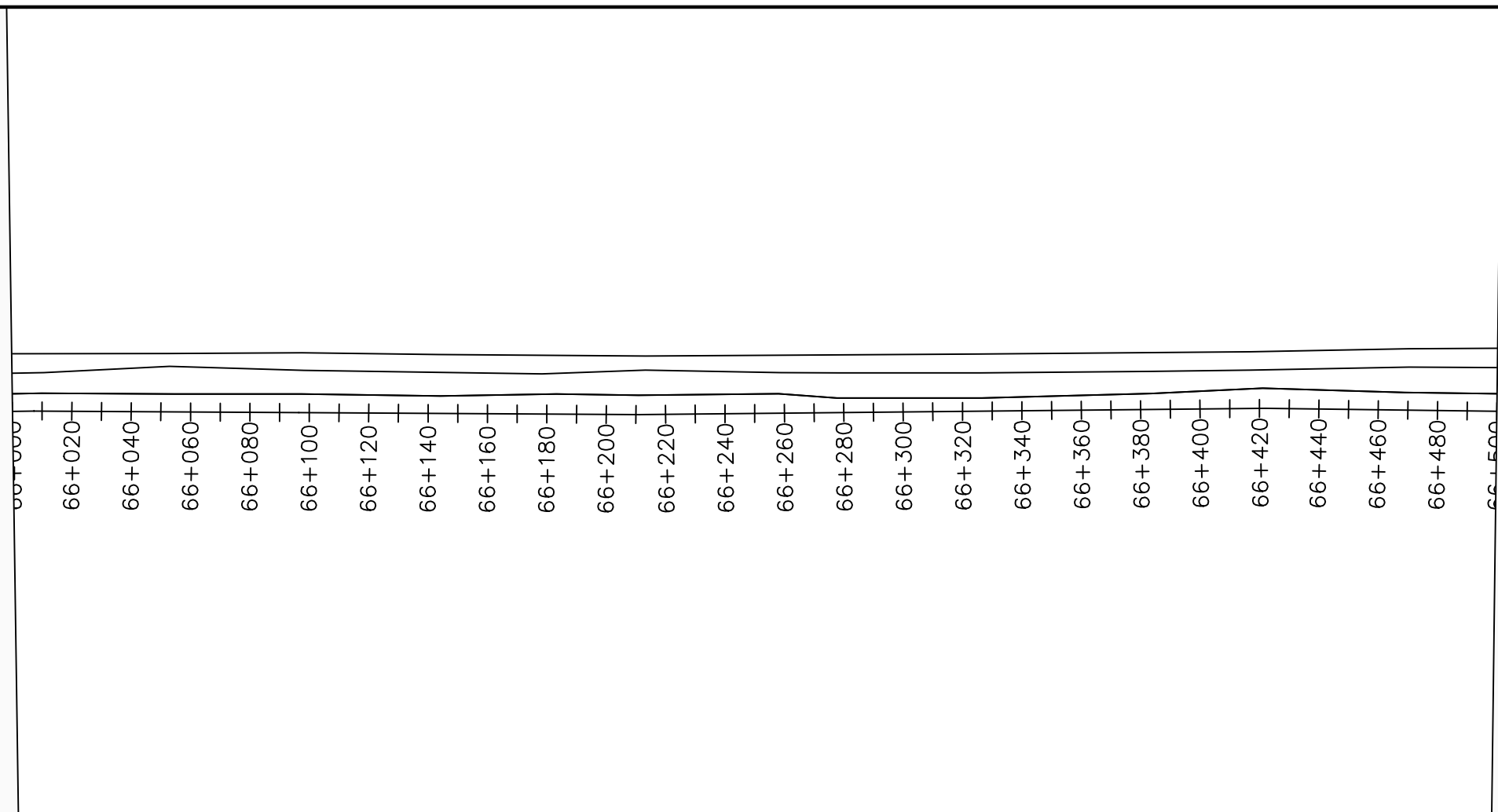
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
65+500 - 66+000

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	85 of 88



Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
65+500	681.58	679.58	-4.90%	OD125PN16, uPVC
65+520	681.39		-3.76%	
65+540	680.60		-3.76%	
65+560	679.81		-3.76%	
65+580	678.57	676.57		
65+600	677.90		-3.76%	
65+620	677.18		-3.76%	
65+640	676.38		-4.22%	
65+660	675.56	673.56		
65+680	674.74		-4.22%	
65+700	673.91		-4.14%	
65+720	673.06		-4.14%	
65+740	672.21		-3.90%	
65+760	671.34	669.34		
65+780	670.46		-2.06%	
65+800	669.72		-0.24%	
65+820	668.99			
65+840	668.03	666.03		
65+860	667.20			
65+880	666.45			
65+900	665.69	663.69		
65+920	665.24			
65+940	665.03			
65+960	664.46	662.46		
65+980	664.12			
66+000	664.10	662.36		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

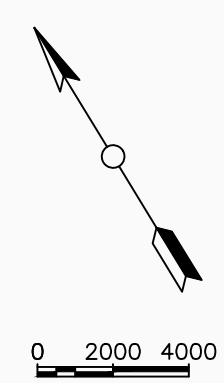
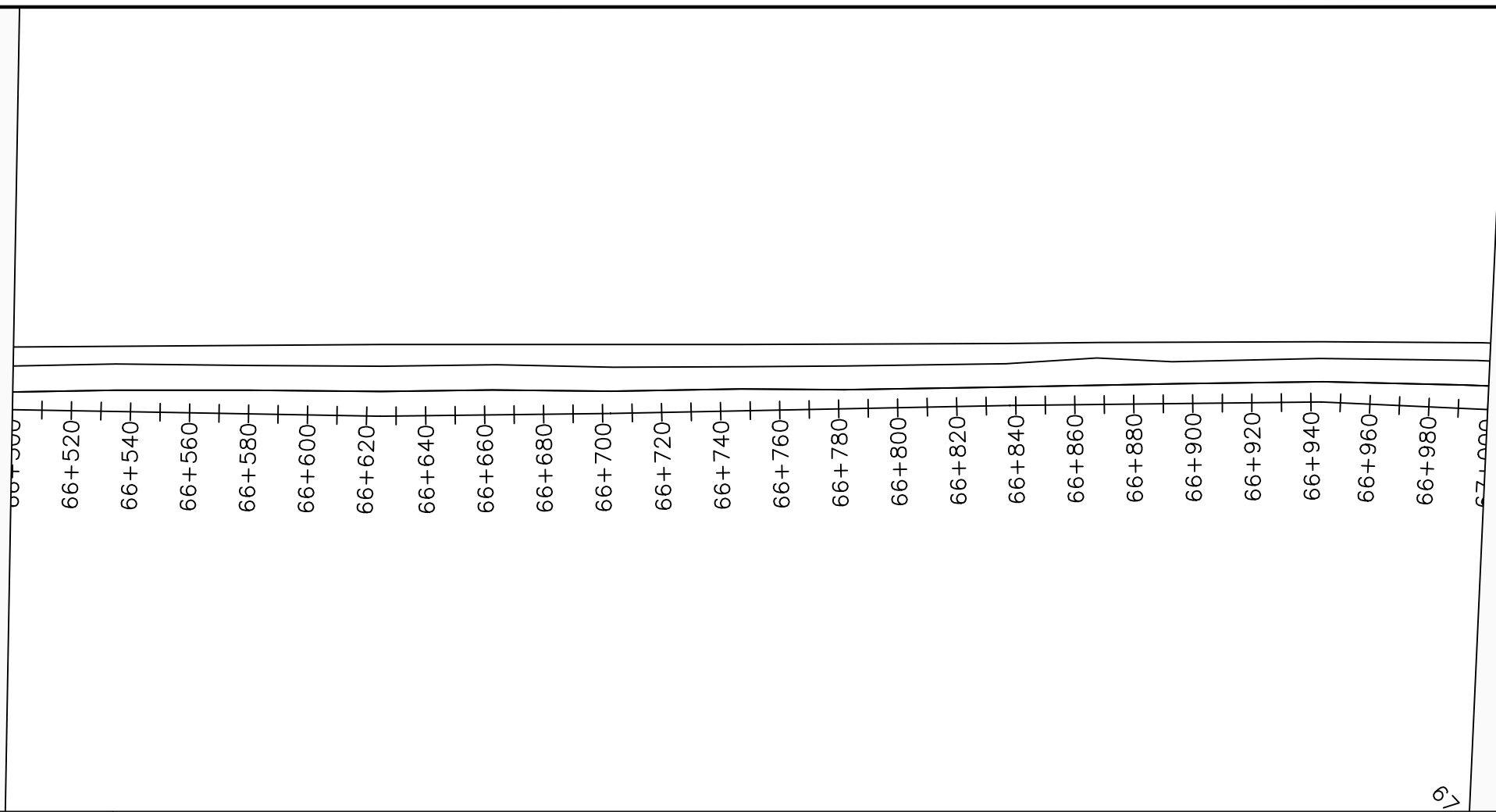
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
66+000 - 66+500

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	86 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
66+000	664.10	662.36		OD125PN16, uPVC
66+020	664.31	662.31	-0.24%	
66+040	664.66		1.49%	
66+060	664.89			
66+080	665.21	663.21		
66+100	665.53		2.03%	
66+120	665.84			
66+140	666.15			
66+160	666.66			
66+180	667.24	665.24	3.04%	
66+200	667.79			
66+220	668.44			
66+240	669.06		3.77%	
66+260	669.67	667.67		
66+280	670.27			
66+300	671.07			
66+320	671.88			
66+340	672.68	670.68	3.62%	
66+360	673.41			
66+380	674.13			
66+400	674.85			
66+420	675.58	673.58	4.64%	
66+440	676.40			
66+460	677.23			
66+480	678.22			
66+500	679.29	677.29	5.12%	



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

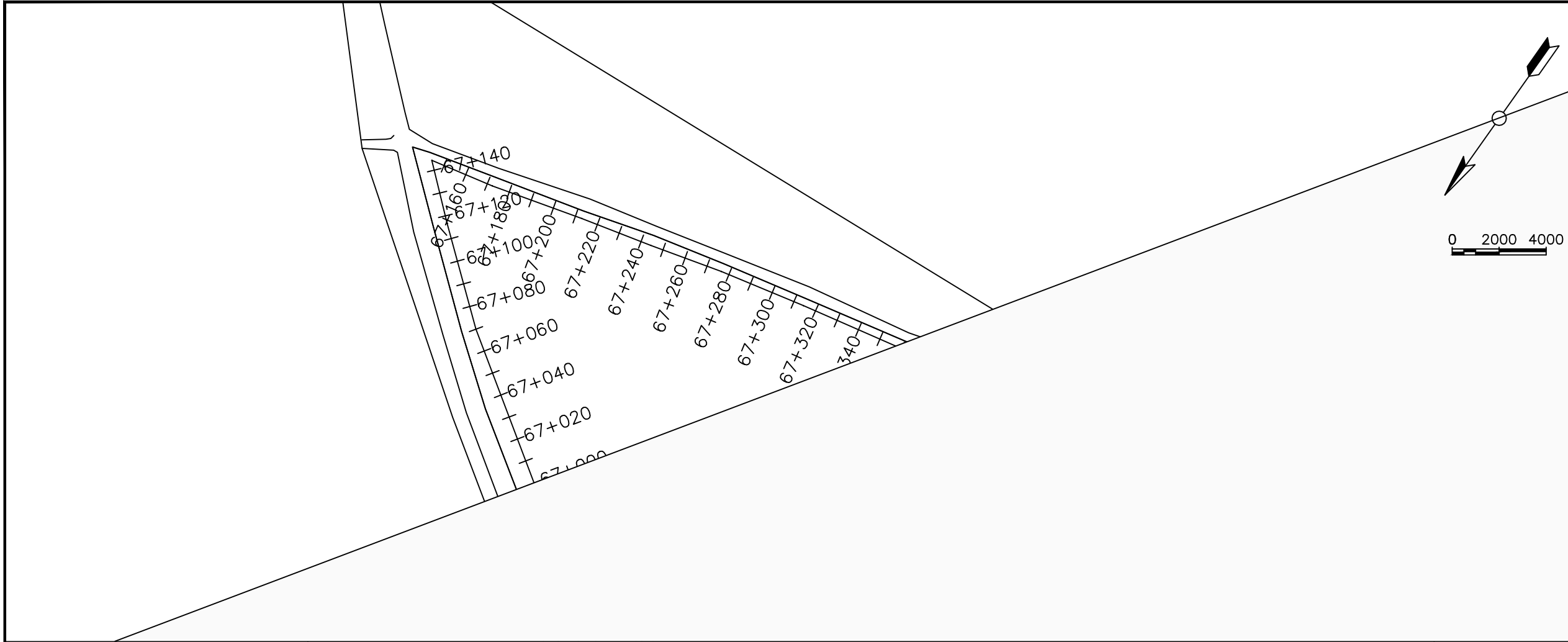
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
66+500 - 67+000

Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	87 of 88

Chainages (m)	Ground Levels (masl)	Invert Levels (masl)	Slope (%)	Pipe Details
66+500	679.29	677.29	4.64%	OD125PN16, uPVC
66+520	680.38		5.12%	
66+540	681.34	679.34		
66+560	681.93		3.13%	
66+580	682.52			
66+600	683.21	681.21		
66+620	683.93		3.57%	
66+640	684.65			
66+660	685.38			
66+680	686.07	684.07		
66+700	686.76		2.87%	
66+720	687.29			
66+740	687.79	685.79		
66+760	688.23		1.71%	
66+780	688.57			
66+800	688.80			
66+820	689.16	687.16		
66+840	689.52		1.60%	
66+860	689.91			
66+880	690.13	688.13		
66+900	690.10		0.00%	
66+920	690.05			
66+940	690.01	688.13		
66+960	689.97			
66+980	689.92		-0.33%	
67+000	689.88	687.93		



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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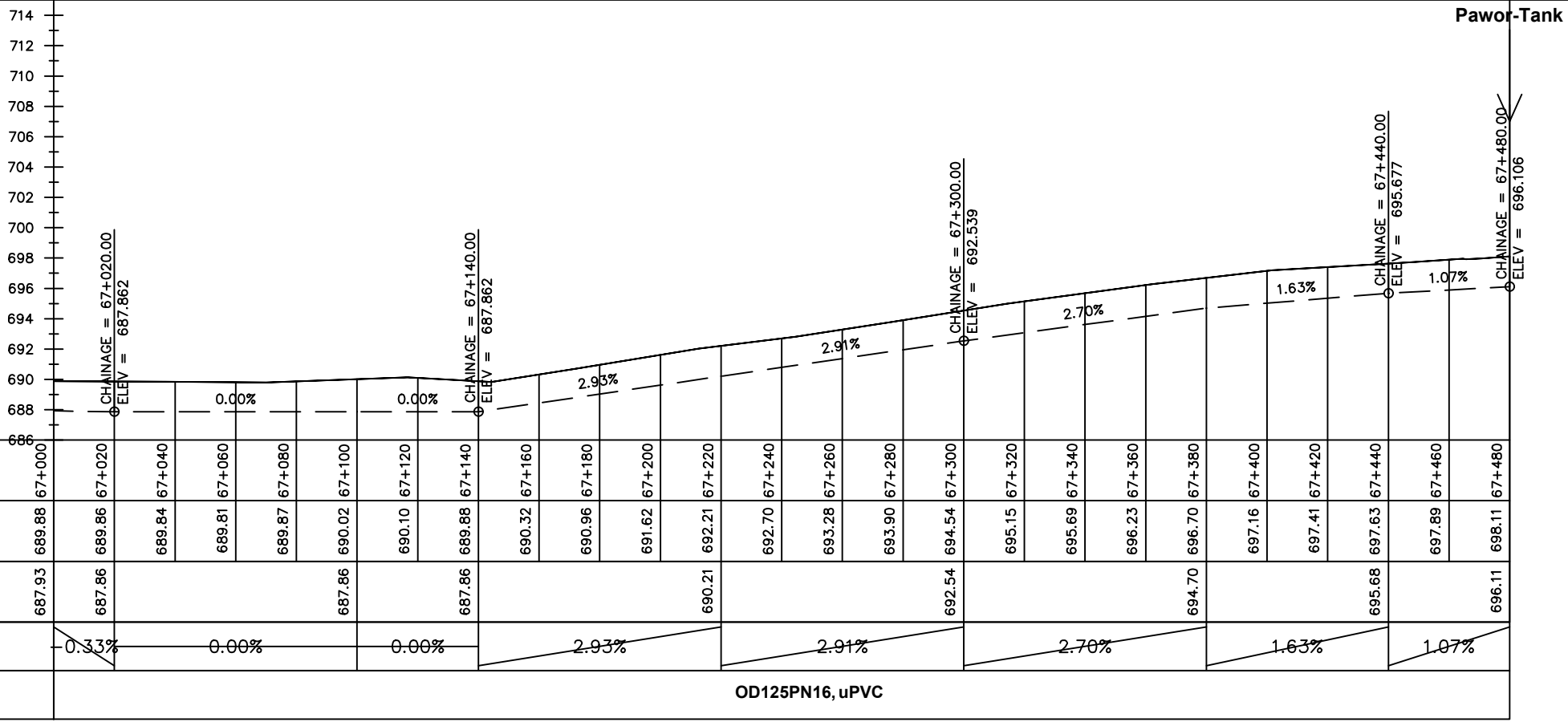
REVISIONS :

No	Date	Description

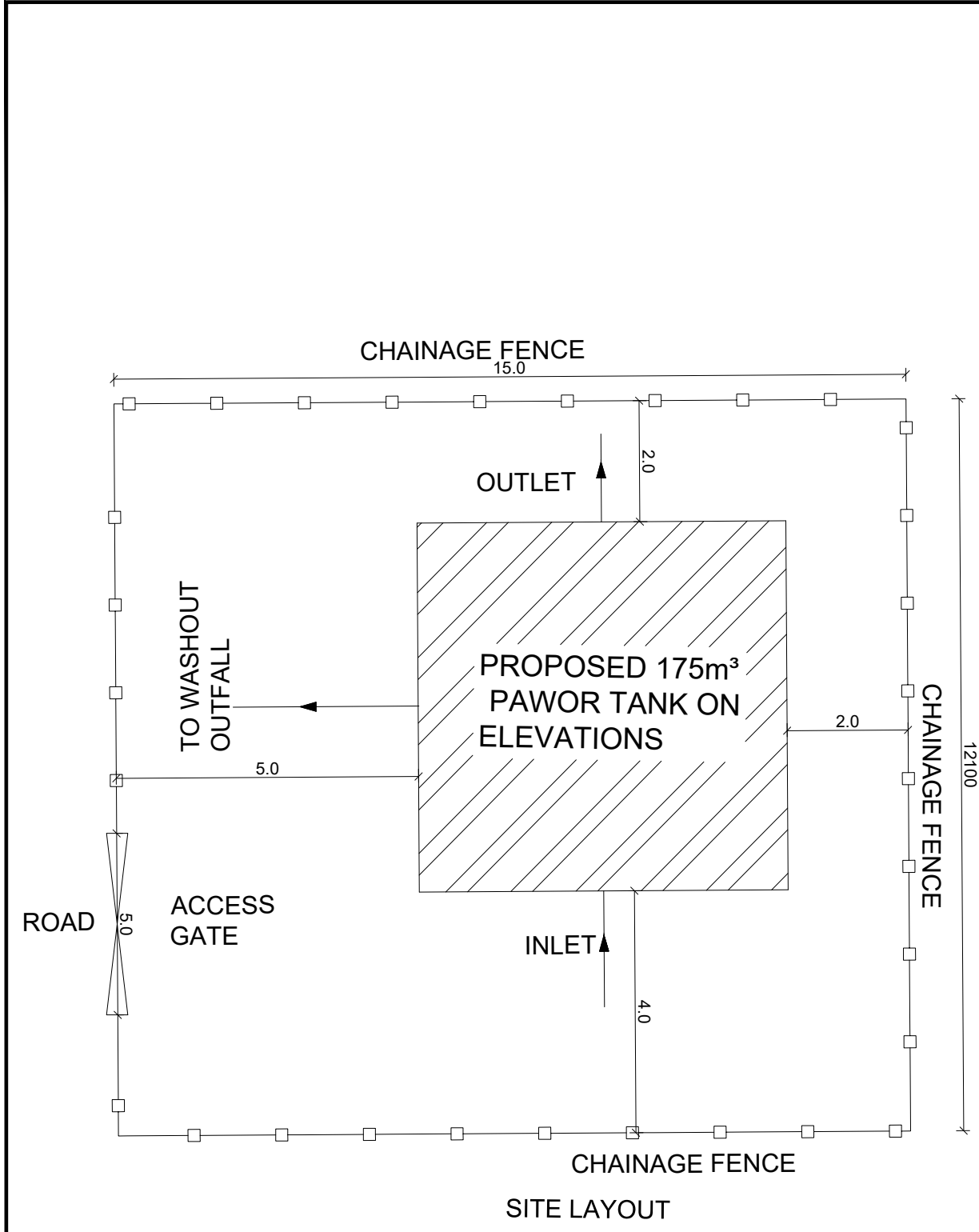
DRAWING TITLE :

TRANSMISSION MAIN 3 TO PAWOR TANK
67+000 - 67+480

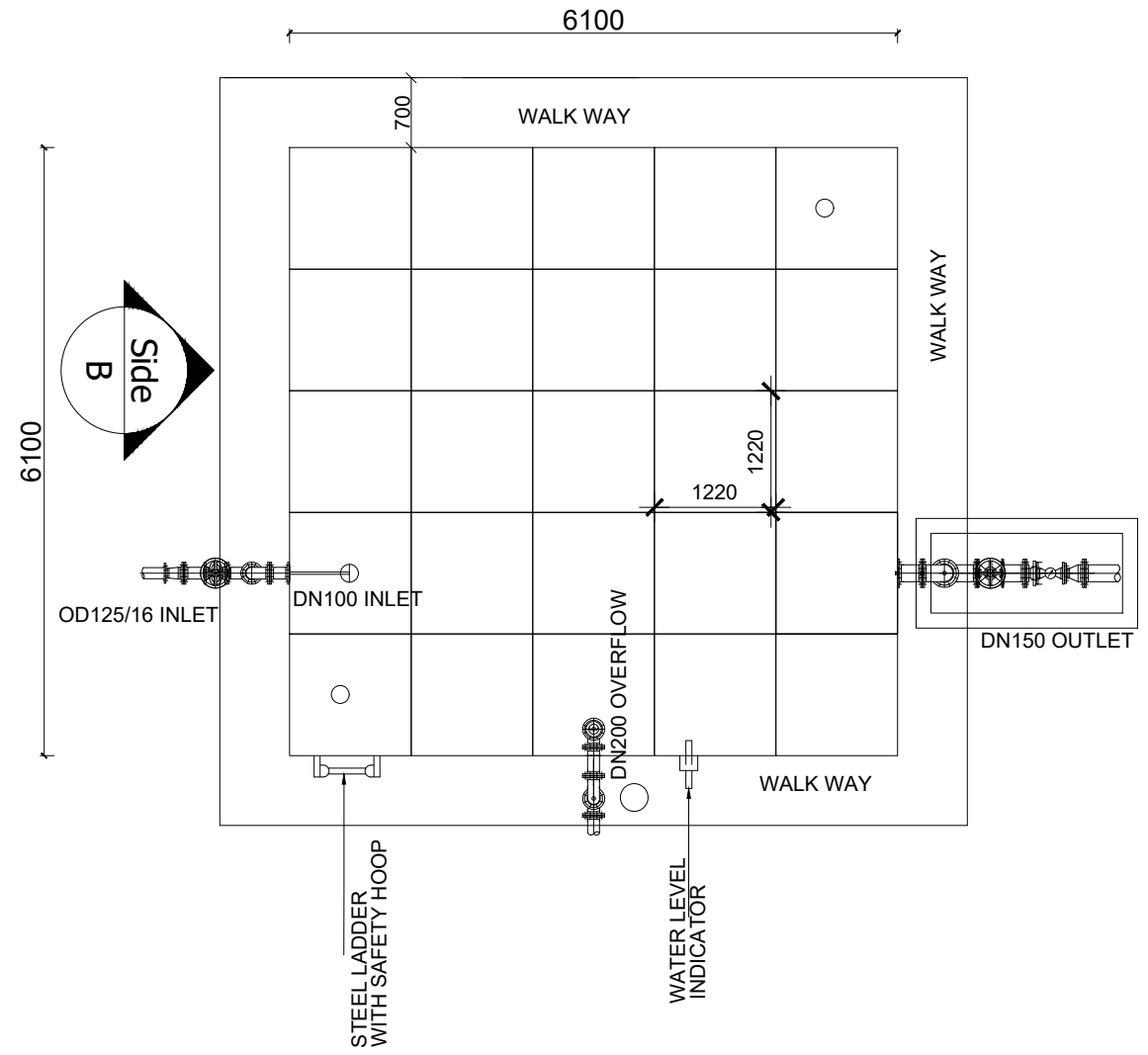
Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-GTM-003
Scale:	1:2000
Sheet No.:	88 of 88



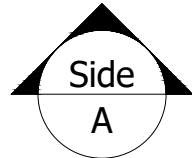
Chainages (m)	67+000	67+020	67+040	67+060	67+080	67+100	67+120	67+140	67+160	67+180	67+200	67+220	67+240	67+260	67+280	67+300	67+320	67+340	67+360	67+380	67+400	67+420	67+440	67+460	67+480
Ground Levels (masl)	689.88	689.86	689.84	689.81	689.87	690.02	690.10	689.88	690.32	690.96	691.62	692.21	692.70	693.28	693.90	694.54	695.15	695.69	696.23	696.70	697.16	697.41	697.63	697.89	698.11
Invert Levels (masl)	687.93	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86	687.86
Slope (%)	0.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.93%	2.91%	2.70%	1.63%	1.07%													
Pipe Details	OD125PN16, uPVC																								



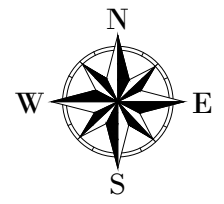
SITE LAYOUT



PLAN



LEGEND



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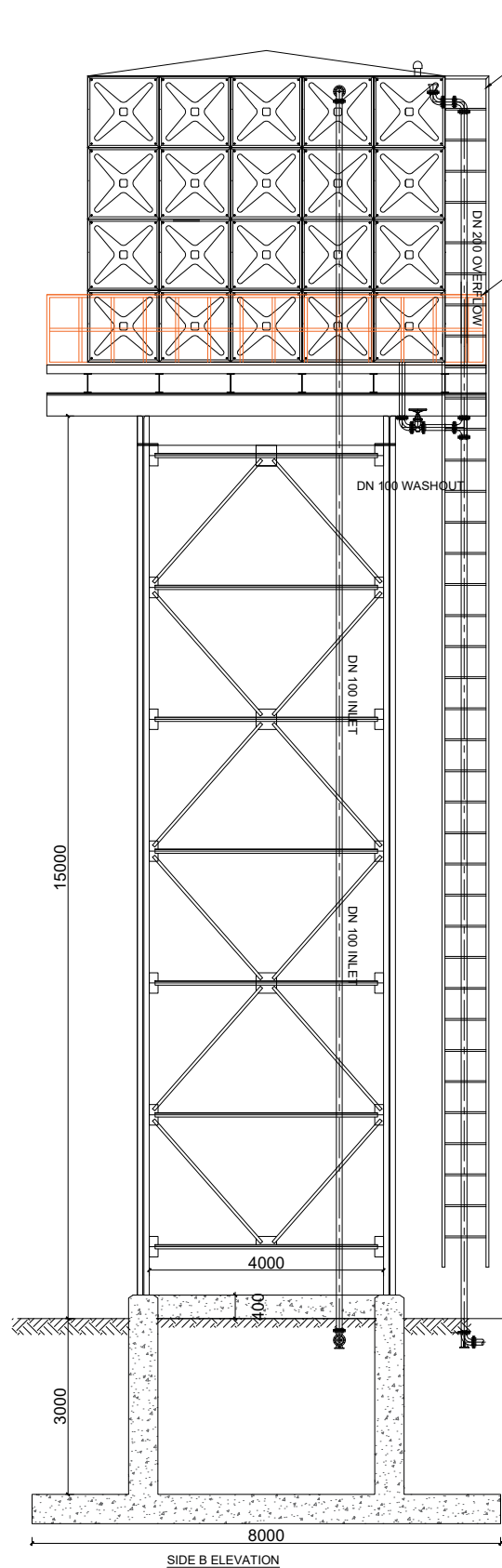
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

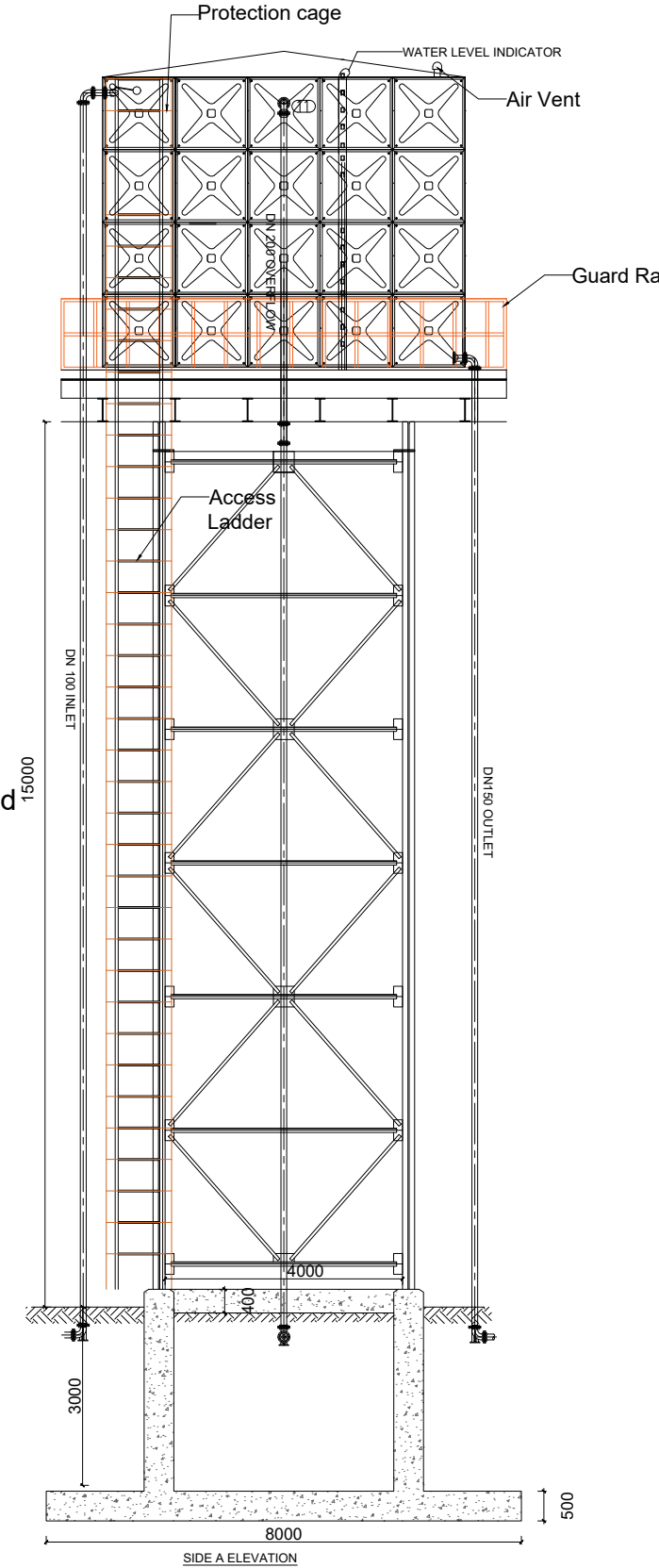
DRAWING TITLE :
PAWOR RESERVOIR TANK- 175m³
PLAN AND SITE LAYOUT

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA_RES_PAW_005
Scale:	1:100 1:75
Sheet No.:	1 of 3

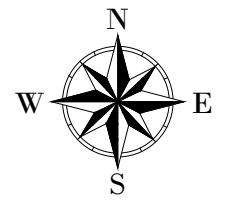


NOTES:
 All Pipes and fittings shall be appropriately aligned vertically or horizontally and strutted/braced to approval

The washout shall be so positioned that it can access using the tank support structure ladder



LEGEND



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CONSULTANT :  Alliance Consultants Ltd
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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

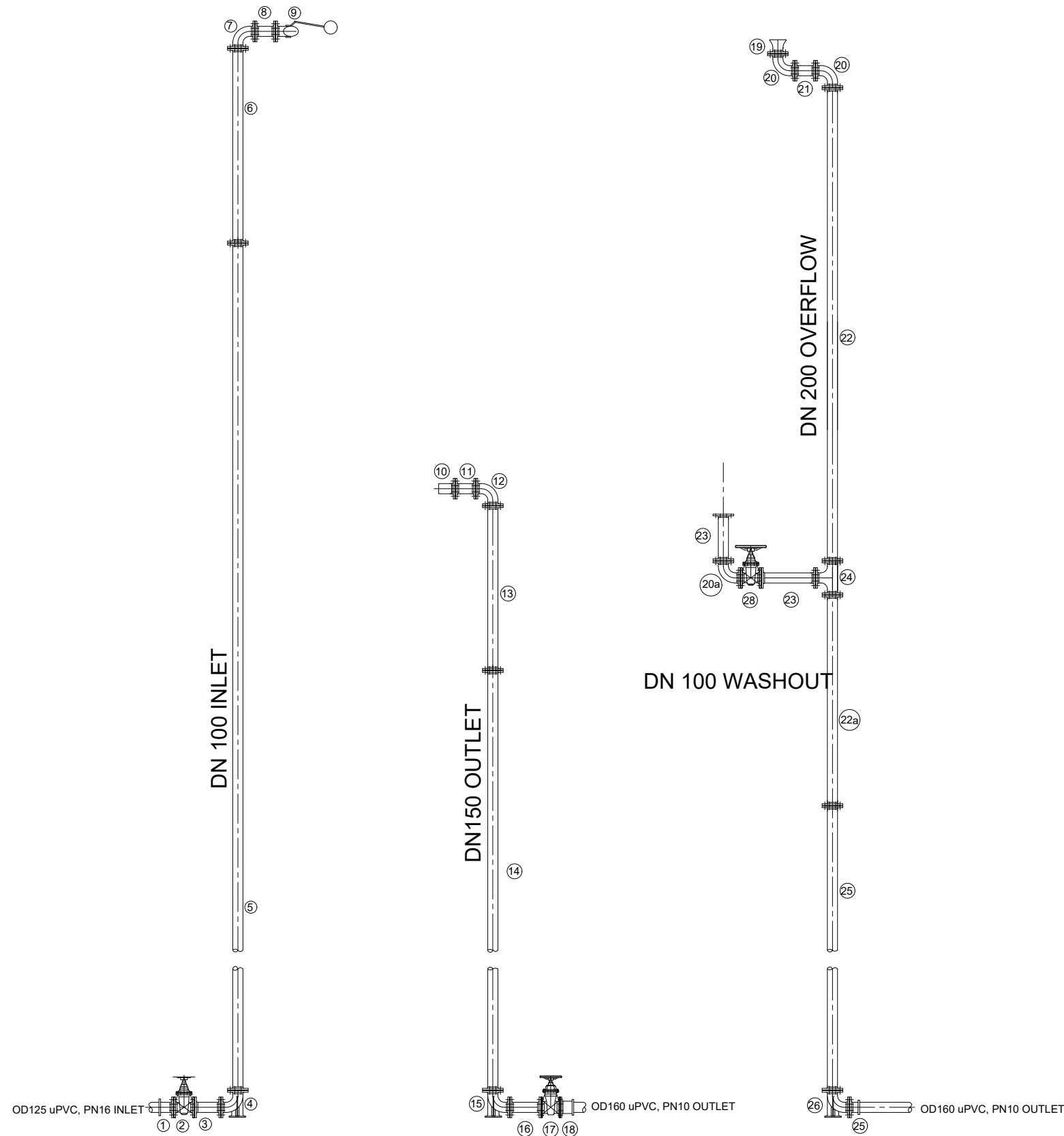
**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE **PAWOR RESERVOIR TANK- 175m³
 ELEVATIONS**

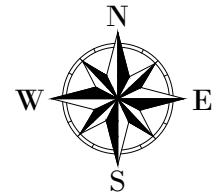
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Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA_RES_PAW_005
Scale:	1:120
Sheet No.:	2 of 3



PIPE AND FITTINGS SCHEDULE

Mark	Description	Material	DN	PN	Qty.
INLET					
1	Flanged Adapter	DI	125		1
2	Flanged Gate Valve	CI	125		1
3	Flanged Pipe Piece, Length - 0.3m	DI	125		1
4	90° Flanged Duckfoot Bend	DI	125		1
5	Flanged Pipe, Length - 6.0m	DI	125	16	3
6	Flanged Pipe, Length n.e - 2.0m	DI	125		1
7	90° Flanged Bend	DI	125		1
8	Flanged Pipe Piece, Length - 0.2m	DI	125		1
9	Flanged Float Valve	CI	125		1
OUTLET					
10	Flanged Strainer	SS	150		1
11	Flanged Pipe Piece, Length - 0.2m	DI	150		1
12	90° Flanged Bend	DI	150		1
13	Flanged Pipe, Length n.e - 5.0m	DI	150		1
14	Flanged Pipe, Length - 6.0m	DI	150	10	2
15	90° Flanged Duckfoot Bend	DI	150		1
16	Flanged Pipe Piece, Length - 0.3m	DI	150		1
17	Flanged Gate Valve	CI	150		1
18	Flanged Adapter	DI	150		1
WASHOUT & OVERFLOW					
19	Flanged Bellmouth	DI	200		1
20	90° Flanged Bend	DI	200		3
20a	90° Flanged Bend	DI	100		1
21	Flanged Pipe, Length n.e - 0.2m	DI	200		1
22	Flanged Pipe Piece, Length n.e - 6.0m	DI	200		1
22a	Flanged Pipe Piece, Length n.e - 4.0m	DI	200	10	1
23	Flanged Pipe Piece, Length n.e - 1.0m	DI	100		2
24	Flanged Tee	DI	200/100		1
25	Flanged Pipe Piece, Length - 6.0m	DI	200		2
26	90° Flanged Duckfoot Bend	DI	200		1
27	Flanged Adapter	DI	200		1
28	Flanged Gate Valve	CI	100		1

LEGEND



CLIENT :



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CONSULTANT :



PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

**PAWOR RESERVOIR TANK - 175m³
PIPE FITTINGS**

Surveyed by:

R.K

Drawn by:

N.R

Designed by:

W.G.M

Checked by:

J.K.K

Date:

January 2023

DRG. No.:

NYA_RES_PAW_005

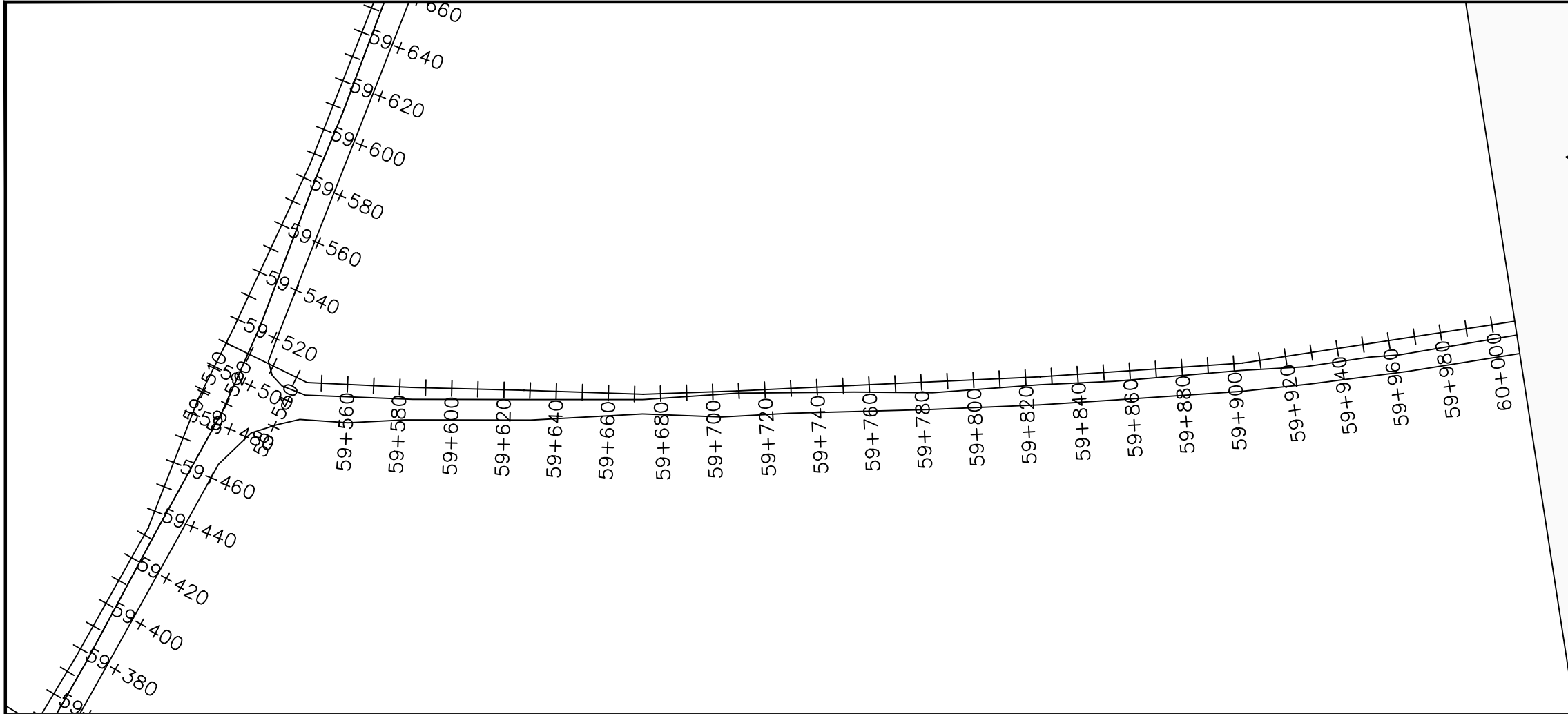
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Sheet No.:

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OGOKO SUPPLY AREA



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

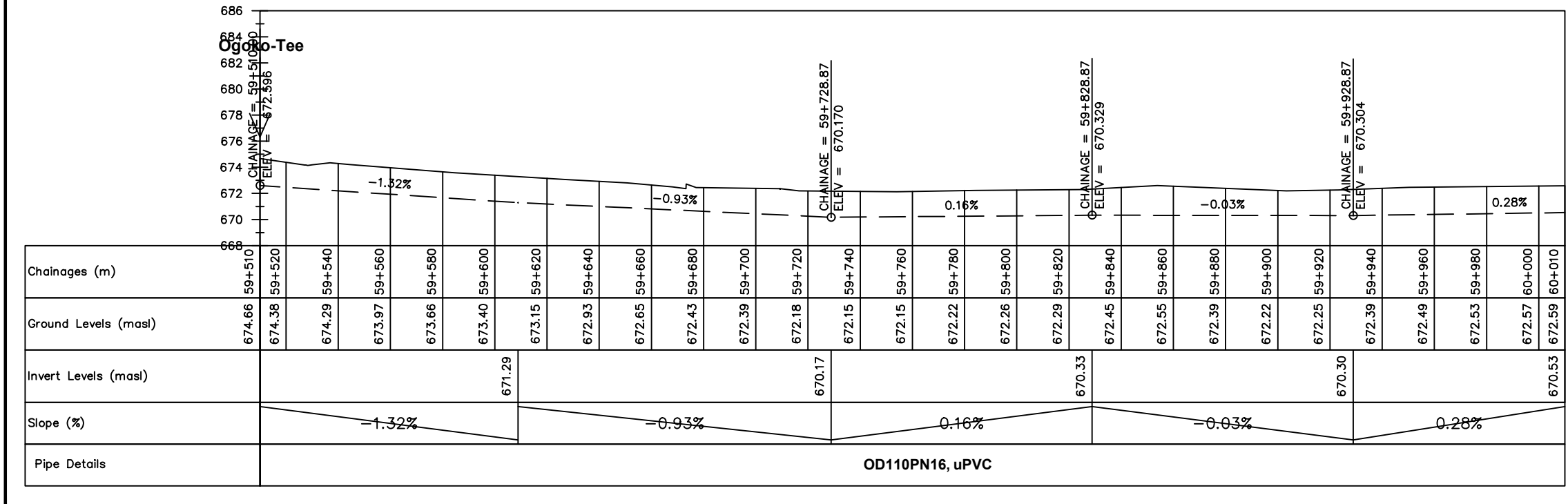
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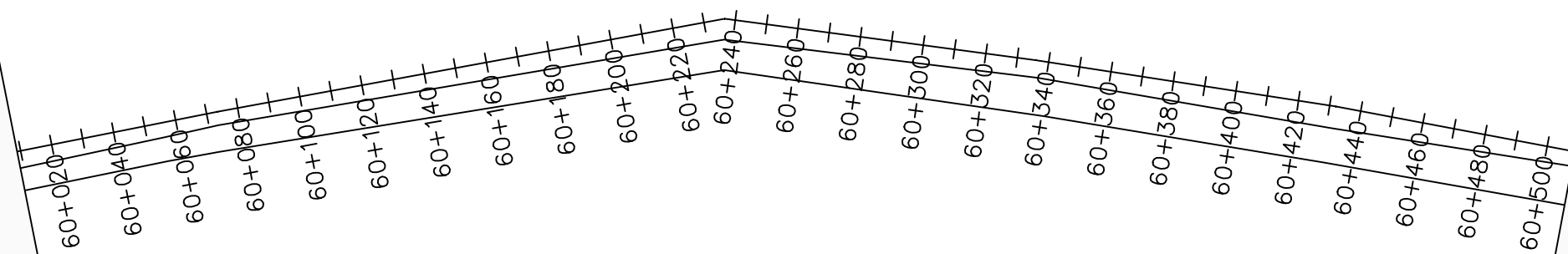
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
59+510 - 60+010

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	1 of 20





LEGEND

- Plan**
- Transmission Main
 - Distribution Main
 - Road
 - Building
 - Contours
- Profile**
- Ground Level
 - Invert Level
 - Air Valve
 - Washout
 - Node detail No.

CLIENT :



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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

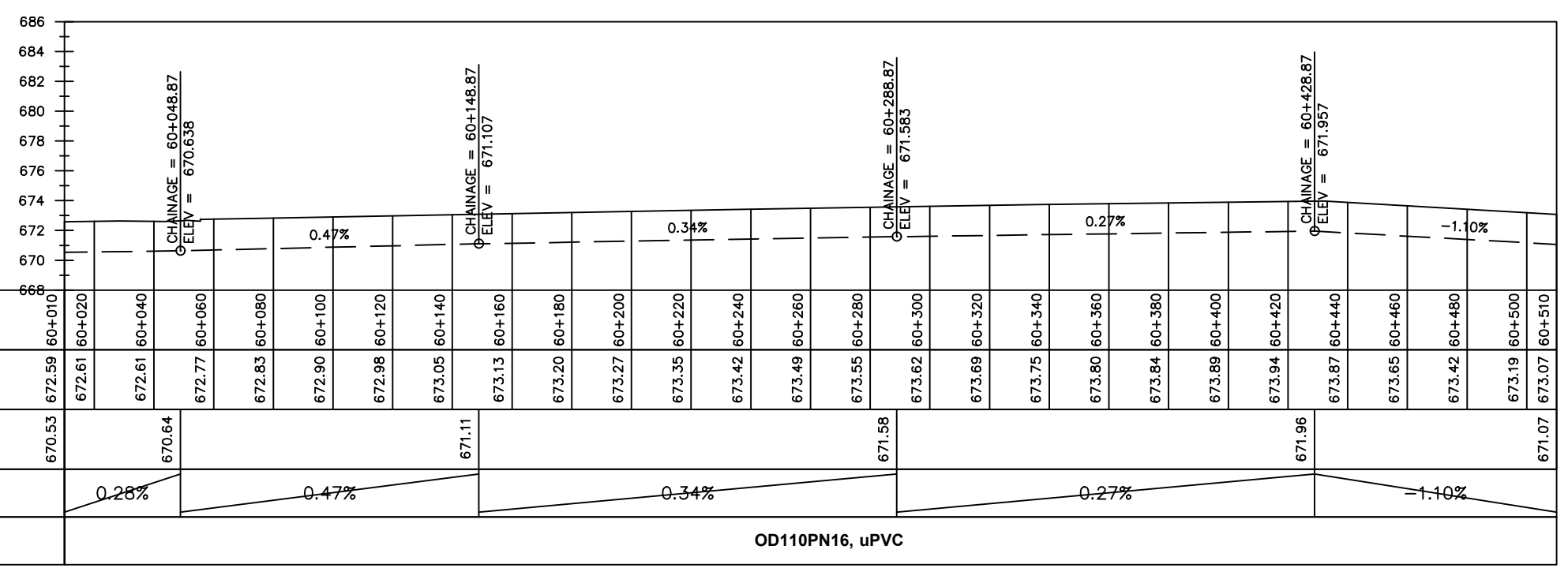
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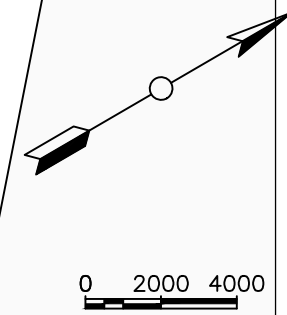
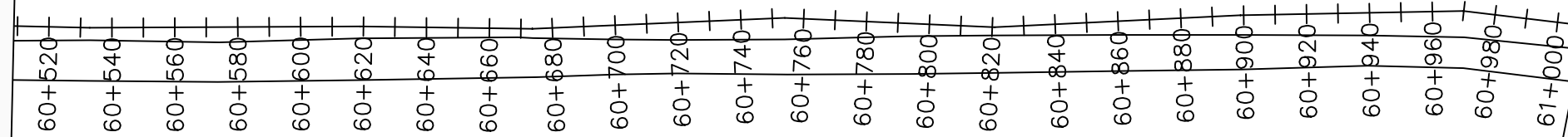
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
60+010 - 60+510

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
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CLIENT :

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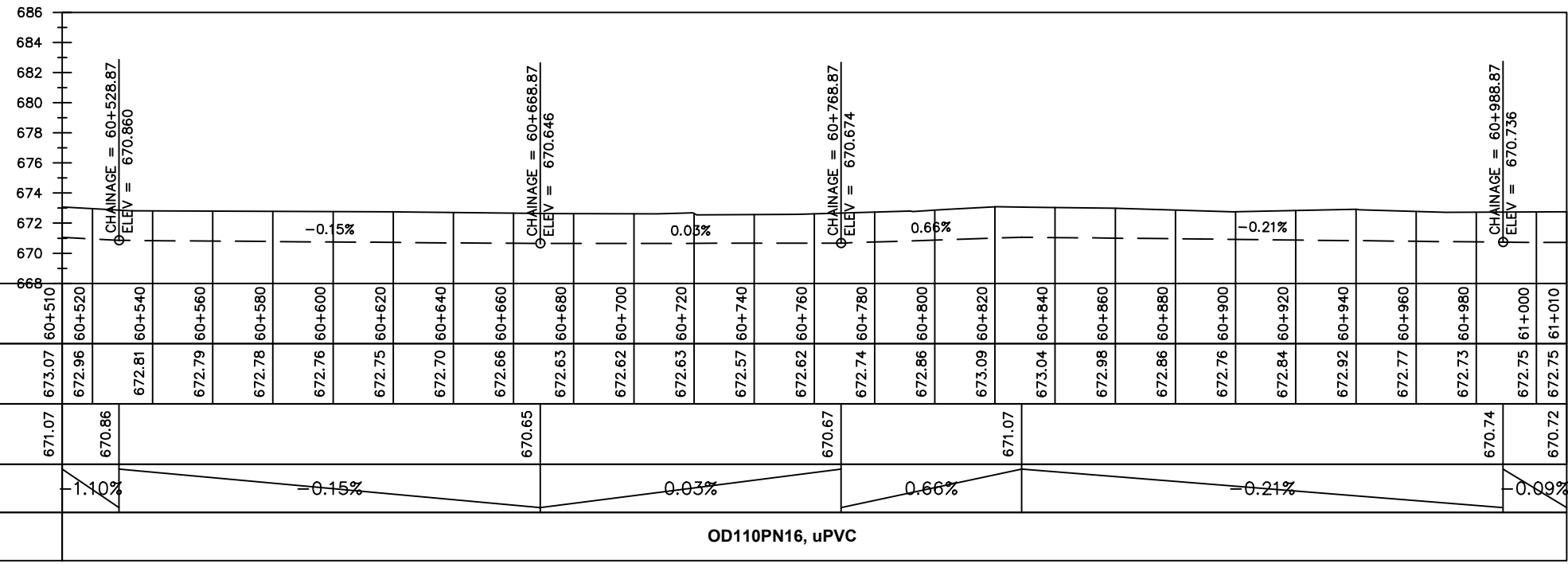
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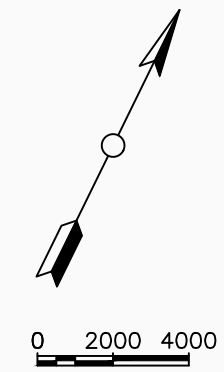
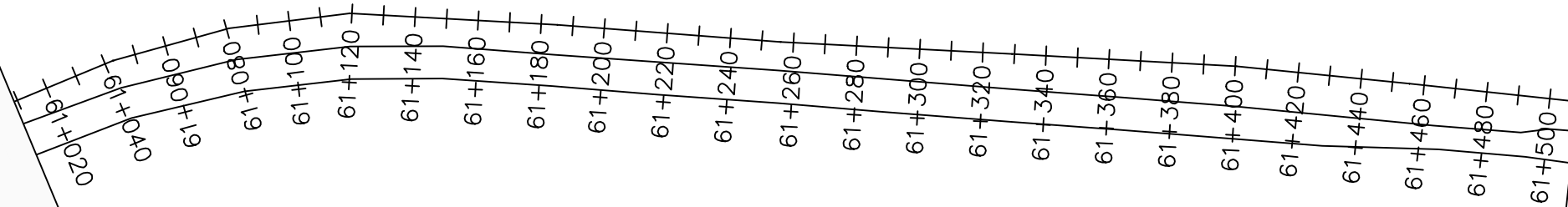
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
60+510 - 61+010

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
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LEGEND

Plan

- Transmission Main
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- Building
- Contours

Profile

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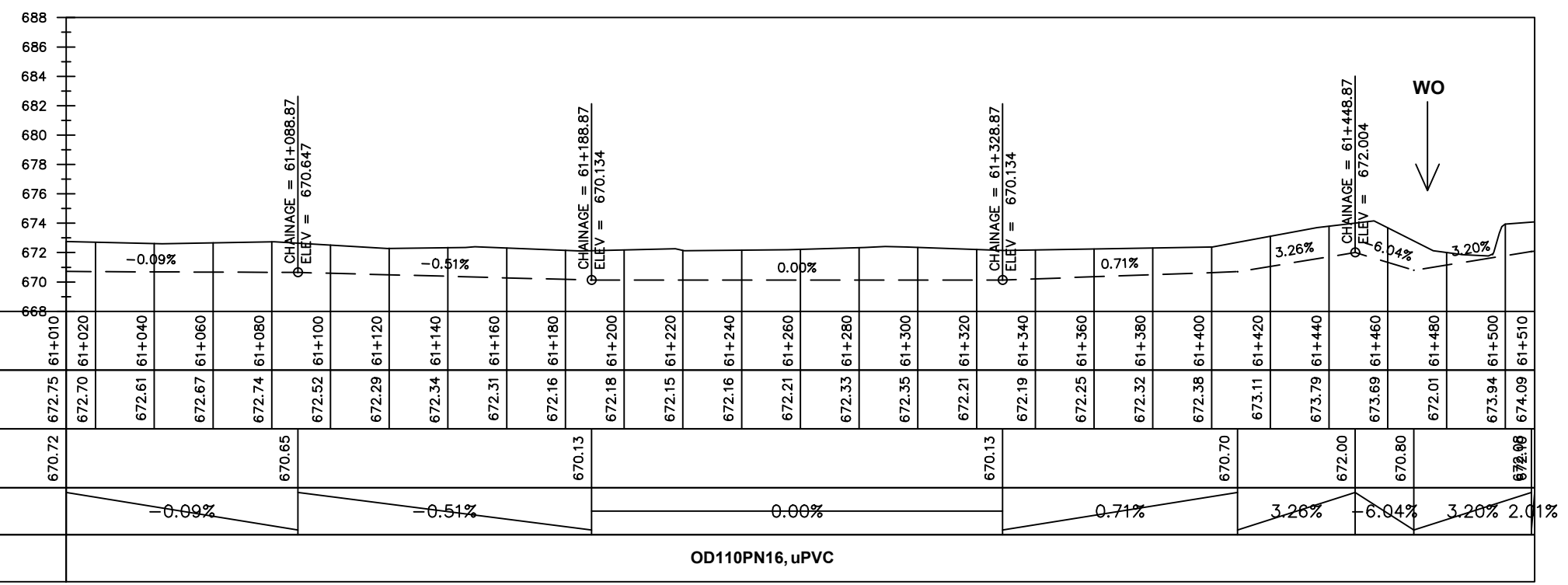
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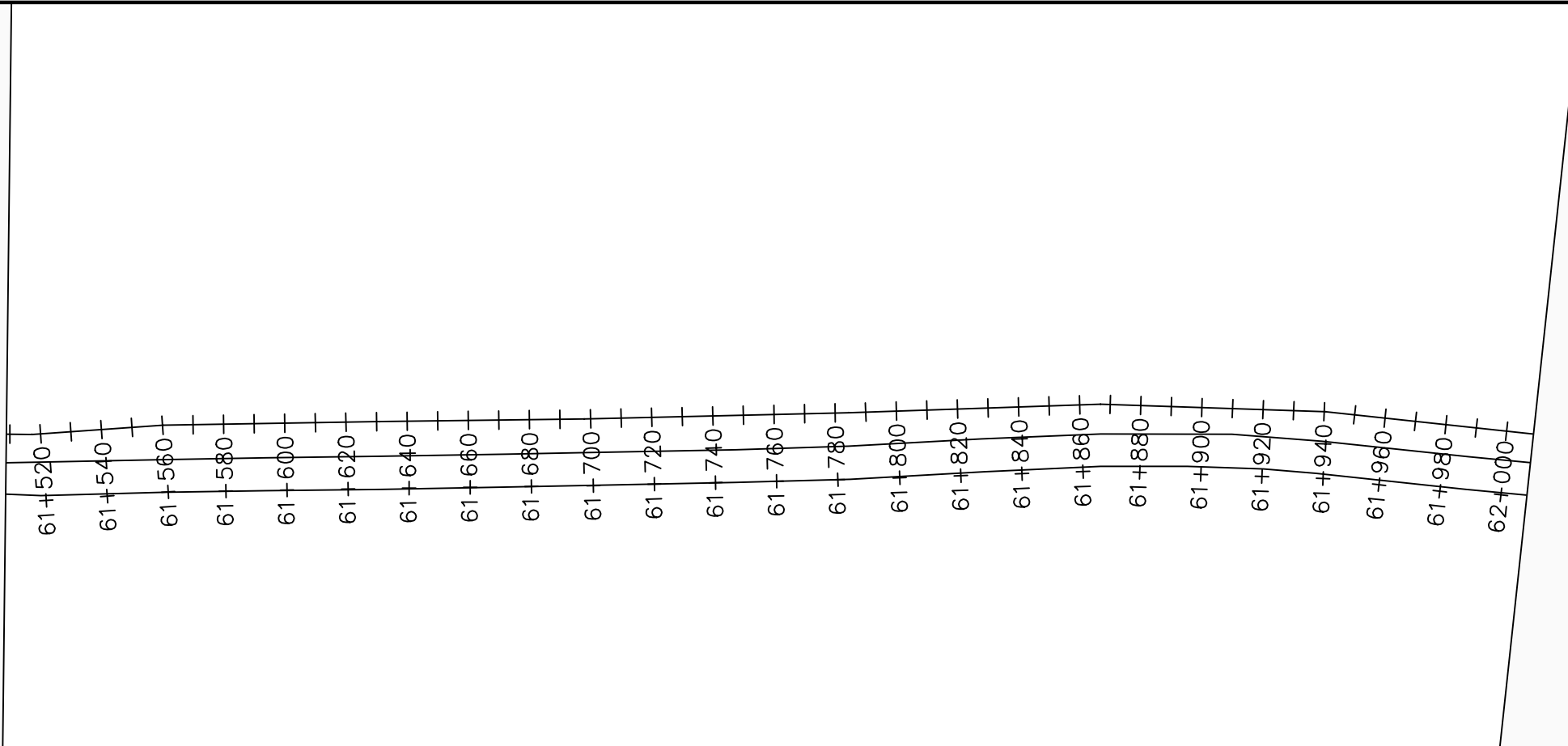
DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
61+010 - 61+510

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
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Chainages (m)	61+010	61+020	61+040	61+060	61+080	61+100	61+120	61+140	61+160	61+180	61+200	61+220	61+240	61+260	61+280	61+300	61+320	61+340	61+360	61+380	61+400	61+420	61+440	61+460	61+480	61+500	61+510	
Ground Levels (masl)	672.75	672.70	672.61	672.67	672.74	672.52	672.29	672.34	672.31	672.16	672.18	672.15	672.16	672.21	672.33	672.35	672.21	672.19	672.25	672.32	672.38	673.11	673.79	673.69	672.01	673.94	674.09	
Invert Levels (masl)	670.72				670.65						670.13						670.13				670.70		672.00	670.80		672.08		
Slope (%)			-0.09%					-0.51%				0.00%							0.71%			3.26%		-6.04%	3.20%		2.01%	
Pipe Details	OD110PN16, uPVC																											



LEGEND

Plan

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

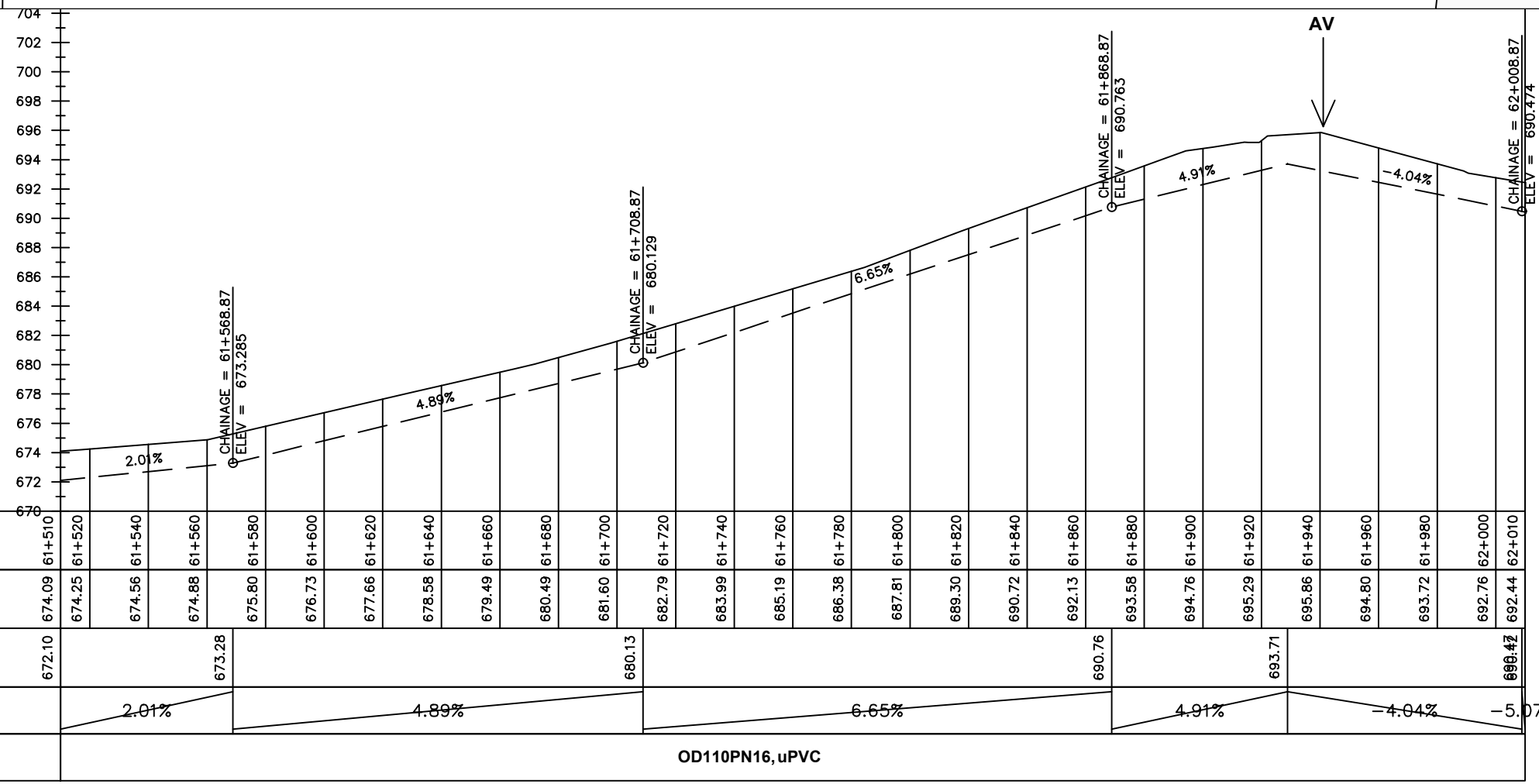
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No	Date	Description

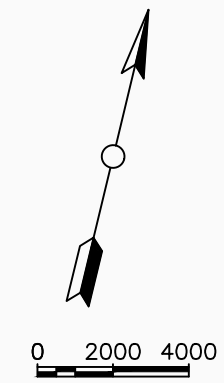
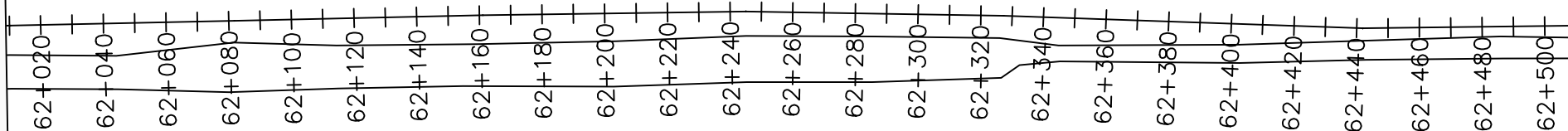
DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
61+510 - 62+010

Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
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Chainages (m)	61+510	61+520	61+540	61+560	61+580	61+600	61+620	61+640	61+660	61+680	61+700	61+720	61+740	61+760	61+780	61+800	61+820	61+840	61+860	61+880	61+900	61+920	61+940	61+960	61+980	62+000	62+010	
Ground Levels (masl)	674.09	674.25	674.56	674.88	675.80	676.73	677.66	678.58	679.49	680.49	681.60	682.79	683.99	685.19	686.38	687.81	689.30	690.72	692.13	693.58	694.76	695.29	695.86	694.80	693.72	692.76	692.44	
Invert Levels (masl)	672.10			673.28							680.13								690.76			693.71				690.47		
Slope (%)		2.01%				4.89%								6.65%						4.91%			-4.04%			-5.07%		
Pipe Details	OD110PN16, uPVC																											



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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- Contours

Profile

- Ground Level
- Invert Level
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- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

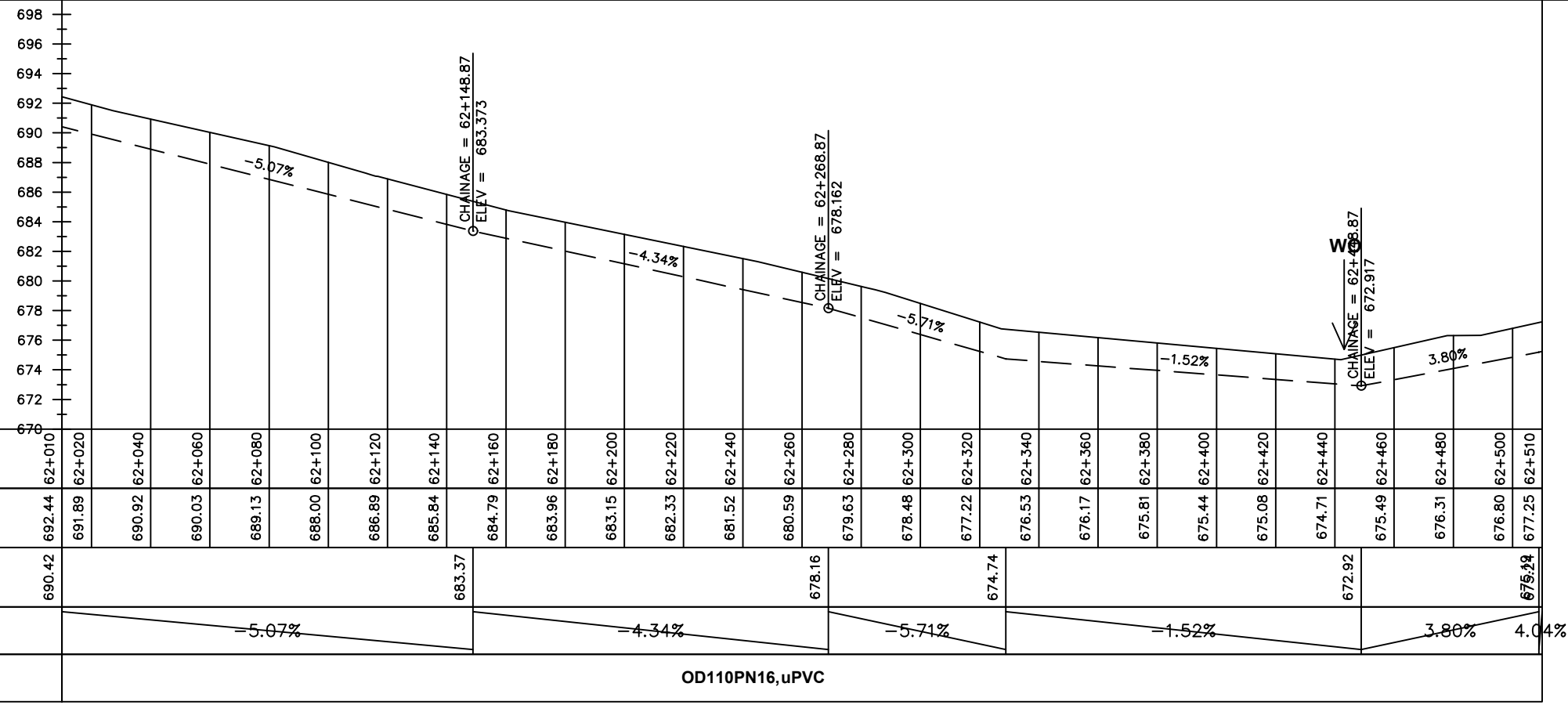
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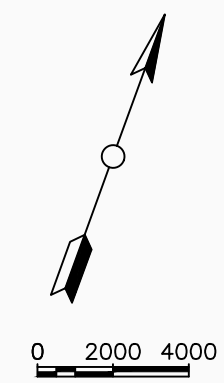
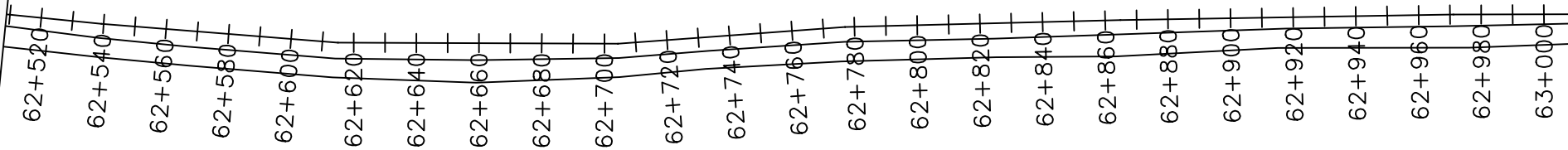
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
62+010 - 62+510

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
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LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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- Ground Level
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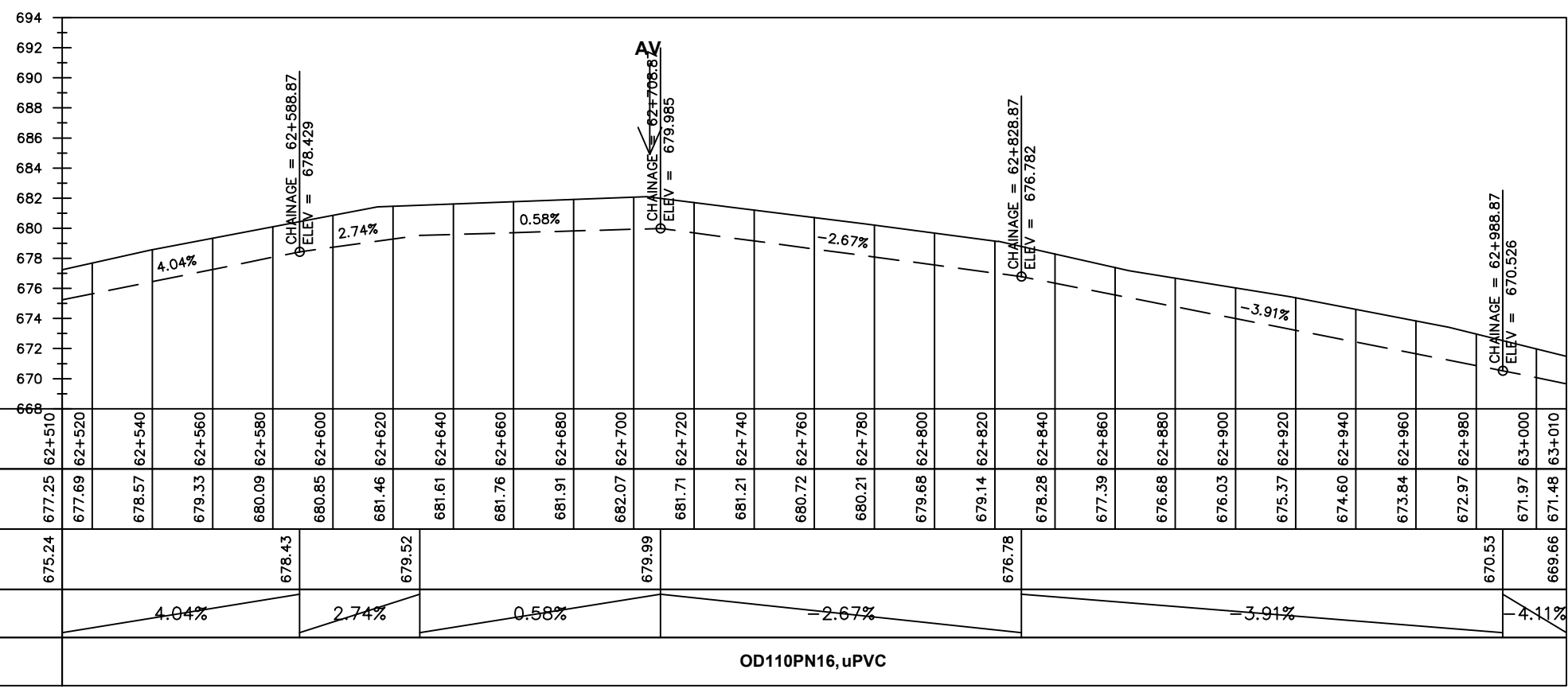
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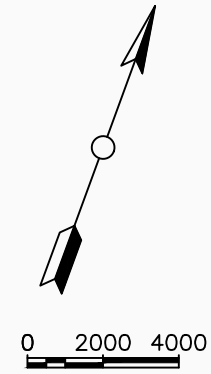
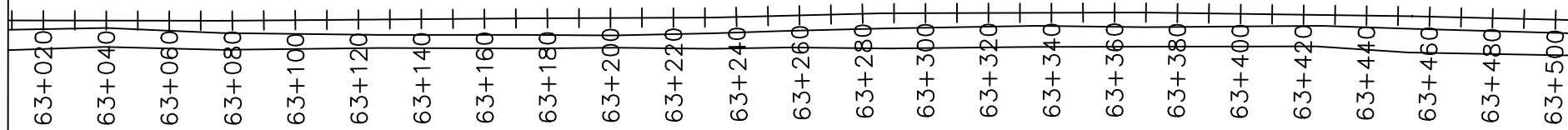
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DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
62+510 - 63+010

Surveyed by:	R.K
Drawn by:	M.K
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Date:	Jan 2023
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LEGEND

Plan

- Transmission Main
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- Ground Level
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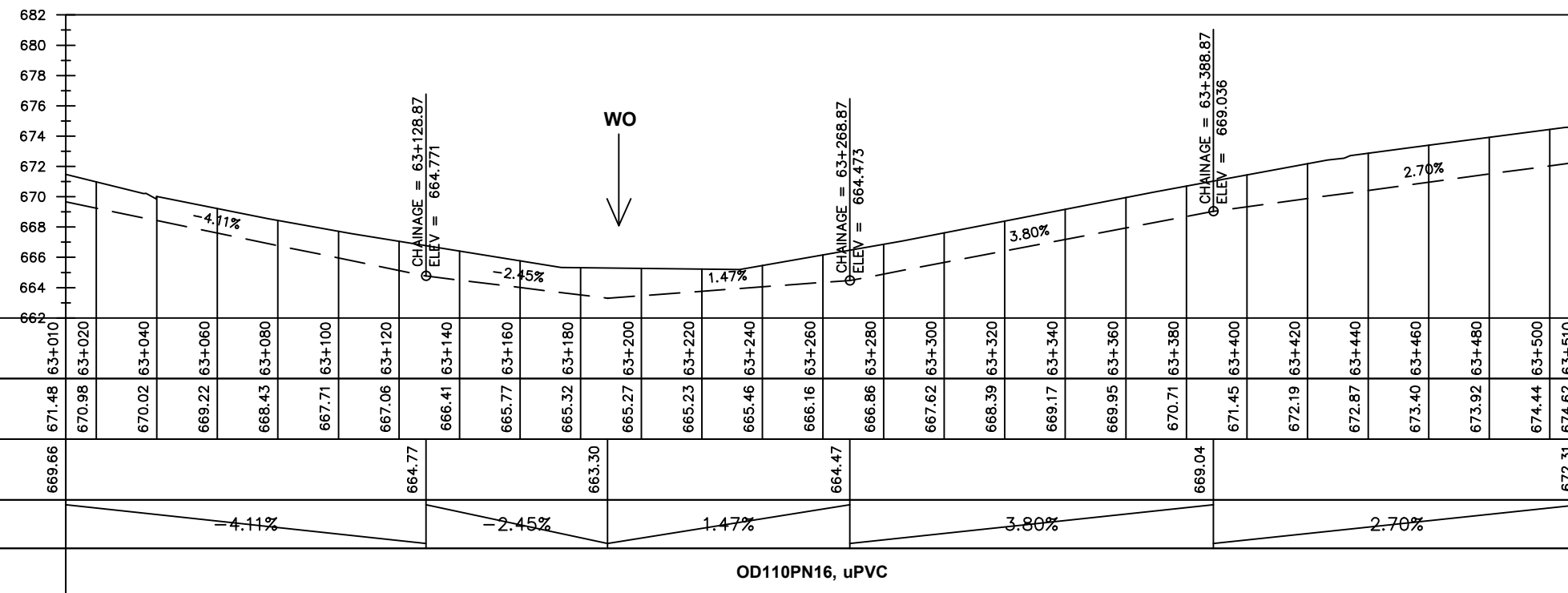
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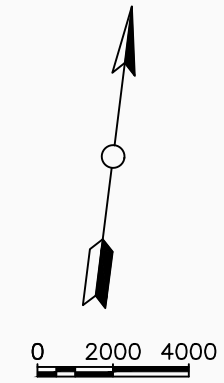
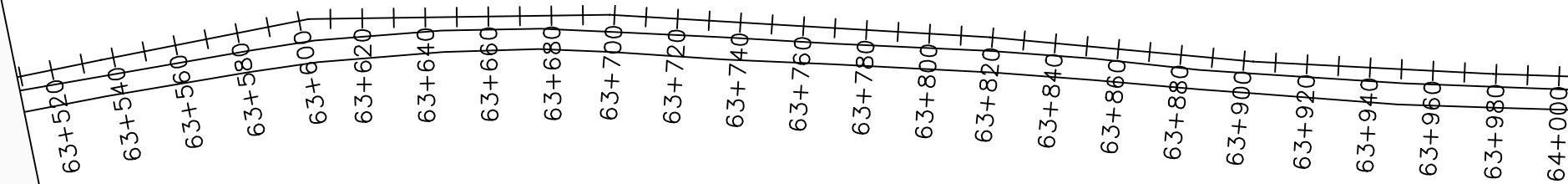
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TRANSMISSION MAIN 5 (TO OGOKO TANK)
63+010 - 63+510

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LEGEND

Plan

- Transmission Main
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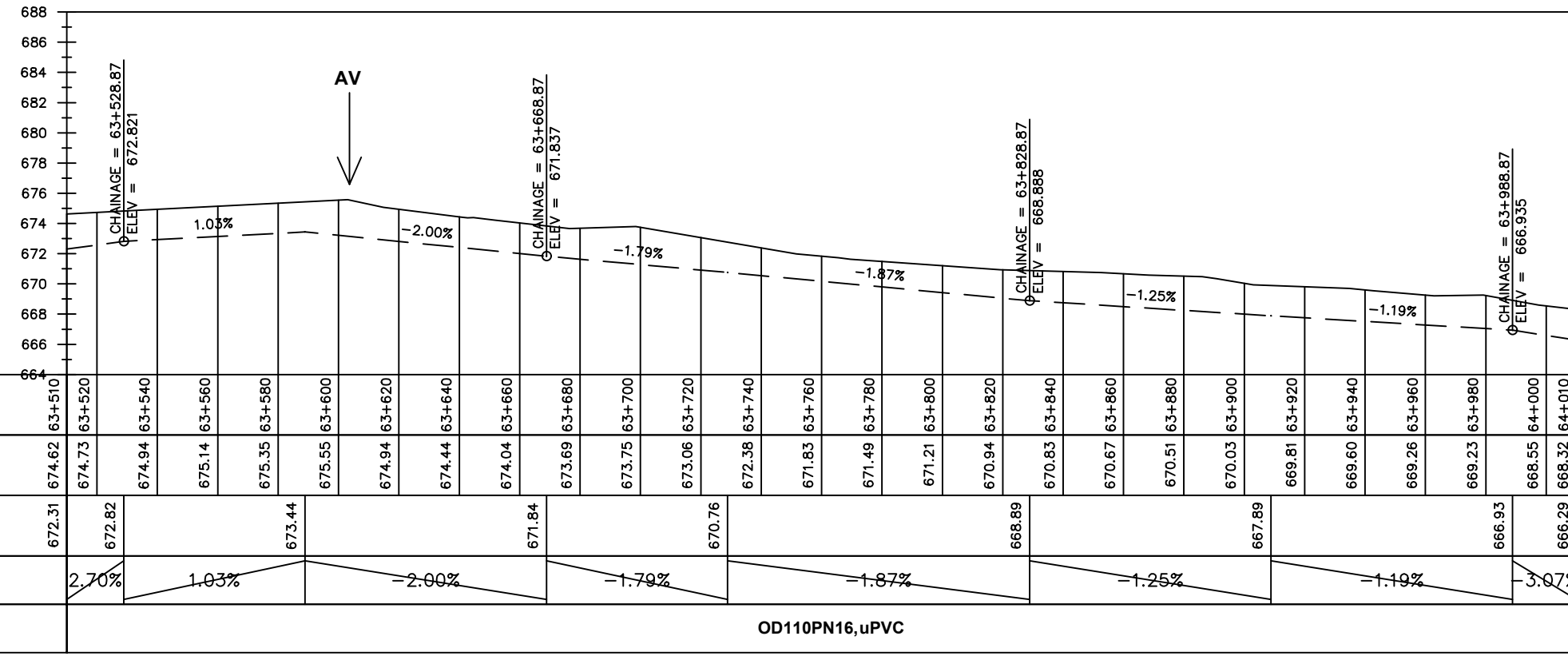
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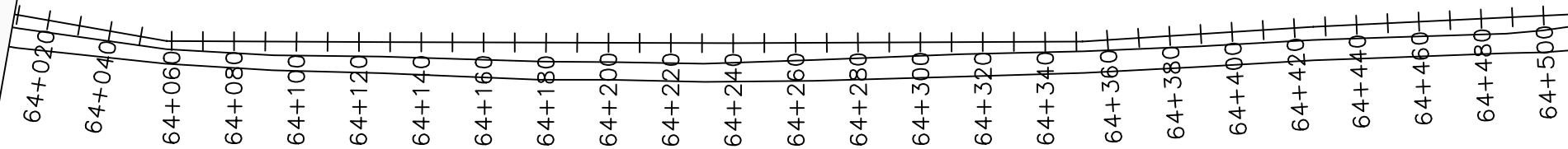
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Date:	Jan 2023
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LEGEND

Plan

- Transmission Main
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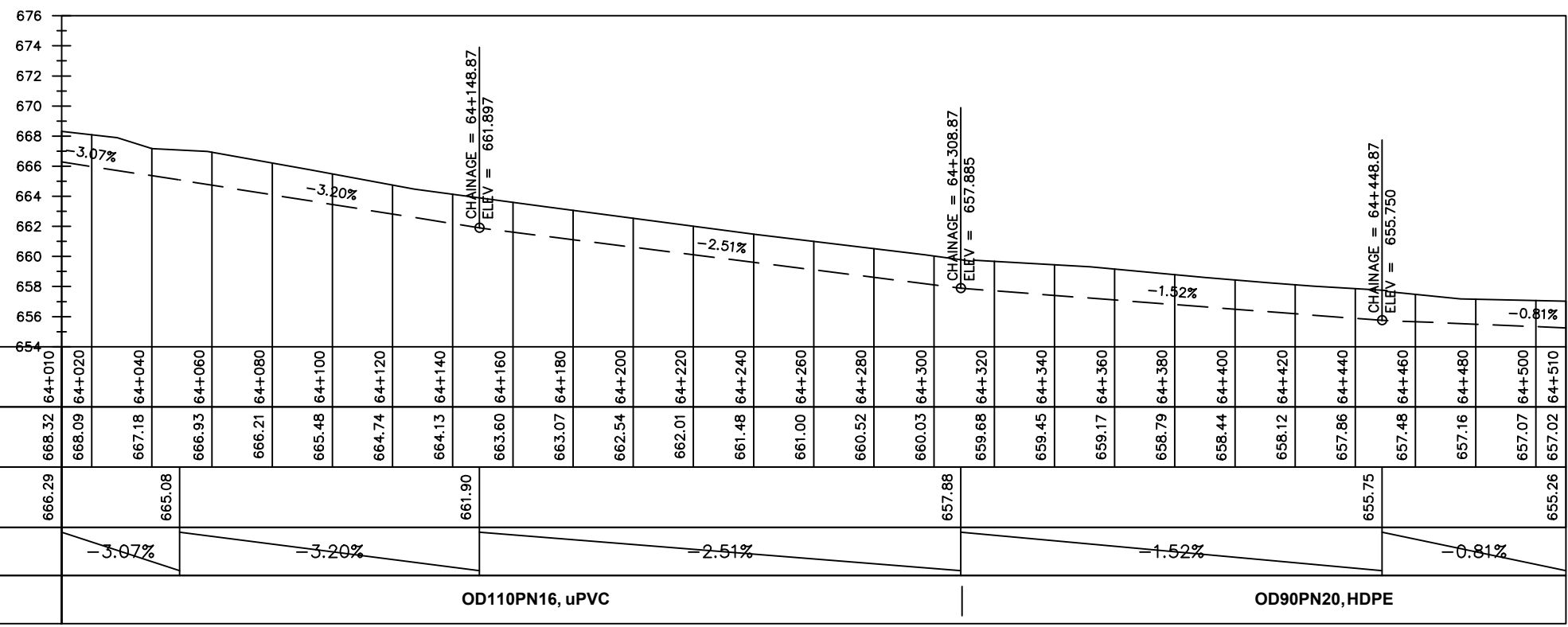
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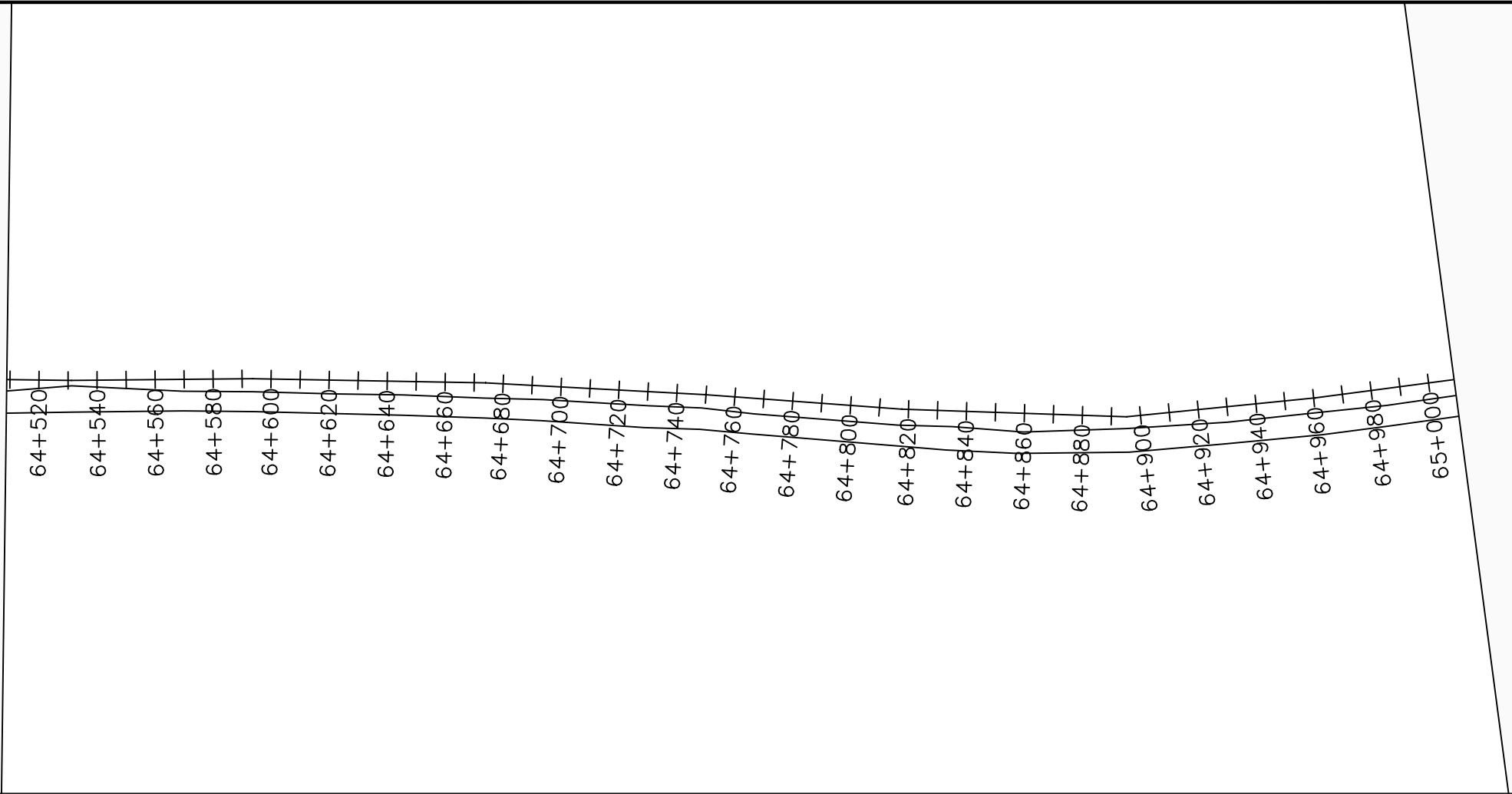
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TRANSMISSION MAIN 5 (TO OGOKO TANK)
64+010 - 64+510

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Date:	Jan 2023
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LEGEND

Plan

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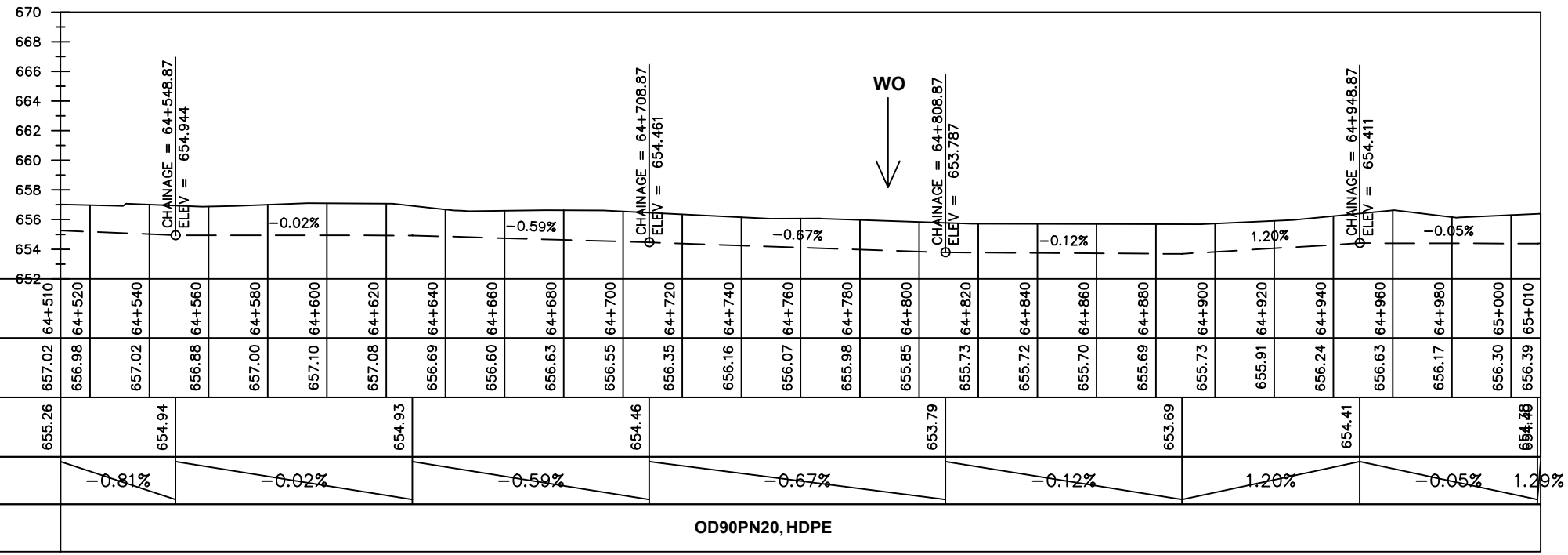
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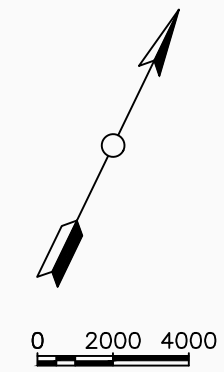
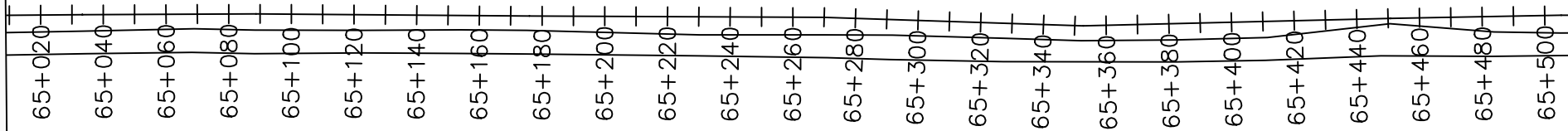
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
64+510 - 65+010

Surveyed by:	R.K
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Date:	Jan 2023
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LEGEND

Plan

- Transmission Main
- Distribution Main
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- Ground Level
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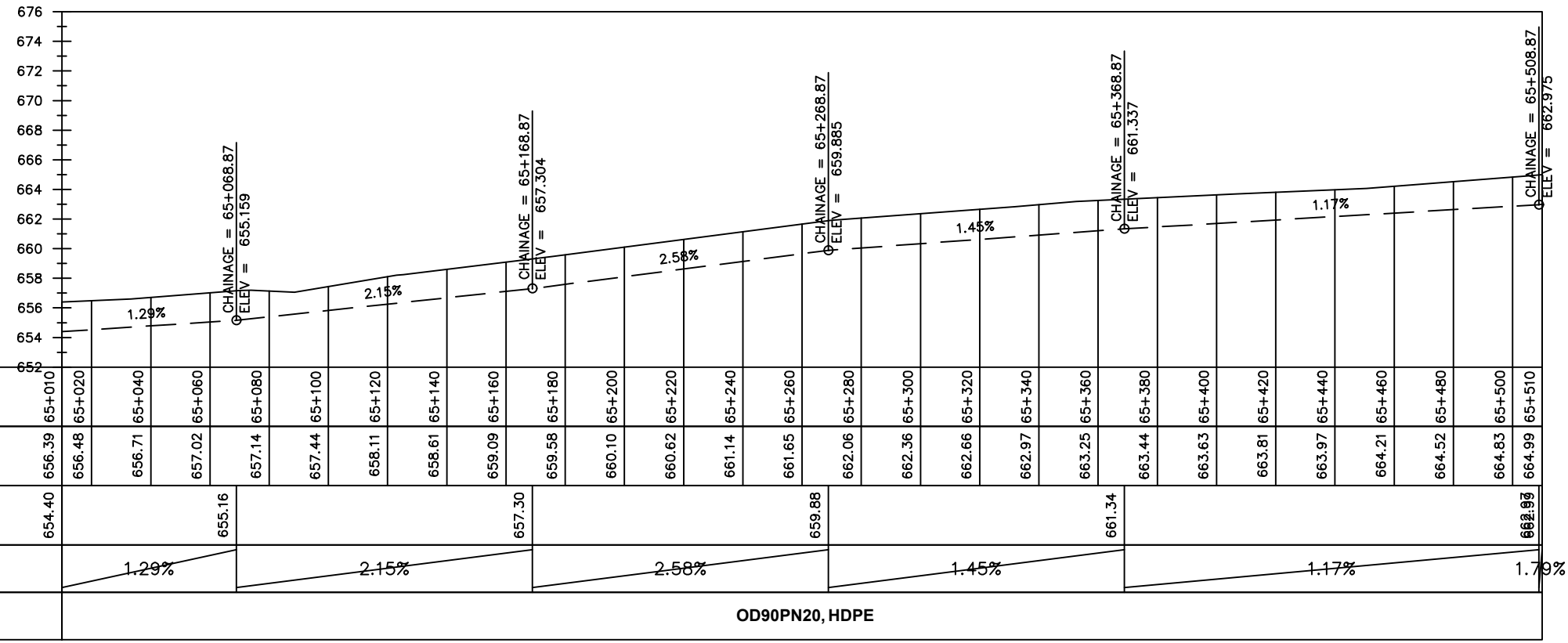
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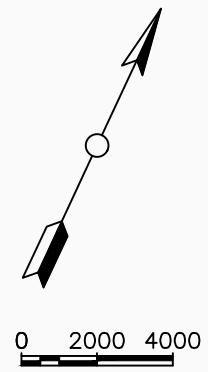
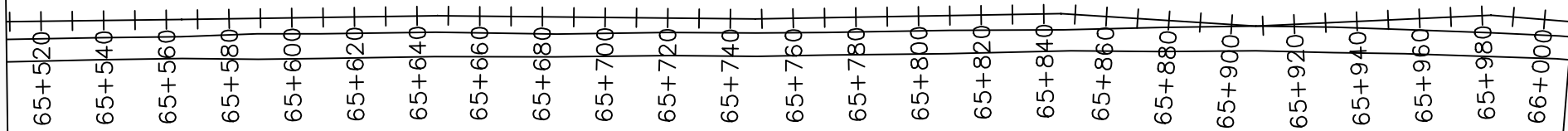
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TRANSMISSION MAIN 5 (TO OGOKO TANK)
65+010 - 65+510

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LEGEND

Plan

- Transmission Main
- Distribution Main
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- Ground Level
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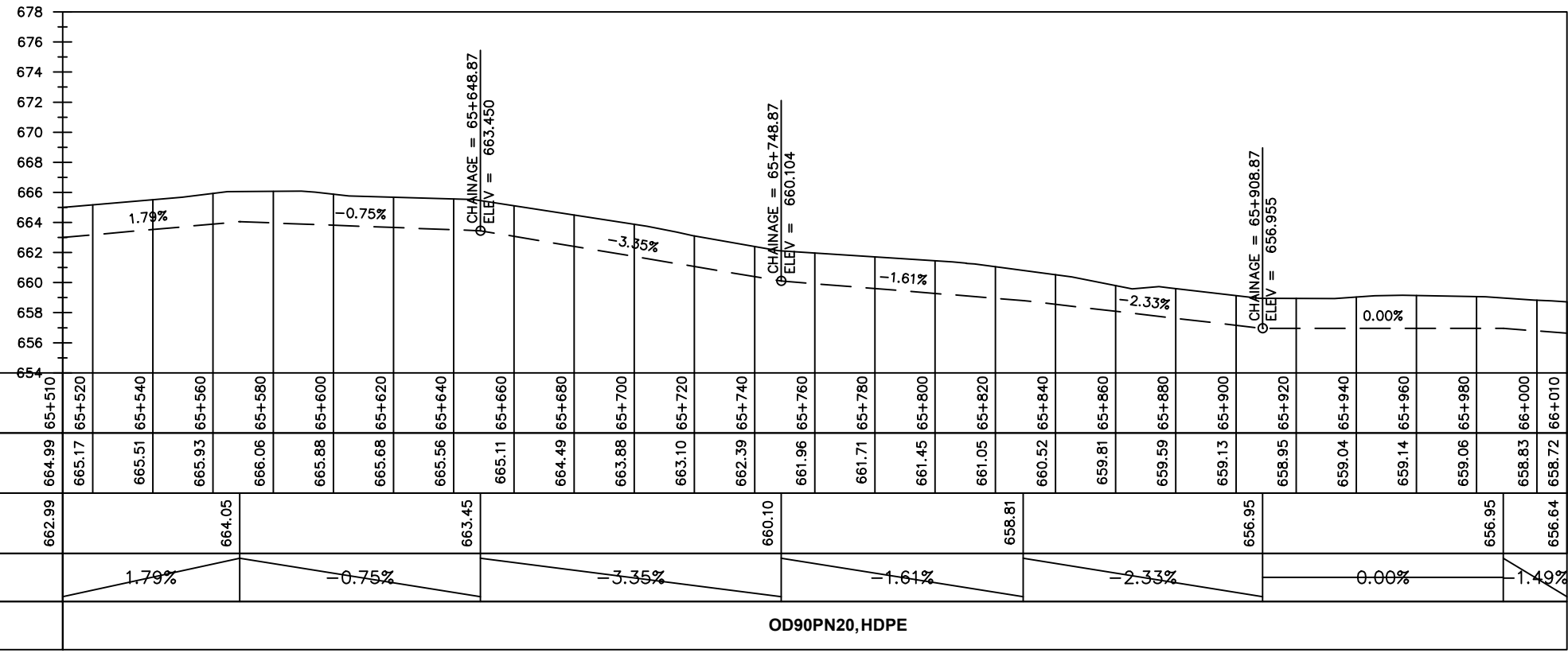
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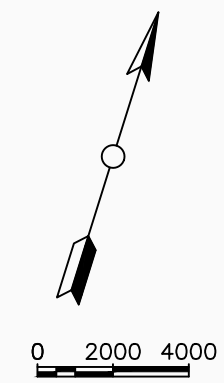
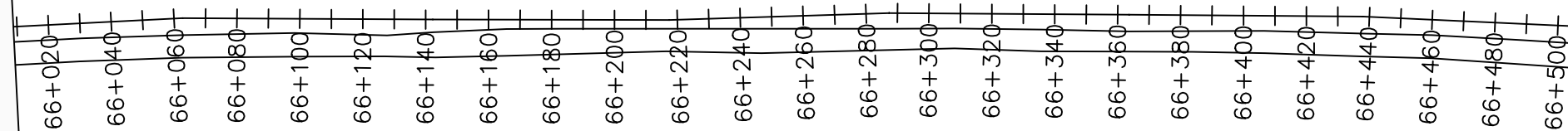
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DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
65+510 - 66+010

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	13 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

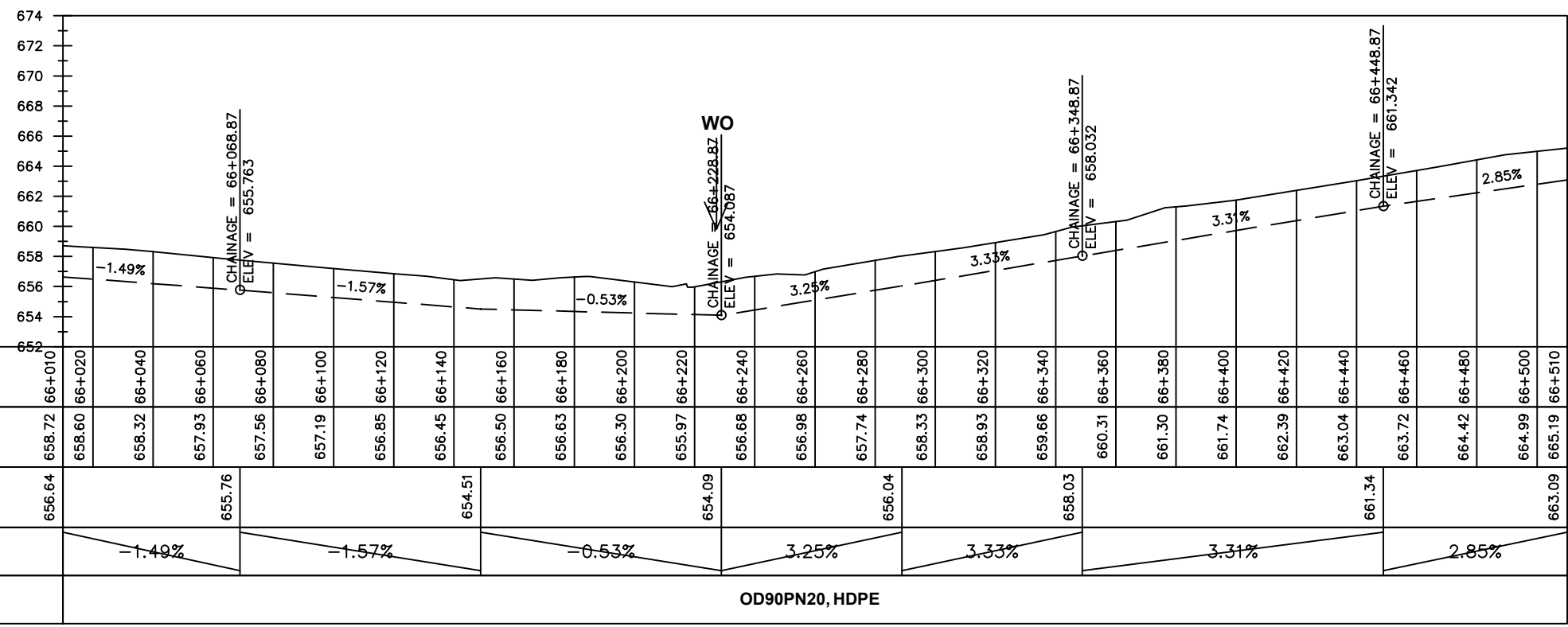
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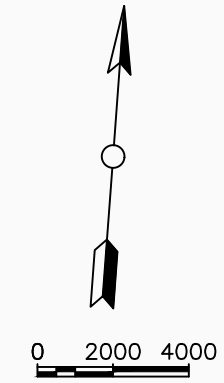
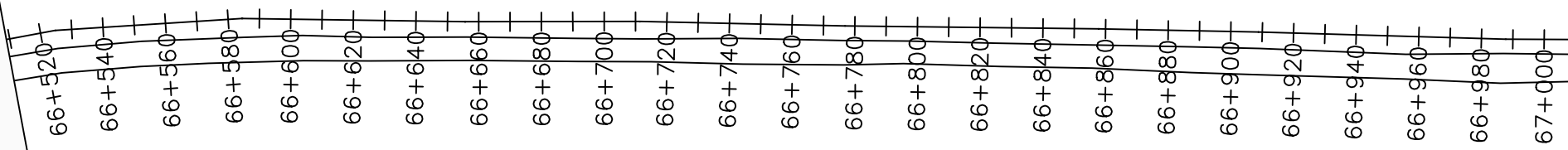
No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
66+010 - 66+510

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	14 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
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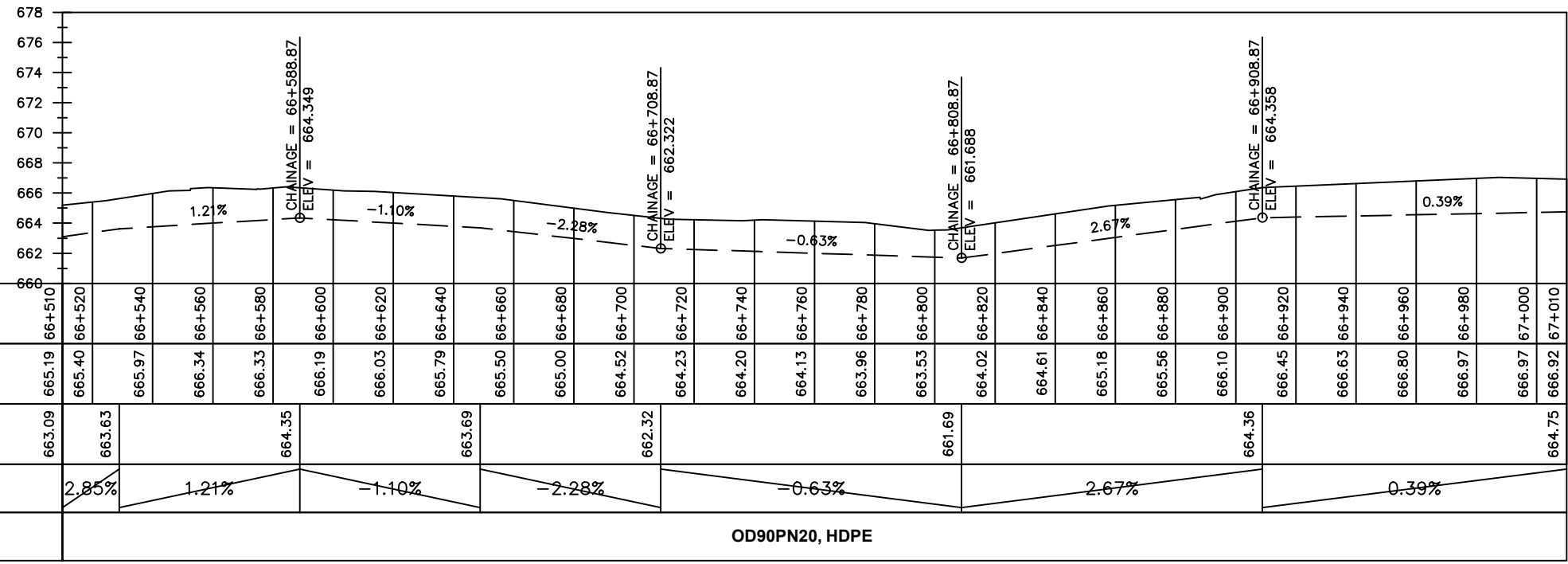
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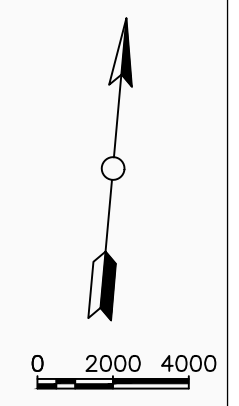
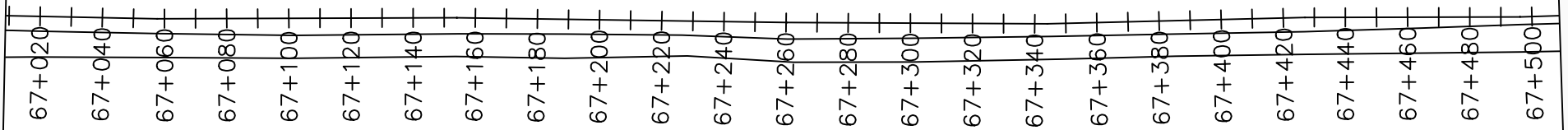
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TRANSMISSION MAIN 5 (TO OGOKO TANK)
66+510 - 67+010

Surveyed by:	R.K
Drawn by:	M.K
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DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	15 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
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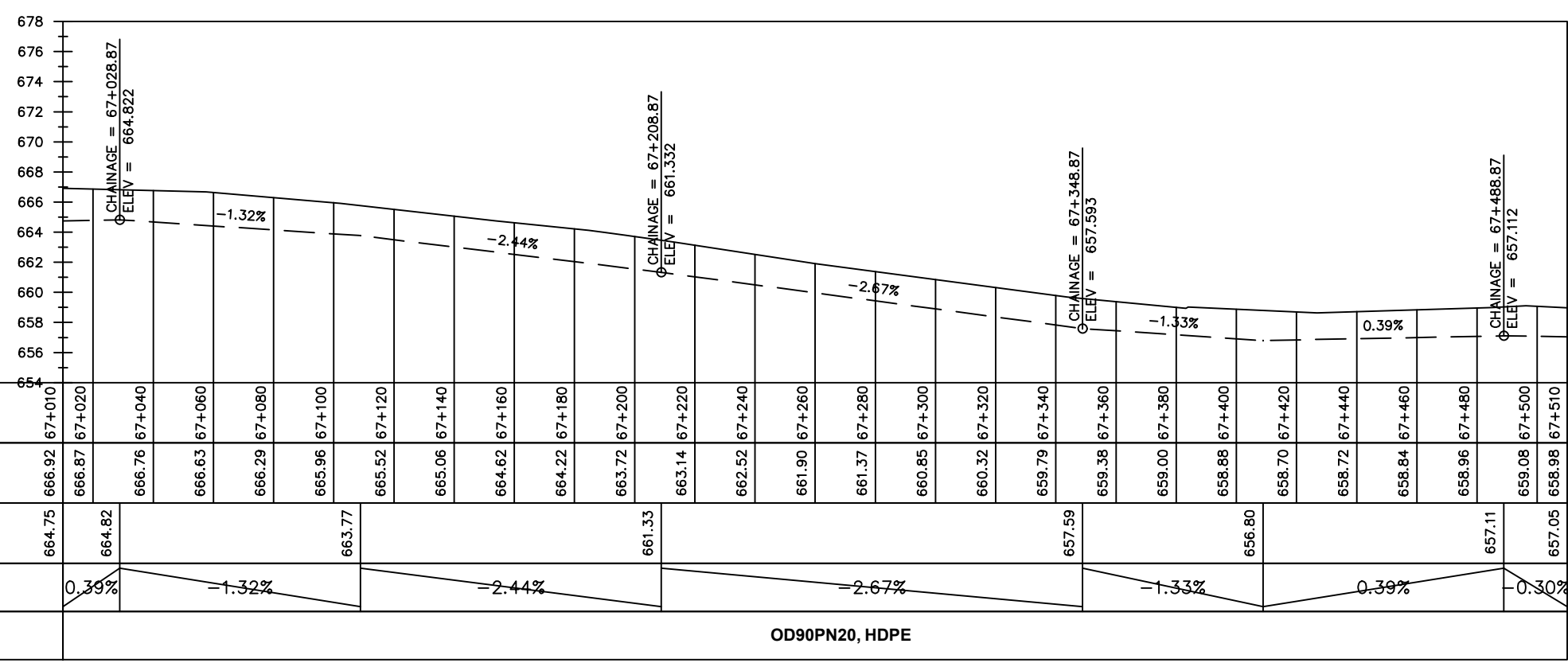
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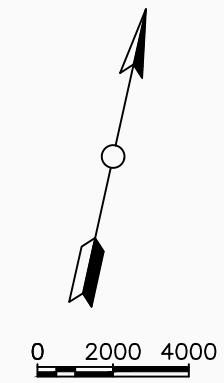
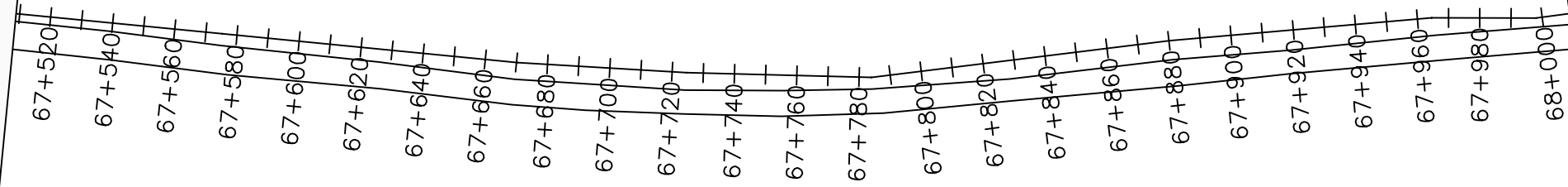
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DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
67+010 - 67+510

Surveyed by:	R.K
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Checked by:	J.K.K
Date:	Jan 2023
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Scale:	1:2000
Sheet No.:	16 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
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Profile

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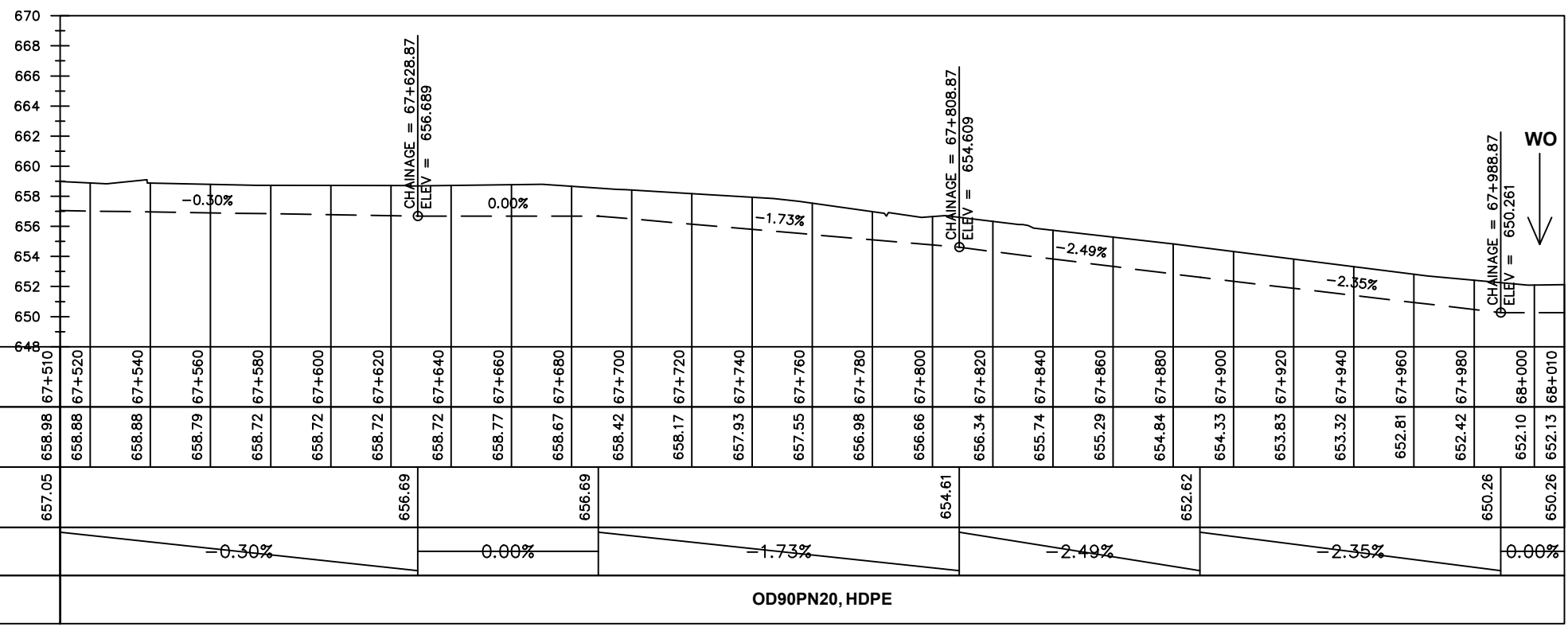
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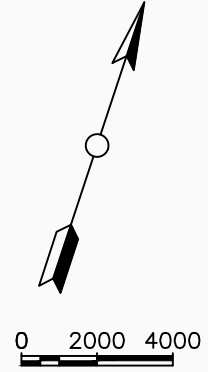
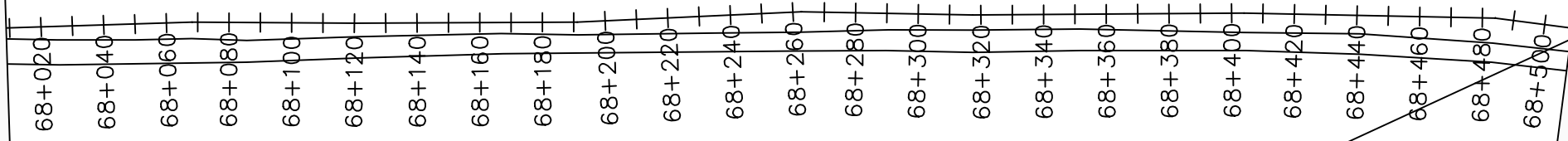
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DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
67+510 - 68+010

Surveyed by:	R.K
Drawn by:	M.K
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Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	17 of 20





LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

CLIENT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

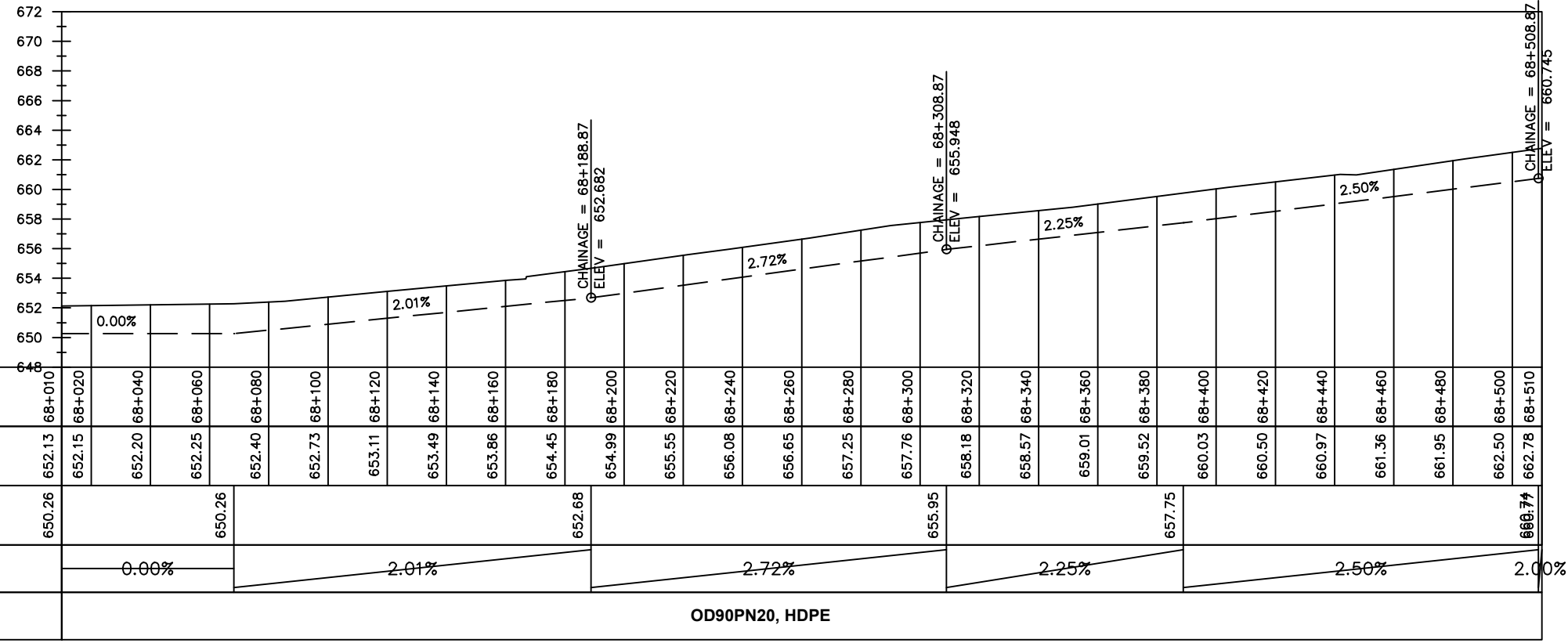
REVISIONS :

No	Date	Description

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TRANSMISSION MAIN 5 (TO OGOKO TANK)
68+010 - 68+510

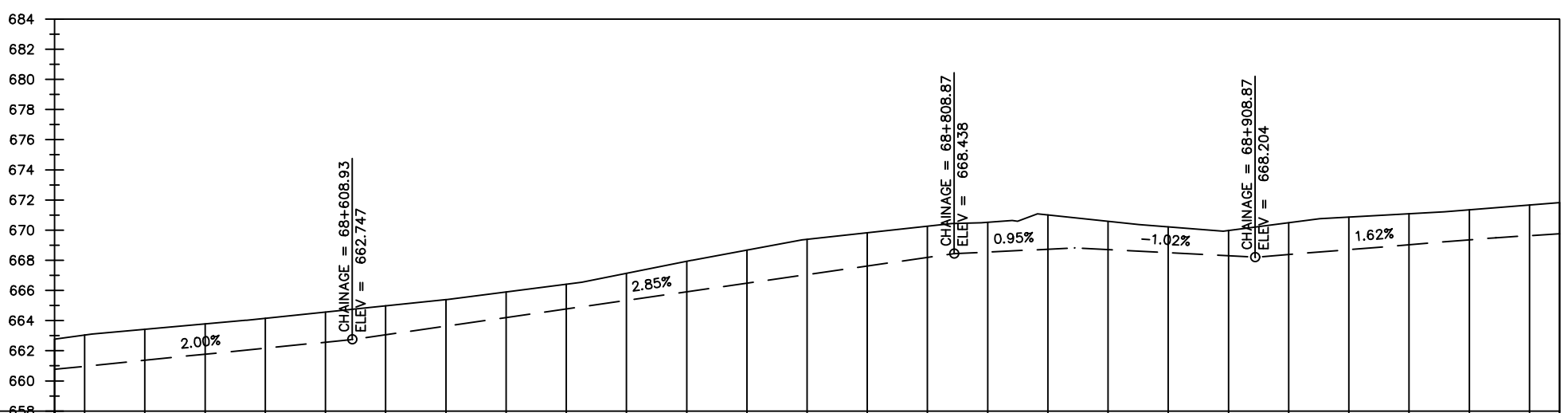
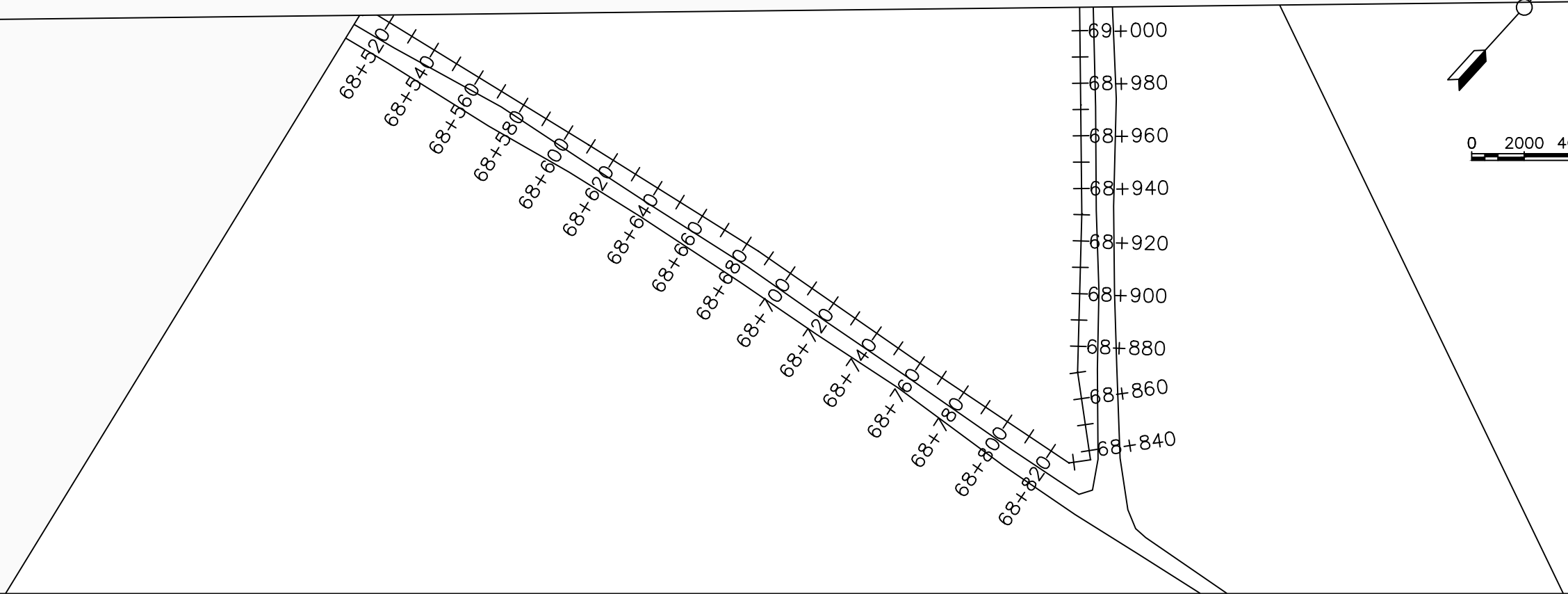
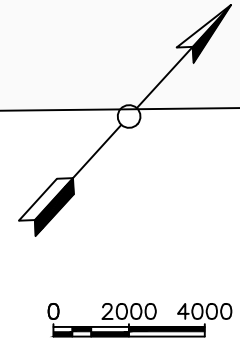
Surveyed by:	R.K
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Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	18 of 20



Chainages (m)	68+010	68+020	68+040	68+060	68+080	68+100	68+120	68+140	68+160	68+180	68+200	68+220	68+240	68+260	68+280	68+300	68+320	68+340	68+360	68+380	68+400	68+420	68+440	68+460	68+480	68+500	68+510	
Ground Levels (masl)	652.13	652.15	652.20	652.25	652.40	652.73	653.11	653.49	653.86	654.45	654.99	655.55	656.08	656.65	657.25	657.76	658.18	658.57	659.01	659.52	660.03	660.50	660.97	661.36	661.95	662.50	662.78	
Invert Levels (masl)	650.26			650.26						652.68						655.95					657.75						660.74	
Slope (%)		0.00%				2.01%						2.72%						2.25%					2.50%				2.00%	
Pipe Details	OD90PN20, HDPE																											

LEGEND

- Plan**
- Transmission Main
 - Distribution Main
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 - Invert Level
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 - Node detail No.



Chainages (m)	68+510	68+520	68+540	68+560	68+580	68+600	68+620	68+640	68+660	68+680	68+700	68+720	68+740	68+760	68+780	68+800	68+820	68+840	68+860	68+880	68+900	68+920	68+940	68+960	68+980	69+000	69+010	
Ground Levels (masl)	662.78	663.05	663.43	663.78	664.15	664.56	664.98	665.40	665.90	666.41	667.14	667.94	668.67	669.38	669.82	670.26	670.52	671.01	670.58	670.21	669.98	670.49	670.87	671.09	671.36	671.67	671.83	
Invert Levels (masl)	660.77					662.75										668.44		668.82				668.20				669.50	669.76	
Slope (%)		2.00%						2.85%						0.95%		-1.02%			1.62%					1.24%				
Pipe Details	OD90PN20, HDPE																											

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

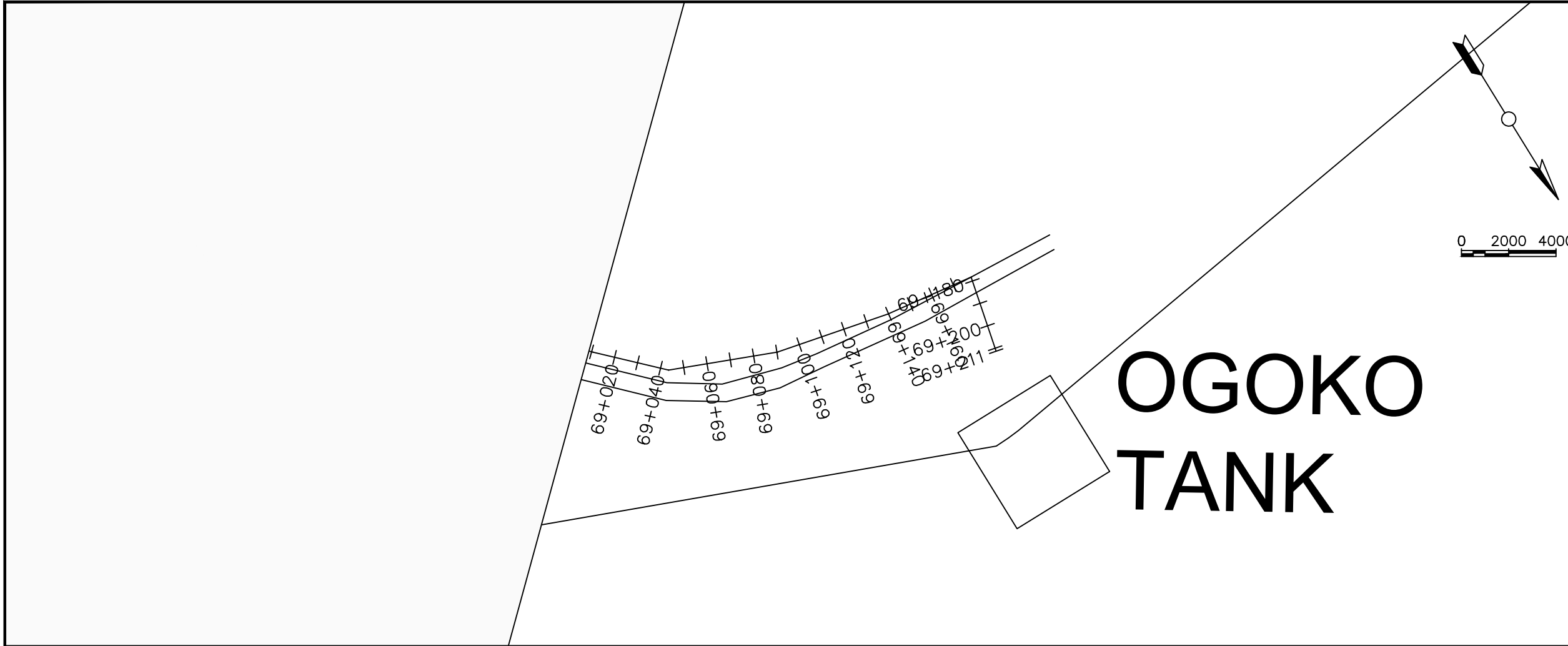
REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION MAIN 5 (TO OGOKO TANK)
68+510 - 69+010

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	Jan 2023
DRG. No.:	NYA-GTM-005
Scale:	1:2000
Sheet No.:	19 of 20



LEGEND

Plan

- Transmission Main
- Distribution Main
- Road
- Building
- Contours

Profile

- Ground Level
- Invert Level
- AV Air Valve
- WO Washout
- Node detail No.

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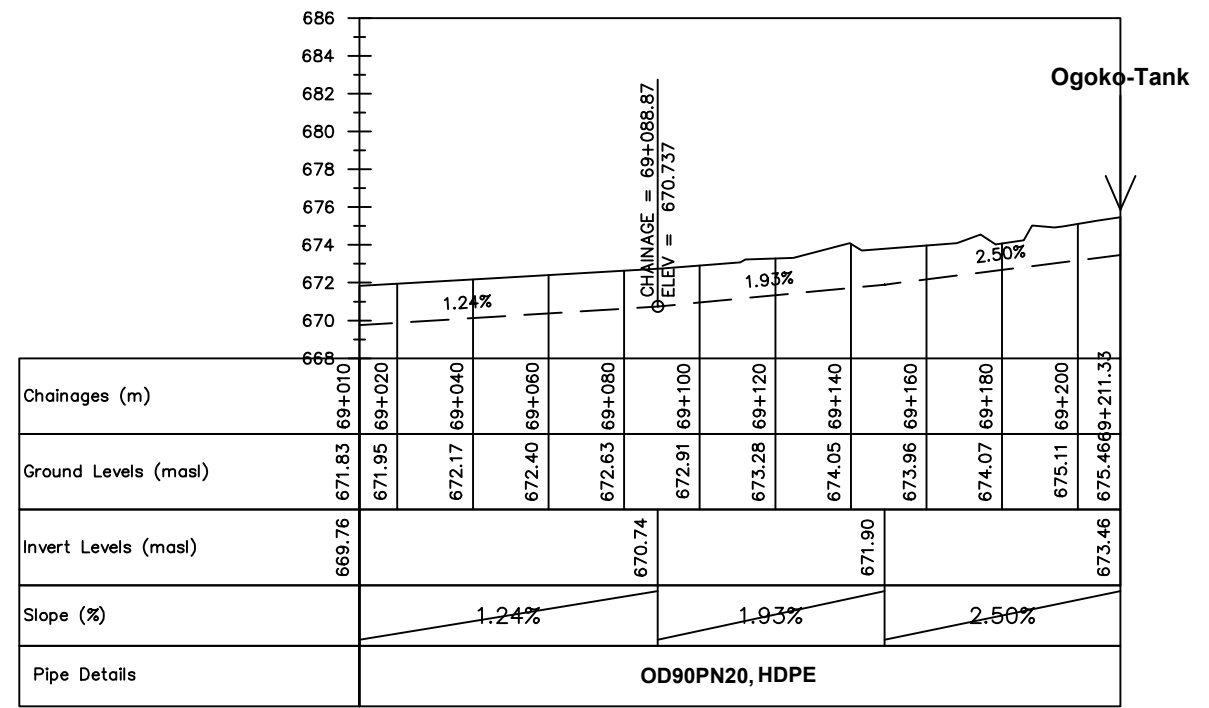
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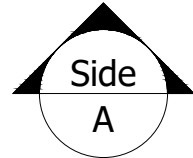
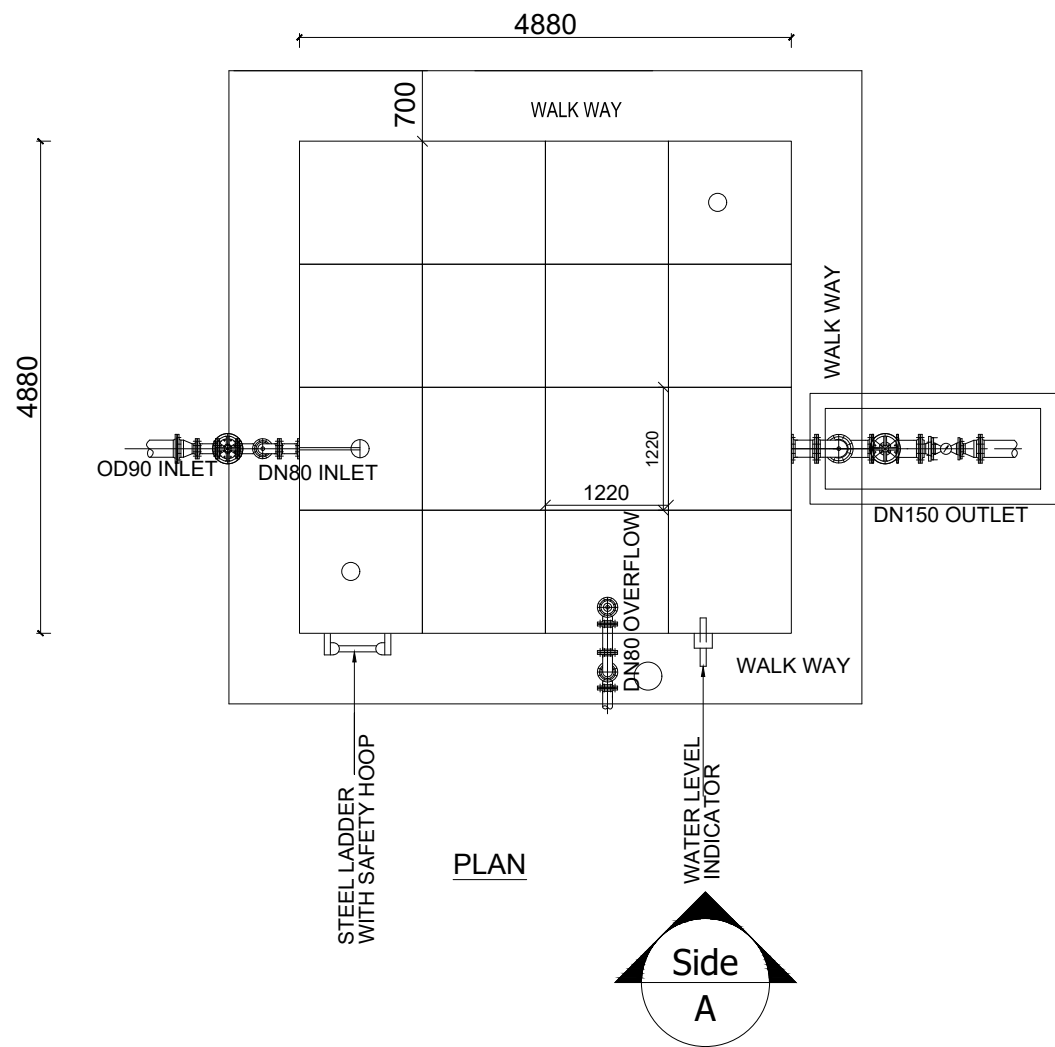
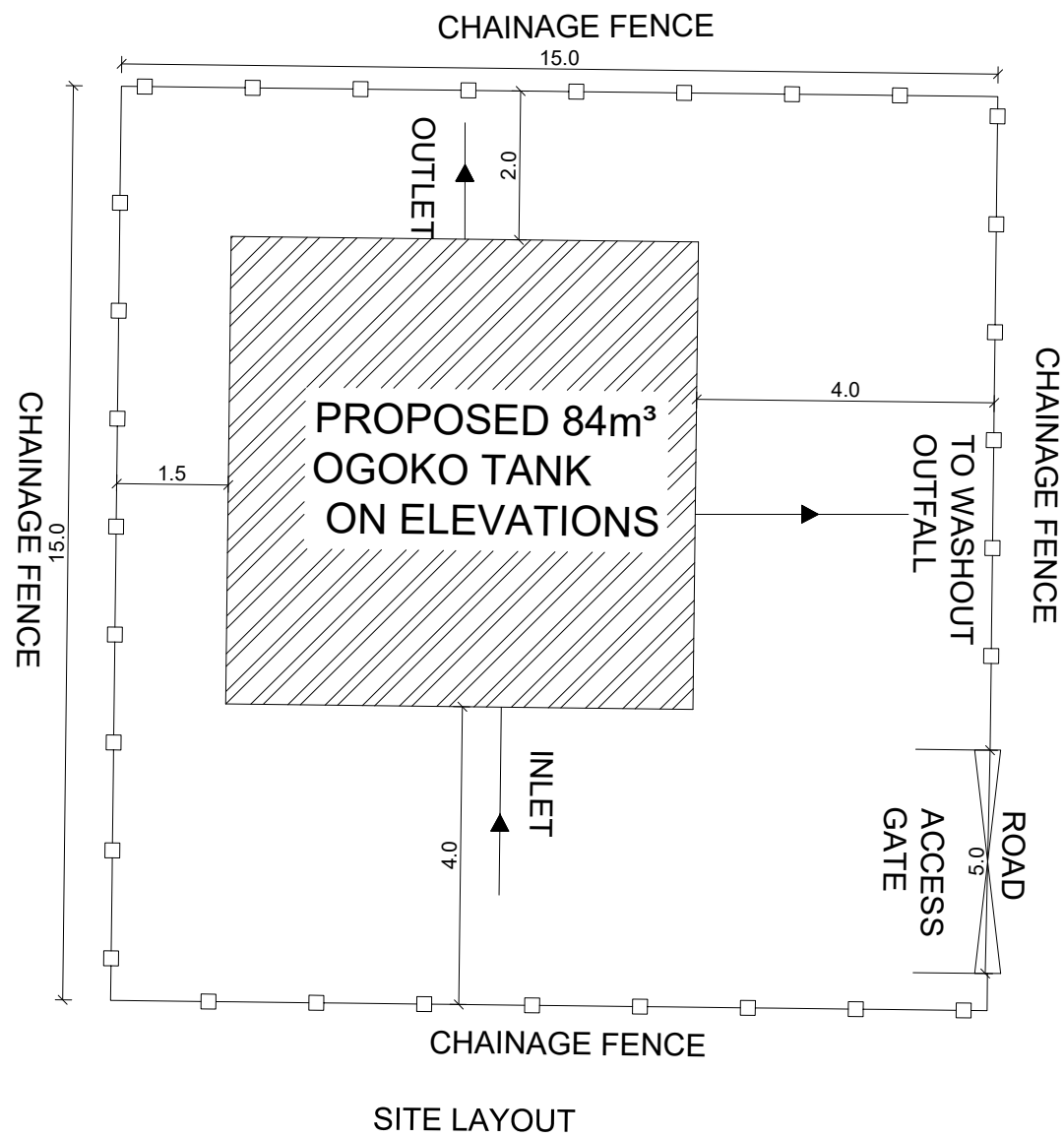
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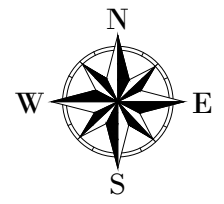
TRANSMISSION MAIN 5 (TO OGOKO TANK)
69+010 - 69+211.35

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
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Date:	Jan 2023
DRG. No.:	NYA-GTM-005
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Sheet No.:	20 of 20





LEGEND



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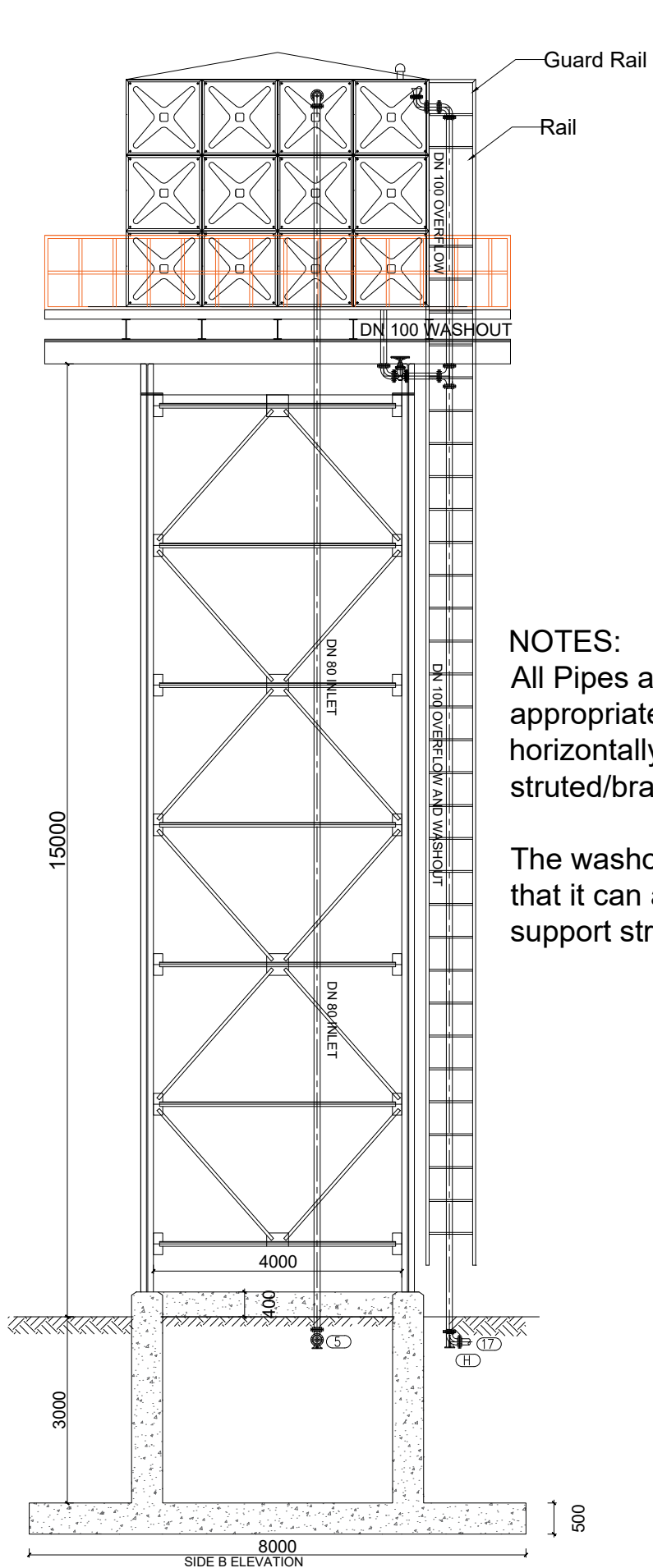
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REVISIONS :

No	Date	Description

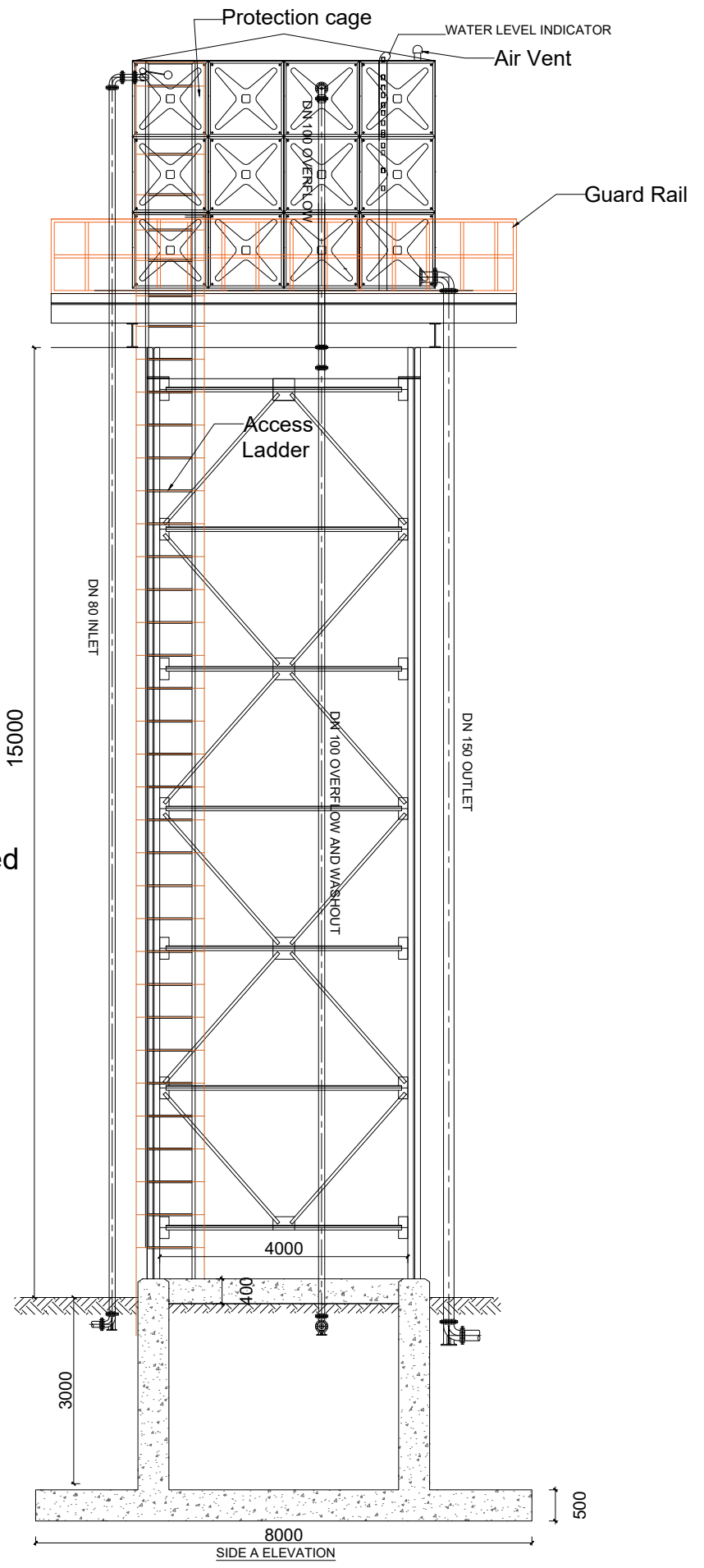
DRAWING TITLE :
OGOKO RESERVOIR TANK- 84m³
PLAN AND SITE LAYOUT

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA_RES_OGO_007**
 Scale: 1:100
 1:75
 Sheet No.: 1 of 3

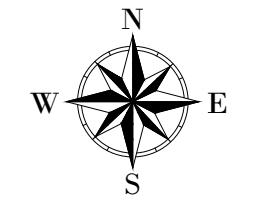


NOTES:
 All Pipes and fittings shall be appropriately aligned vertically or horizontally and strutted/braced to approval

The washout shall be so positioned that it can access using the tank support structure ladder



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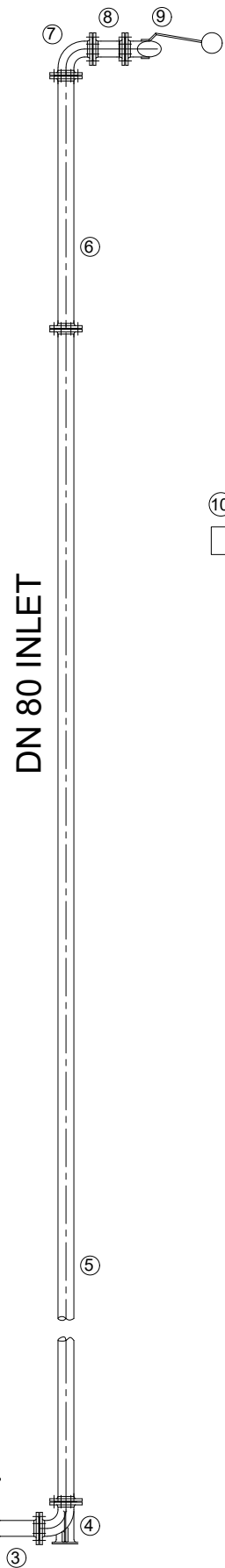
**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

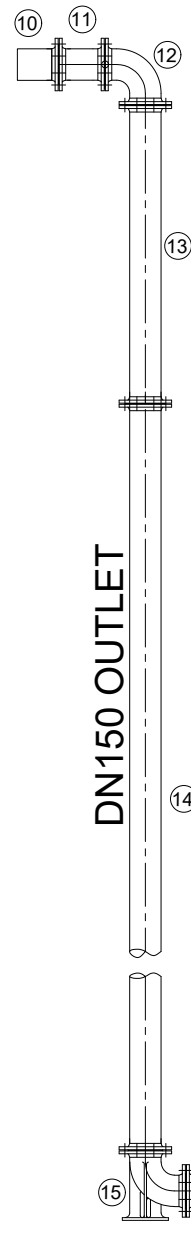
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DRAWING TITLE :
**OGOKO RESERVOIR TANK- 84m³
 ELEVATIONS**

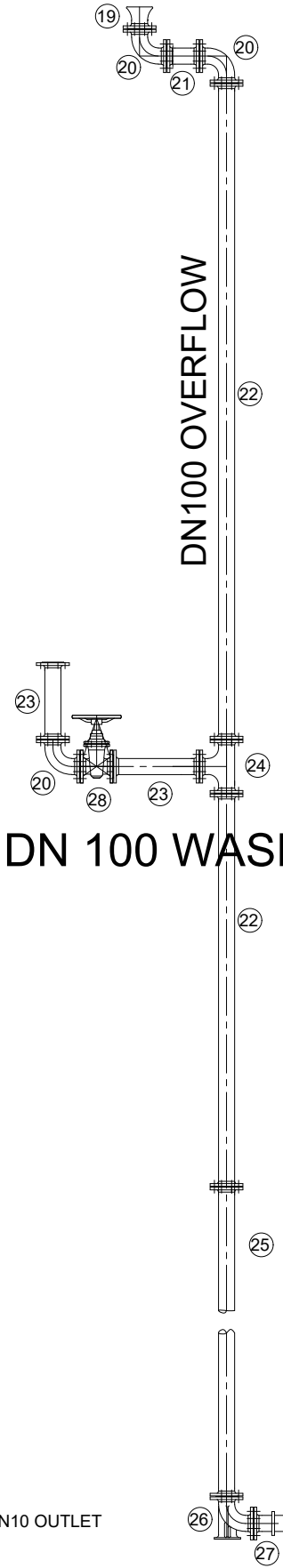
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 Date: January 2023
 DRG. No.: **NYA_RES_OGO_007**
 Scale: 1:100 Sheet No.: 2 of 3



OD90 HDPE, PN10 INLET



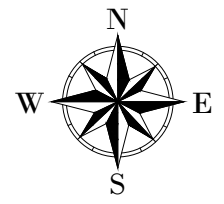
OD160 uPVC, PN10 OUTLET



OD110 uPVC, PN10 OUTLET

PIPE AND FITTINGS SCHEDULE					
Mark	Description	Material	DN	PN	Qty.
INLET					
1	Flanged Adapter	DI	80		1
2	Flanged Gate Valve	CI	80		1
3	Flanged Pipe Piece, Length - 0.3m	DI	80		1
4	90° Flanged Duckfoot Bend	DI	80		1
5	Flanged Pipe, Length - 6.0m	DI	80	10	3
6	Flanged Pipe, Length n.e - 2.0m	DI	80		1
7	90° Flanged Bend	DI	80		1
8	Flanged Pipe Piece, Length - 0.2m	DI	80		1
9	Flanged Float Valve	CI	80		1
OUTLET					
10	Flanged Strainer	SS	150		1
11	Flanged Pipe Piece, Length - 0.2m	DI	150		1
12	90° Flanged Bend	DI	150		1
13	Flanged Pipe, Length n.e - 5.0m	DI	150		1
14	Flanged Pipe, Length - 6.0m	DI	150	10	3
15	90° Flanged Duckfoot Bend	DI	150		1
16	Flanged Pipe Piece, Length - 0.3m	DI	150		1
17	Flanged Gate Valve	CI	150		1
18	Flanged Adapter	DI	150		1
WASHOUT & OVERFLOW					
19	Flanged Bellmouth	DI	100		1
20	90° Flanged Bend	DI	100		3
21	Flanged Pipe, Length n.e - 0.2m	DI	100		1
22	Flanged Pipe Piece, Length - 5.0m	DI	100		2
23	Flanged Pipe Piece, Length n.e - 1.0m	DI	100	10	2
24	Flanged Tee	DI	100		1
25	Flanged Pipe Piece, Length - 6.0m	DI	100		3
26	90° Flanged Duckfoot Bend	DI	100		1
27	Flanged Adapter	DI	100		1
28	Flanged Gate Valve	CI	100		1

LEGEND



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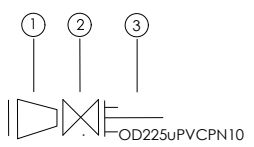
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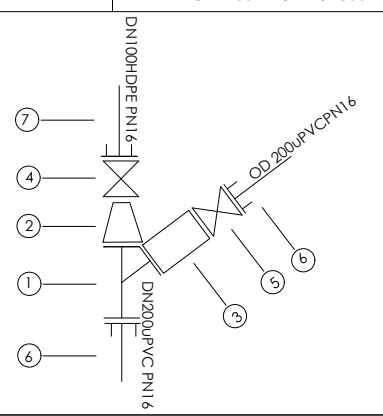
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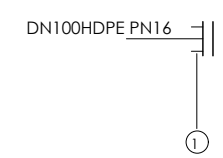
OGOKO RESERVOIR TANK- 84m³ PIPE FITTINGS

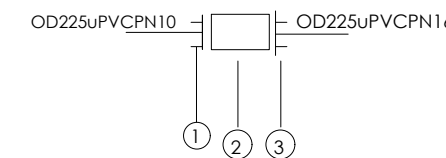
Surveyed by:	R.K
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DRG. No.:	NYA_RES_OGO_007
Scale:	1:50
Sheet No.:	3 of 3

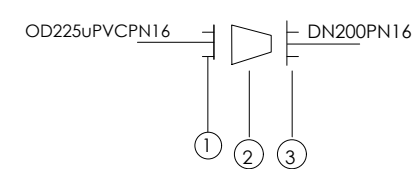
LEGEND

ANYIRIBU TEE	DWG No. - CHAINAGE	NODE No.	SCHEDULE OF PIPEWORK & FITTINGS				
2	NYA-GTM-002 - CH 15+370	④	ITEM	DESCRIPTION	SIZE	QTY.	PN
			1	DI FLANGED TAPER	250/225	1	10
			2	CI FLANGED GATE VALVE	225	1	10
			3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	225	1	10


GOLI TEE	DWG No. - CHAINAGE	NODE No.	SCHEDULE OF PIPEWORK & FITTINGS				
2	NYA-GTM-002 - CH 23+500	⑤	ITEM	DESCRIPTION	SIZE	QTY.	PN
			1.	CI ALL FLANGED Y	200/90	1	16
			2.	DI FLANGED TAPER	200/90	1	16
			3.	FLANGED COUPLER	200/200	1	16
			4.	CI FLANGED GATE VALVE	90	1	16
			5.	CI FLANGED GATE VALVE	200	1	16
			6.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	2	16
			7.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	90	1	16

GOLI TANK	DWG No. - CHAINAGE	NODE No.	SCHEDULE OF PIPEWORK & FITTINGS				
1	NYA-GTM-002 - CH 34+657	⑥	ITEM	DESCRIPTION	SIZE	QTY.	PN
			1.	DI END CAP	100	1	16

ANYIRIBU-GOLI	DWG No. - CHAINAGE	SCHEDULE OF PIPEWORK & FITTINGS				
2	NYA-GTM-002 - CH 16+190	ITEM	DESCRIPTION	SIZE	QTY.	PN
		1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	225	1	16
		2	FLANGED COUPLER	225/225	1	16
		3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	225	1	16


ANYIRIBU-GOLI	DWG No. - CHAINAGE	SCHEDULE OF PIPEWORK & FITTINGS				
2	NYA-GTM-002 - CH 22+890	ITEM	DESCRIPTION	SIZE	QTY.	PN
		1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	225	1	16
		2	DI FLANGED TAPER	225/200	1	16
		3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

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Alliance Consultants Ltd
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Infra-Consult Ltd

PROJECT :

**ALA-ORA WATER SUPPLY AND
SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE :

TRANSMISSION NODES DETAILS

Surveyed by: R.K

Drawn by: A.K

Designed by: W.G.M

Checked by: J.K.K

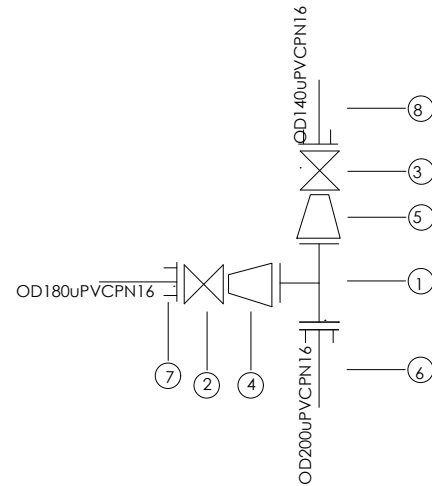
Date: January 2023

DRG. No.: **NYA-ND-001**

Scale: 1:5.5 Sheet No.: 1 of 4

LEGEND

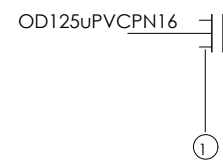
IPIPE TEE	DWG No. - CHAINAGE	NODE No.
3	NYA-GTM-003 - CH 56+350	⑦



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1.	CI ALL FLANGED TEE	200/180	1	16
2.	CI FLANGED GATE VALVE	180	1	16
3.	CI FLANGED GATE VALVE	130	1	16
4.	DI FLANGED TAPER	200/180	1	16
5.	DI FLANGED TAPER	200/130	1	16
6.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
7.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	180	1	16
8.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	130	1	16

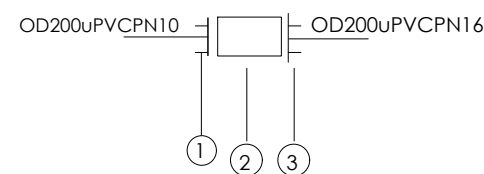
PAWOR TANK	DWG No. - CHAINAGE	NODE No.
3	NYA-GTM-003 - CH 67+480	⑧



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1.	DI END CAP	125	1	16

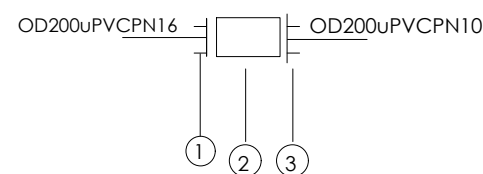
GOLI-IPIPE	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 27+750



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
2	FLANGED COUPLER	200/200	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

GOLI-IPIPE	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 29+970



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
2	FLANGED COUPLER	200/200	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

CONSULTANT :



Alliance Consultants Ltd
In Association with
Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

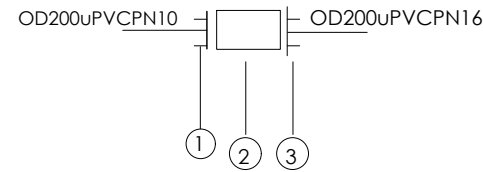
DRAWING TITLE :

TRANSMISSION NODES DETAILS

Surveyed by: R.K
 Drawn by: A.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA-ND-001**
 Scale: 1:5 Sheet No.: 2 of 4

LEGEND

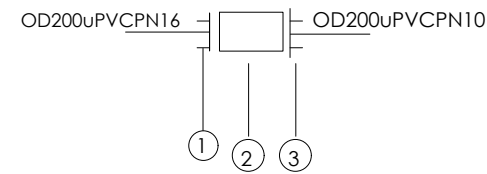
GOLI-IPIPE	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 34+830



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
2	FLANGED COUPLER	200/200	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

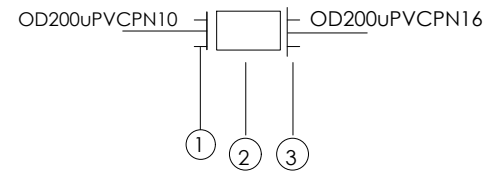
GOLI-IPIPE	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 37+940



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
2	FLANGED COUPLER	200/200	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

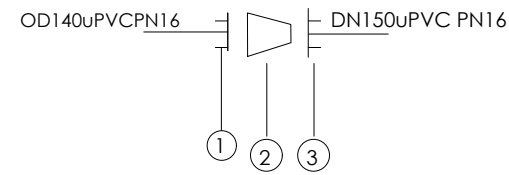
GOLI-IPIPE	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 41+870



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16
2	FLANGED COUPLER	200/200	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	200	1	16

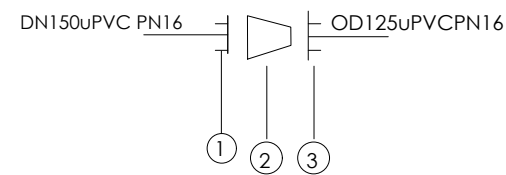
IPIPE-PAWOR	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 59+360



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	130	1	16
2	DI FLANGED TAPER	130/140	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	140	1	16

IPIPE-PAWOR	DWG No. - CHAINAGE
3	NYA-GTM-003 - CH 63+000



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	140	1	16
2	DI FLANGED TAPER	140/110	1	16
3	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	110	1	16

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CONSULTANT :



Alliance Consultants Ltd
In Association with



Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

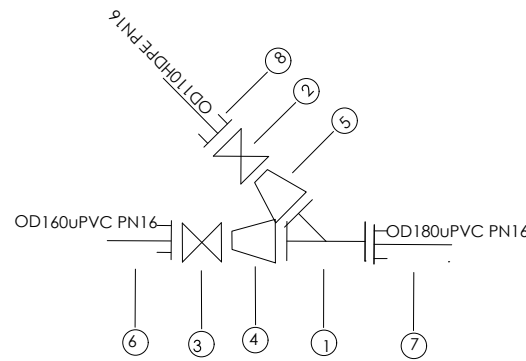
TRANSMISSION NODES DETAILS

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	NYA-ND-001
Scale:	1:5
Sheet No.:	3 of 4

LEGEND

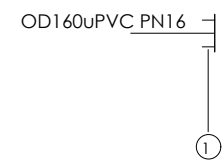
OGOKO TEE	DWG No. - CHAINAGE	NODE No.
4	NYA-GTM-004 - CH 59+510	⑨

SCHEDULE OF PIPEWORK & FITTINGS



ITEM	DESCRIPTION	SIZE	QTY.	PN
1.	CI ALL FLANGED Y	180/150	1	16
2.	CI FLANGED GATE VALVE	100	1	16
3.	CI FLANGED GATE VALVE	150	1	16
4.	DI FLANGED TAPER	180/150	1	16
5.	DI FLANGED TAPER	180/100	1	16
6.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	150	1	16
7.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	180	1	16
8.	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	100	1	16

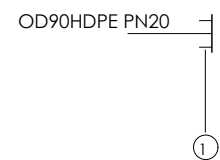
INDE TANK	DWG No. - CHAINAGE	NODE No.
4	NYA-GTM-004 - CH 66+150	⑩



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1.	HDPE END CAP	160	1	16

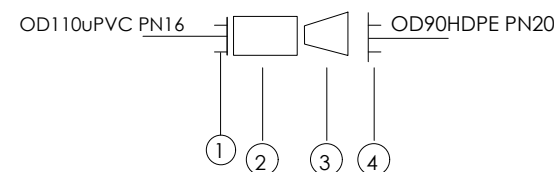
OGOKO TANK	DWG No. - CHAINAGE	NODE No.
5	NYA-GTM-005 - CH 69+211	⑪



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1.	HDPE END CAP	90	1	20

OGOKO-TANK	DWG No. - CHAINAGE
5	NYA-GTM-005 - CH 64+310



SCHEDULE OF PIPEWORK & FITTINGS

ITEM	DESCRIPTION	SIZE	QTY.	PN
1	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	100	1	20
2	FLANGED COUPLER	100/80	1	20
3	DI FLANGED TAPER	100/80	1	20
4	DI FLANGED ADAPTOR (MAXI TYPE OR SIMILAR)	80	1	20

CLIENT :

 THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:

THE WORLD BANK
 IBRD • IDA | WORLD BANK GROUP

CONSULTANT :
 Alliance Consultants Ltd
In Association with
 **Infra-Consult Ltd**

PROJECT :
**ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

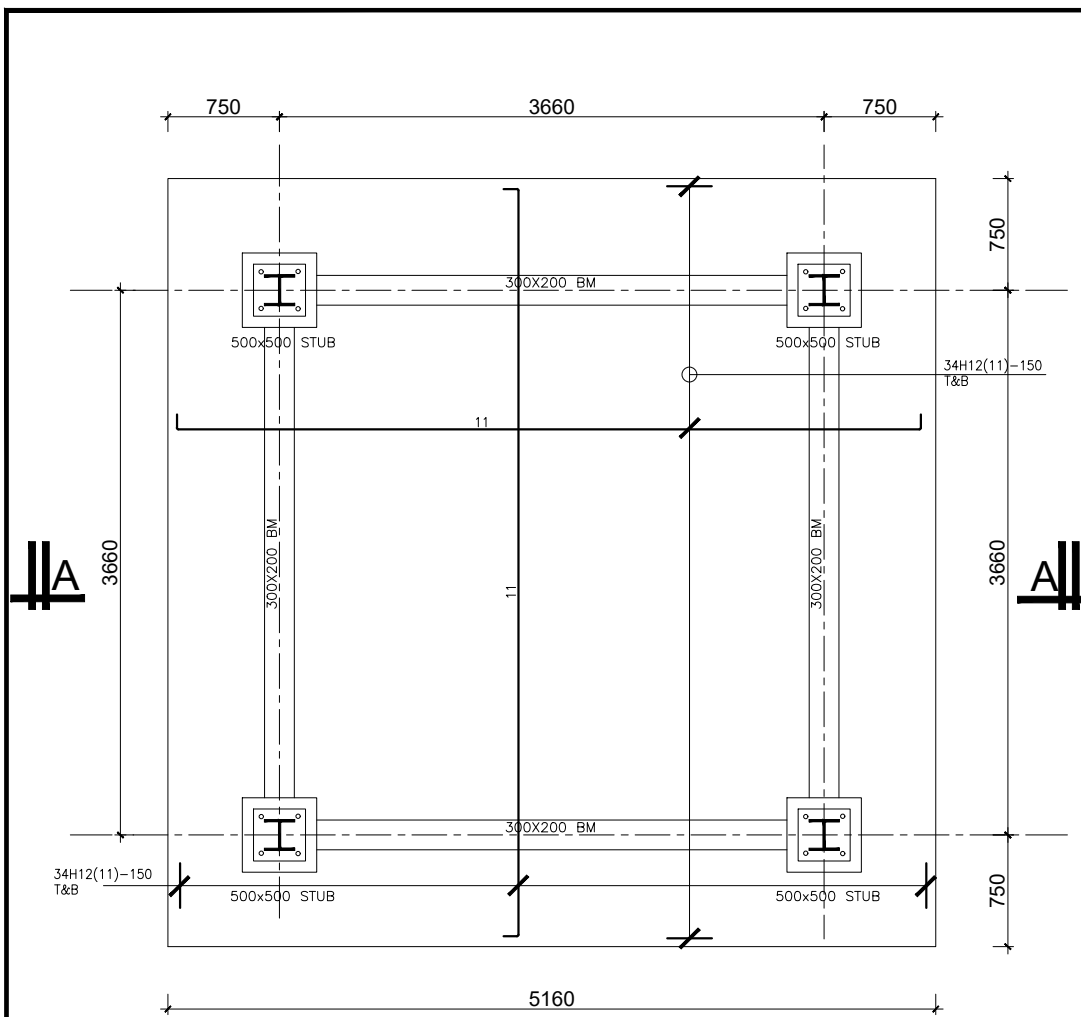
REVISIONS :

No	Date	Description

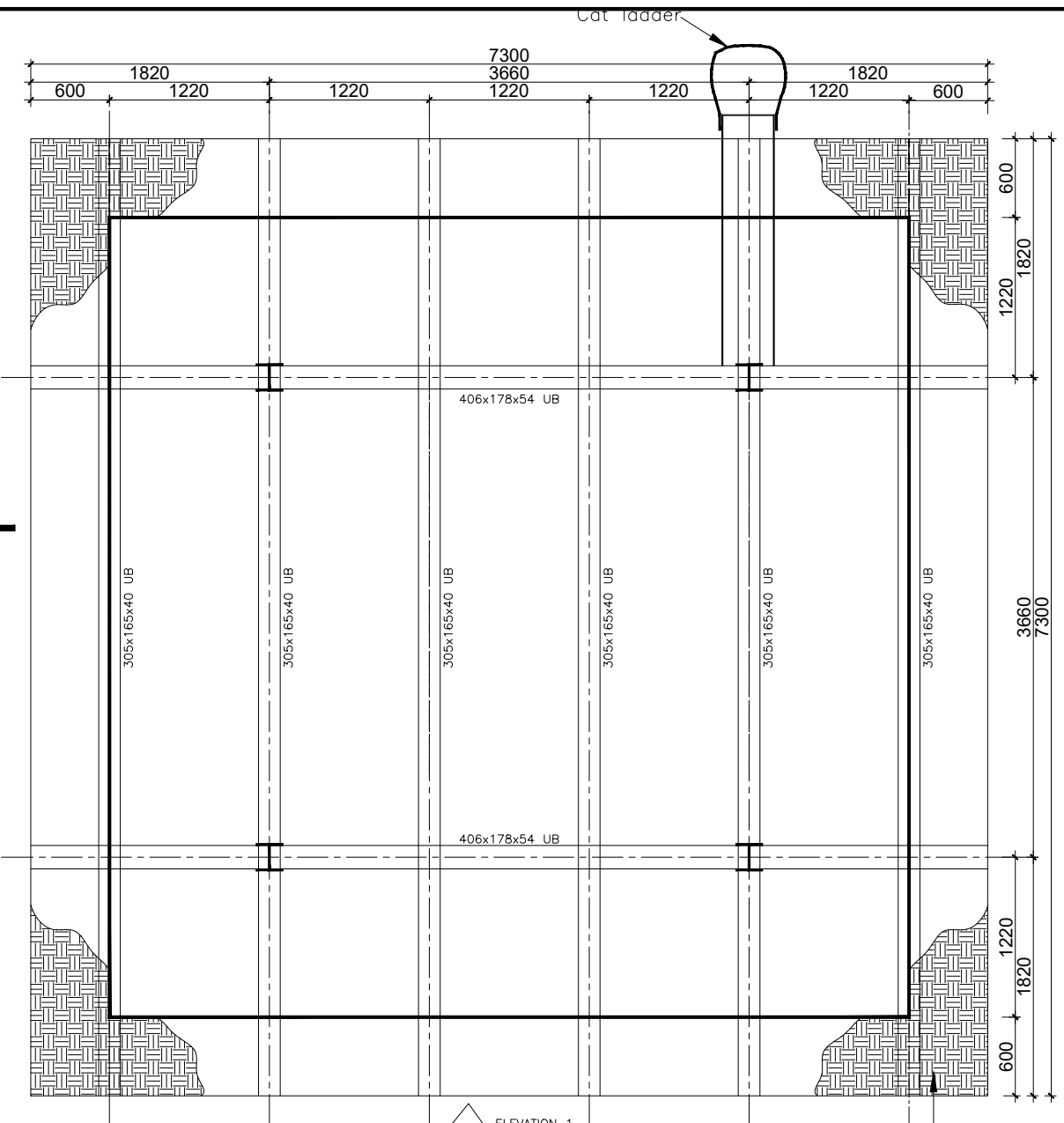
DRAWING TITLE :
TRANSMISSION NODES DETAILS

Surveyed by: R.K
 Drawn by: A.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **NYA-ND-001**
 Scale: 1:5 Sheet No.: 4 of 4

STRUCTURAL DRAWINGS

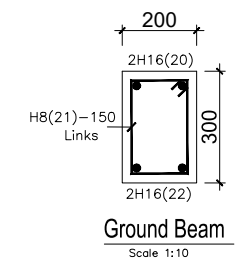


FOUNDATION LAYOUT
SCALE 1:25

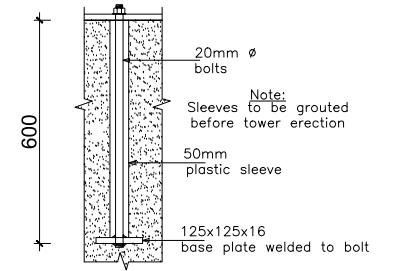


ELEVATION 1
TANK PLATFORM
SCALE 1:25

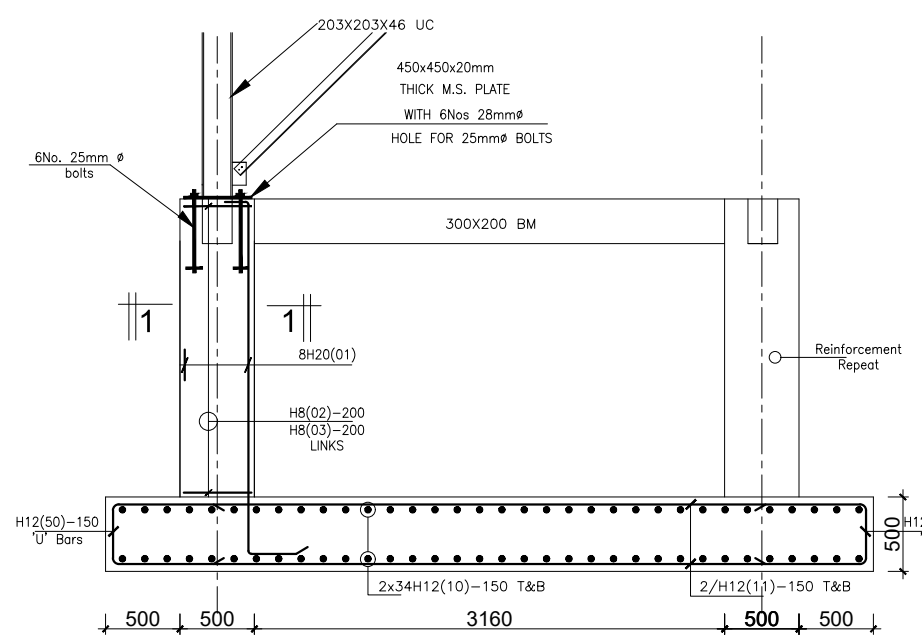
ELEVATION 2



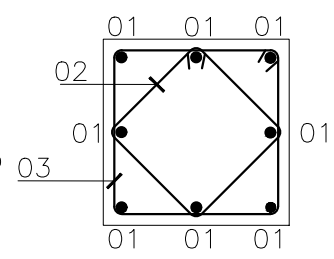
Ground Beam
Scale 1:10



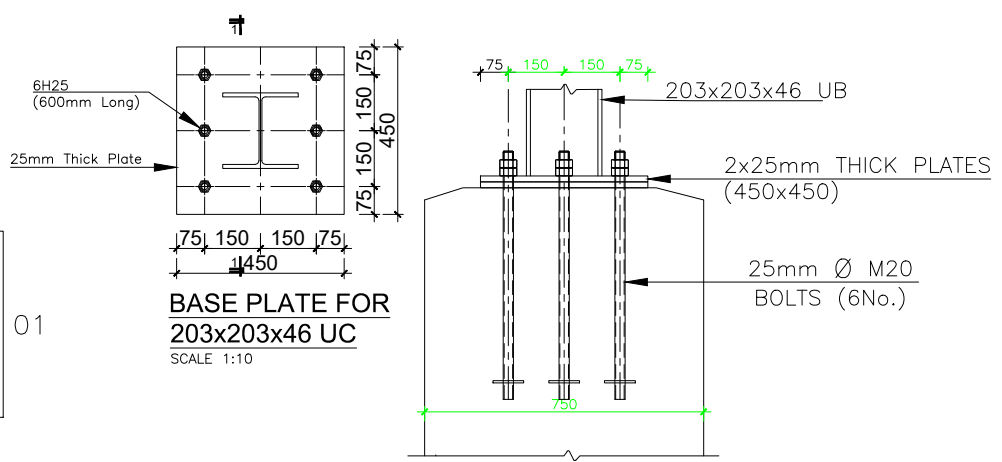
Bolt Connection Detail
Scale 1:10



SECTION A - A
Scale 1:25




SECTION 1-1
SCALE 1:10



SECTION 1-1
SCALE 1:10

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT
DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :



ALLIANCE CONSULTANTS LTD
CONSULTING ENGINEERS
In Association with
Infra-Consult Ltd

P.O.BOX 33975 KAMPALA
Email: allianceconsultantsltd@gmail.com

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

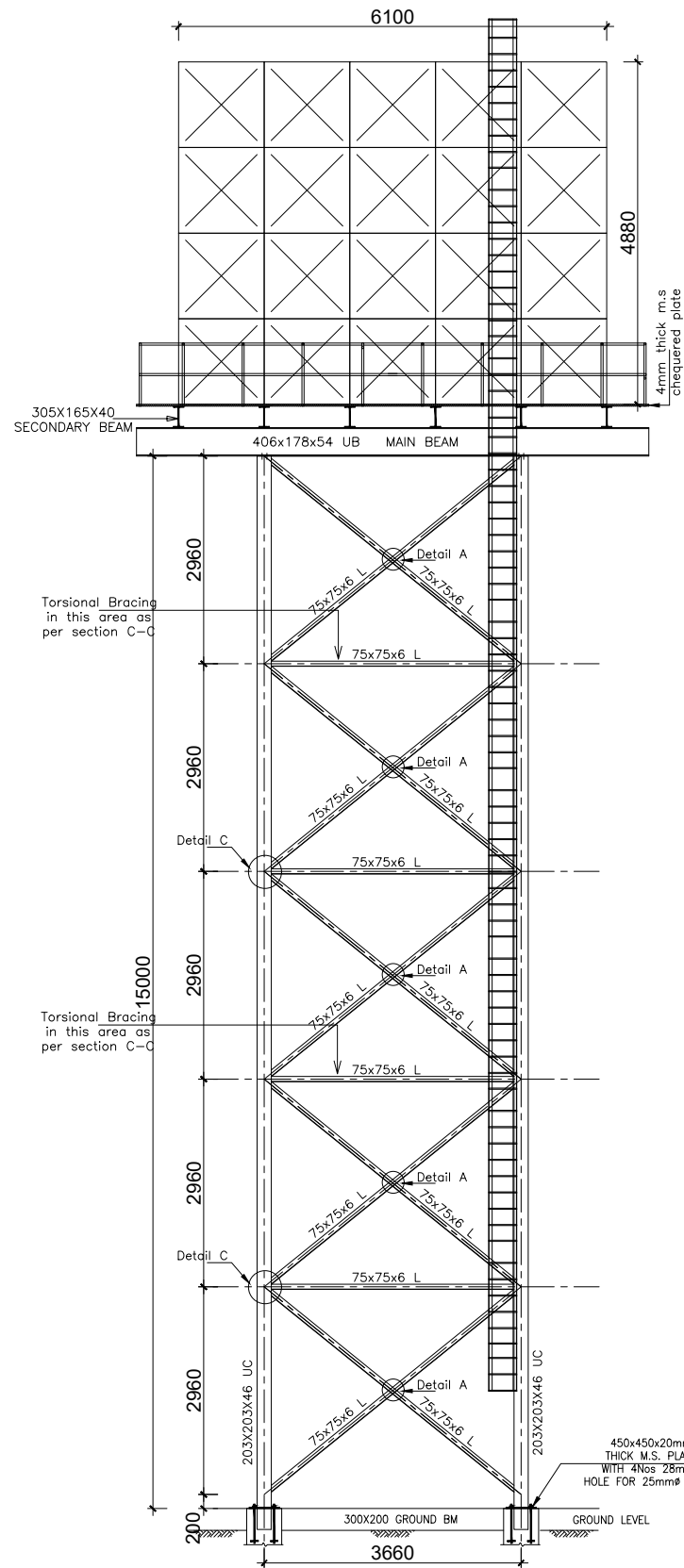
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

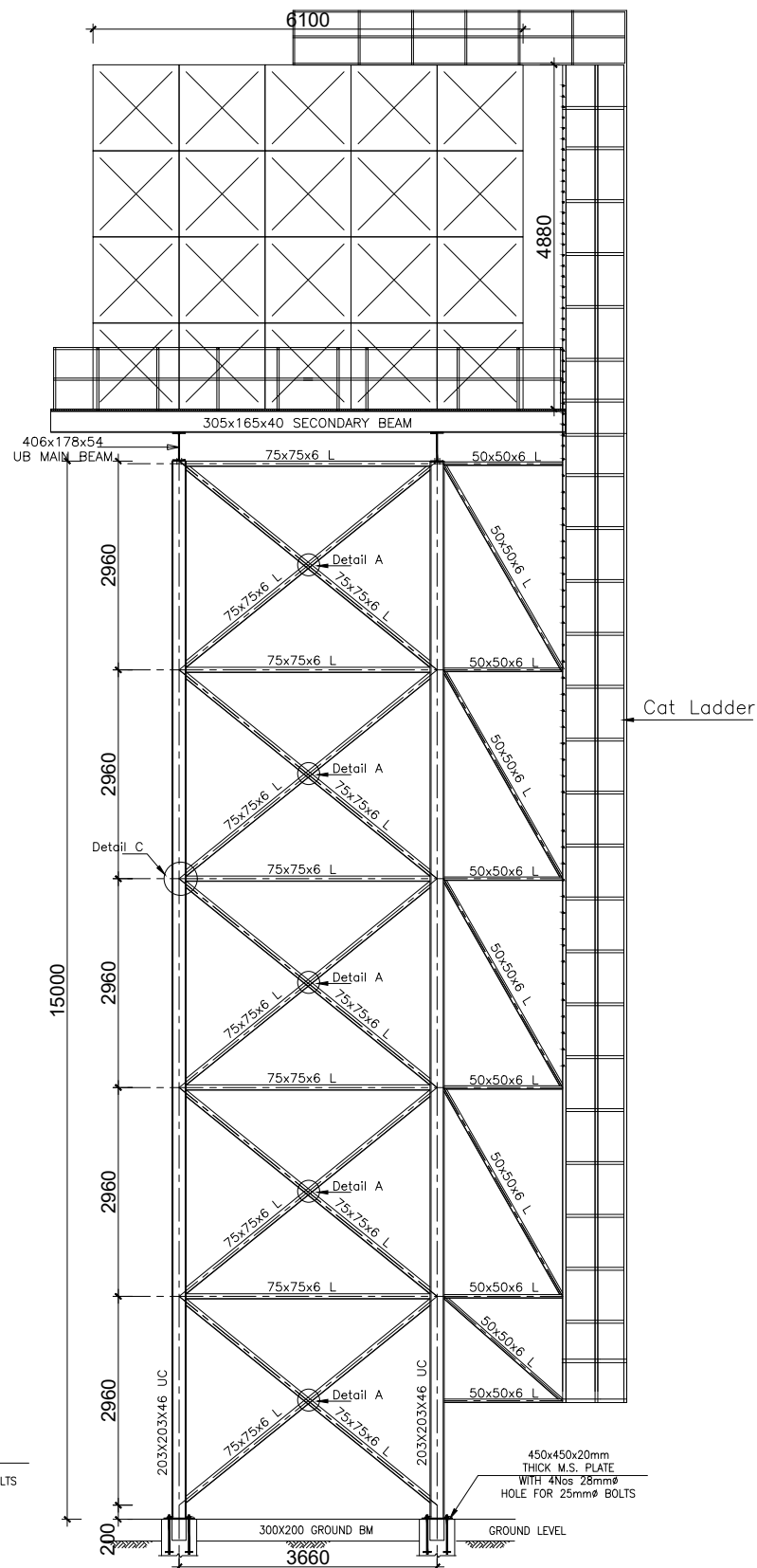
No	Date	Description

DRAWING TITLE : **PAWOR 175m³ Tank**

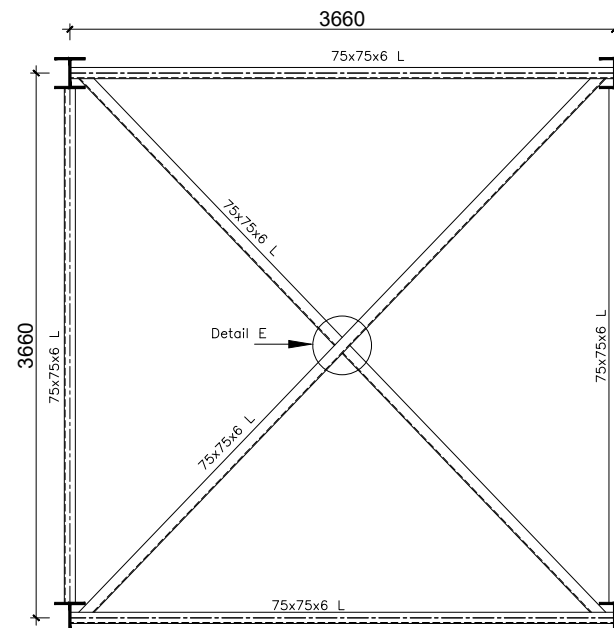
Surveyed by: R.K
Drawn by: Luks
Designed by: A.B
Checked by: A.B
Date: FEBRUARY 2023
DRG. No.: AR/WSASS/NY/STR/014
Scale: Sheet No.: 1 of 2



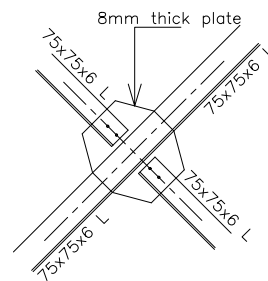
TOWER ELEVATION 1
SCALE 1:50



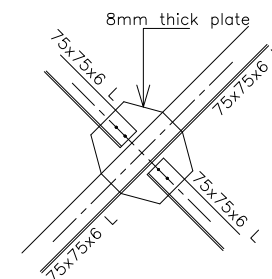
TOWER ELEVATION 2
SCALE 1:50



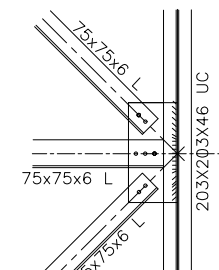
SECTION C-C (SECTIONAL BRACING)
SCALE 1:25



Detail E
Scale 1:10



Detail A
Scale 1:10



Detail C
Scale 1:10

GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
- Concrete mixes to BS8500
 - Mass concrete to have a minimum works cube strength of 15N/mm² and at 28 days with 20 mm maximum aggregate size
 - Reinforced concrete to have works cube strength of 30N/mm² cylinder strength of 30N/mm² with 20mm maximum aggregate size UNLESS OTHERWISE STATED
- Reinforcement
 - High tensile bars to be ribbed cold formed bars to B.S. 4461
 - Mild steel to be round bars to B.S. 4449
 - Mesh reinforcement to comply with requirement of B.S. 4483
- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

- All vertical walls to be cast at once
- Approved stopper water bar to be installed in all joints as directed by the Engineer.
- Contractor to use non recoverable ties for tying formwork
- Contractor to submit methodology for Construction before commencing work.
- All Pipes going through walls to have paddle flange
- Diameter of pipes to first be confirmed by M&E before concreting.
- All position of services i.e pipes passing through RC walls to be confirmed by M&E Before Casting

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT
DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :

ALLIANCE CONSULTANTS LTD
CONSULTING ENGINEERS
In Association with
Infra-Consult Ltd
P.O.BOX 33975 KAMPALA
Email: allianceconsultantsltd@gmail.com

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

**PAWOR
175m³ Tank**

Surveyed by: R.K

Drawn by: Luks

Designed by: A.B

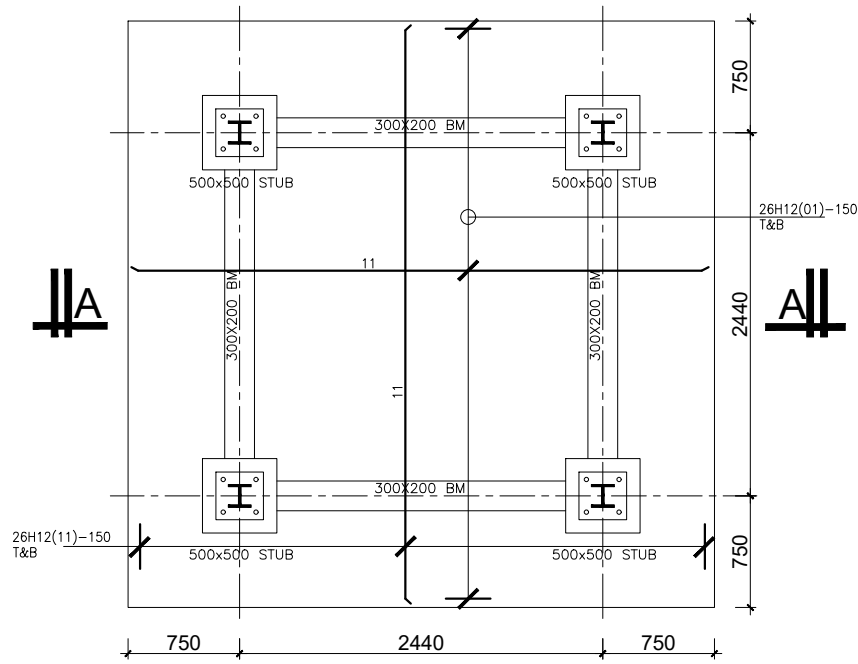
Checked by: A.B

Date: FEBRUARY 2023

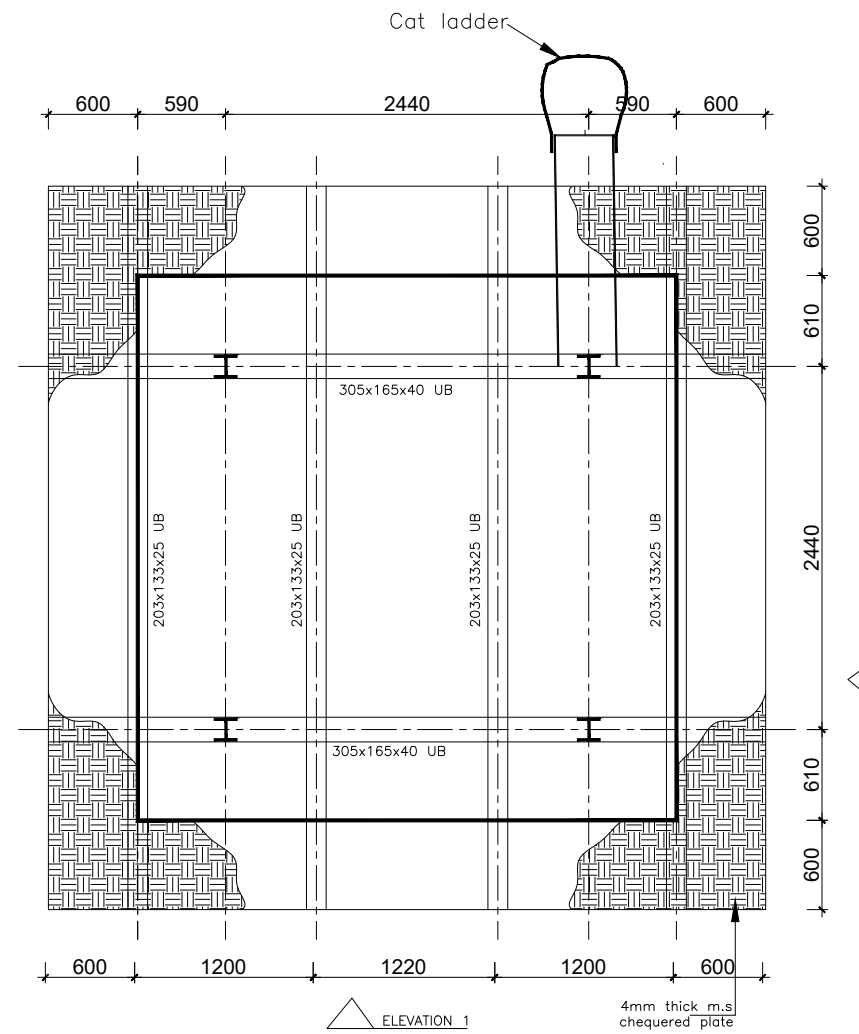
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Scale:

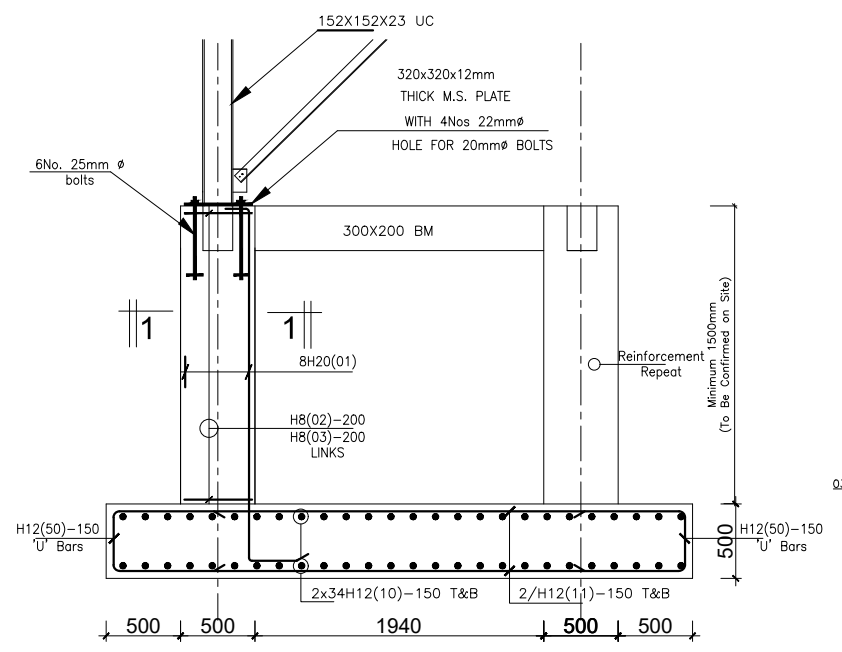
Sheet No.:



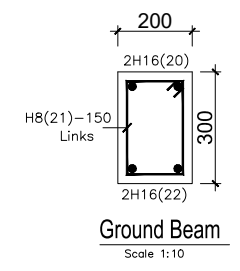
FOUNDATION LAYOUT
SCALE 1:25



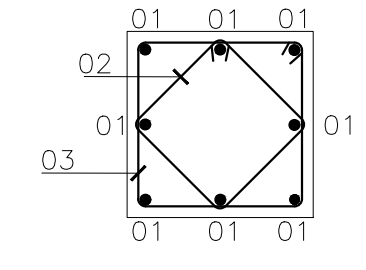
TANK PLATFORM
SCALE 1:25



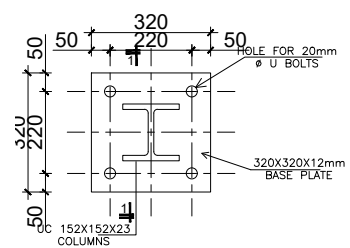
SECTION A - A
Scale 1:25



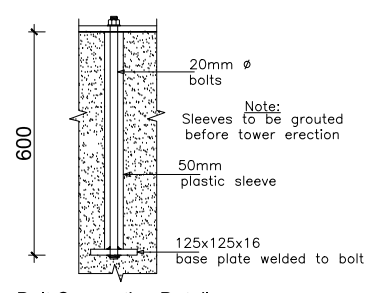
Ground Beam
Scale 1:10



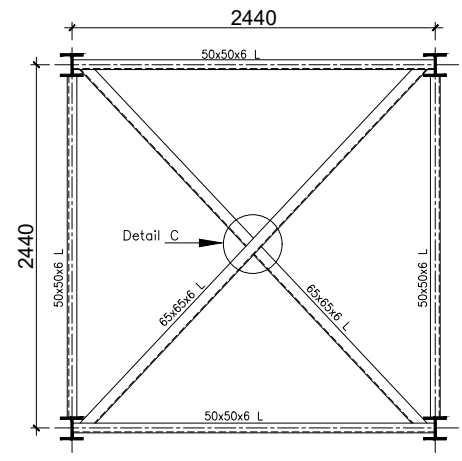
SECTION 1-1
SCALE 1:10



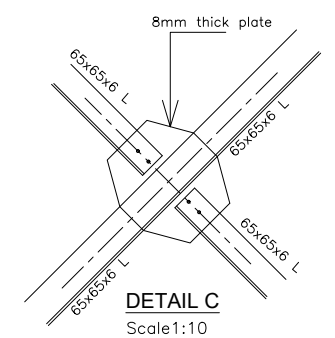
BASEPLATE DETAIL
Scale 1:10



Bolt Connection Detail
Scale 1:10



SECTION C-C (SECTIONAL BRACING)
SCALE 1:25



DETAIL C
Scale 1:10

GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
- Concrete mixes to BS8500
 - Mass concrete to have a minimum works cube strength of 15N/mm² and at 28 days with 20 mm maximum aggregate size
 - Reinforced concrete to have works cube strength of 30N/mm² cylinder strength of 30N/mm² with 20mm maximum aggregate size UNLESS OTHERWISE STATED
- Reinforcement
 - High tensile bars to be ribbed cold formed bars to B.S. 4461
 - Mild steel to be round bars to B.S. 4449
 - Mesh reinforcement to comply with requirement of B.S. 4483
- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

- All vertical walls to be cast at once
- Approved stopper water bar to be installed in all joints as directed by the Engineer.
- Contractor to use non recoverable ties for tying formwork
- Contractor to submit methodology for Construction before commencing work.
- All Pipes going through walls to have paddle flange
- Diameter of pipes to first be confirmed by M&E before concreting.
- All position of services i.e pipes passing through RC walls to be confirmed by M&E Before Casting

CLIENT :

 THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT
 DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :

ALLIANCE CONSULTANTS LTD
 CONSULTING ENGINEERS
In Association with

Infra-Consult Ltd
 P.O.BOX 33975 KAMPALA
 Email: allianceconsultantsltd@gmail.com

PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION SYSTEM
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **BARIBU 15m³ Tank**

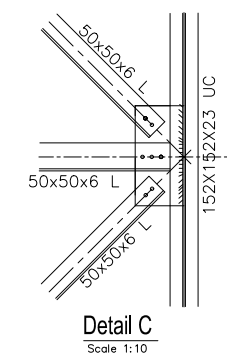
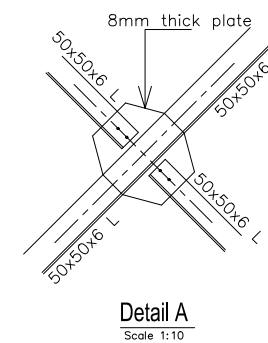
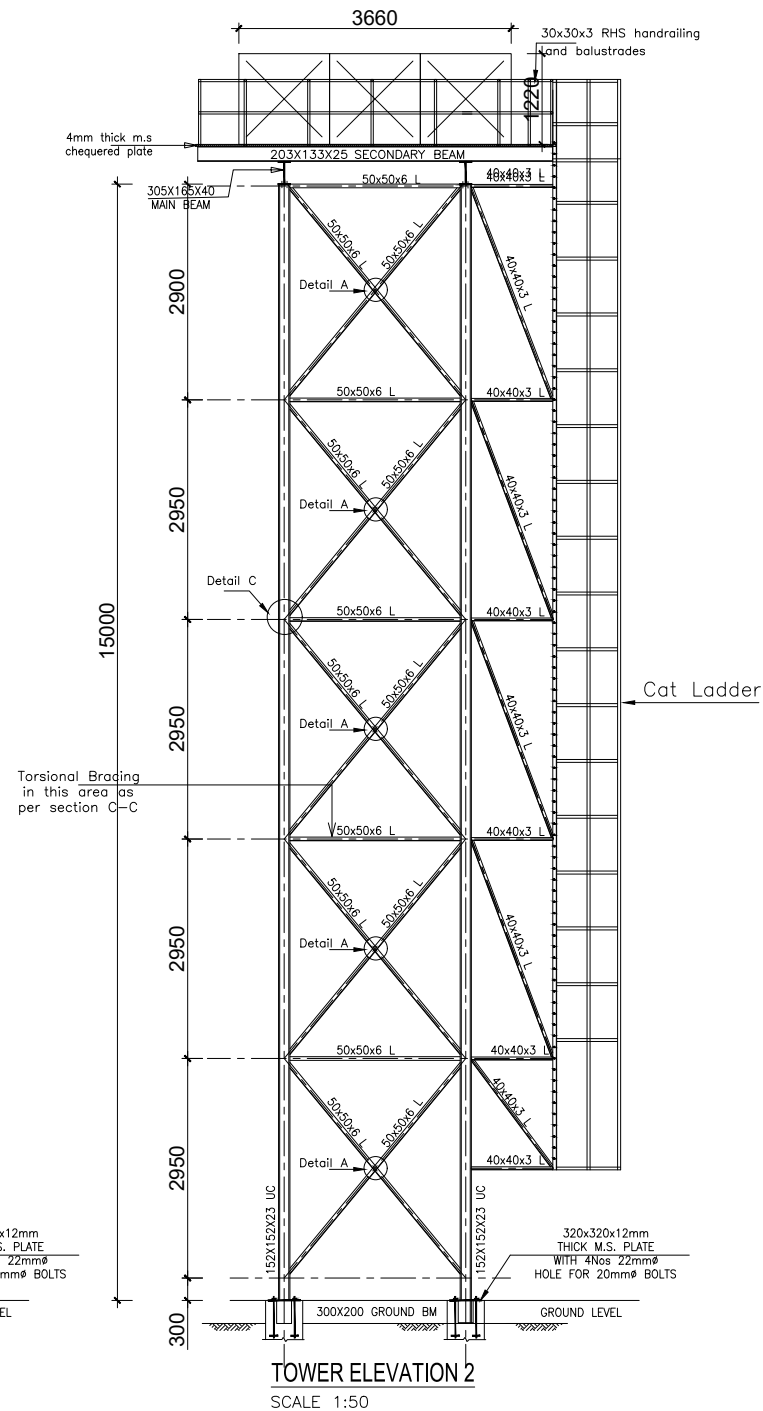
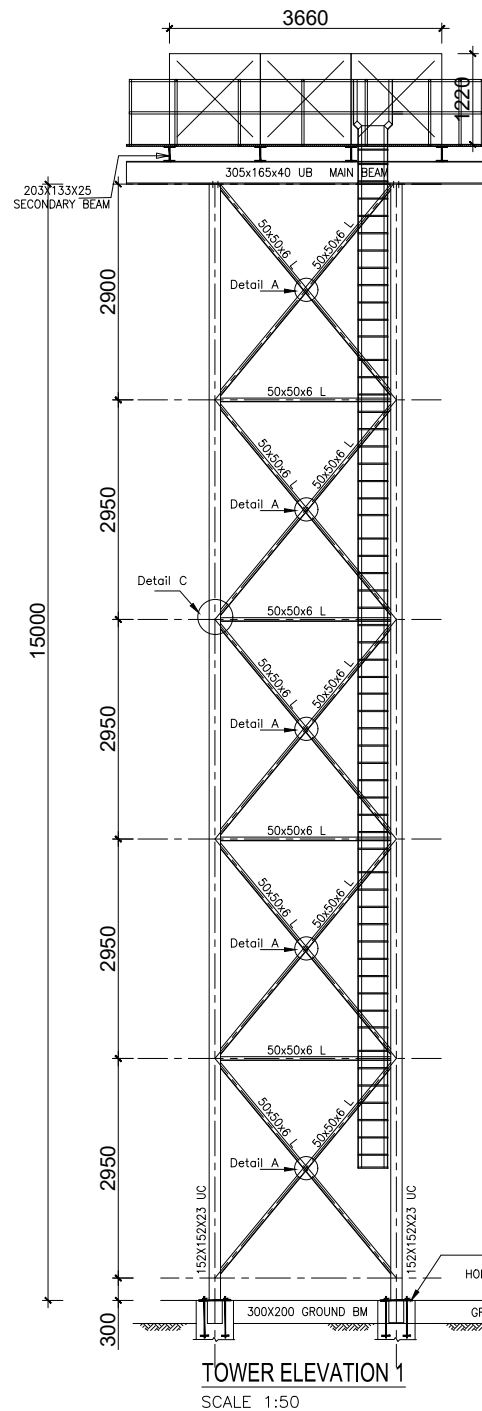
Surveyed by:	R.K
Drawn by:	Luks
Designed by:	A.B
Checked by:	A.B
Date:	FEBRUARY 2023
DRG. No.:	AR/WSASS/NY/STR/015
Scale:	Sheet No.: 1 of 2

GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
- Concrete mixes to BS8500
 - Mass concrete to have a minimum works cube strength of 15N/mm² and at 28 days with 20 mm maximum aggregate size
 - Reinforced concrete to have works cube strength of 30N/mm² cylinder strength of 30N/mm² with 20mm maximum aggregate size UNLESS OTHERWISE STATED
- Reinforcement
 - High tensile bars to be ribbed cold formed bars to B.S. 4461
 - Mild steel to be round bars to B.S. 4449
 - Mesh reinforcement to comply with requirement of B.S. 4483
- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

- All vertical walls to be cast at once
- Approved stopper water bar to be installed in all joints as directed by the Engineer.
- Contractor to use non recoverable ties for tying formwork
- Contractor to submit methodology for Construction before commencing work.
- All Pipes going through walls to have paddle flange
- Diameter of pipes to first be confirmed by M&E before concreting.
- All position of services i.e pipes passing through RC walls to be confirmed by M&E Before Casting



CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT
DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :



ALLIANCE CONSULTANTS LTD
CONSULTING ENGINEERS
In Association with
Infra-Consult Ltd
P.O.BOX 33975 KAMPALA
Email: allianceconsultantsltd@gmail.com

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

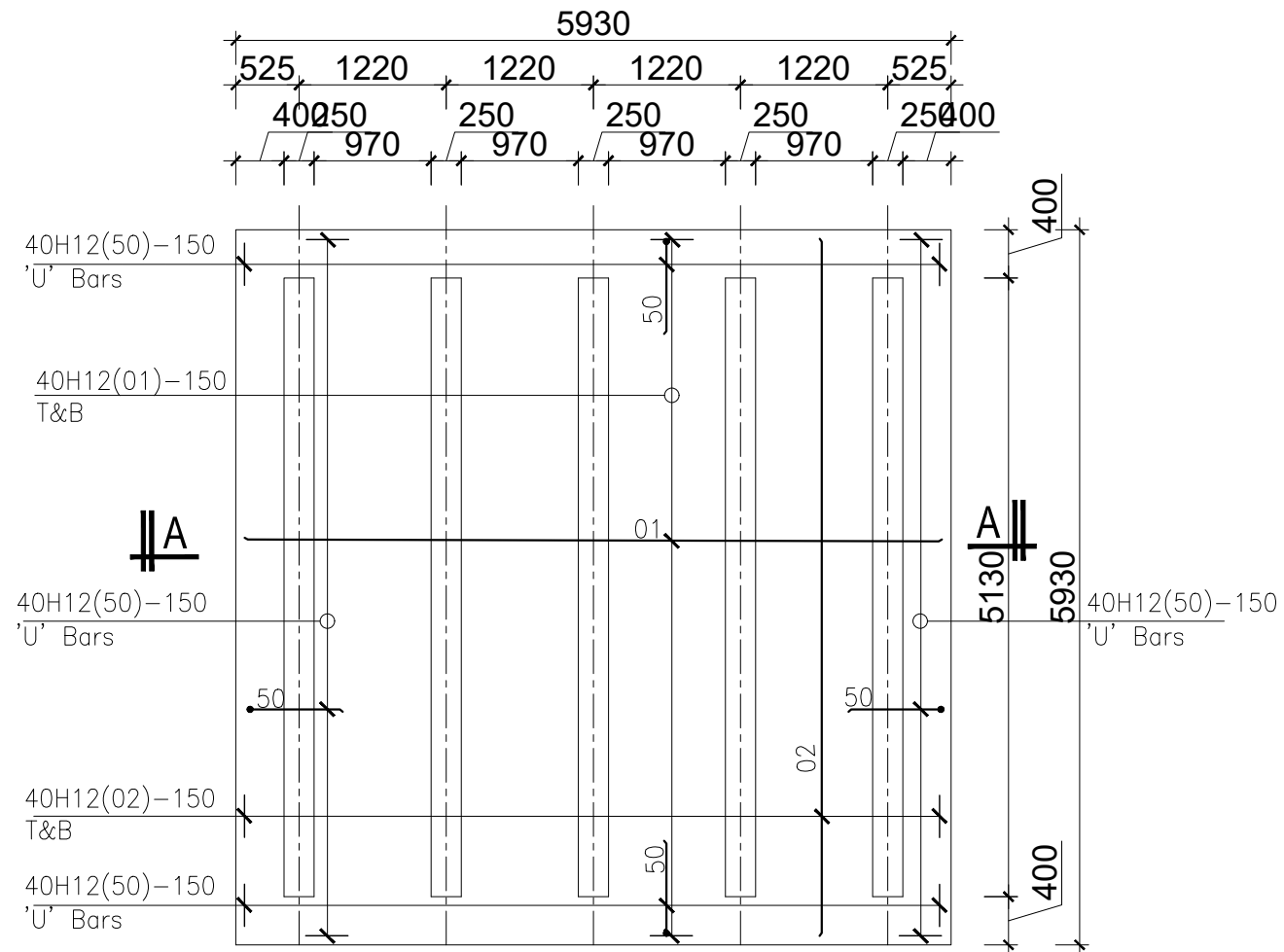
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

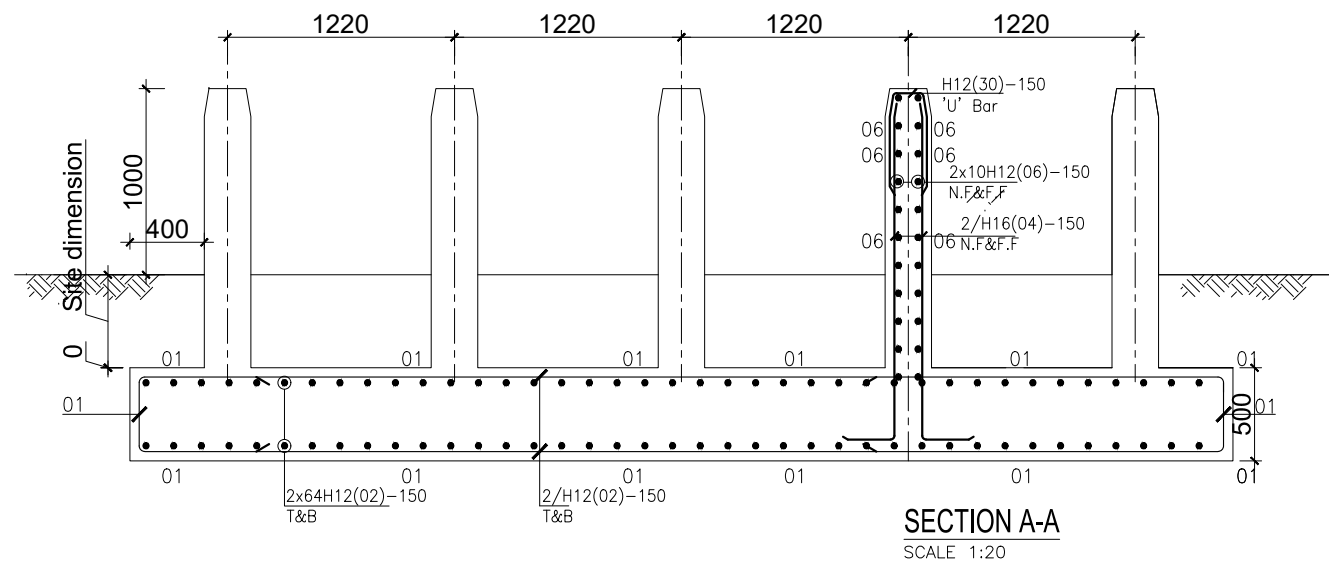
DRAWING TITLE : **BARIBU 15m³ Tank**

Surveyed by:	R.K
Drawn by:	Luks
Designed by:	A.B
Checked by:	A.B
Date:	FEBRUARY 2023
DRG. No.:	AR/WSASS/NY/STR/015
Scale:	Sheet No.: 2 of 2



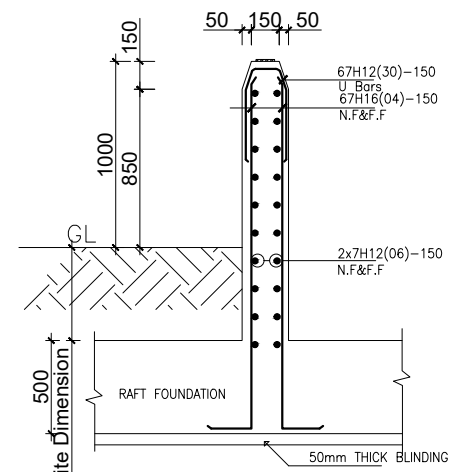
FOUNDATION LAYOUT

SCALE 1:30



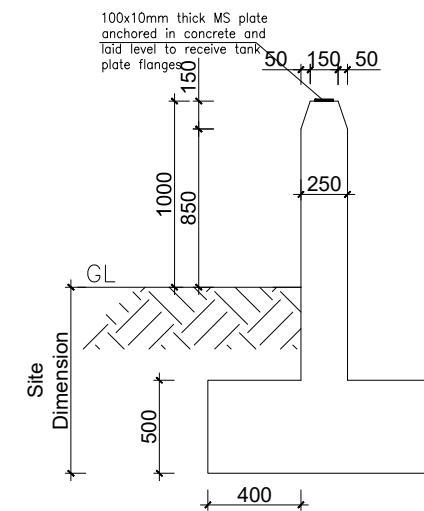
SECTION A-A

SCALE 1:20



DWARF WALL RC DETAIL

SCALE 1:20



DWARF WALL DETAIL

SCALE 1:20

GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
- Concrete mixes to BS8500
 - Mass concrete to have a minimum works cube strength of 15N/mm² and at 28 days with 20 mm maximum aggregate size
 - Reinforced concrete to have works cube strength of 30N/mm² cylinder strength of 30N/mm² with 20mm maximum aggregate size UNLESS OTHERWISE STATED
- Reinforcement
 - High tensile bars to be ribbed cold formed bars to B.S. 4461
 - Mild steel to be round bars to B.S. 4449
 - Mesh reinforcement to comply with requirement of B.S. 4483
- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

- All vertical walls to be cast at once
- Approved stopper water bar to be installed in all joints as directed by the Engineer.
- Contractor to use non recoverable ties for tying formwork
- Contractor to submit methodology for Construction before commencing work.
- All Pipes going through walls to have paddle flange
- Diameter of pipes to first be confirmed by M&E before concreting.
- All position of services i.e pipes passing through RC walls to be confirmed by M&E Before Casting

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT
 DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

**GOLI
 50m³ Tank**

Surveyed by: R.K

Drawn by: Luks

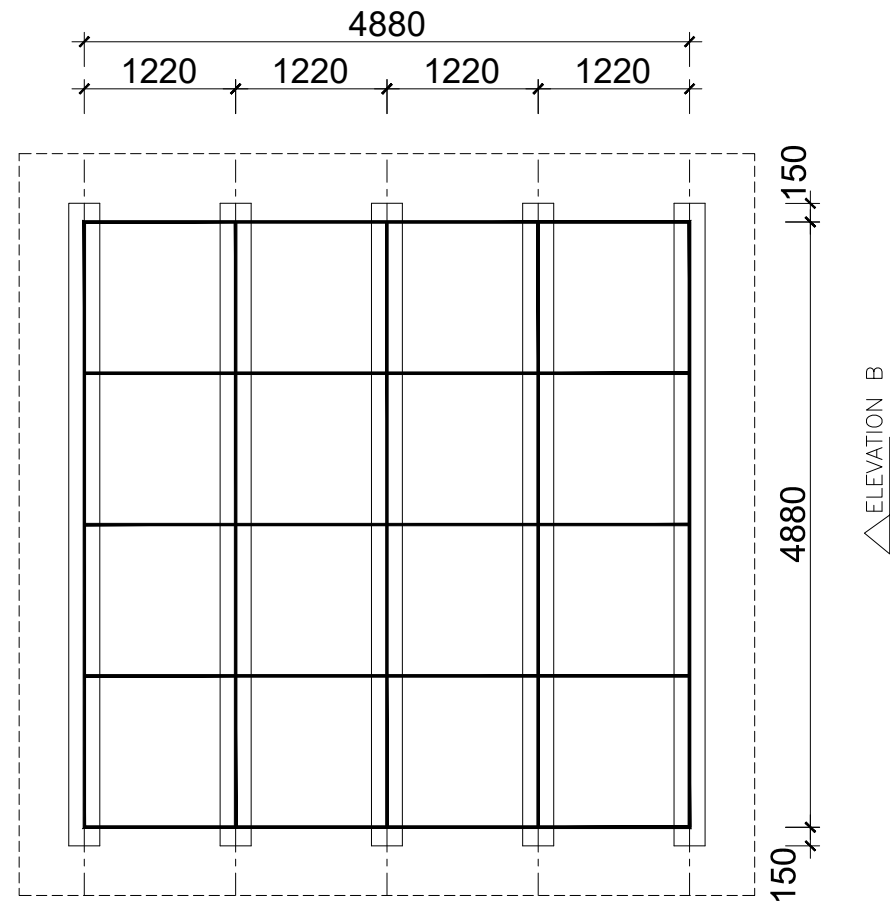
Designed by: A.B

Checked by: A.B

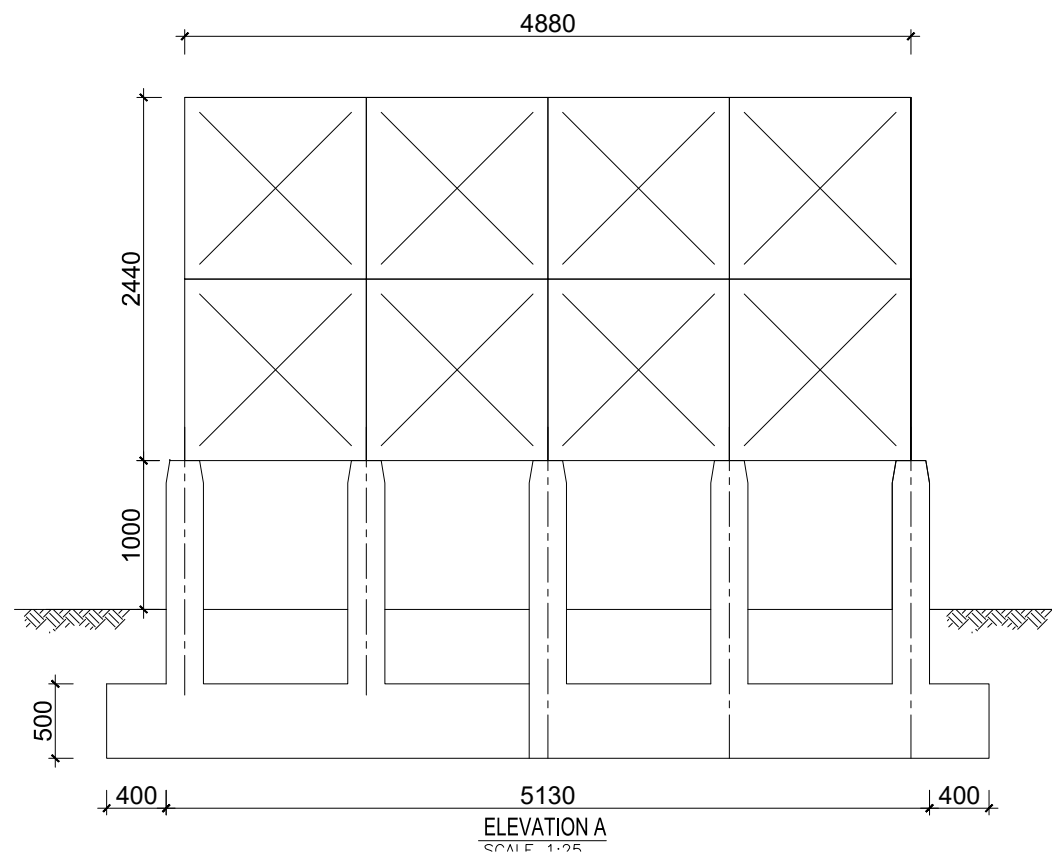
Date: FEBRUARY 2023

DRG. No.: AR/WSASS/NY/STR/016

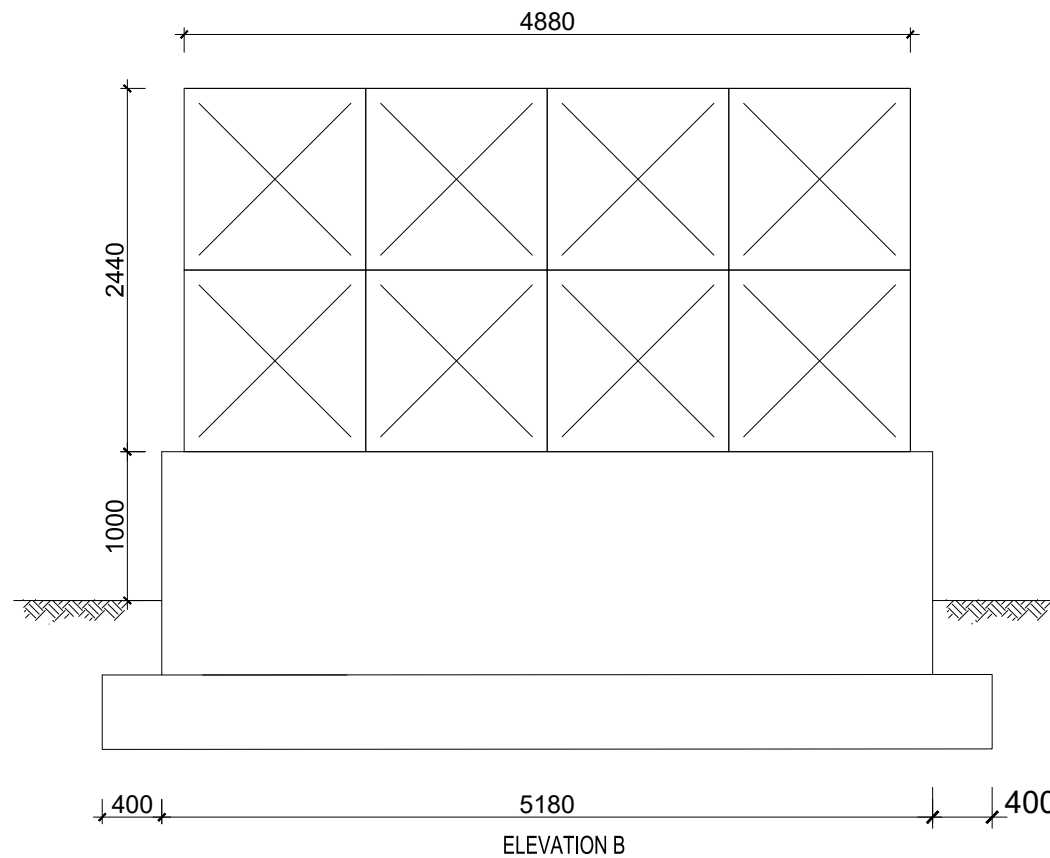
Scale: Sheet No.: 1 of 2



ELEVATION A
TANK PLATFORM
 SCALE 1:30



ELEVATION A
 SCALE 1:25



ELEVATION B

GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
- Concrete mixes to BS8500
 - Mass concrete to have a minimum works cube strength of 15N/mm² and at 28 days with 20 mm maximum aggregate size
 - Reinforced concrete to have works cube strength of 30N/mm² cylinder strength of 30N/mm² with 20mm maximum aggregate size UNLESS OTHERWISE STATED
- Reinforcement
 - High tensile bars to be ribbed cold formed bars to B.S. 4461
 - Mild steel to be round bars to B.S. 4449
 - Mesh reinforcement to comply with requirement of B.S. 4483
- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

GOLI
50m³ Tank

Surveyed by: R.K

Drawn by: Luks

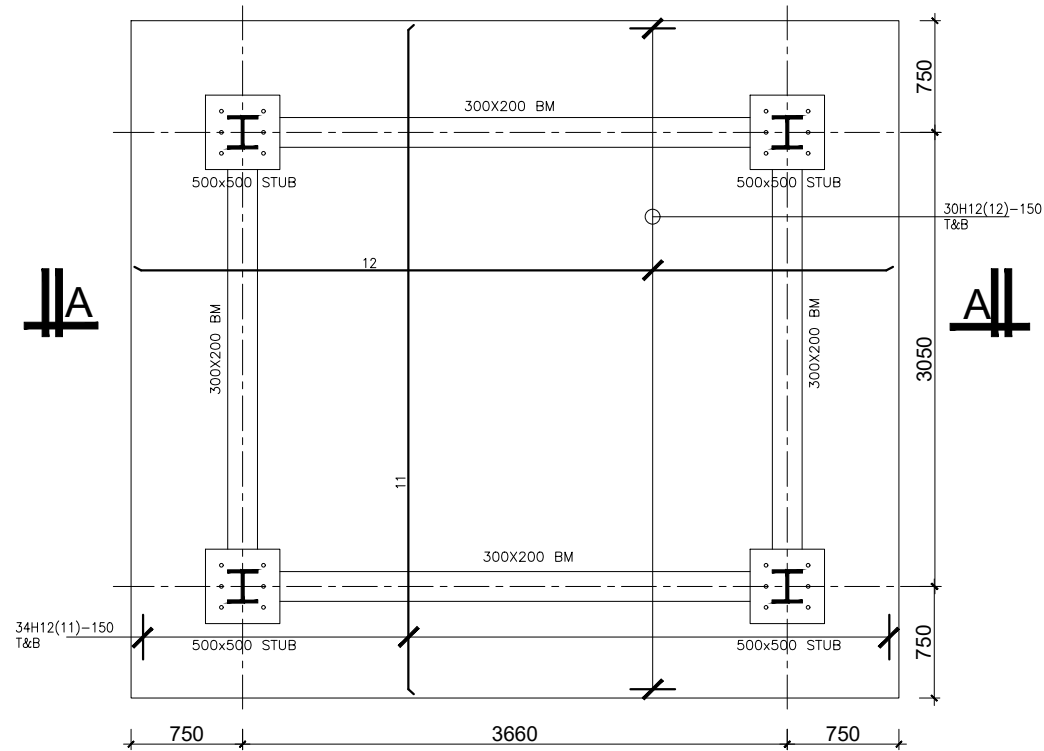
Designed by: A.B

Checked by: A.B

Date: FEBRUARY 2023

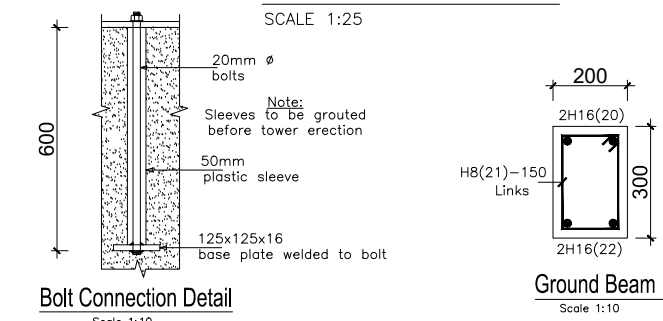
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Scale: Sheet No.: 2 of 2



FOUNDATION LAYOUT

SCALE 1:25

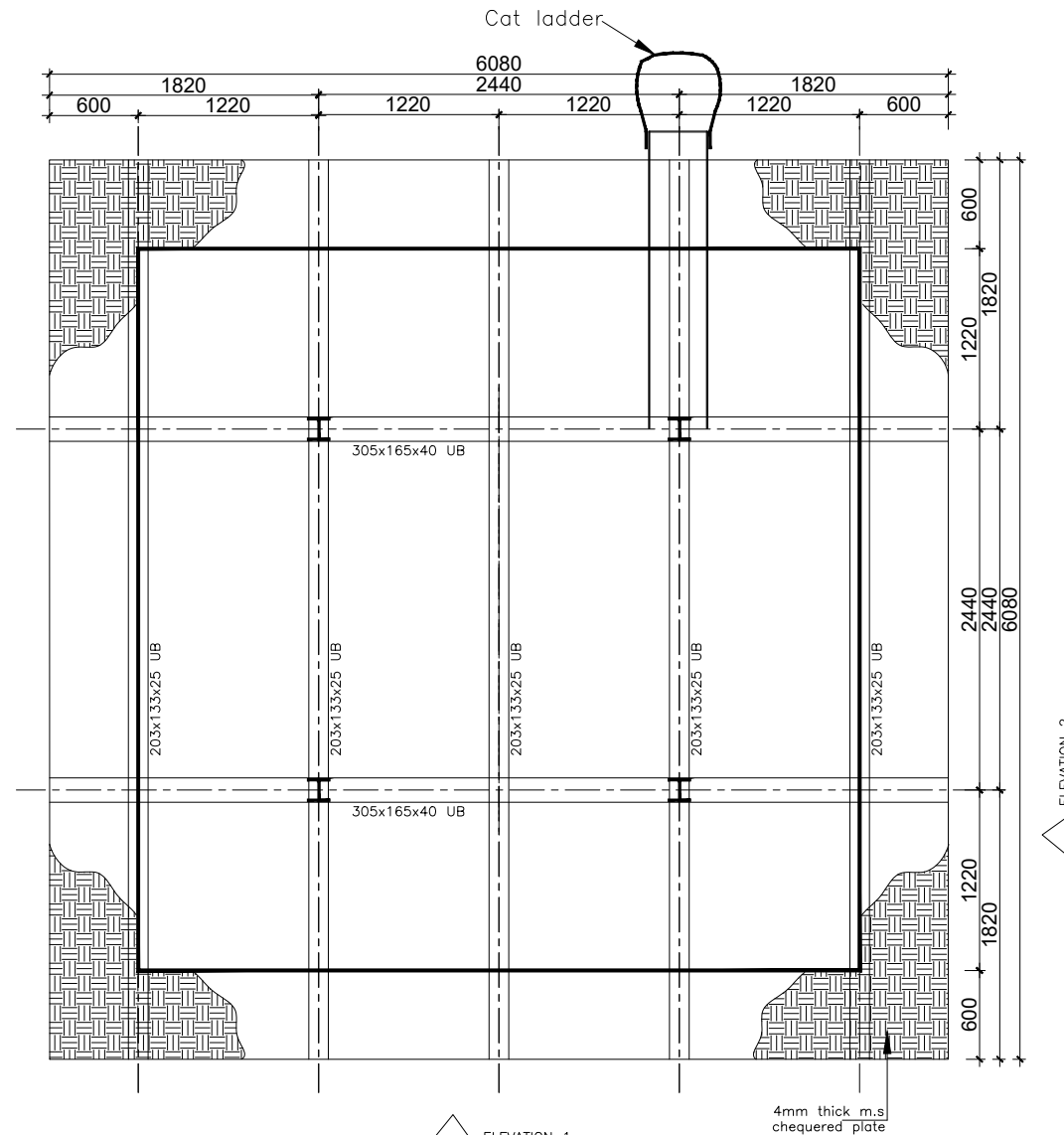


Bolt Connection Detail

Scale 1:10

Ground Beam

Scale 1:10

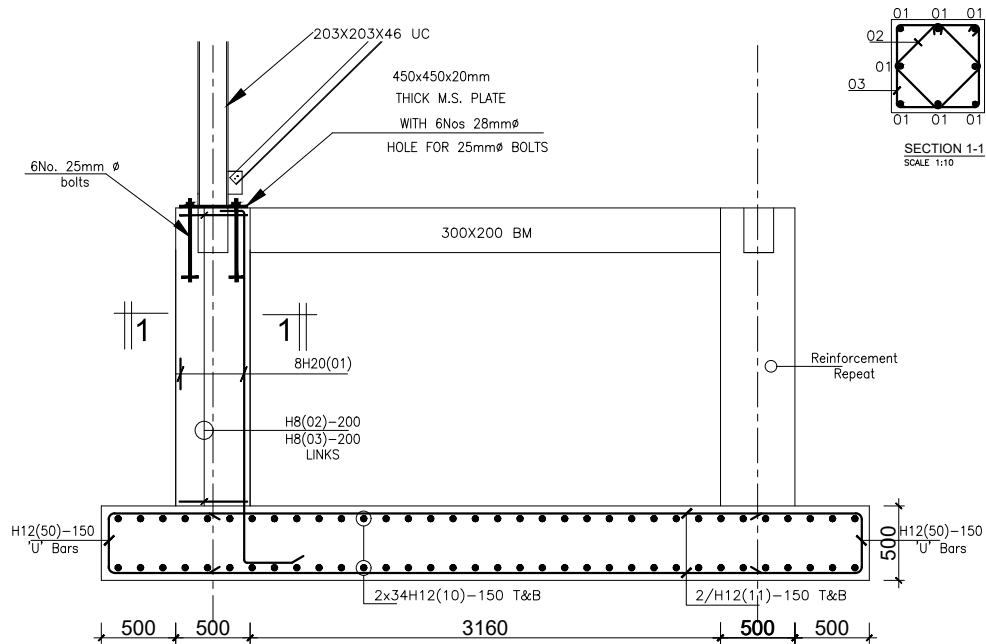


ELEVATION 1

TANK PLATFORM

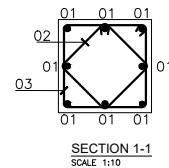
SCALE 1:25

4mm thick m.s. chequered plate



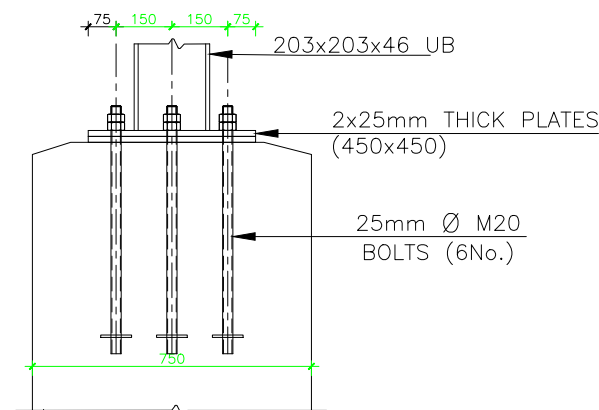
SECTION A - A

Scale 1:25



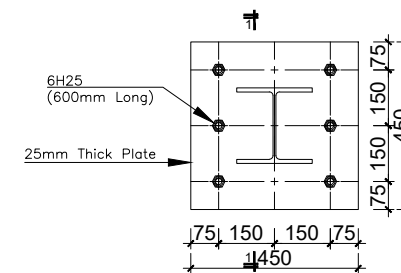
SECTION 1-1

SCALE 1:10



SECTION 1-1

SCALE 1:10



BASE PLATE FOR 203x203x46 UC

SCALE 1:10

GENERAL NOTES

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

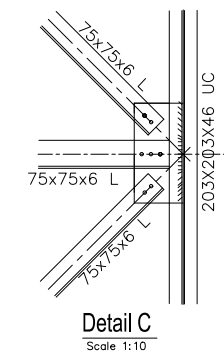
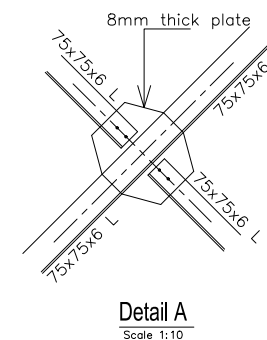
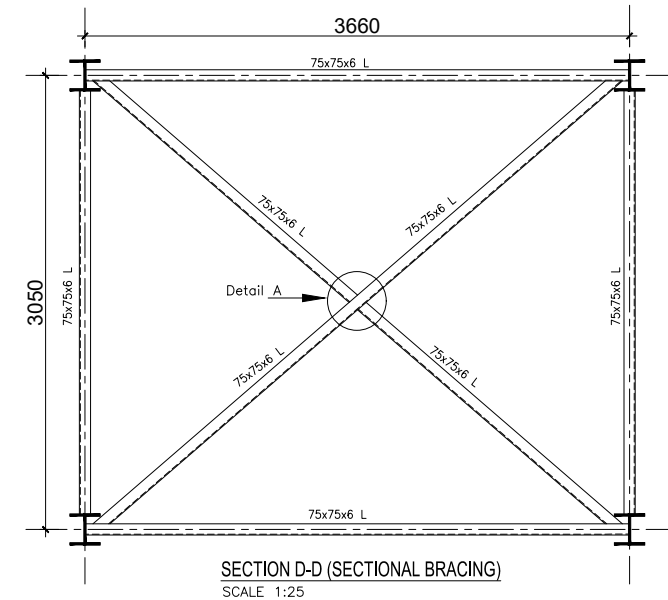
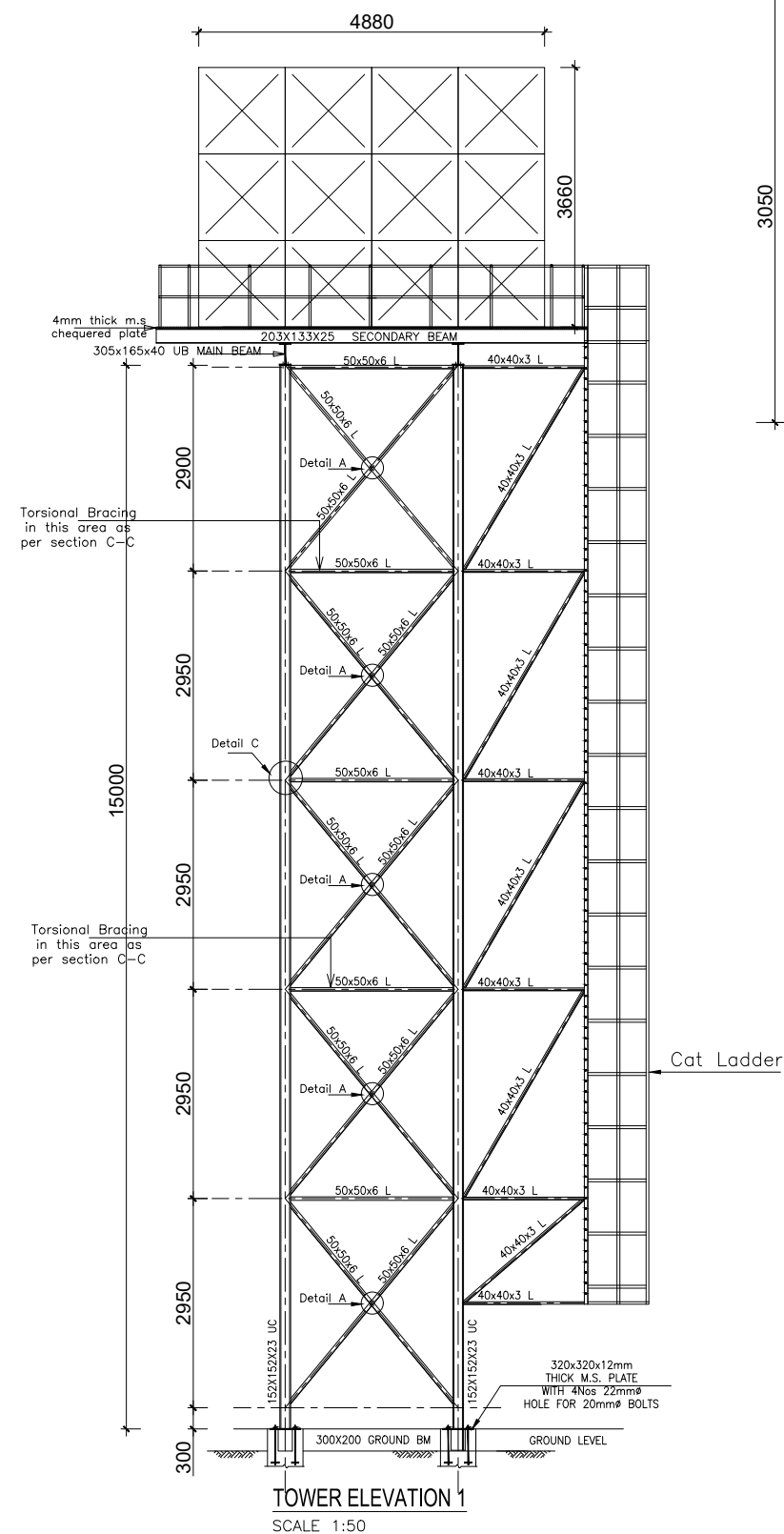
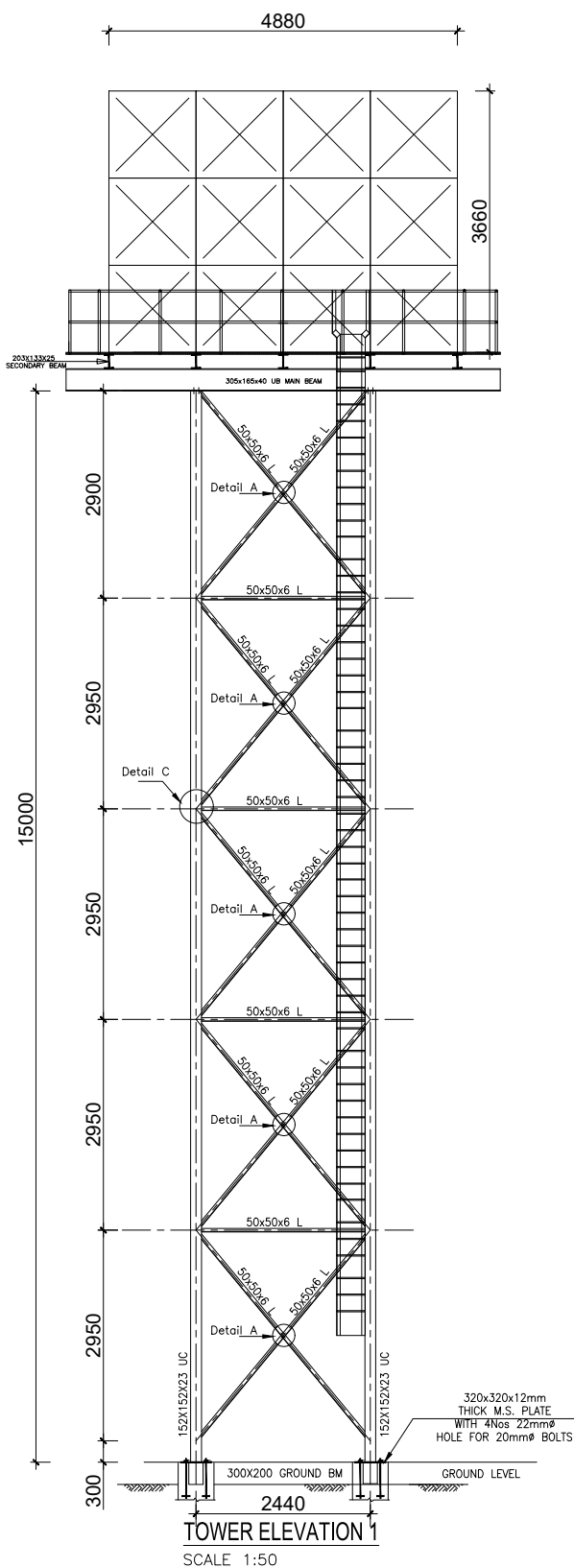
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **OGOKO , ANYIRIBU & NYAGAK INTAKE COMMUNITY 84m³ Tank**

Surveyed by:	R.K
Drawn by:	Luks
Designed by:	A.B
Checked by:	A.B
Date:	FEBRUARY 2023
DRG. No.:	AR/WSASS/NY/STR/017
Scale:	Sheet No.: 1 of 2



GENERAL NOTES

- This drawing shall be read in conjunction with all relevant drawings.
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- Minimum cover to all steel 50.
- THE QUALITY OF ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT ISSUES OF RELEVANT EUROPEAN STANDARDS AND CODES OF PRACTICE.

ADDITIONAL NOTES

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CLIENT :



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 Email: allianceconsultantsltd@gmail.com

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

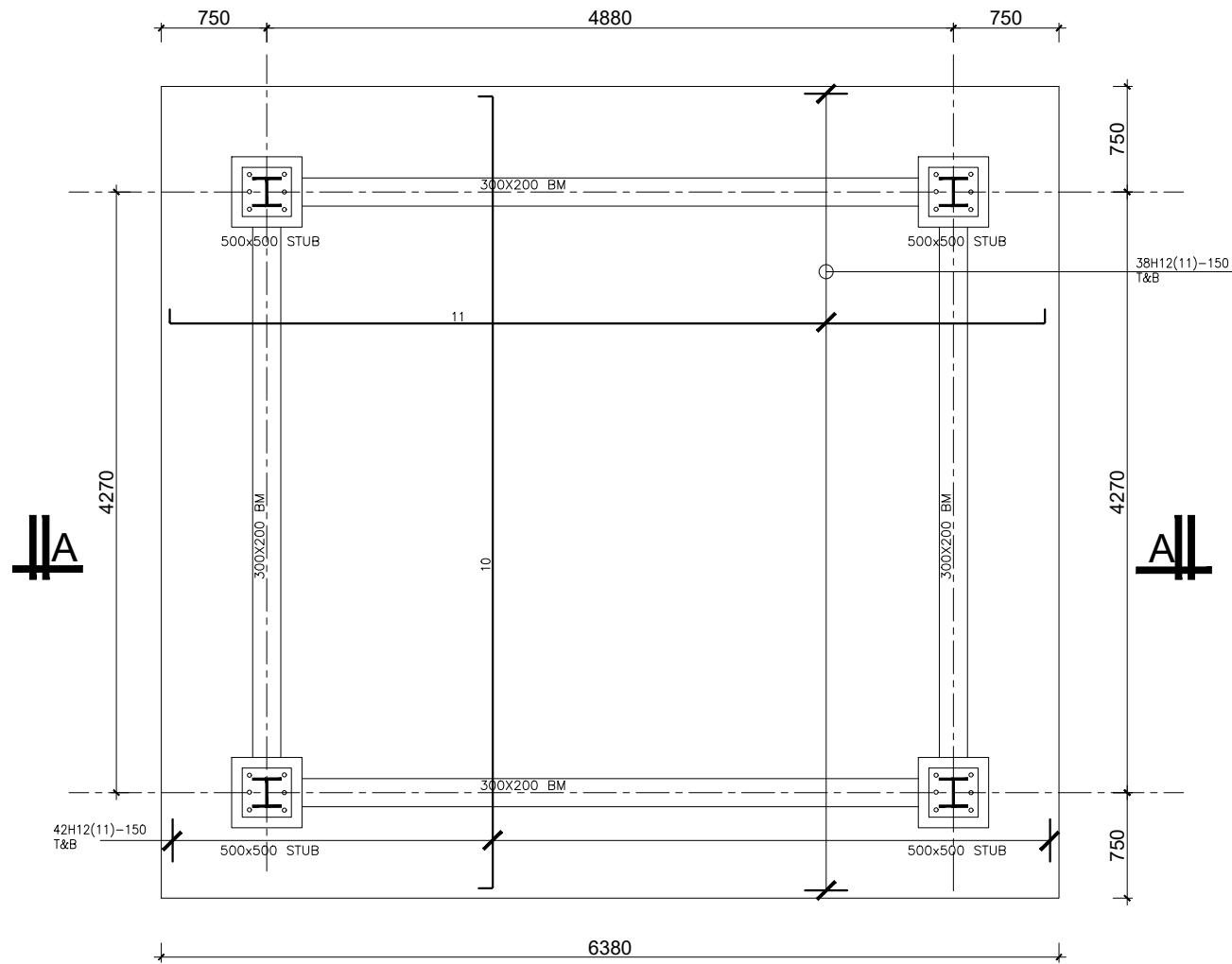
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

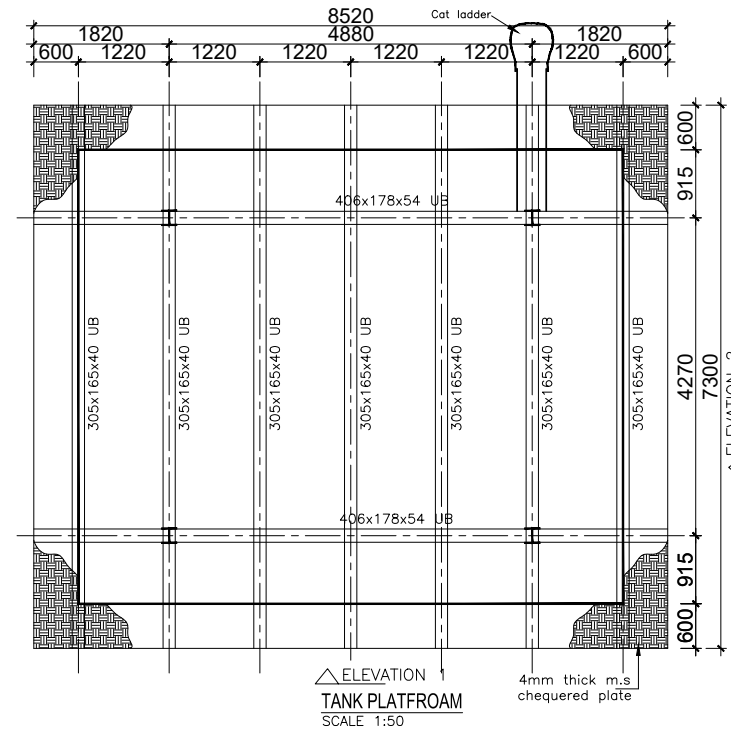
No	Date	Description

DRAWING TITLE : **OGOKO , ANYIRIBU & NYAGAK INTAKE COMMUNITY 84m³ Tank**

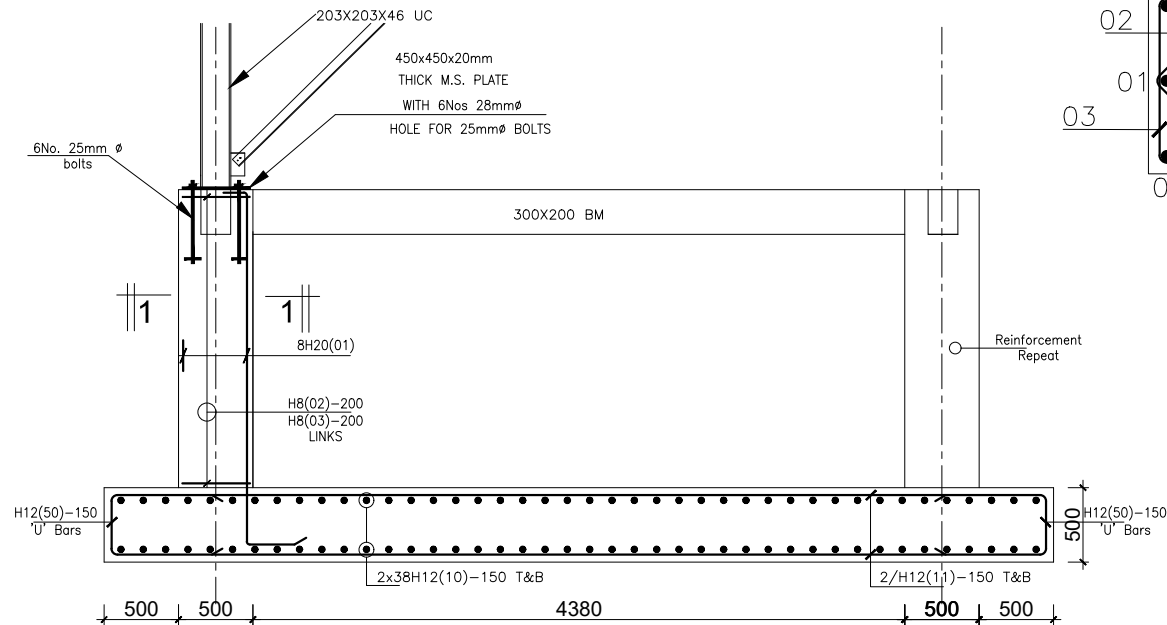
Surveyed by:	R.K
Drawn by:	Luks
Designed by:	A.B
Checked by:	A.B
Date:	FEBRUARY 2023
DRG. No.:	AR/WSASS/NY/STR/017
Scale:	Sheet No.: 2 of 2



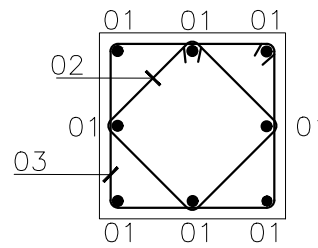
FOUNDATION LAYOUT
SCALE 1:25



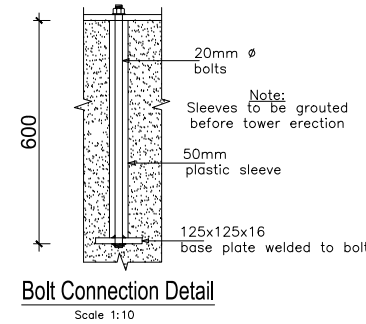
ELEVATION TANK PLATFORM
SCALE 1:50



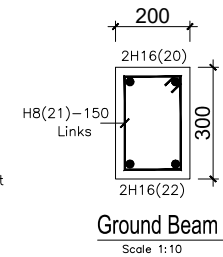
SECTION A - A
Scale 1:25



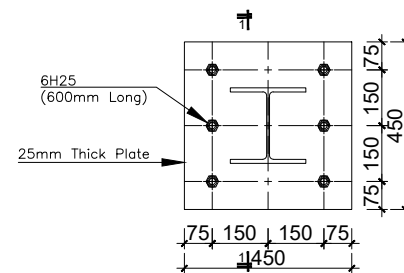
SECTION 1-1
SCALE 1:10



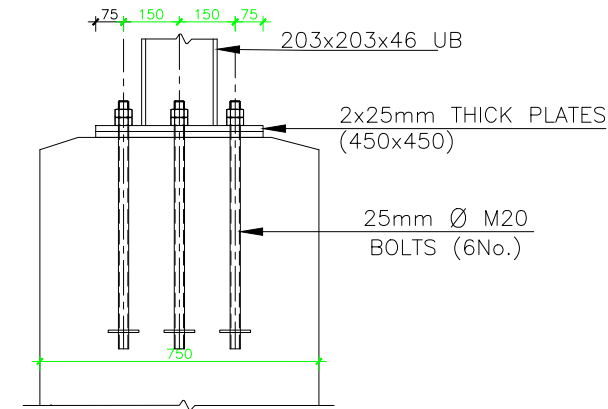
Bolt Connection Detail
Scale 1:10



Ground Beam
Scale 1:10



BASE PLATE FOR 203x203x46 UC
SCALE 1:10



SECTION 1-1
SCALE 1:10

GENERAL NOTES

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MINISTRY OF WATER AND ENVIRONMENT
DIRECTORATE OF WATER DEVELOPMENT

CONSULTANT :



P.O.BOX 33975 KAMPALA
Email: allianceconsultantsLtd@gmail.com

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE :

INDE
158m³ Tank

Surveyed by: R.K

Drawn by: Luks

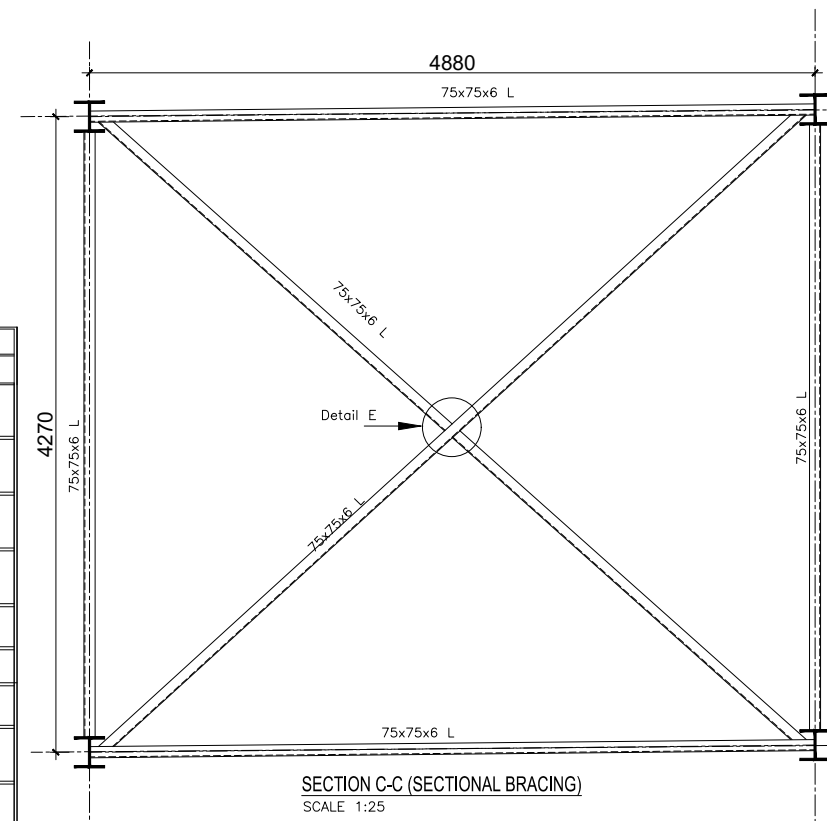
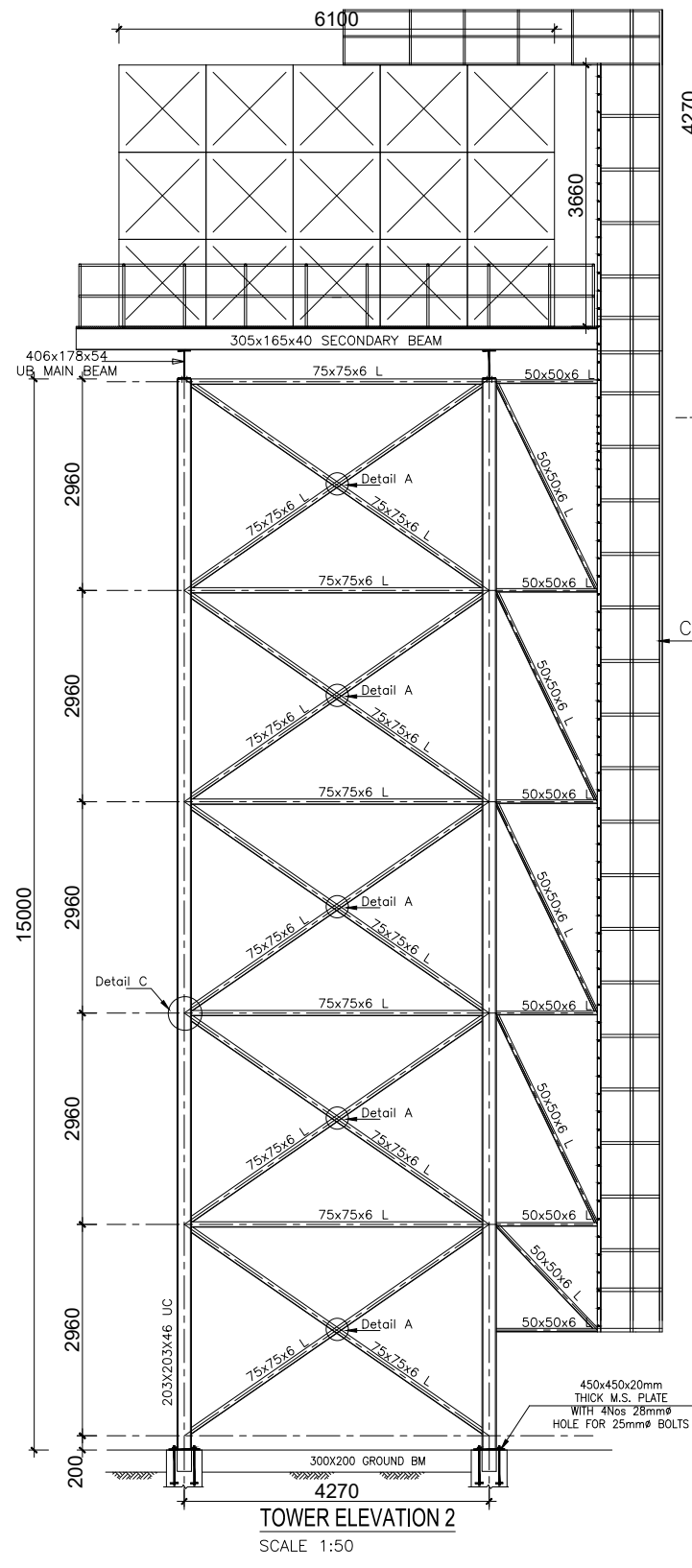
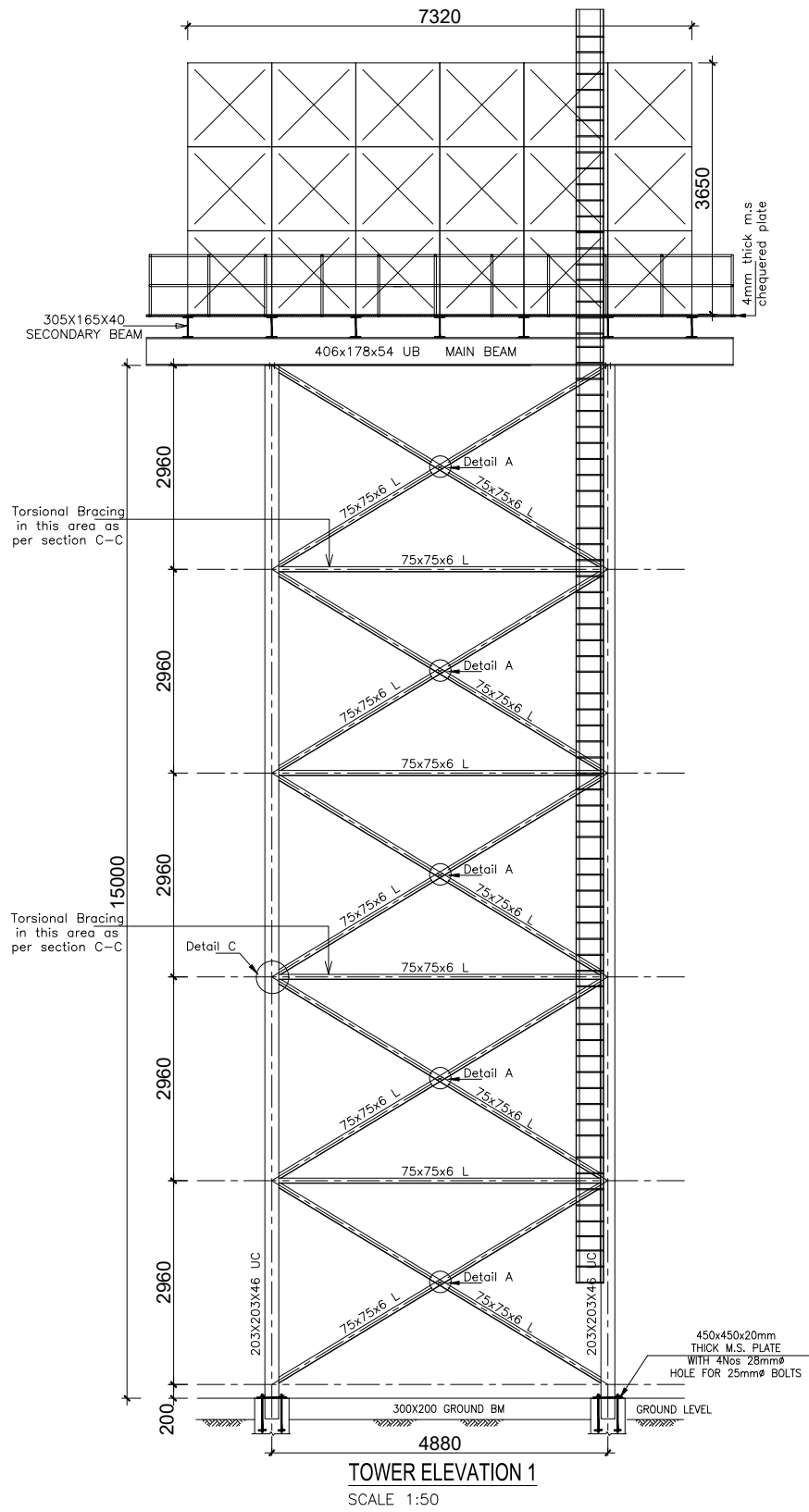
Designed by: A.B

Checked by: A.B

Date: FEBRUARY 2023

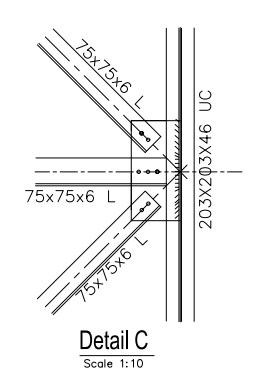
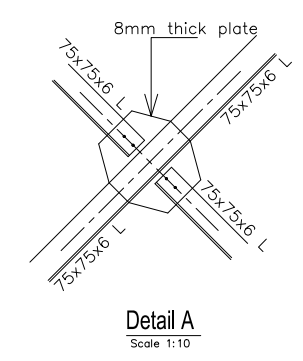
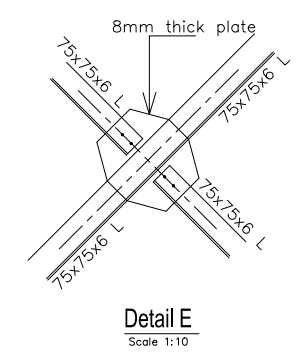
DRG. No.: AR/WSASS/NY/STR/018

Scale: Sheet No.: 1 of 2




- GENERAL NOTES**
- This drawing shall be read in conjunction with all relevant drawings.
 - Concrete mixes to BS8500
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- ADDITIONAL NOTES**
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Cat Ladder




CLIENT :



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DIRECTORATE OF WATER DEVELOPMENT

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION SYSTEM

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **INDE 158m³ Tank**

Surveyed by: R.K
 Drawn by: Luks
 Designed by: A.B
 Checked by: A.B
 Date: FEBRUARY 2023
 DRG. No.: AR/WSASS/NY/STR/018
 Scale: Sheet No.: 2 of 2

GENERAL NOTES FOR STANDARD DETAIL DRAWINGS

1. Unless flexibility is otherwise provided, where pipes enter or leave concrete structures, or anchor blocks, flexible joints are to be provided as shown.
2. Anchor block designs are based on the following ground conditions.
 - Dry soil density: 1800 kg/m³
 - Submerged soil density: 1090 kg/m³
 - Angle of internal friction: 30°
 - Passive resistance factor: 3
 - Where considerably better ground conditions, such as rock, are encountered, the dimensions of anchor blocks may be reduced. Supporting calculations for any reduced size anchor blocks must be submitted to the Project Manager 48 hours before construction of the particular anchor block commences and may be concreted only after his approval.
3. Bases and thrust faces of anchor blocks are to be cast against undisturbed ground, or against blinding cast against undisturbed ground.
4. Pipe work joints as shown for the water supply details are diagrammatic only.
5. The following notes apply to reinforced concrete chambers.
 - a. Concrete in walls and base and cover slab 2
 - Characteristic strength (N/mm²): 30
 - Maximum aggregate size (mm): 20
 - Cement type: SR 3
 - Minimum cement content (kg/m³): 330
 - Maximum cement content (kg/m³): 400
 - Maximum free water/cement ratio: 0.47
 - b. Concrete in blinding 2
 - Characteristic strength (N/mm²): 10.30
 - Maximum aggregate size (mm): 40
 - Cement type: SR 3
 - Minimum cement content (kg/m³): 230
 - c. Cover to reinforcement 40mm unless positioned centrally
 - Minimum reinforcement lap 300 mm
 - For details of step irons see Standard Detail Ala-ora-SD-009
 - Corners of rectangular openings to have T8 bars 500 mm long set diagonally
6. All dimensions are in millimeters unless shown otherwise.
7. Do not scale dimensions from standard Detail drawings.

1. References
All engineering Drawings shall be read in conjunction with Specifications. Any discrepancies should be reported to the Supervising Engineer.
2. Dimensions
All dimensions are in millimeters (unless stated otherwise)
3. Foundations
Foundations have been designed on bearing pressure of 200 KN/m² foundation depth to be determined by engineer prior to placing minimum foundation depth to be 1000mm below floor concrete. Level or 600 mm below Splash Apron level whichever is critical maximum allowable fill below ground slab = 500 mm
4. Block work
All Load bearing block walls to be constructed from solid block characteristic compression strength complying of 5.0 N/mm² Min. with BS 5620 Part1 1978 Structural use of Unreinforced Masonry Mortar to conform to mortar designation (iii) of Table 1 BS 5620 Part1
5. Concrete

PROPOSED USE	GRADE	PERMITTED TYPE AGGREGATES		MAX. SIZE AGGREGATES	WORKABILITY
		COARSE	FINE		
Reinforced conc. (including ground bearing slab)	C 25	BS 882	BS 882	20mm	Medium (75)
Concrete containing no embedded metal	C 15	BS 882	BS 882	40mm	Medium (75)
Blinding Concrete	C 7.5	BS 882	BS 882	20mm	Medium (75)
Concrete in minor elements e.g lintels	C 25	BS 882	BS 882	10mm	Medium (75)

COVER

LOCATION	COVER
To Mesh in ground slab	30mm
Columns (cover to links)	25mm
Slabs (cover to main bars)	25mm
Foundations	50mm
Top and bottom slides	75mm

6. Joints
Movement joints to be at a maximum 9.0m centres. Joint positions as indicated on drg. Joint in slab to be carried through walls to underside of ring beam
7. Wall ties
Provide masonry anchors every 2 courses using galvanised. Mild steel debond ties to BS 1243 . 1978
8. Reinforcement
Reinforcement to be in accordance with consulting engineer's specification.
 - R - - - - - Denotes round mild steel bars
 - T - - - - - Denotes high yield bond strength bars.

NOTES

1. All dimensions in mm unless otherwise stated
2. Where it is stated " Site Dimension " the measurement is to be determined on site.

LEGEND

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

CONSULTANT :



Alliance Consultants Ltd
In Association with
Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

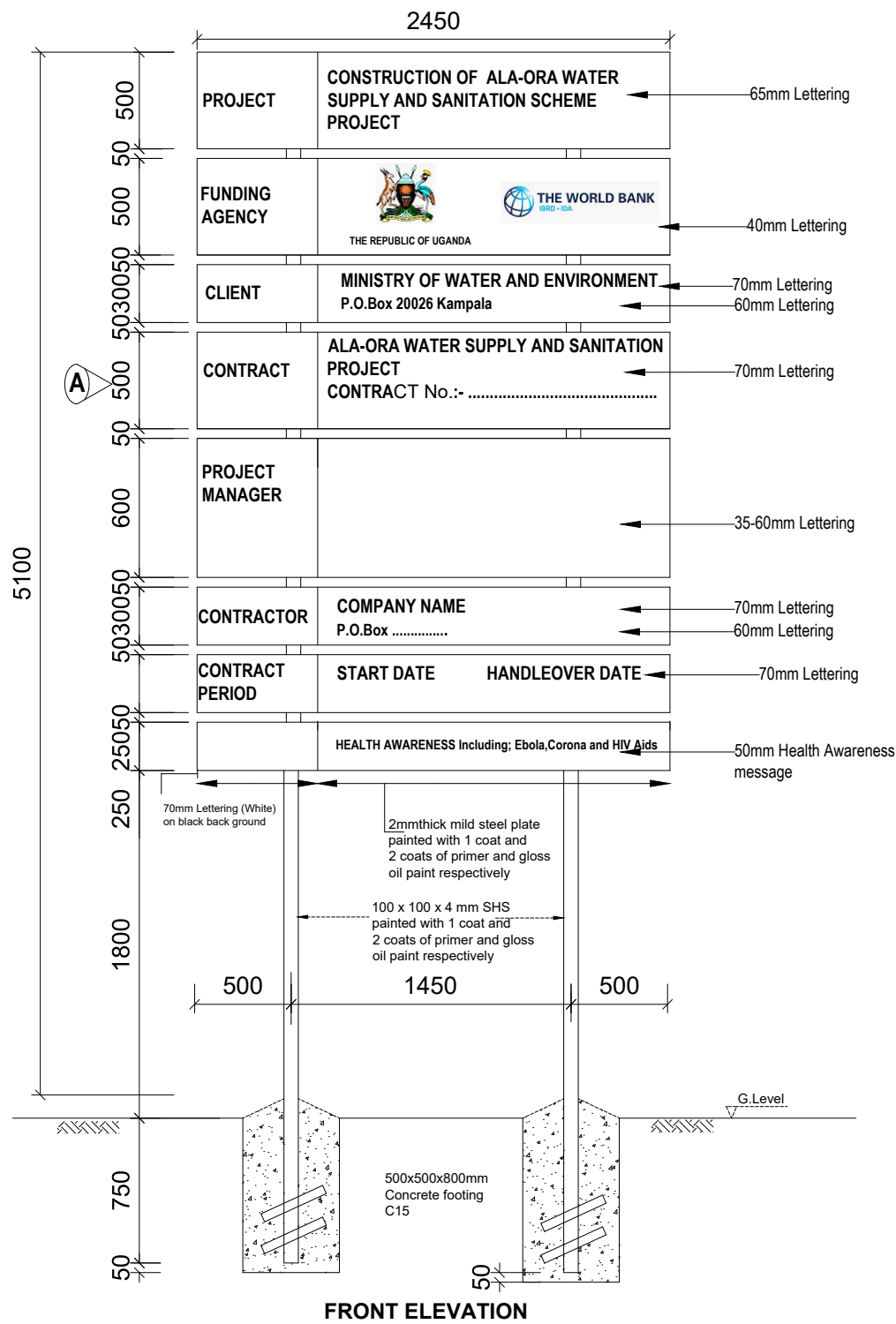
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

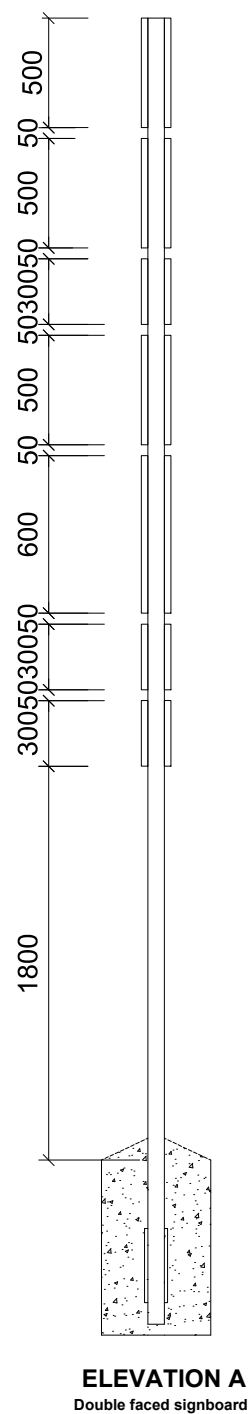
No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
General Notes

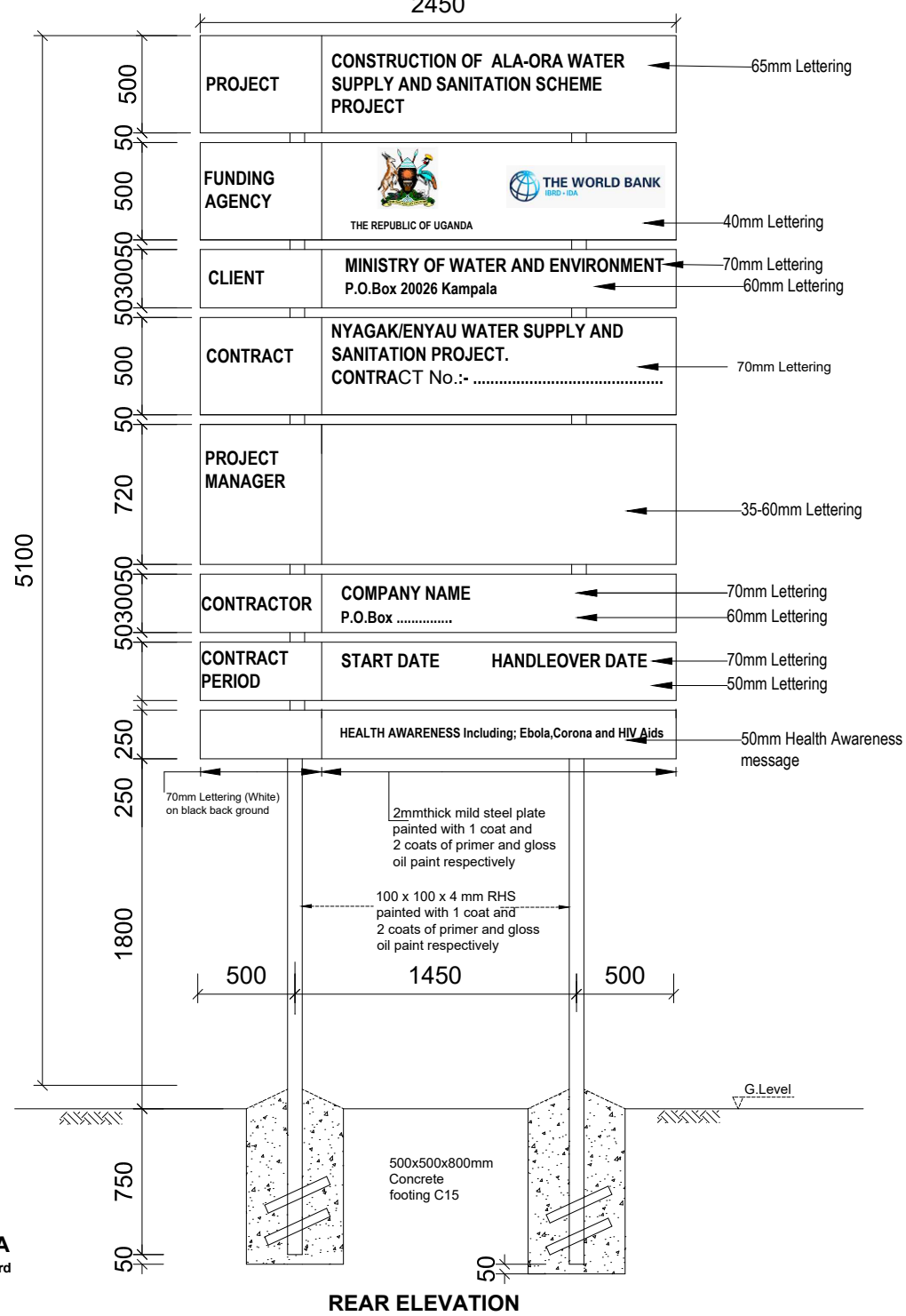
Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-000
Scale:	1:120
Sheet No.:	1 of 1



FRONT ELEVATION



ELEVATION A
Double faced signboard



REAR ELEVATION

NOTES

- Project Signboards are to be double faced
- The Plates to be printed white and Words to be in black include all Logos.

LEGEND

CLIENT :



THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

CO-FINANCED BY:



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CONSULTANT :



Alliance Consultants Ltd
In Association with



Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS Sign Board**

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-001
Scale:	1:120
Sheet No.:	1 of 1

LEGEND

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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

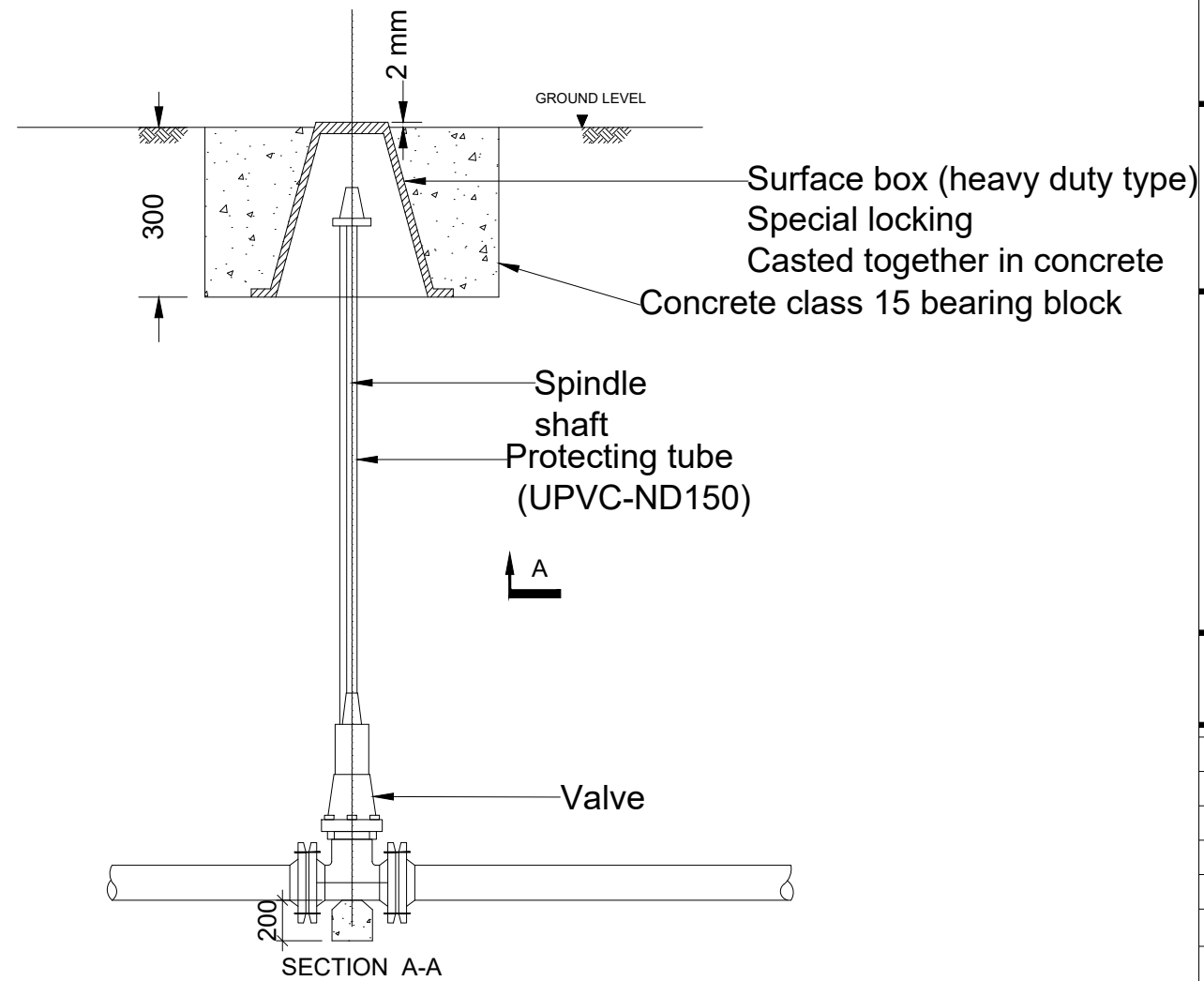
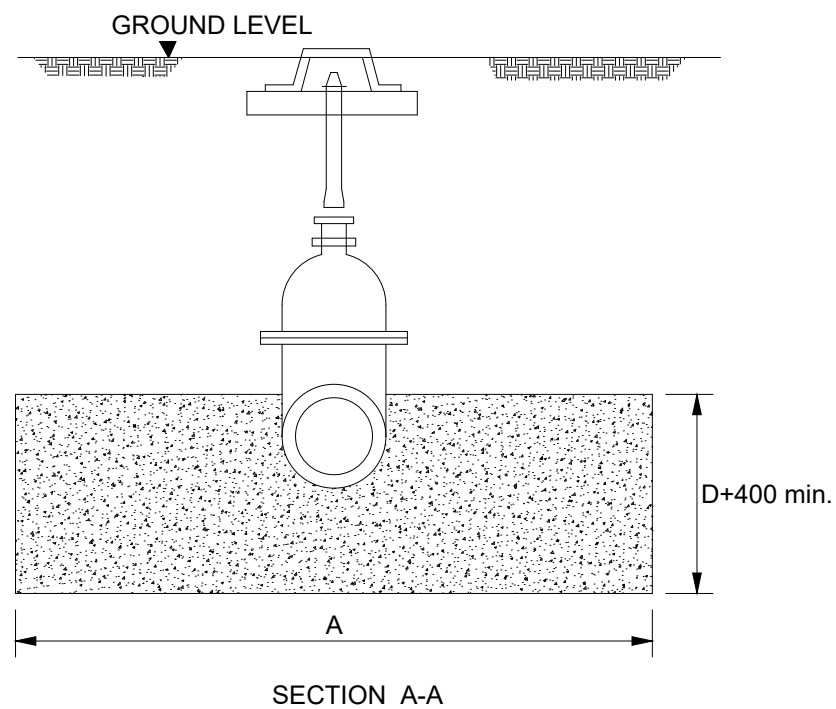
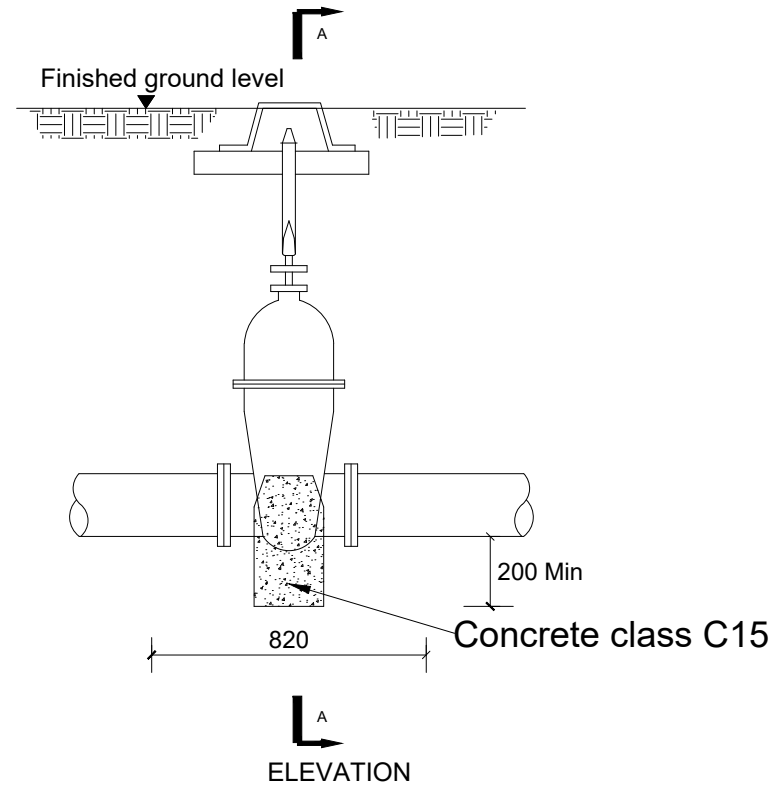
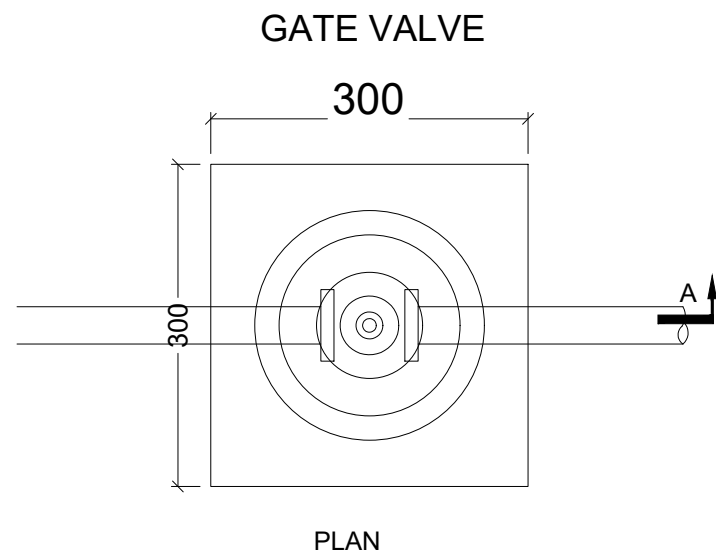
**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Gate Valve and Surface Box

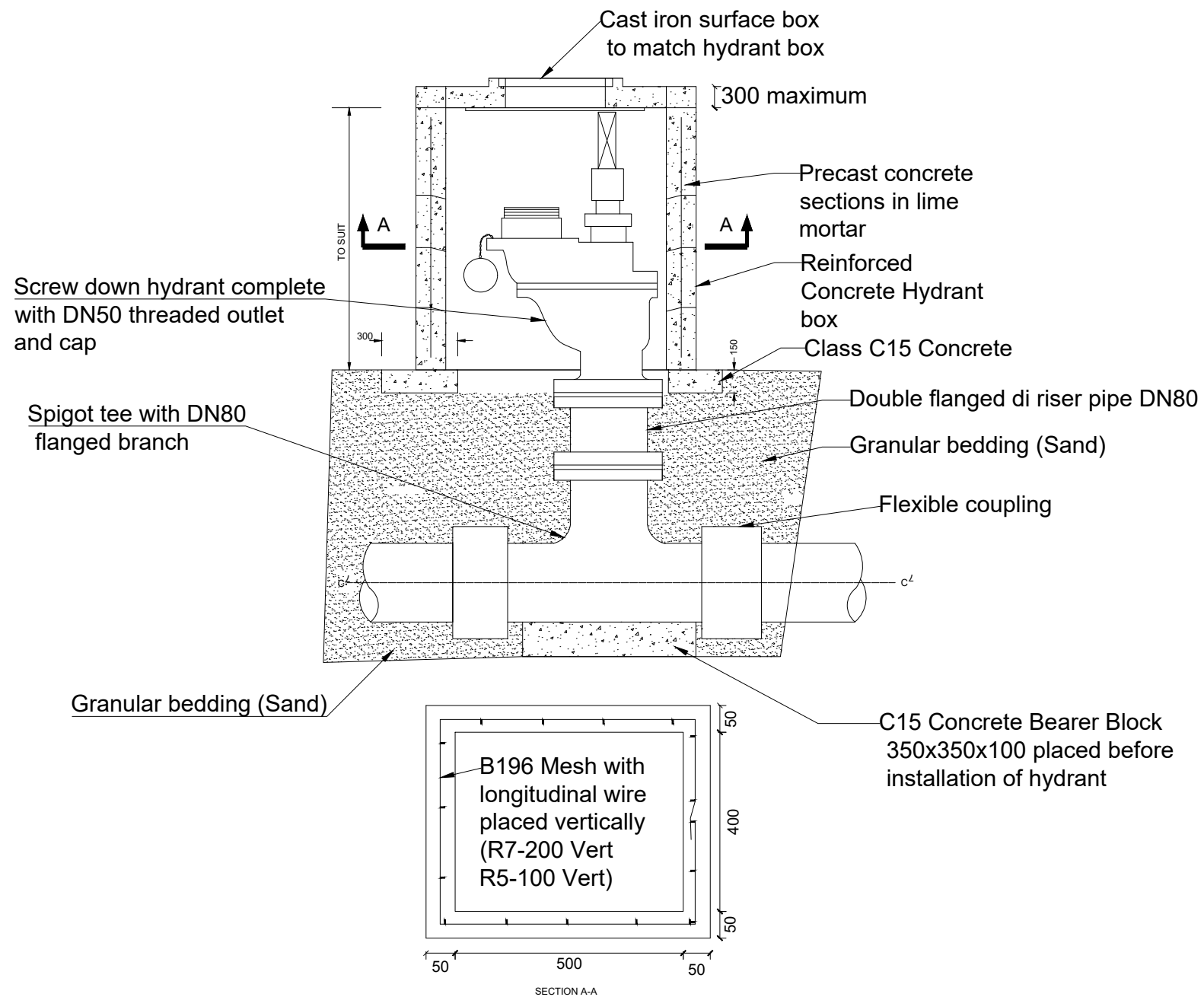
Surveyed by: R.K
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 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **ALA-ORA-SD-002**
 Scale: 1:120 Sheet No.: 1 of 1



FIRE HYDRANT DETAILS

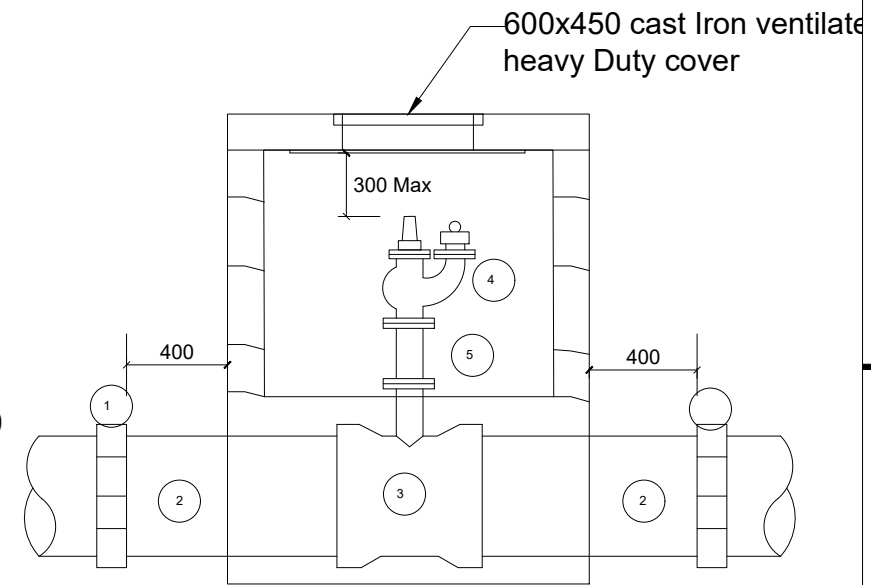
LEGEND

FIRE HYDRANT-CHAMBER



NOTE
Alternative to Precast concrete Chamber Section is 150/200mm thick C25 Layer of A393 Mesh to all members

FIRE HYDRANT-PIPEWORK



SCHEDULE

ITEM DESCRIPTION

- 1 Flexible adaptor if required
- 2 Make-up pipe
- 3 Socket tee flanged branch 80 dia.
- 4 Flanged pipe 80 dia. As required
- 5 Screwdown hydrant

NOTES

1. Flanged pipework to be ductile iron
2. Make up pipes to be ductile iron or UPVC

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**NYAGAK WATER SUPPLY AND
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REVISIONS :

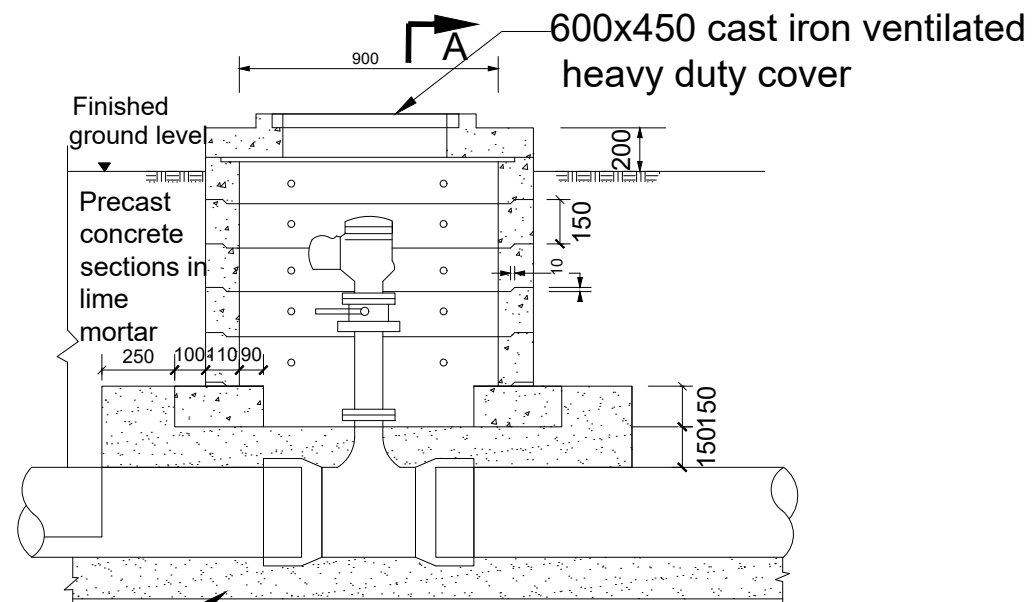
No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Fire Hydrant Chamber and Pipework

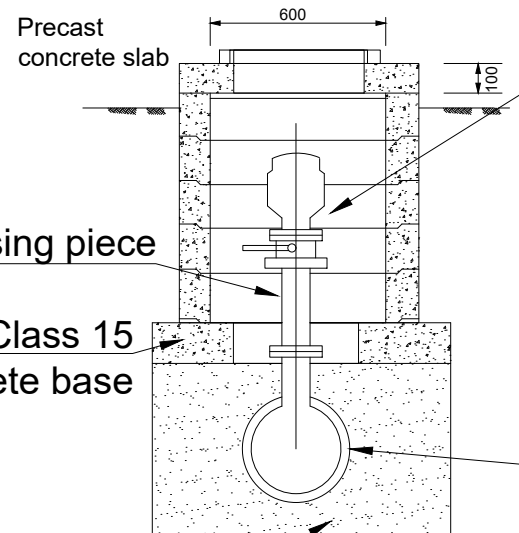
Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-003
Scale:	1:120
Sheet No.:	1 of 1

AIR VALVE DETAILS

AIR VALVE CHAMBER



Granular bedding (Sand)



Flanged raising piece

In situ Class 15 concrete base

Granular bedding (Sand)

Air valve
(See Table for size)

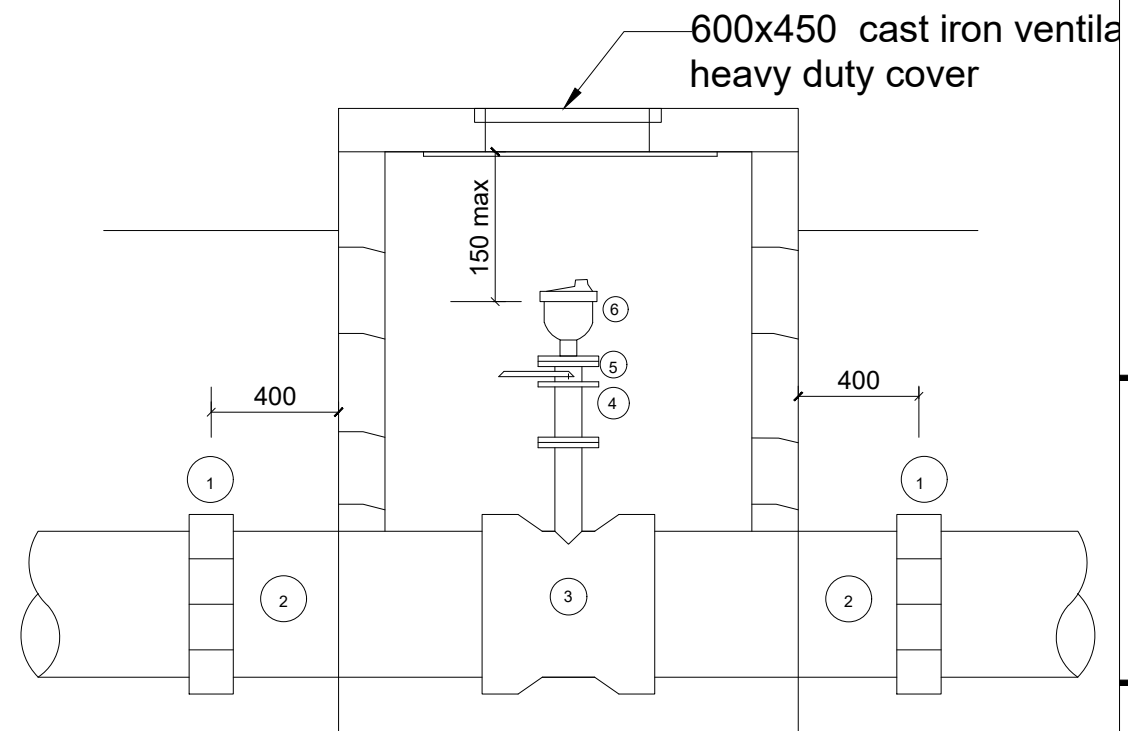
Main dia.	Air valve inlet dia.
100-300	50
350-500	80

Flanged tee

Note:

Alternative to Precast Concrete Chamber Sections is 150/200mm thick C25/Single layer of A393 Mesh to all Members

AIR VALVE PIPEWORK



Note:

1. All Dimensions are in Millimeters
2. Flanged Pipework to be Ductile Iron
3. Make up Pipes to be Ductile Iron
4. Chamber to be 1200x900 Internal Dimensions
5. See General Notes

SCHEDULE

ITEM DESCRIPTION

1. Flexible adaptor if required
2. Make-up pipe
3. Socket tee flanged branch 80/50 dia as required
4. Flanged pipe 80/50 dia as required
5. Isolating valve main 100-300 Dia valve 50 Dia
6. Air valve main 350-600 Dia valve 80Dia

LEGEND

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

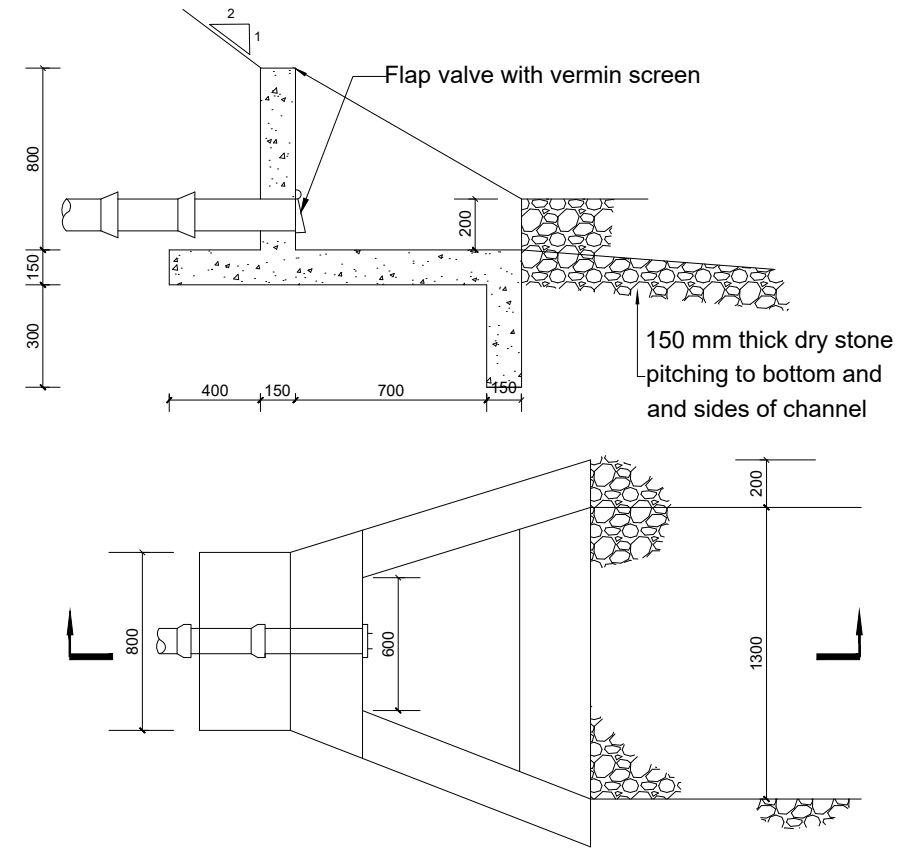
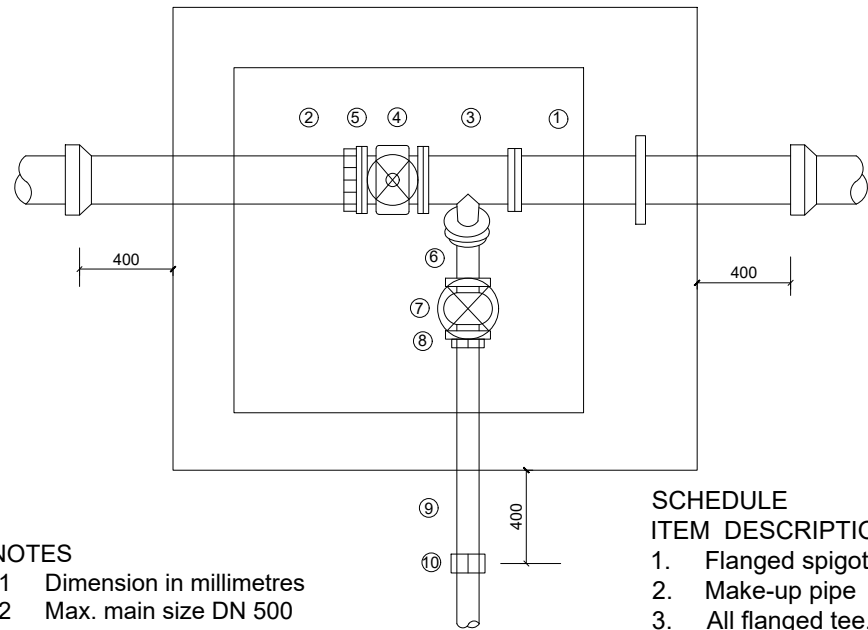
DRAWING TITLE : **STANDARD DRAWINGS**
Air Valve Chamber and Pipework

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-004
Scale:	1:120
Sheet No.:	1 of 1

WASHOUT CHAMBER

OUTFALL STRUCTURE

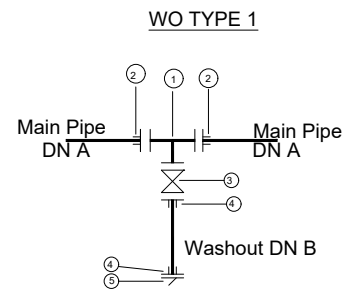
LEGEND



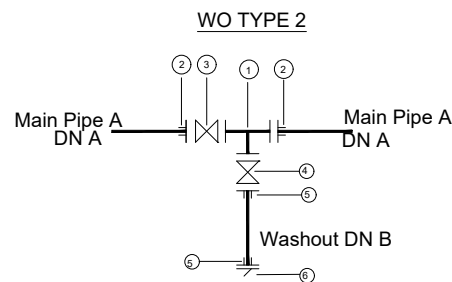
- NOTES**
- 1 Dimension in millimetres
 - 2 Max. main size DN 500
 - 3 Pipework within chamber to be ductile iron
 - 4 For details of chamber see standard detail drawing SD135

- SCHEDULE ITEM DESCRIPTION**
1. Flanged spigot pipe 1200 long with thrust flange
 2. Make-up pipe
 3. All flanged tee, branch DN 80
 4. Flanged in-line gate valve
 5. Flange adaptor
 6. Flanged 45o bend DN 80
 7. Flanged gate valve DN 80
 8. Flanged adaptor DN 80
 9. Spigot pipe DN 80
 10. Flexible adaptor if required

WASHOUT DETAILS TYPE 1 & 2



- 1 No CI Flanged Tee DN A/B
- 2 No DI Flange Adaptor, Maxi type or similar type DN A
- 3 1 No CI Flanged Gate Valve DN A
- 4 1 No DI Flange Adaptor, Maxi type or similar DN B
- 5 1 No. D1 Flanged Flap Valve DN B



- 1 No CI Flanged Tee DN A/B
- 2 1 No DI Flange Adaptor, Maxi type or similar type DN A
- 3 1 No CI Flanged Gate Valve DN A
- 4 1 No DI Flanged Gate Valve DN B
- 5 2 No DI Flange Adaptor, Maxi type or similar DN B
- 6 1 No D1 Flanged Flap Valve DN B

Pipe Diameter		Fittings Diameter	
Main Pipe	Washout	A	B
OD 63	OD 63	DN 50	OD 50
OD 90	OD 63	DN 80	OD 50
OD 110	OD 63	DN 100	OD 50
OD 160	OD 63	DN 150	OD 50
OD 208	OD 110	DN 200	OD 100
OD 250	OD 110	DN 250	OD 100
OD 300	OD 110	DN 300	OD 100

- NOTES:**
1. Pressure ratings of Washouts and Fittings shall be similar to those of main pipe on which the washout is to be installed
 2. All Pipe Fittings within the Chamber are to be Ductile Iron

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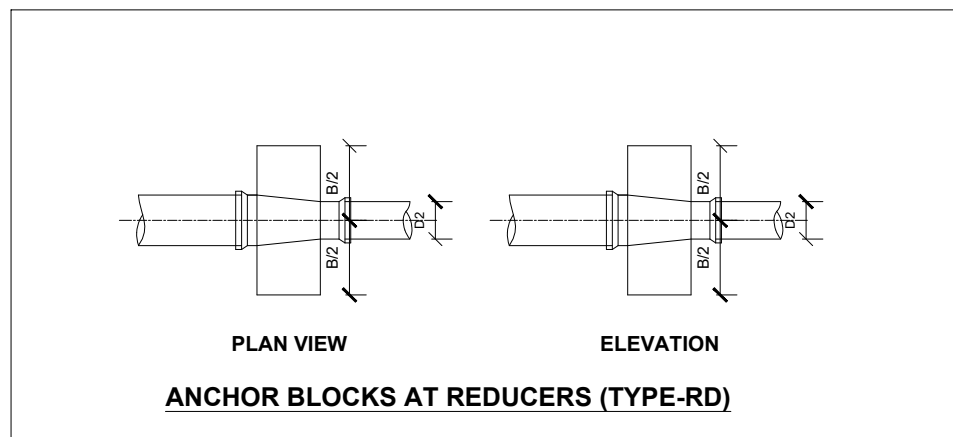
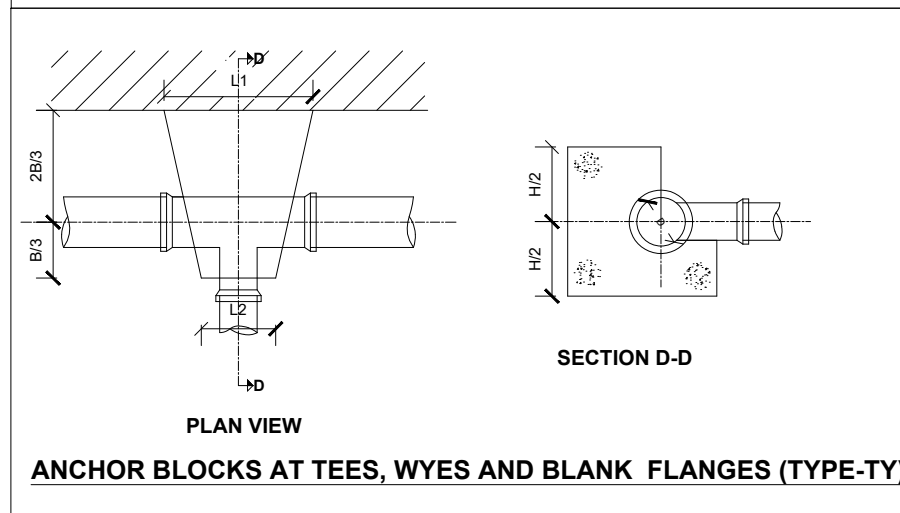
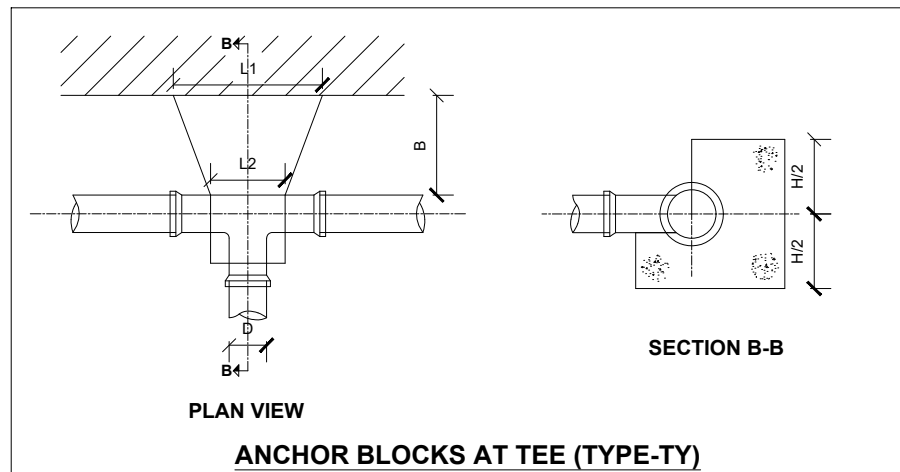
REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Washout Chamber and Outfall Structure

Surveyed by: R.K
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 Date: January 2023
 DRG. No.: **ALA-ORA-SD-005**
 Scale: 1:120 Sheet No.: 1 of 1

LEGEND



TEES (TYPE-TY)						TEES (TYPE-TY)					
BRANCH SIZE	TEST PRESSURE	L1 m	L2 m	B m	H m	BRANCH SIZE	TEST PRESSURE	L1 m	L2 m	B m	H m
50	250	0.40	0.20	0.40	0.30	80	250	0.50	0.25	0.50	0.40
	225	0.40	0.20	0.40	0.30		225	0.50	0.25	0.50	0.40
	180	0.40	0.20	0.40	0.30		180	0.50	0.25	0.50	0.40
	135	0.40	0.20	0.40	0.30		135	0.50	0.25	0.50	0.40
	90	0.40	0.20	0.40	0.30		90	0.50	0.25	0.50	0.40
100	250	0.60	0.30	0.60	0.50	150	250	0.70	0.40	0.60	0.50
	225	0.60	0.30	0.60	0.50		225	0.70	0.40	0.60	0.50
	180	0.60	0.30	0.60	0.50		180	0.70	0.40	0.60	0.50
	135	0.60	0.30	0.60	0.50		135	0.70	0.40	0.60	0.50
	90	0.60	0.30	0.60	0.50		90	0.70	0.40	0.60	0.50

REDUCERS (TYPE-RD)					REDUCERS (TYPE-RD)					REDUCERS (TYPE-RD)				
NOMINAL DIAMETER	TEST PRESSURE	L m	B m	H m	NOMINAL DIAMETER	TEST PRESSURE	L m	B m	H m	NOMINAL DIAMETER	TEST PRESSURE	L m	B m	H m
100/80	250	0.35	0.50	0.55	150/80	250	0.40	0.70	0.45	100/150	250	0.40	0.75	0.55
	225	0.35	0.50	0.50		225	0.40	0.70	0.45		225	0.40	0.70	0.55
	180	0.35	0.50	0.45		180	0.40	0.65	0.40		180	0.40	0.60	0.50
	135	0.35	0.50	0.40		135	0.40	0.60	0.40		135	0.40	0.60	0.45
	90	0.35	0.50	0.40		90	0.40	0.60	0.40		90	0.40	0.60	0.40

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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

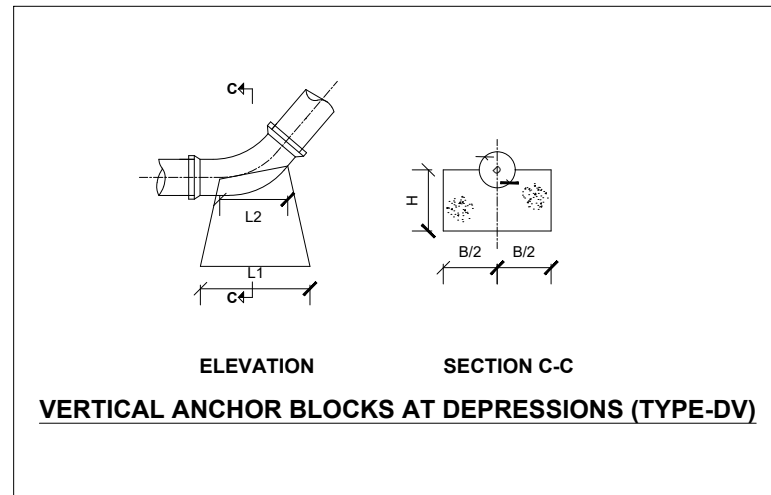
No	Date	Description

DRAWING TITLE :

STANDARD DRAWINGS
Anchor Block Details

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **ALA-ORA-SD-006**
 Scale: 1:120 Sheet No.: 1 of 3

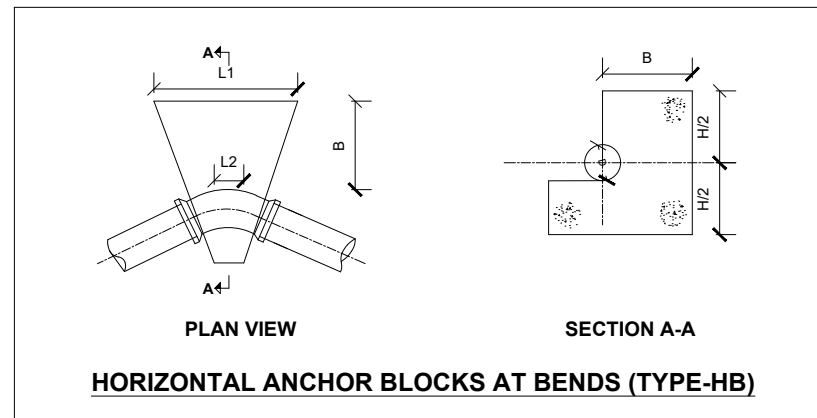
LEGEND



VERTICAL BENDS - DEPRESSIONS (TYPE-DV)													
NOMINAL DIAMETER	TEST PRESSURE	45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
80	250	0.40	0.16	0.30	0.50	0.40	0.16	0.30	0.50	0.40	0.16	0.20	0.50
	225	0.40	0.16	0.27	0.50	0.40	0.16	0.30	0.50	0.40	0.16	0.20	0.50
	180	0.40	0.16	0.30	0.50	0.40	0.16	0.30	0.50	0.40	0.16	0.20	0.50
	135	0.40	0.16	0.30	0.50	0.40	0.16	0.30	0.50	0.40	0.16	0.20	0.50
	90	0.40	0.16	0.30	0.50	0.40	0.16	0.30	0.50	0.40	0.16	0.20	0.50

NOMINAL DIAMETER	TEST PRESSURE	45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
100	250	0.40	0.20	0.30	0.50	0.40	0.20	0.30	0.50	0.40	0.20	0.20	0.50
	225	0.40	0.20	0.30	0.50	0.40	0.20	0.30	0.50	0.40	0.20	0.20	0.50
	180	0.40	0.20	0.30	0.50	0.40	0.20	0.30	0.50	0.40	0.20	0.20	0.50
	135	0.40	0.20	0.30	0.50	0.40	0.20	0.30	0.50	0.40	0.20	0.20	0.50
	90	0.40	0.20	0.30	0.50	0.40	0.20	0.30	0.50	0.40	0.20	0.20	0.50

NOMINAL DIAMETER	TEST PRESSURE	45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
150	250	0.80	0.30	0.40	0.55	0.70	0.30	0.30	0.55	0.50	0.30	0.30	0.55
	225	0.70	0.30	0.40	0.55	0.60	0.30	0.30	0.55	0.50	0.30	0.30	0.55
	180	0.70	0.30	0.40	0.55	0.50	0.30	0.30	0.55	0.50	0.30	0.30	0.55
	135	0.70	0.30	0.40	0.55	0.50	0.30	0.30	0.55	0.40	0.30	0.30	0.55
	90	0.70	0.30	0.40	0.55	0.40	0.30	0.30	0.55	0.40	0.30	0.30	0.55



HORIZONTAL BENDS (TYPE-HB)																	
NOMINAL DIAMETER	TEST PRESSURE	90° BEND				45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
80	250	1.00	0.24	0.35	0.50	0.60	0.24	0.30	0.40	0.50	0.24	0.20	0.20	0.40	0.24	0.20	0.20
	225	0.60	0.24	0.35	0.40	0.50	0.24	0.25	0.30	0.40	0.24	0.20	0.20	0.30	0.24	0.20	0.20
	180	0.60	0.24	0.35	0.30	0.50	0.24	0.23	0.25	0.40	0.24	0.20	0.20	0.30	0.24	0.20	0.20
	135	0.60	0.24	0.35	0.30	0.50	0.24	0.20	0.20	0.40	0.24	0.20	0.20	0.30	0.24	0.20	0.20
	90	0.60	0.24	0.35	0.20	0.50	0.24	0.20	0.20	0.40	0.24	0.20	0.20	0.30	0.24	0.20	0.20

NOMINAL DIAMETER	TEST PRESSURE	90° BEND				45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
150	250	1.20	0.45	0.80	0.80	0.80	0.45	0.80	0.80	0.80	0.45	0.70	0.70	0.60	0.45	0.60	0.60
	225	1.20	0.45	0.80	0.80	0.80	0.45	0.80	0.80	0.80	0.45	0.70	0.70	0.60	0.45	0.60	0.60
	180	1.00	0.45	0.80	0.80	0.80	0.45	0.80	0.80	0.80	0.45	0.70	0.70	0.60	0.45	0.60	0.60
	135	1.00	0.45	0.60	0.60	0.80	0.45	0.80	0.80	0.60	0.45	0.70	0.70	0.60	0.45	0.60	0.60
	90	1.00	0.45	0.60	0.60	0.60	0.45	0.80	0.80	0.60	0.45	0.70	0.70	0.60	0.45	0.60	0.60

NOMINAL DIAMETER	TEST PRESSURE	90° BEND				45° BEND				22½° BEND				11¼° BEND			
mm	m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m	L1 m	L2 m	B m	H m
100	250	1.00	0.30	0.35	0.50	0.80	0.30	0.80	0.80	0.80	0.30	0.60	0.60	0.60	0.30	0.60	0.60
	225	0.90	0.30	0.30	0.40	0.60	0.30	0.80	0.80	0.80	0.30	0.60	0.60	0.60	0.30	0.60	0.60
	180	0.60	0.30	0.25	0.30	0.60	0.30	0.80	0.80	0.80	0.30	0.60	0.60	0.60	0.30	0.60	0.60
	135	0.60	0.30	0.25	0.30	0.60	0.30	0.80	0.80	0.60	0.30	0.60	0.60	0.60	0.30	0.60	0.60
	90	0.60	0.30	0.20	0.20	0.60	0.30	0.80	0.80	0.60	0.30	0.60	0.60	0.60	0.30	0.60	0.60

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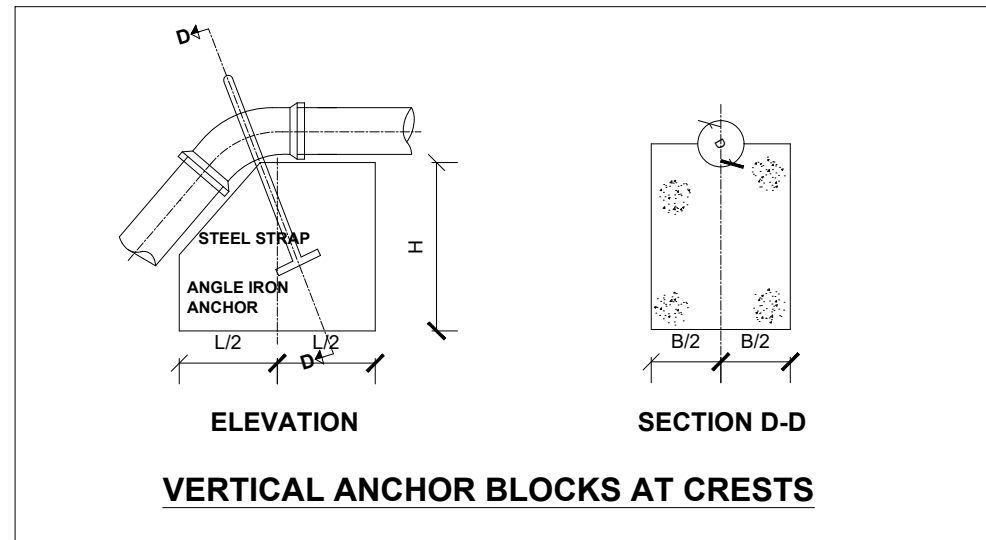
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Anchor Block Details

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **ALA-ORA-SD-006**
 Scale: 1:120 Sheet No.: 2 of 3



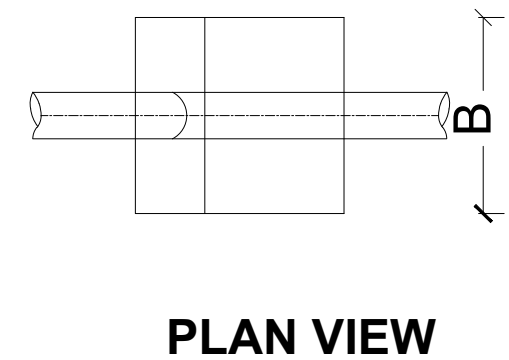
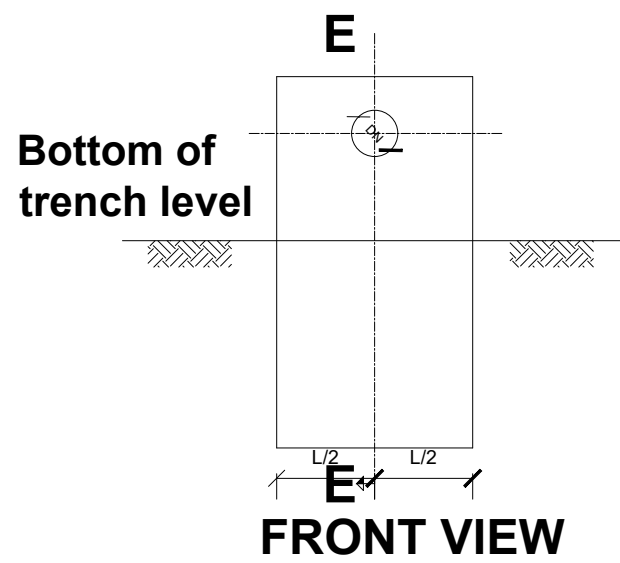
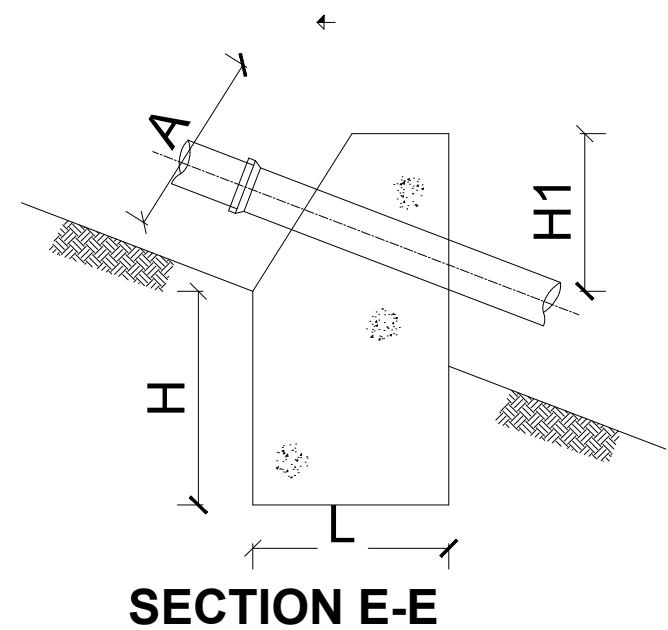
NOMINAL DIAMETER	TEST PRESSURE	45° BEND			22½° BEND			11¼° BEND		
		L m	B m	H m	L m	B m	H m	L m	B m	H m
150	250	1.70	1.10	0.80	1.30	0.90	0.80	1.00	0.70	0.60
	225	1.50	1.10	0.80	1.20	0.80	0.80	1.00	0.70	0.60
	180	1.50	1.10	0.70	1.10	0.80	0.80	1.00	0.70	0.60
	135	1.40	0.90	0.70	1.00	0.70	0.80	1.00	0.70	0.60
	90	1.20	0.80	0.60	0.90	0.70	0.80	1.00	0.70	0.60

NOMINAL DIAMETER	TEST PRESSURE	45° BEND			22½° BEND			11¼° BEND		
		L m	B m	H m	L m	B m	H m	L m	B m	H m
100	250	1.40	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	225	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	180	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	135	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	90	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80

VERTICAL BENDS (TYPE-CV)

NOMINAL DIAMETER	TEST PRESSURE	45° BEND			22½° BEND			11¼° BEND		
		L m	B m	H m	L m	B m	H m	L m	B m	H m
80	250	1.40	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	225	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	180	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	135	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80
	90	1.20	0.70	0.80	1.20	0.70	0.80	1.20	0.70	0.80


- NOTES:**
- Anchor blocks to be constructed from unreinforced concrete class 20.
 - Concrete to be casted and undisturbed soil, where disturbed soil around the anchor blocks either to be removed and filled with concrete before pressure testing, or soil to be compacted to not less than 95% max. dry density before the mass is pressure tested.
 - 11¼° bends to be used for bends >=6° and <=16°
 - Anchor blocks to be cast to leave all pipe joints free.
 - Shuttered surfaces to be suitable to receive backfill or further concrete framework suitable to precast loss of ground fibrated.
 - The p.v.c bends shall be covered with three layers of polythene sheeting before concreting.



ANCHOR BLOCKS ON GRADIENTS (TYPE-GD)

LEGEND

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

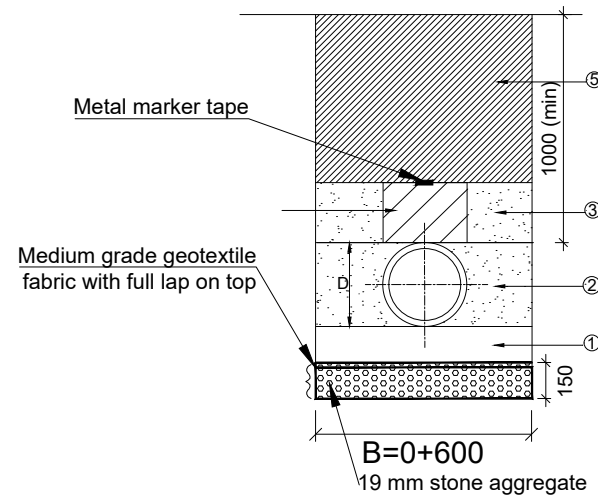
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DRAWING TITLE : **STANDARD DRAWINGS**
Anchor Block Details

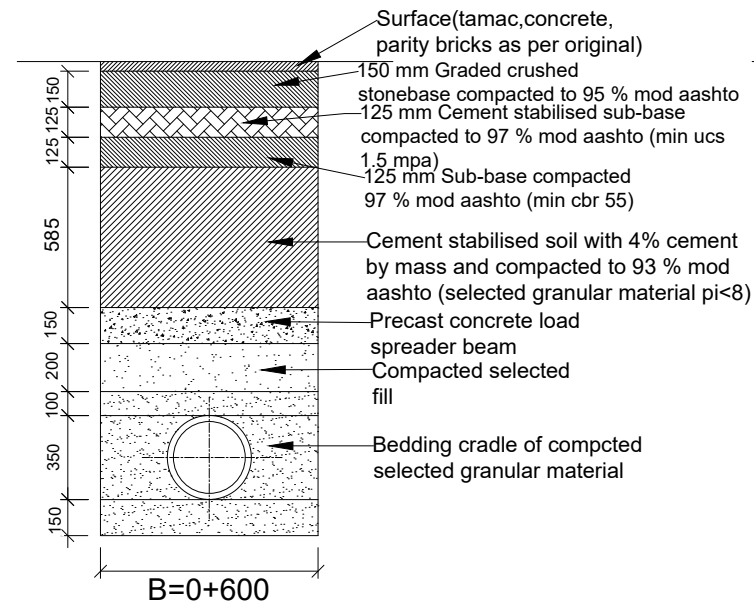
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Designed by:	W.G.M
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Date:	January 2023
DRG. No.:	ALA-ORA-SD-006
Scale:	1:120
Sheet No.:	3 of 3

TRENCHING AND BACKFILLING DETAILS

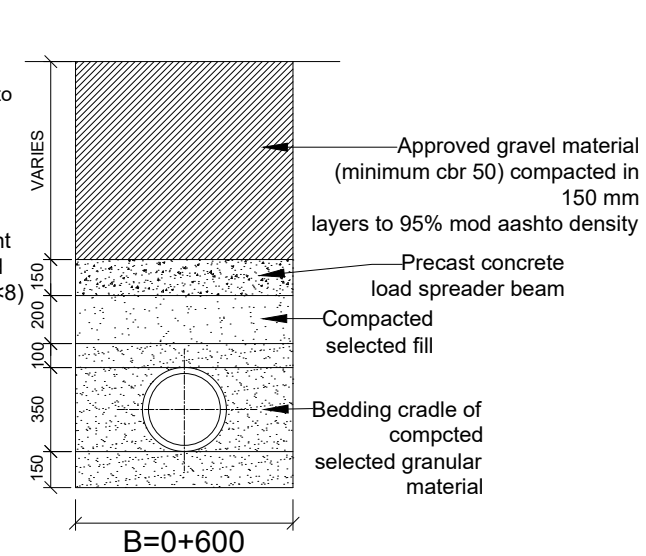
TYPICAL TRENCH EXCAVATION AND BACKFILLING FOR PE/uPVC/GRP PIPES



PIPE PROTECTION AT SURFACED ROAD CROSSING



PIPE PROTECTION AT UNSURFACED ROAD CROSSING



NOTES:

- Minimum and normal trench width are defined as normal pipe diameter plus 600 mm.
- The backfill around the pipe from the trench bottom to the crown of the pipe shall be carried out in layers whose depth shall not exceed 75 mm nor half the nominal pipe diameter whichever is the lesser.
- The bedding required is selected by the engineer according to :
 - Depth of cover
 - Diameter of pipe
 - Type of vehicle loading
 - Type of soil
- The embedment specifies the degree of compaction required in order to fulfill design requirements.
- In general, the method of attaining the required compaction will be ascertained as follows :
 - The engineer's representative will identify, classify and agree the soil type of embedment material available from the trench.
 - The site soil type will be compared with those on the material description chart [see table 1]
 - The compaction method required is then selected from the compaction chart for the appropriate soil type and class of embedment [see table 2]
- not all soils are given in table 1. it should be noted that :
 - Fined grained soils with high plasticity may not be used as backfill

- Fined grained soils with low plasticity may be condemned for use as backfill if the contractor has difficulty in attaining the required compaction.
- Where site material is condemned, imported material shall be used. this shall be a well graded soil from fines upto 20 mm gravel or as approved by the engineer's representative.
- Where some doubt exists as to the compactibility of the soil as defined above, recourse shall be made to the modified proctor density test. the site and laboratory tests shall be carried out to tests 14 b and 12 respectively to ssrn 601 the contractor shall include in his rates for backfilling with available soil.
- If stones or rock are present, imported bedding material of min. 150 mm thick shall be required as approved by the engineer's representative. at designated road crossings the bedding shall have a minimum thickness of 150 mm.
- The backfill shall be placed in layers as defined above, each layer shall be rammed with a small vibratory rammer. the required number of passes of the rammer is given in table 2. in any event 90% mpd shall be achieved. only when there is 300 mm cover over the pipe may heavier compacting equipment
- Be used. the remainder of the backfill shall be suitably compacted in keeping with the reinstatement of the ground to be carried out. this shall be agreed upon with the engineer's representative.
- Ferrous pipes shall be wrapped in polyethylene sleeving as corrosion protection when and as directed by the engineer's representative. soil tests shall be carried out in advance of pipe laying to ascertain requirements.
- All dimensions are in millimetres unless stated otherwise.

LEGEND

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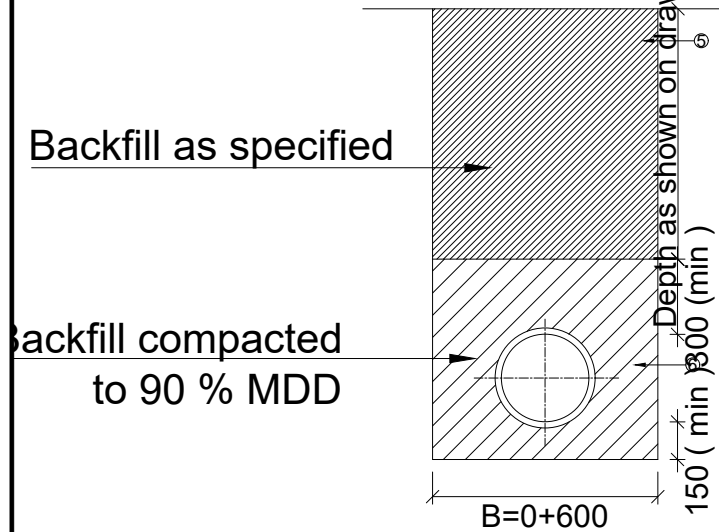
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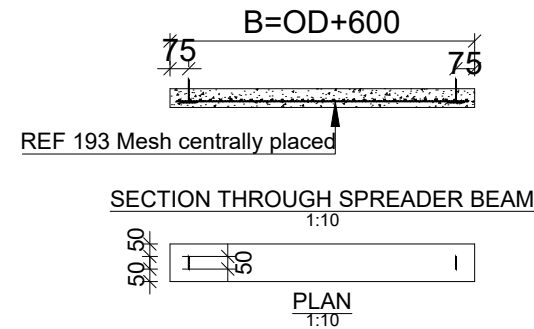
DRAWING TITLE : **STANDARD DRAWINGS**
Trenching, Road Crossing and Backfilling Details

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-007
Scale:	1:120
Sheet No.:	1 of 2

TYPICAL TRENCH EXCAVATION AND BACKFILLING FOR FERROUS PIPES



PRECAST CONCRETE LOAD SPREADER BEAM



NOTE

1. Where required by local authorities, a concrete pipe or culvert must be used instead of a concrete spreader beam.
2. Horizontal directional drilling must be undertaken where specified to the engineer's approval.

TABLE 1 : MATERIAL DESCRIPTION CHART

SOIL TYPE	DESCRIPTION	GROUP SYMBOL
A	Angular, crushed rock negligible fines	-
B	Well graded gravel-sand mixtures few fines	GW
C	Fine Gravel, No fines	GP
D	Gravel-Sand Mix, upto 15% Fines	GF

TABLE 2 : COMPACTION CHART

% MPD	SOIL TYPE	COMPACTION METHOD	
		Thickness of Layer (mm)	No. of Passes
90	A AND B	150	1
	C	150	2
	D	75	2

LEGEND

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

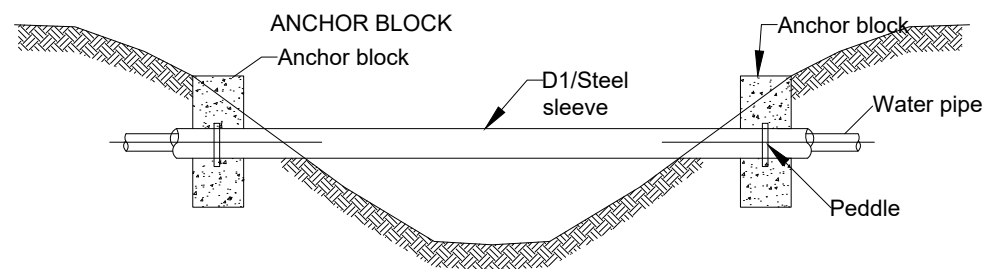
REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Trenching, Road Crossing and Backfilling Details

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-007
Scale:	1:120
Sheet No.:	2 of 2

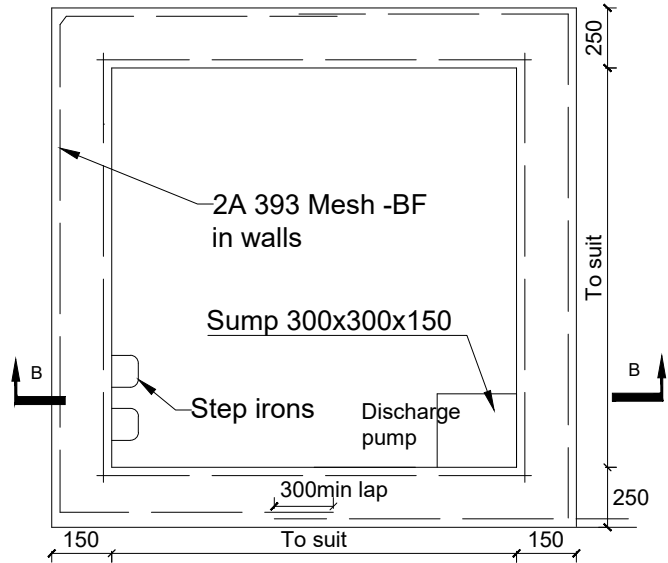
PIPE SLEEVING DETAILS



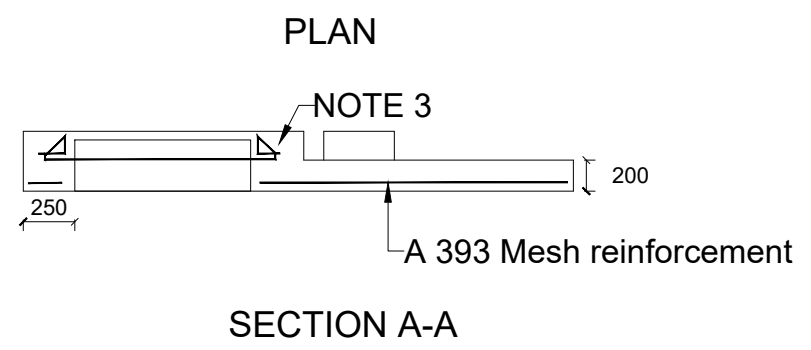
LEGEND :

D pipe outside diameter approved

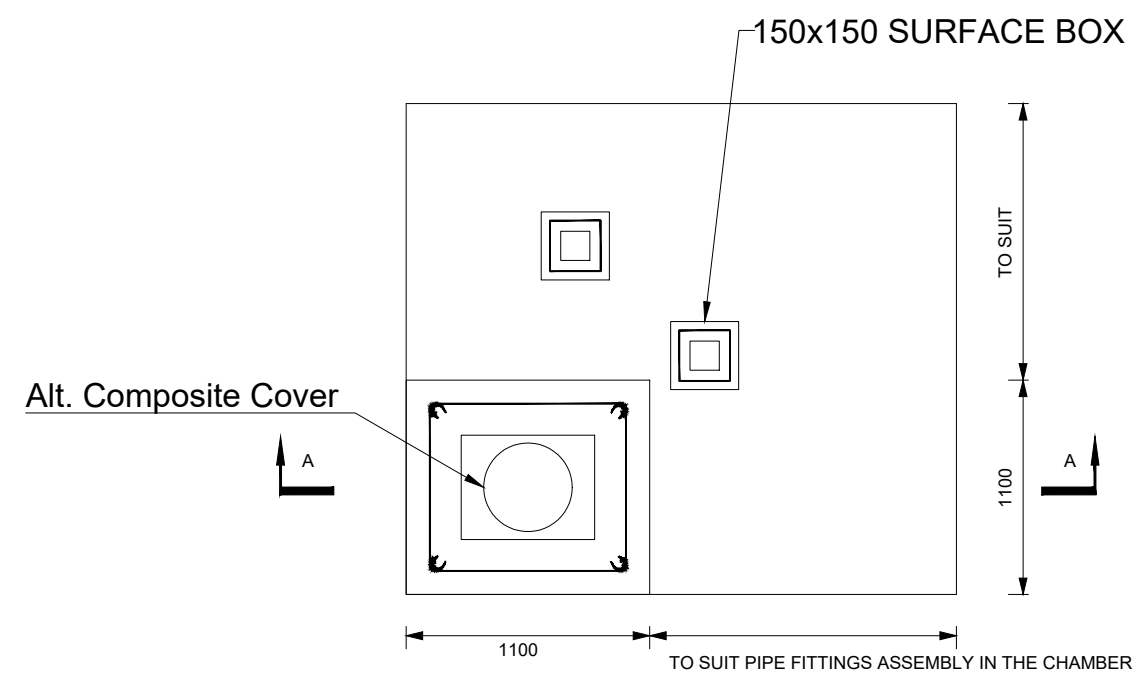
1. Granular bedding material (10 - 20 mm size) compacted in 50 mm layers to a thickness of 100 mm or as directed by the engineer's representative.
2. Approved granular bedding material compacted in layers as per note 2. careful tamping on either the pipe should be maintained to ensure equal pressure on both sides of the bedding.
3. Approved granular bedding material compacted in shallow layers to a maximum of 150 mm thick a,b,c and 75 mm thick type d.
4. As in above, but excessive tamping to be avoided.
5. Normal backfill material properly rammed in layers. not exceeding 150 mm thick.
6. Approved granular backfill material compacted to 90 % mpd in layers as per note 2.



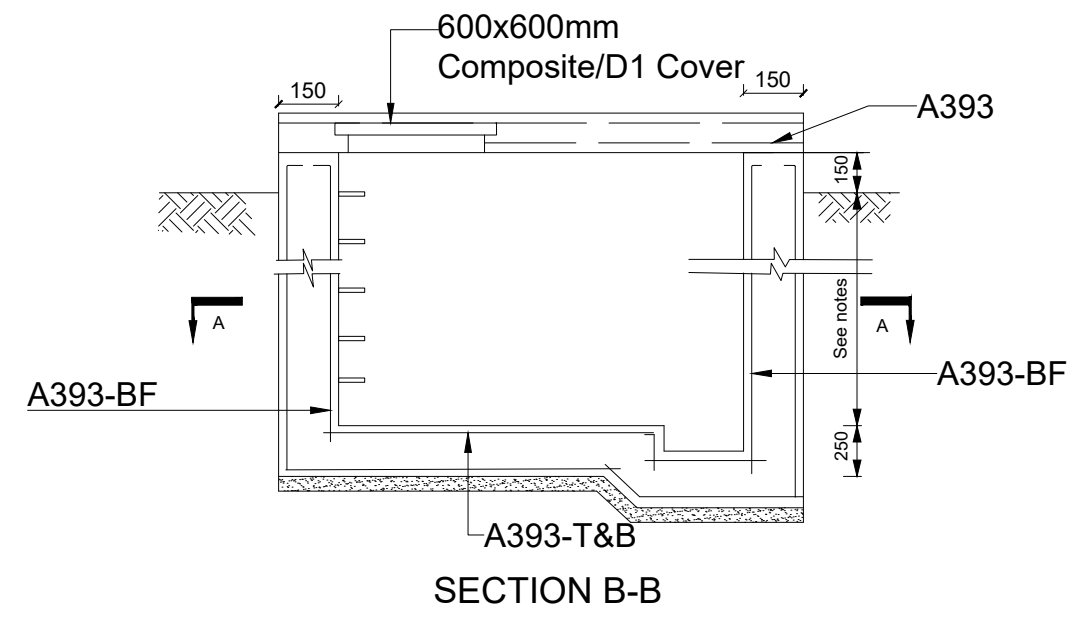
SECTIONAL PLAN A-A



SECTION A-A



ROOF SLAB



SECTION B-B

NOTES

1. Floor of chamber to be 250 below pipe IL.
2. Fore details of cover slab see General notes.

LEGEND

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**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Reinforcement Details for Washout/Gate Valve Chamber and Roof Slab Details

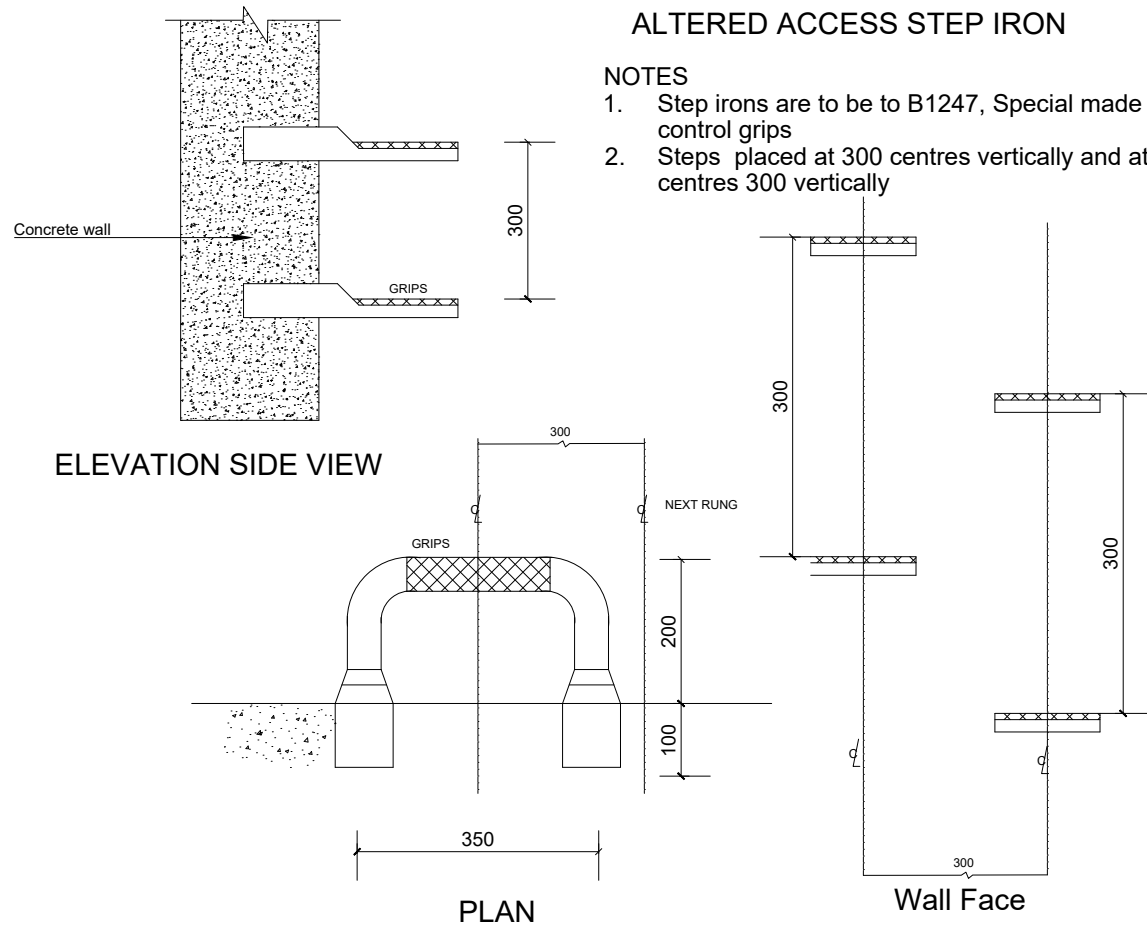
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Date:	January 2023
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Scale:	1:120
Sheet No.:	1 of 1

LEGEND

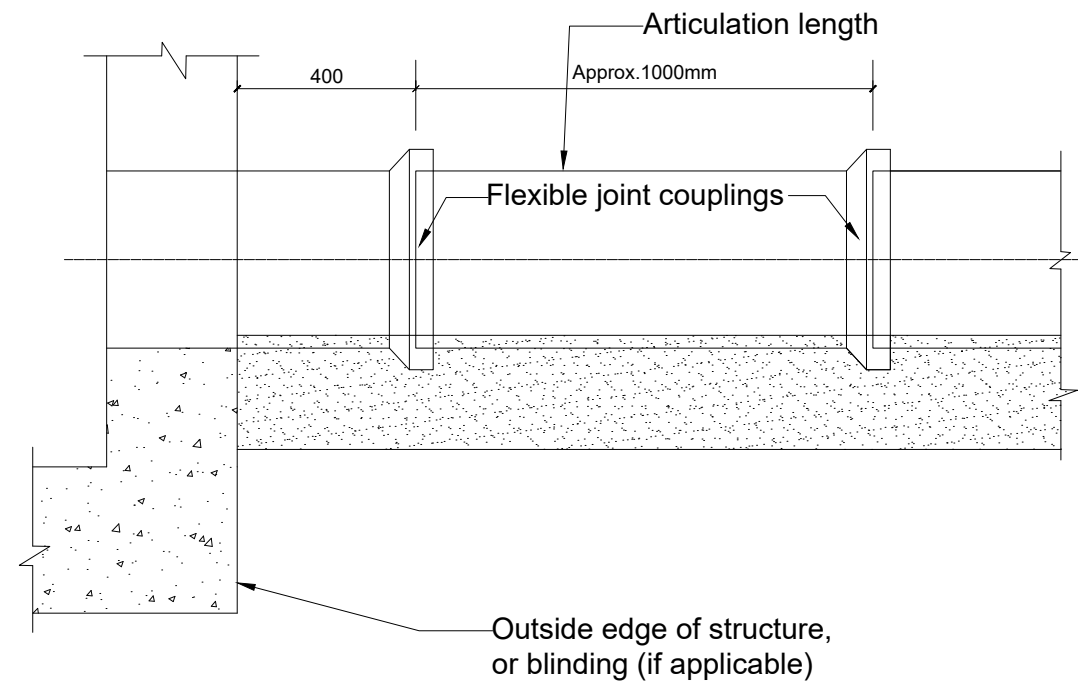
ALTERED ACCESS STEP IRON

NOTES

1. Step irons are to be to B1247, Special made with slid control grips
2. Steps placed at 300 centres vertically and at alternate centres 300 vertically



FLEXIBLE PIPE JOINT DETAILS FOR PIPES ENTERING OR LEAVING CONCRETE STRUCTURES



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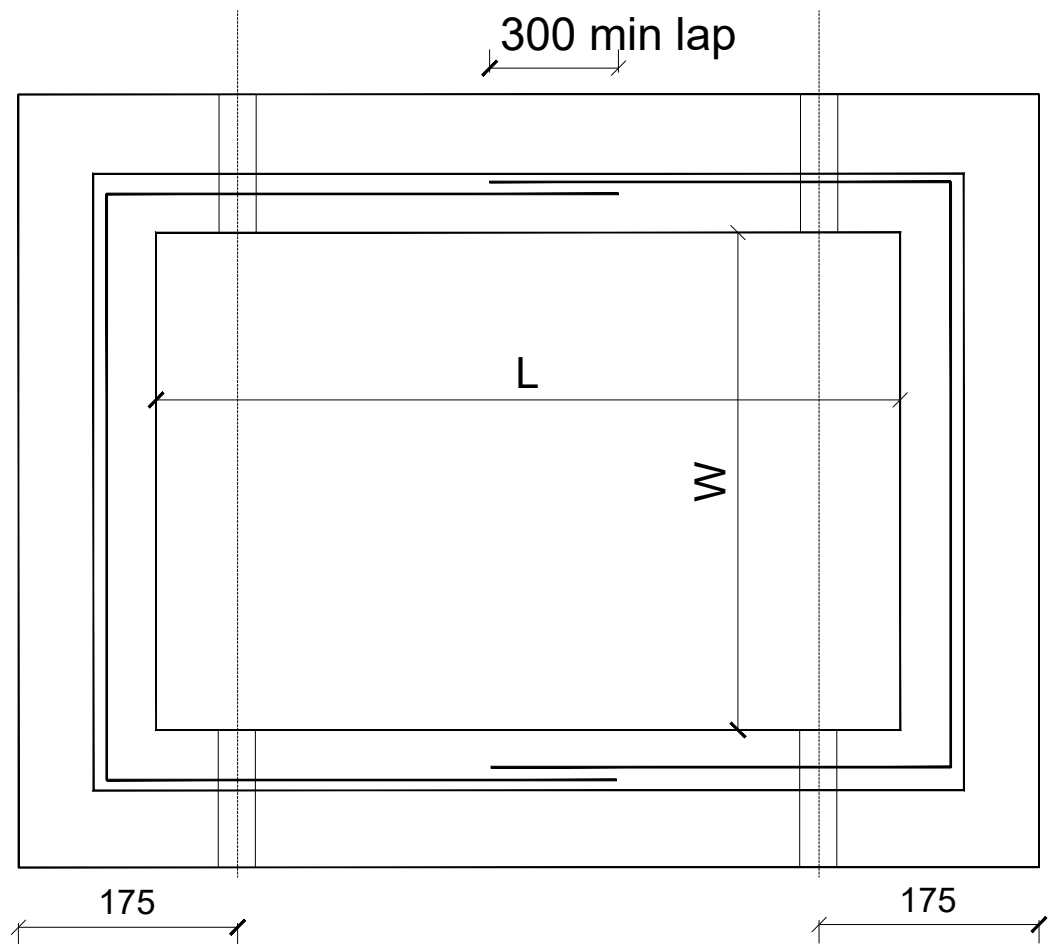
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

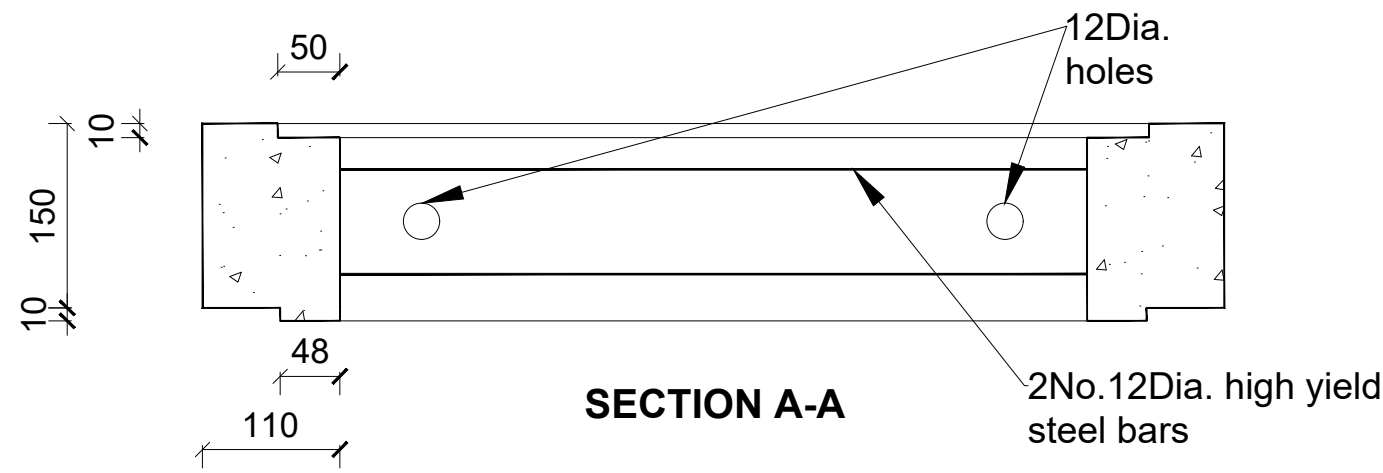
DRAWING TITLE : **STANDARD DRAWINGS**
Step Iron and Flexible Pipe Joint Details

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **ALA-ORA-SD-009**
 Scale: 1:120 Sheet No.: 1 of 1




PLAN

TYPE	L	W
A	430	200
B	600	450
C	750	600
D	900	600
E	1200	600
F	1200	900



SECTION A-A

LEGEND

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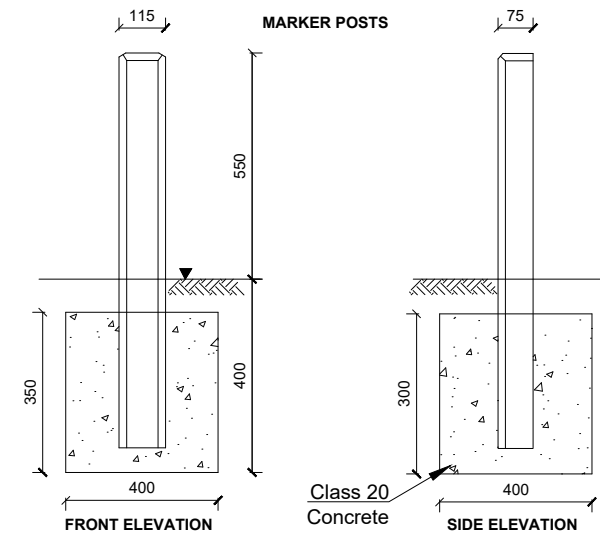
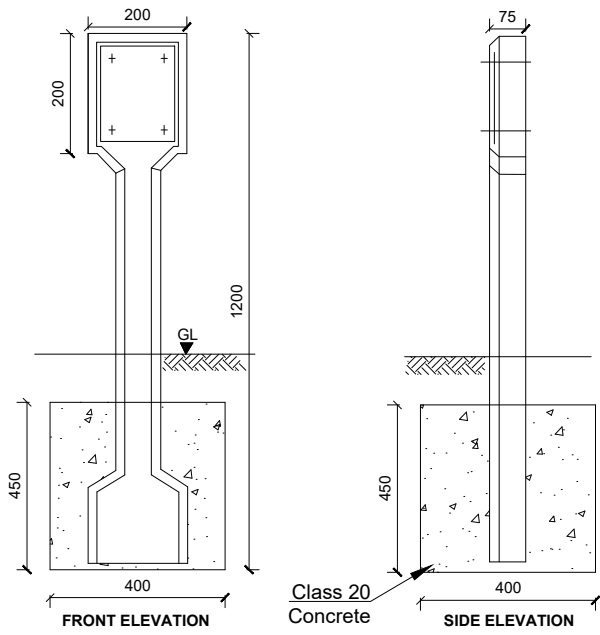
No	Date	Description

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Precast Chamber Cover slab and Section

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Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-010
Scale:	1:120
Sheet No.:	1 of 1

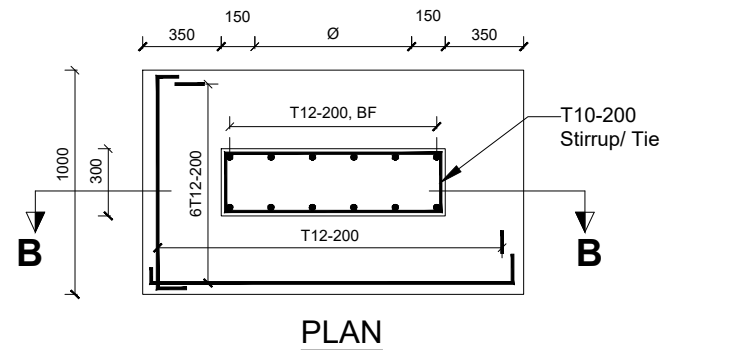
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INDICATOR POSTS



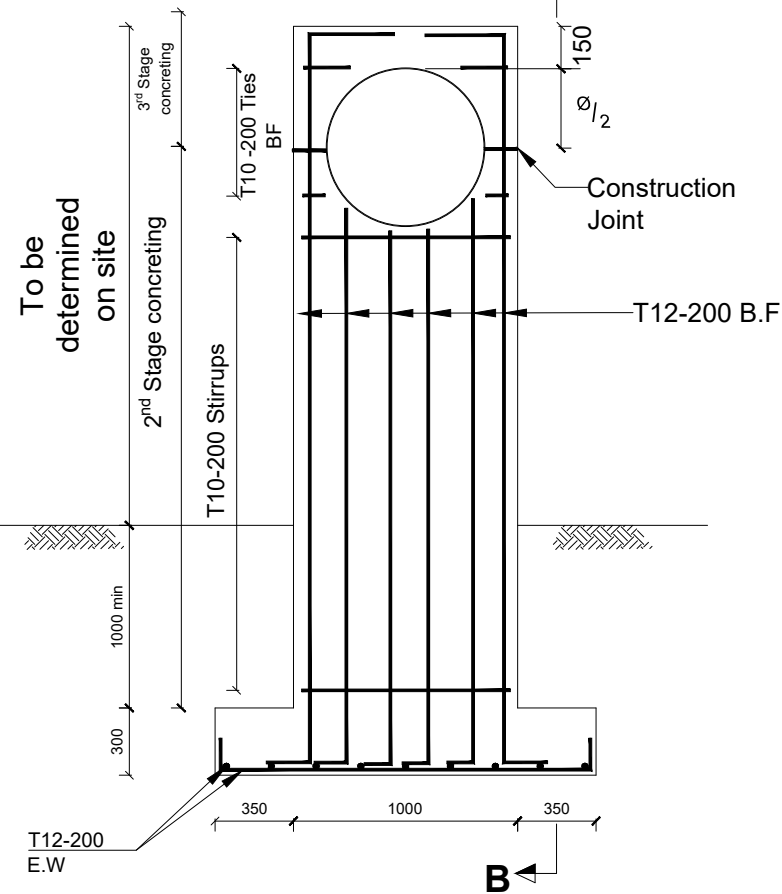
STANDARD PIPE SUPPORT ABOVE GROUND

Alternative 1 - Insitu



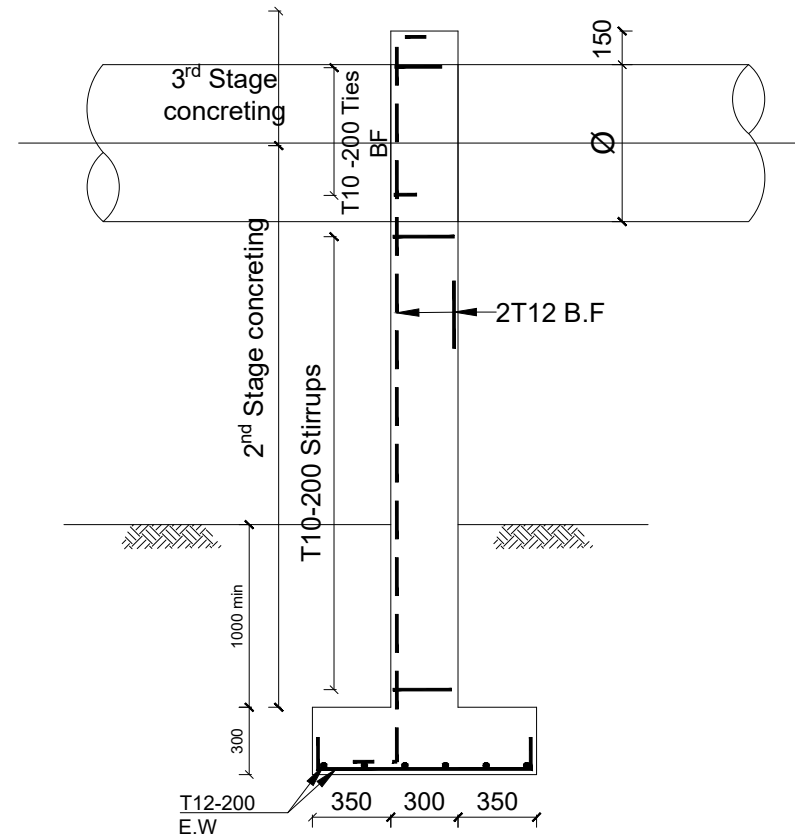
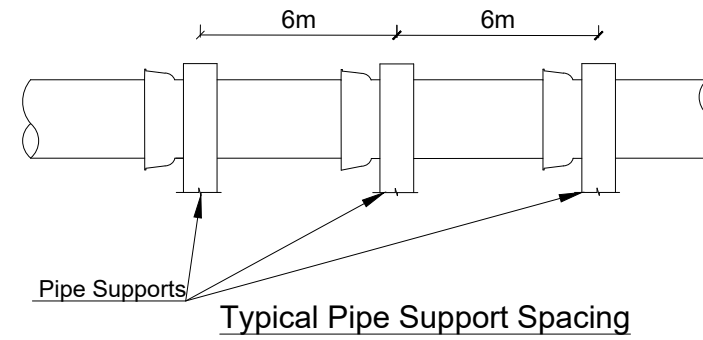
PLAN

OD+300
OD



SECTION A-A
1:25

Note:
All Pipe Surfaces in contact with Concrete are to be rapped in 2 layers of Guage 1000 Polythene Sheeting



SECTIONAL ELEVATION B-B
1:25

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No	Date	Description

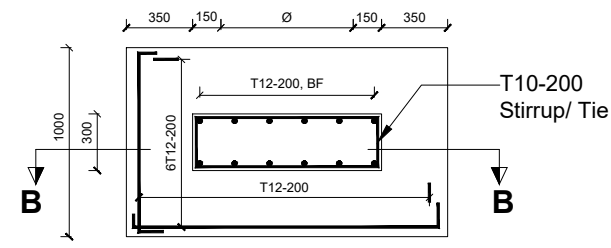
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Marker Post and Pipe Support Details

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Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-011
Scale:	1:120
Sheet No.:	1 of 2

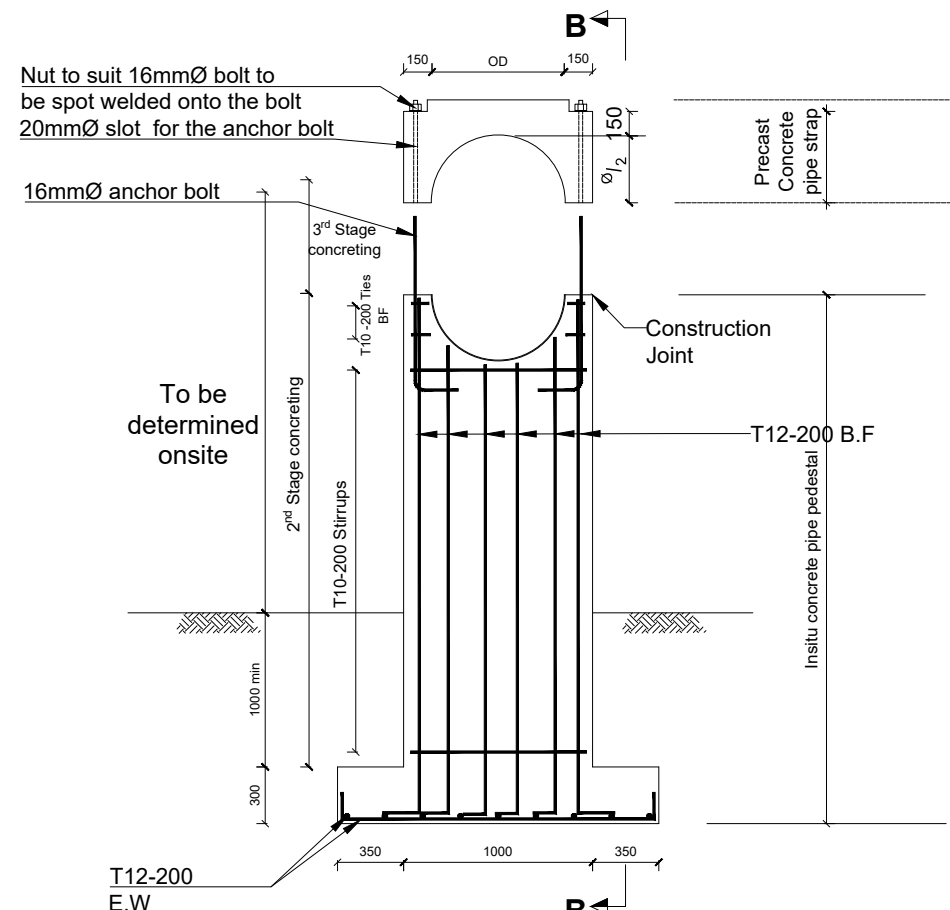
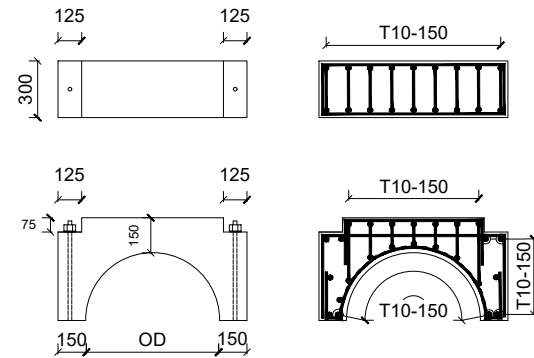
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STANDARD PIPE SUPPORT ABOVE GROUND

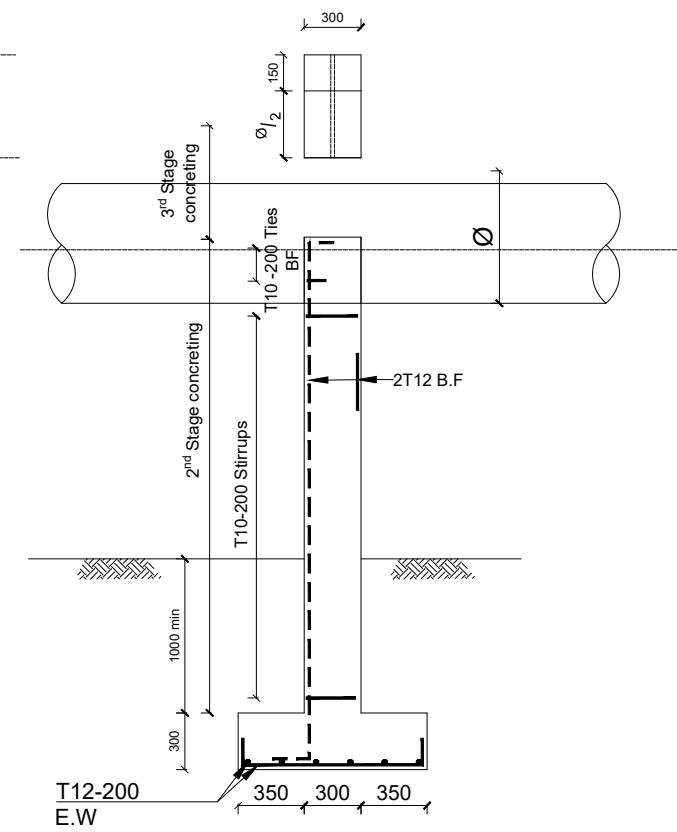
Alternative 2 - Insitu with a precast concrete strap



PLAN



SECTION A-A
1:25




SECTIONAL ELEVATION B-B
1:25

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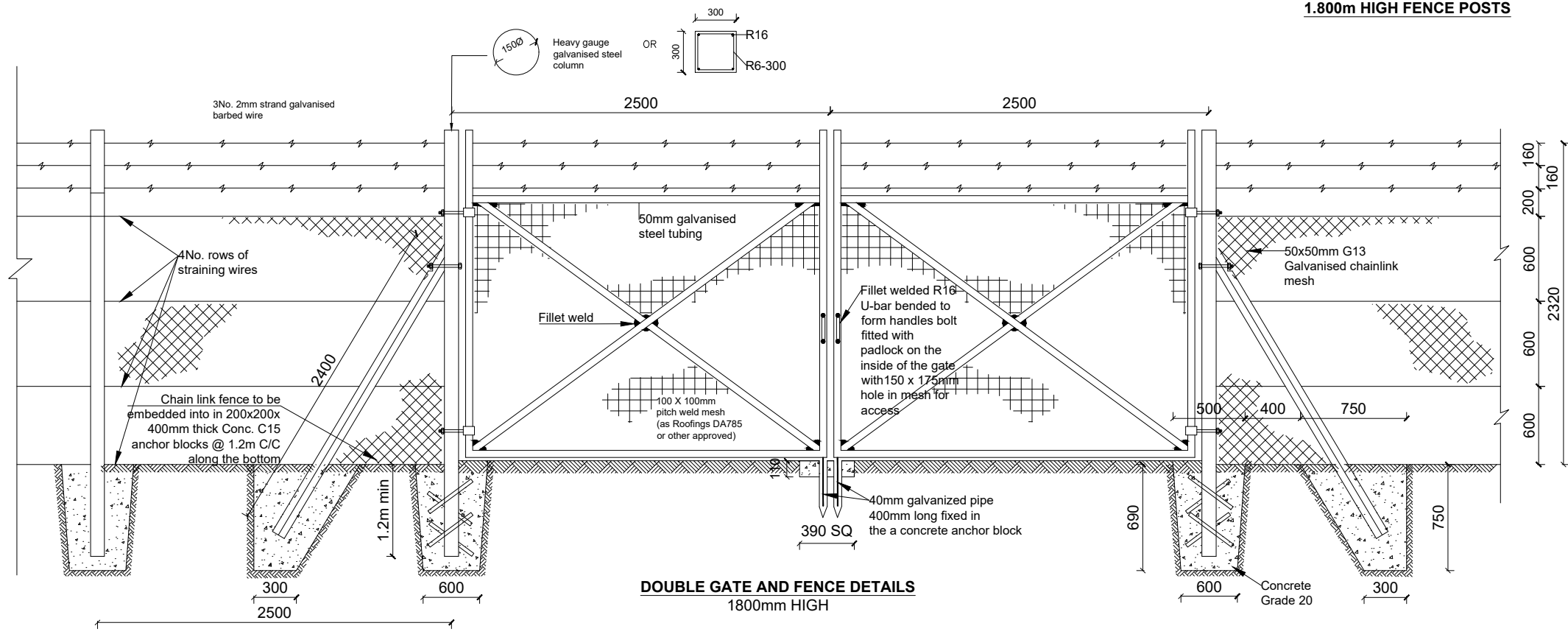
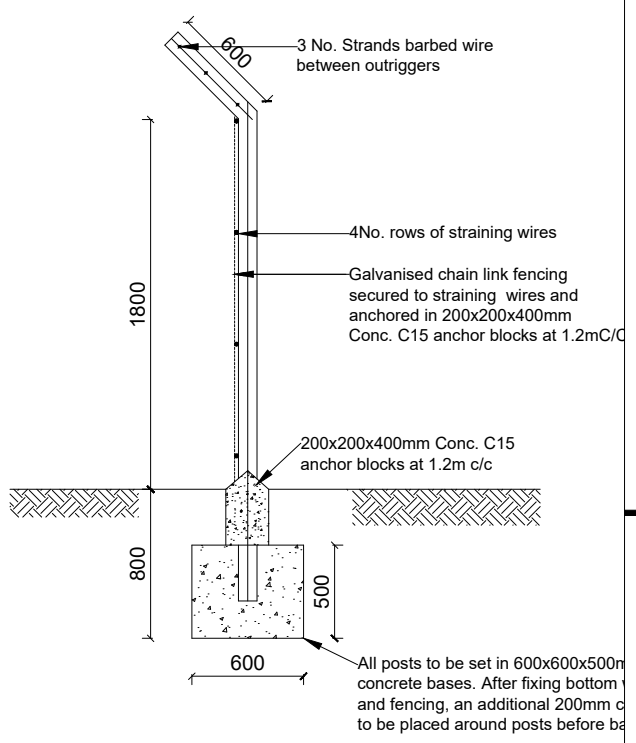
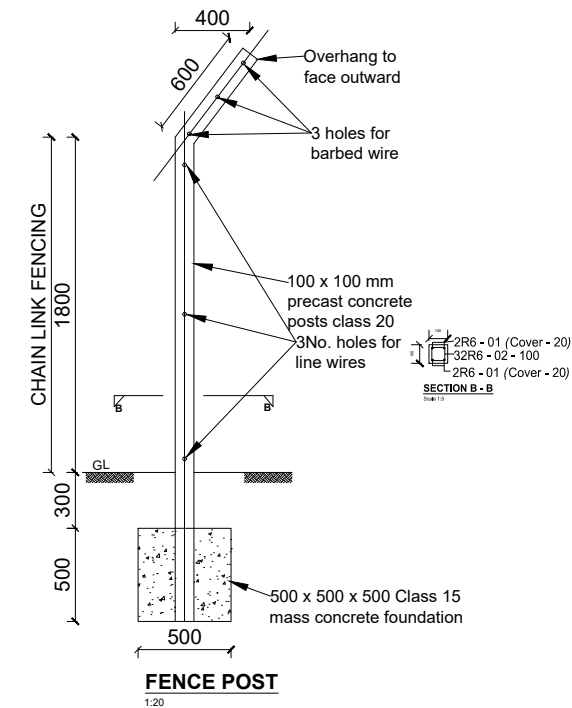
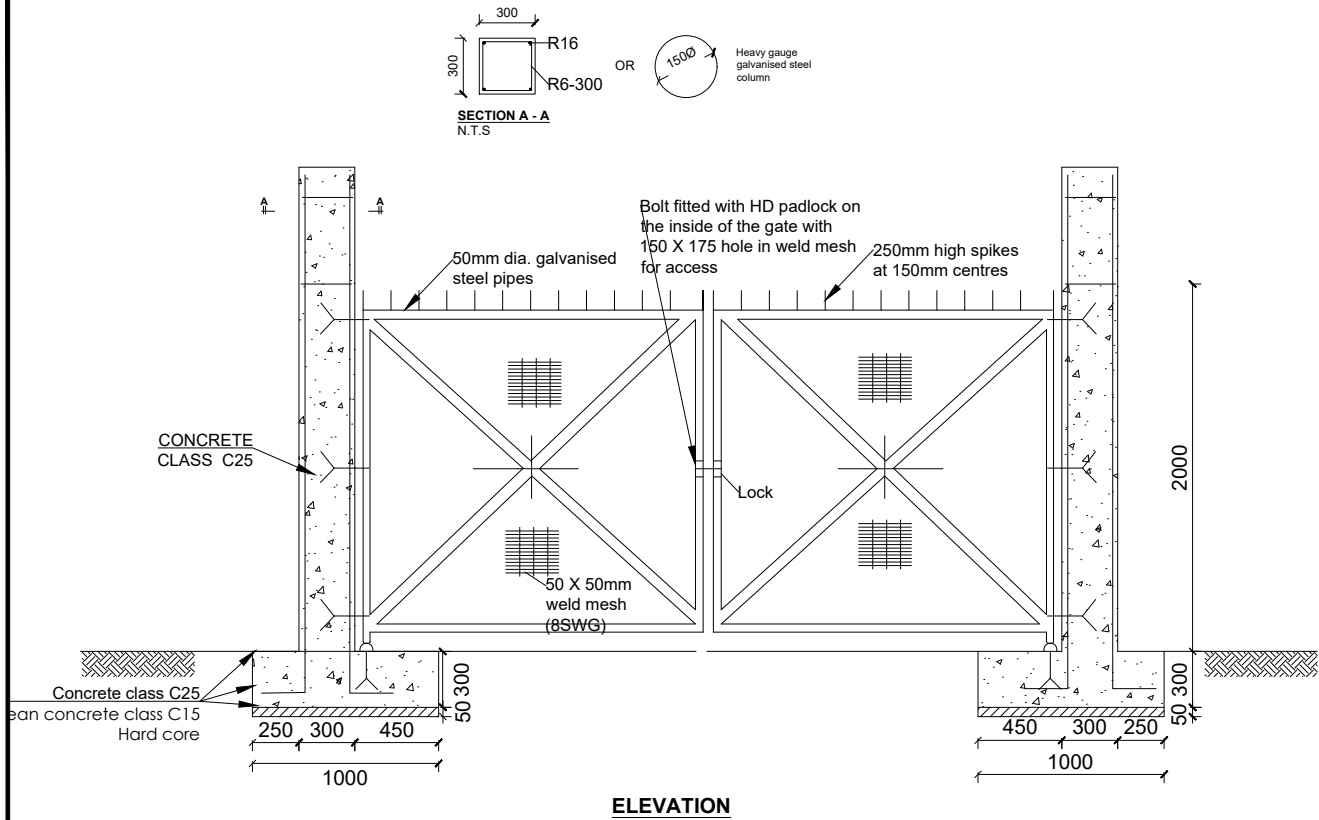
REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Marker Post and Pipe Support Details

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Date:	January 2023
DRG. No.:	ALA-ORA-SD-011
Scale:	1:120
Sheet No.:	2 of 2

FENCE DETAILS



LEGEND

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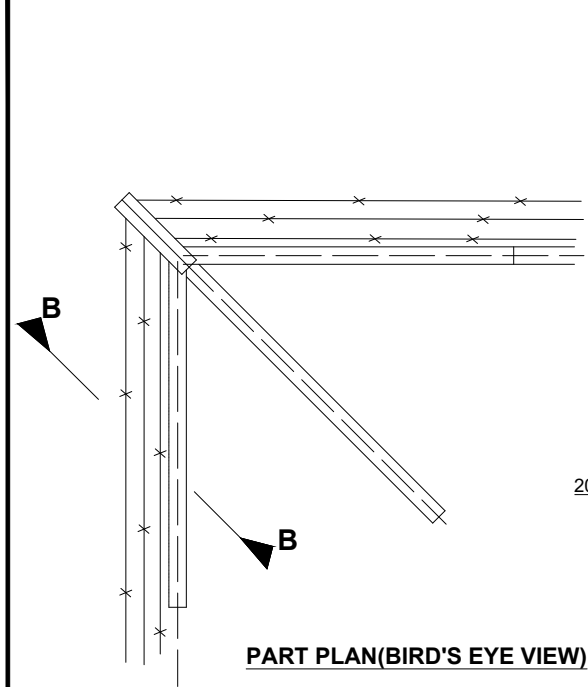
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Fence details

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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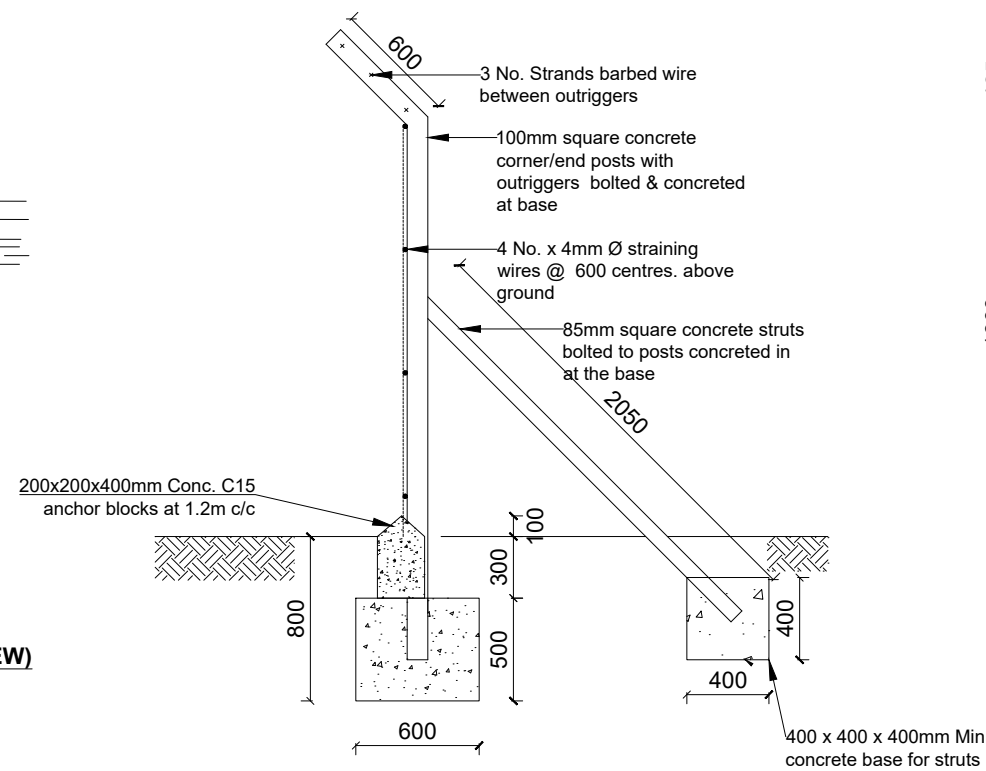
FENCE DETAILS

LEGEND

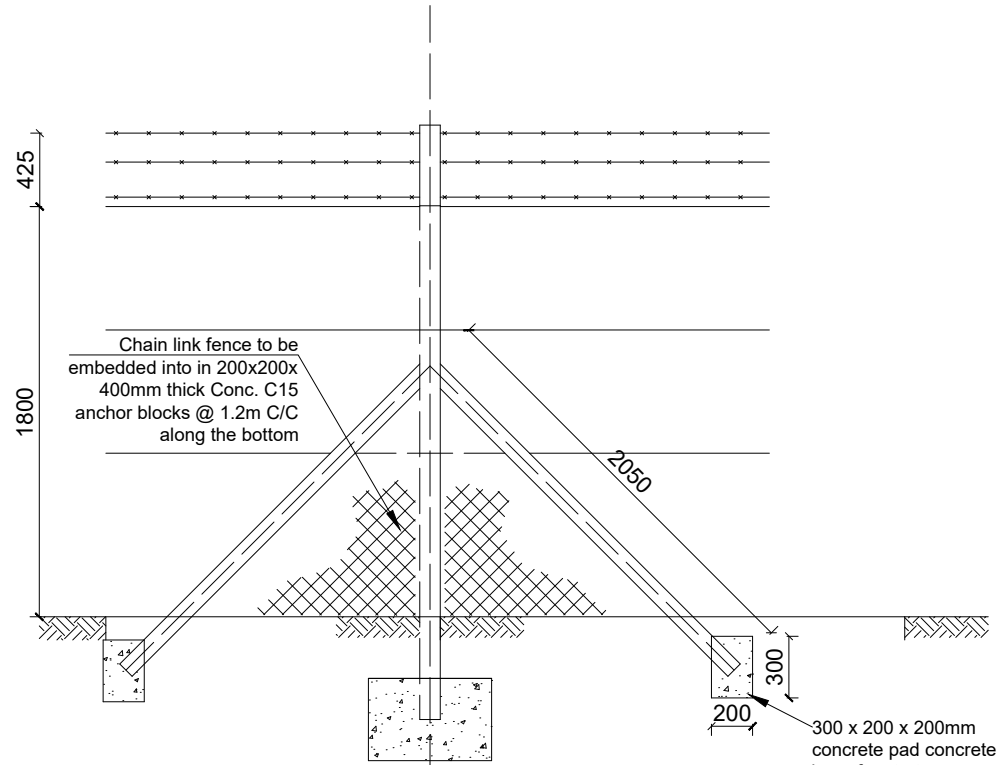


PART PLAN (BIRD'S EYE VIEW)

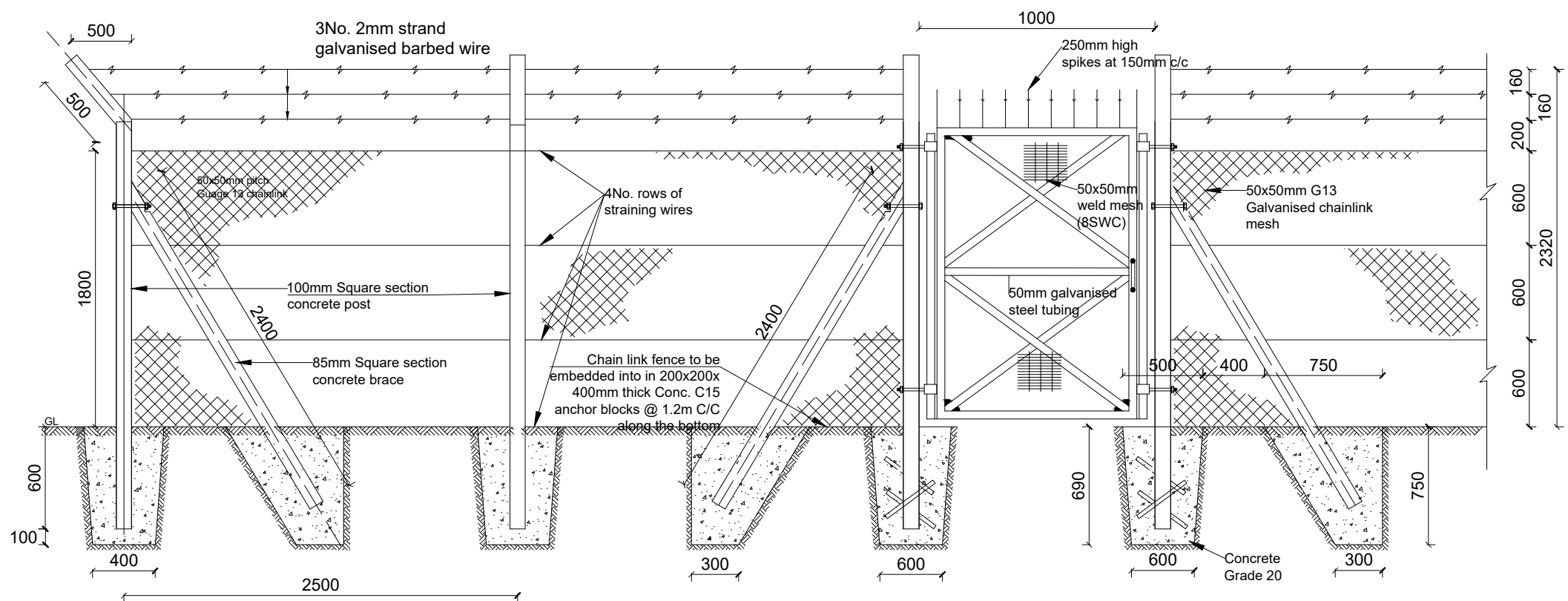
CORNER POSTS



CORNER/END POSTS SECTION B-B



INTERMEDIATE POST WITH STRUTS - ELEVATION (30.00m c/c)



SMALL GATE AND FENCE DETAILS


NOTE:
1. Pedestrian Gate specification similar to the Vehicular gate in all aspects except width.

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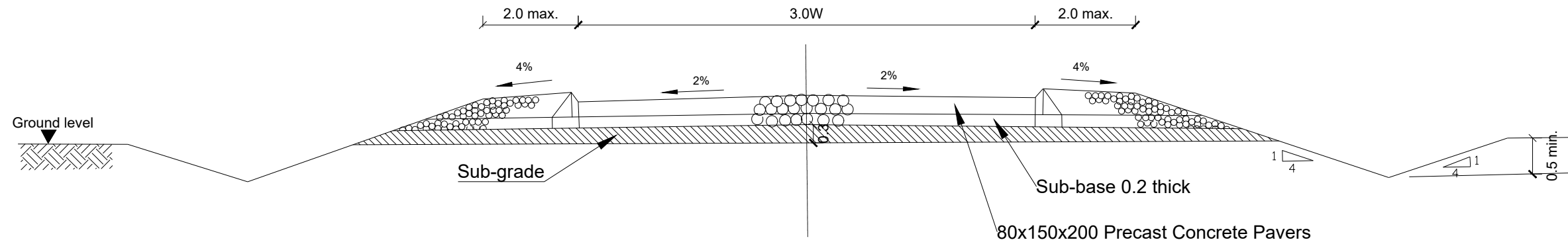
REVISIONS :

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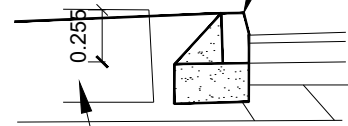
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Sheet No.:	2 of 2

ROAD WORKS

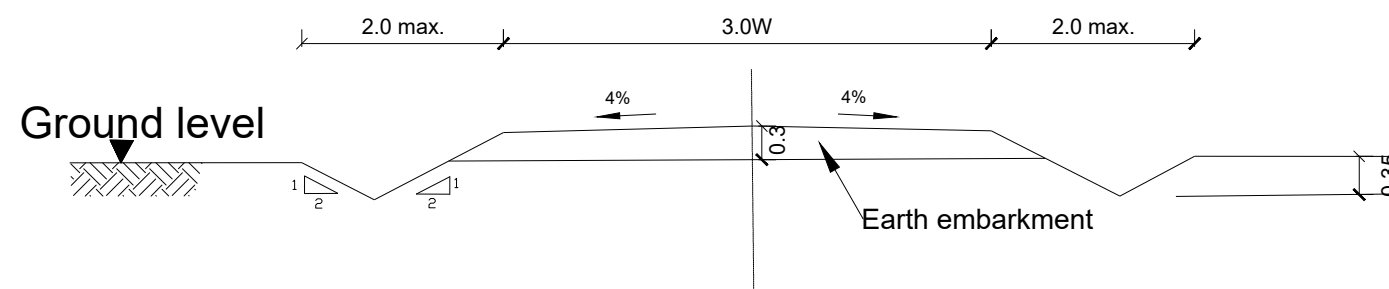
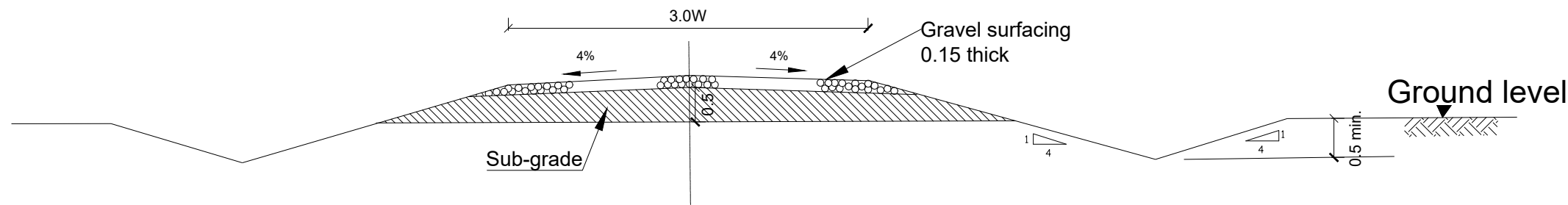


SURFACE ROAD

0.205x0.125 (nominal) half-batter precast concrete kerb

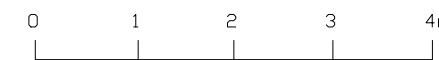


0.2 Minimum varies to suit sub-base thickness



FARM ACCESS ROAD

ROAD WORKS DETAILS



LEGEND

CLIENT :

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :

Alliance Consultants Ltd
In Association with

Infra-Consult Ltd

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

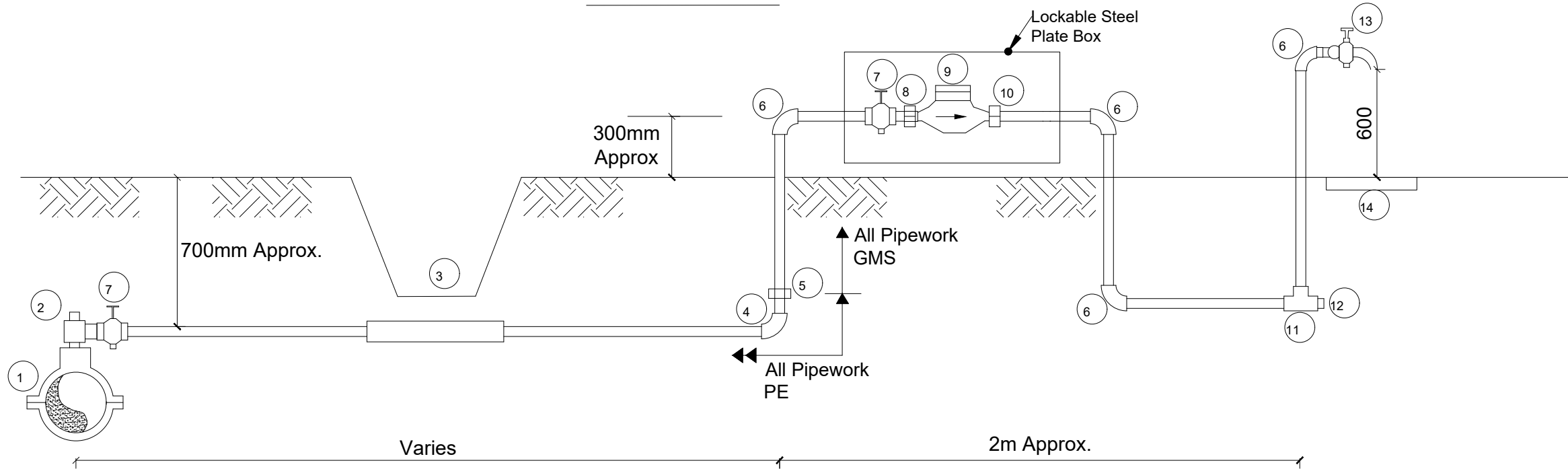
REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Road Works

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-013
Scale:	1:120
Sheet No.:	1 of 1

YARD TAP



SCHEDULE OF FITTINGS

ITEM NO.	DESCRIPTION	NO. REQUIRED PER CONNECTION
1.	PVC Saddle Clamp	1
2.	PE Outlet type swivel ferule	1
3.	1m Length GMS sleeve	1 (optional)
4.	PE Elbow	1
5.	PE/GMS Adaptor	4
6.	GMS Elbow	3
7.	Stop cock	1
8.	Male threaded connector	1
9.	Water meter	1
10.	Adjusting coupling	1
11.	GMS equal tee	1
12.	Plug	1
13.	Tap	3
14.	600x600x50mm RC precast reinforced	1
15.	with a G10 (3.0mm Ø x 60 x 60mm pitch) steel fabric Purpose made Lockable Meter protection casing made of 3mm Ms plate Complete including Painting and a 50mm Padlock	

NOTES:

- GMS pipe ends to be screwed with tapered threads to ISO R7 and to be supplied with sealing PTFE tape
- GMS pipe fittings to be malleable cast iron to BS 143 and BS 1256 with female threaded ends
- The adjusting coupling shall be made of bronze or brass with a threaded female connection at the outlet end. It shall incorporate sufficient adjustment to permit removal at the meter
- All PE connections shall be of the push fit type
- Diameter of pipe varies
- The Meter Protection shall be robust and be able to enclose the Meter and Stop clocks.

LEGEND

CLIENT :



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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Tape Yard

Surveyed by:

R.K

Drawn by:

N.R

Designed by:

W.G.M

Checked by:

J.K.K

Date:

January 2023

DRG. No.:

ALA-ORA-SD-014

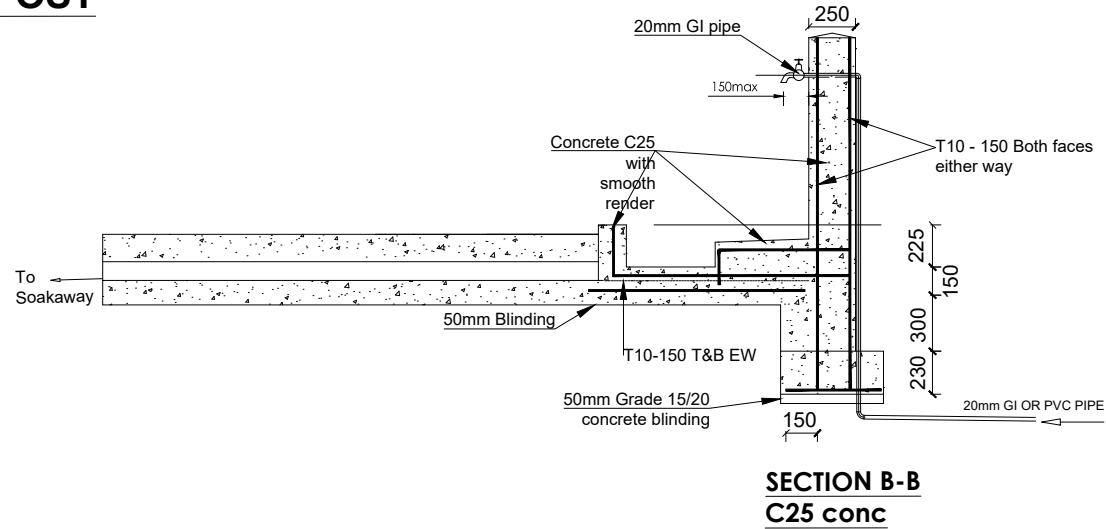
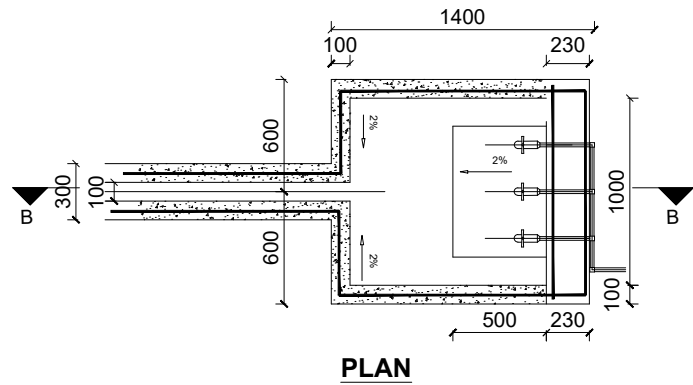
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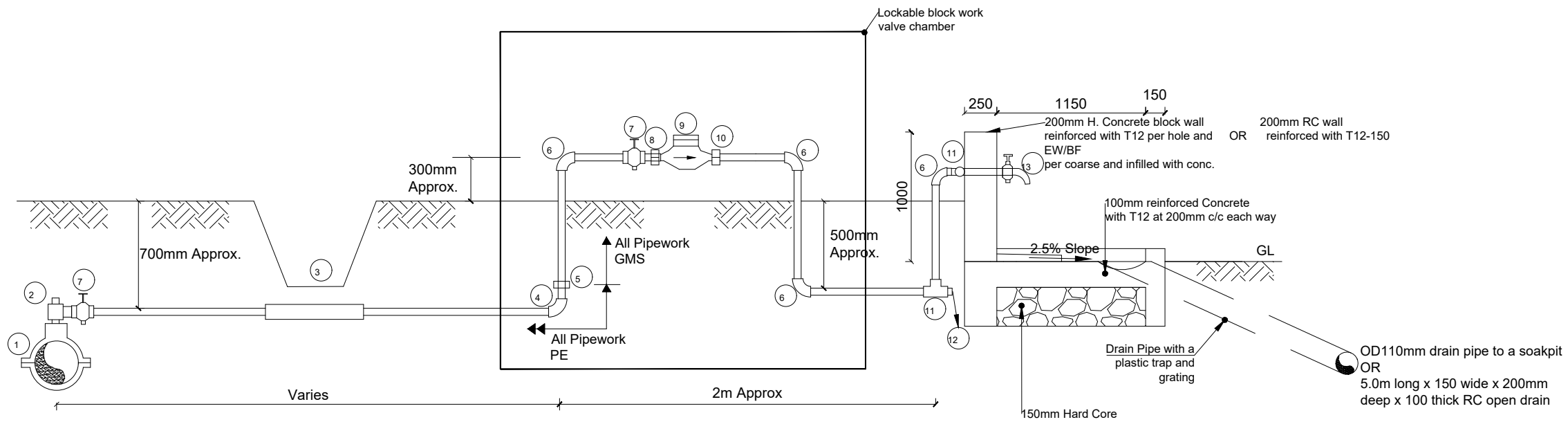
Sheet No.:

1 of 1

STAND POST



LEGEND



SCHEDULE OF FITTINGS

ITEM NO.	DESCRIPTION	NO. REQUIRED PER CONNECTION
1.	PVC Saddle Clamp	1
2.	PE Outlet type swivel ferule	1
3.	1m Length GMS sleeve	1 (optional)
4.	PE Elbow	1
5.	PE/GMS Adaptor	1
6.	GMS Elbow	6
7.	Stop cock	3
8.	Male threaded connector	1
9.	Water meter	1
10.	Adjusting coupling	1
11.	GMS equal tee	3
12.	Plug	1
13.	Tap	3

NOTES:

- GMS pipe ends to be screwed with tapered threads to ISO R7 and to be supplied with sealing PTFE tape
- GMS pipe fittings to be malleable cast iron to BS 143 and BS 1256 with female threaded ends
- The adjusting coupling shall be made of bronze or brass with a threaded female connection at the outlet end. It shall incorporate sufficient adjustment to permit removal at the meter
- All PE connections shall be of the push fit type
- Diameter of pipe varies
- The Meter Protection shall be robust and be able to enclose the Meter and Stop clocks.

NOTE:

Soak pit to be 2.0m Ø by 2.0m deep with hardcore fill of 300mm min size covered with 2 layers of gauge 1000 polythene sheet

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PROJECT :

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**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Stand Post

Surveyed by:

R.K

Drawn by:

N.R

Designed by:

W.G.M

Checked by:

J.K.K

Date:

January 2023

DRG. No.:

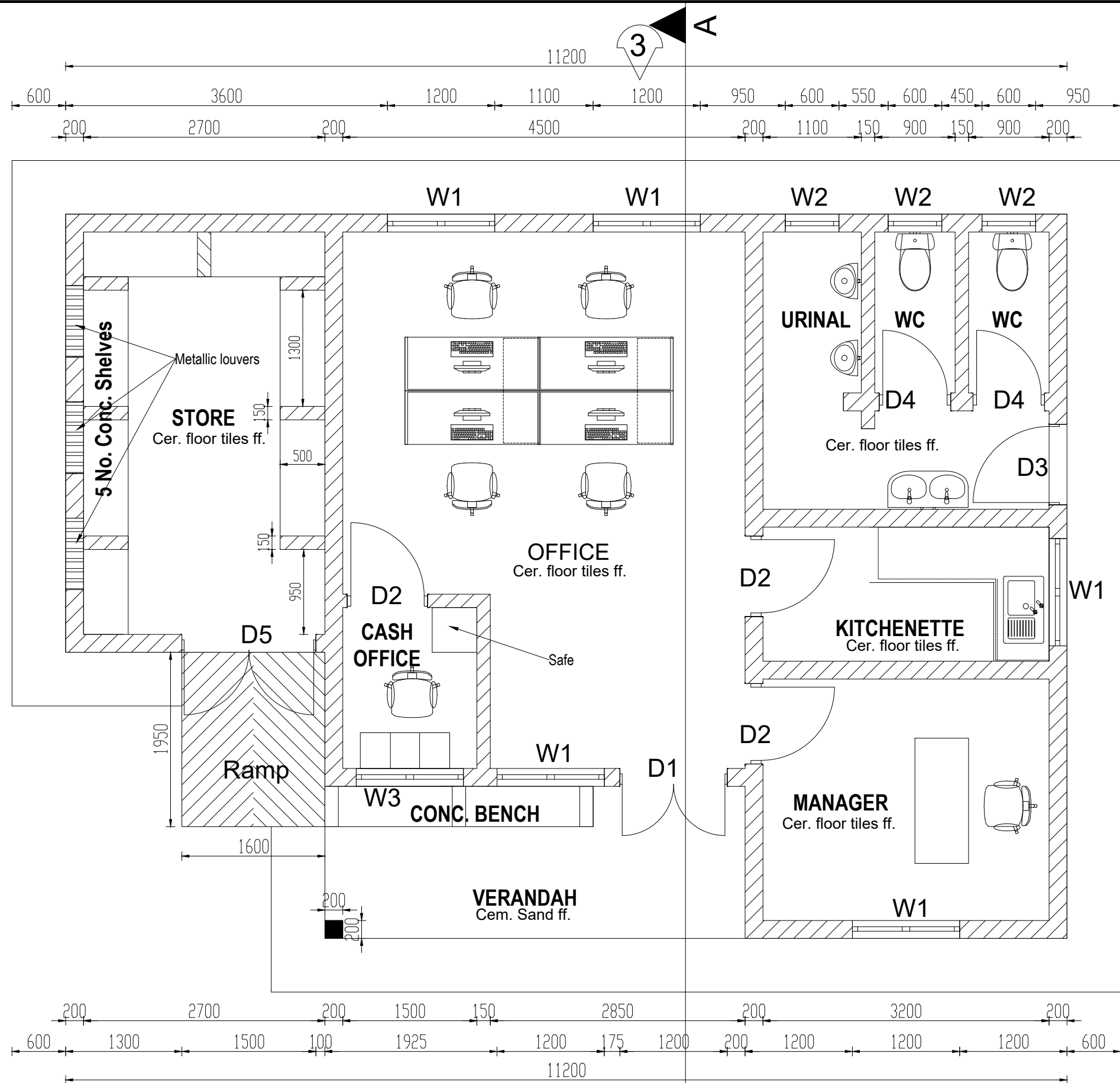
ALA-ORA-SD-015

Scale:

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Sheet No.:

1 of 1



PLAN

LEGEND

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REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Water Office

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-016
Scale:	1:50
Sheet No.:	1 of 5

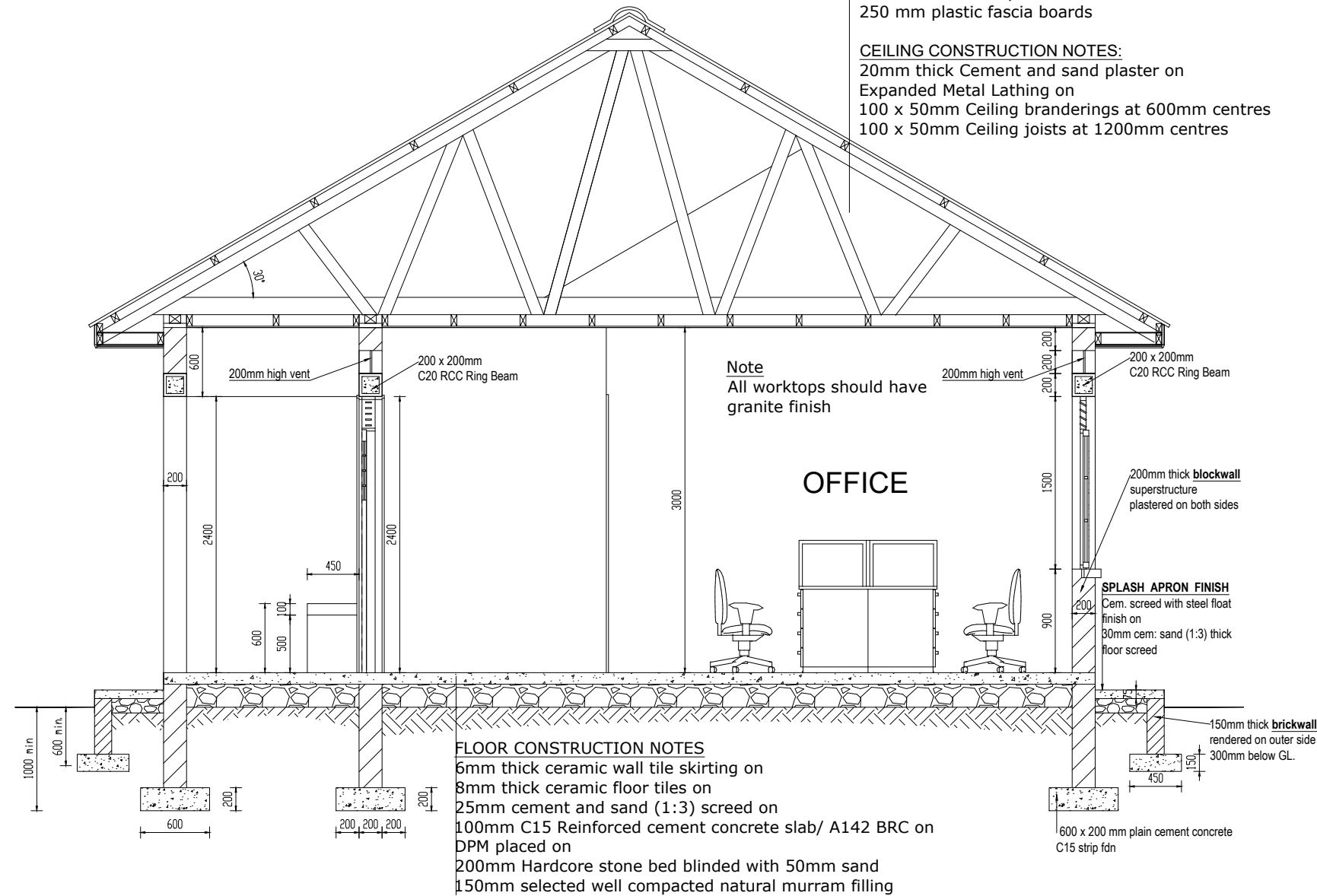
LEGEND

ROOF NOTES : pitch 25°

Fire clay ridge cap/Mangalore roofing tiles on
 50 X 25 timber battens with
 gauge 32 GI plane sheet
 Pressure treated roofing soft wood timber
 Double 100 x 50 mm timber rafters with
 100x 50mm struts & ties in truss with
 75 x 50 mm purlins on
 150 x 50mm tie beam on
 150 x 75 mm wall plate
 250 mm plastic fascia boards

CEILING CONSTRUCTION NOTES:

20mm thick Cement and sand plaster on
 Expanded Metal Lathing on
 100 x 50mm Ceiling branderings at 600mm centres
 100 x 50mm Ceiling joists at 1200mm centres



Note
 All worktops should have
 granite finish

OFFICE

FLOOR CONSTRUCTION NOTES

6mm thick ceramic wall tile skirting on
 8mm thick ceramic floor tiles on
 25mm cement and sand (1:3) screed on
 100mm C15 Reinforced cement concrete slab/ A142 BRC on
 DPM placed on
 200mm Hardcore stone bed blinded with 50mm sand
 150mm selected well compacted natural murrum filling

SECTION A-A

CLIENT :



THE REPUBLIC OF UGANDA
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 SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS
 Water Office**

Surveyed by:

R.K

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Designed by:

W.G.M

Checked by:

J.K.K

Date:

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DRG. No.:

ALA-ORA-SD-016

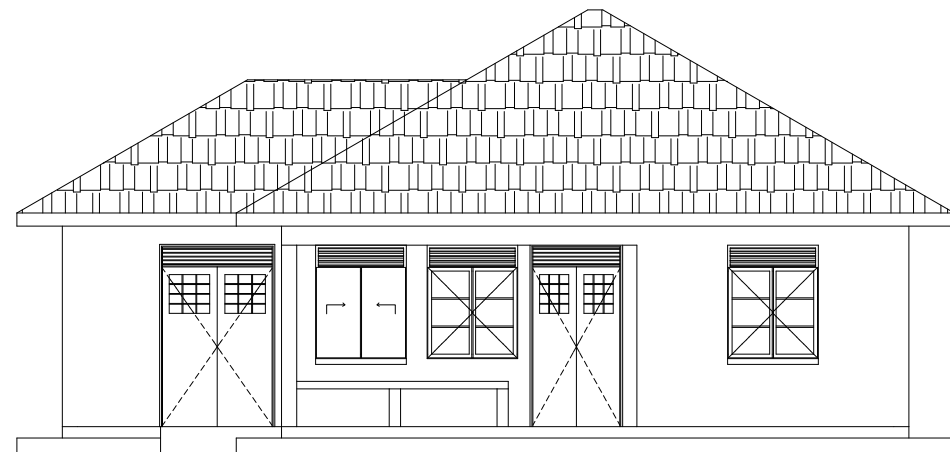
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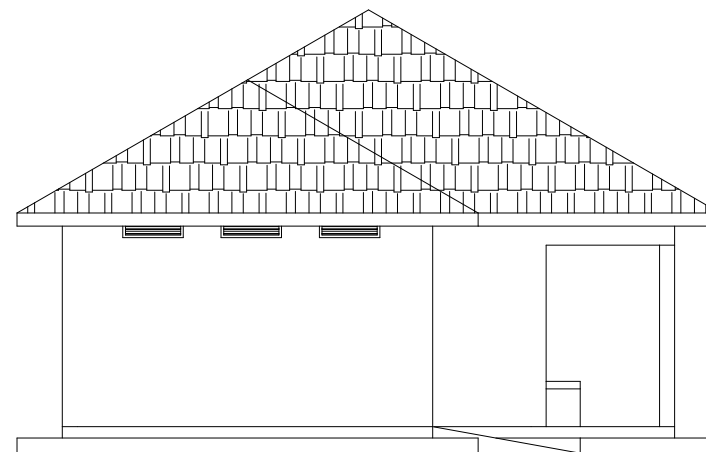
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2 of 5

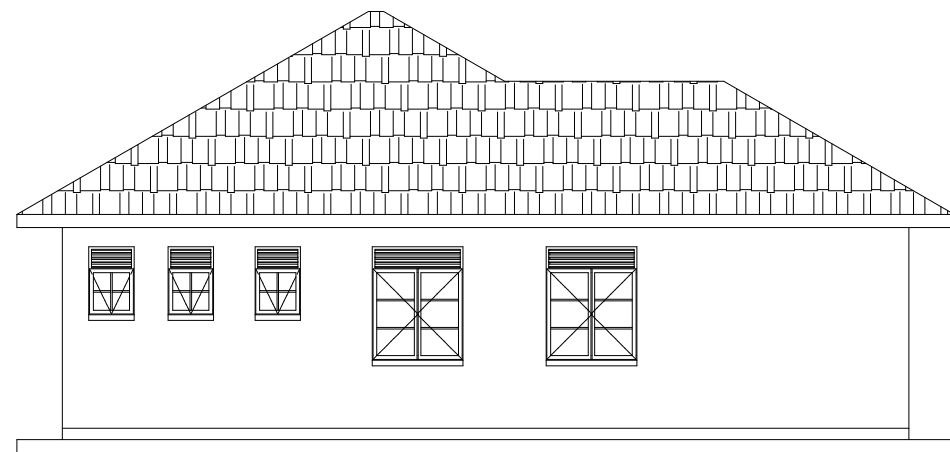
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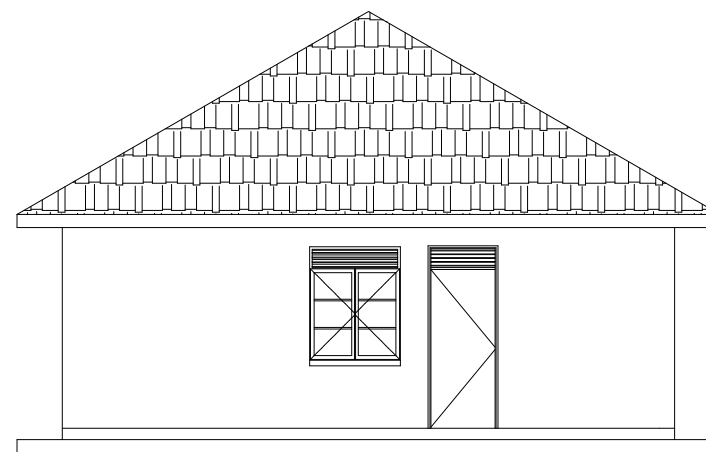
ELEVATION 1



ELEVATION 2



ELEVATION 3



ELEVATION 4

Door Schedule

Door Name	D1	D2	D3	D4	D5
Quantity	2	3	1	2	1
W x H Size	1200x2400	900x2400	900x2400	800x2400	1500x2400
Elevation View					
	Double Leaf Metallic Casement Door	Single Leaf Wooden Paneled Door	Single Leaf Half Glazed/ Half Steel plate Door	Single Leaf Wooden Paneled Door	Double Leaf Metallic Casement Door

Window Schedule

Window Name	W1	W2	W3
Quantity	5	3	1
W x H Size	1200x1500	600x900	1200 X 1500
Elevation View			
	Double Sash Glazed Metallic Casement	Top Hung Metallic Casement	Metallic Double sash sliding
NB.	<ul style="list-style-type: none"> Glass panes to be $\leq 0.2m^2$ Burglar proofing to be of a 25x3mm flat bar grille with 175x300mm pitch. Permanent Vents are to be fitted with mosquito proofing nets i.e plastic net sandwiched with coffeetray mesh. All metallic window & Door sections to be 3.0mm minimum thickness 		

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CONSULTANT : 
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PROJECT :
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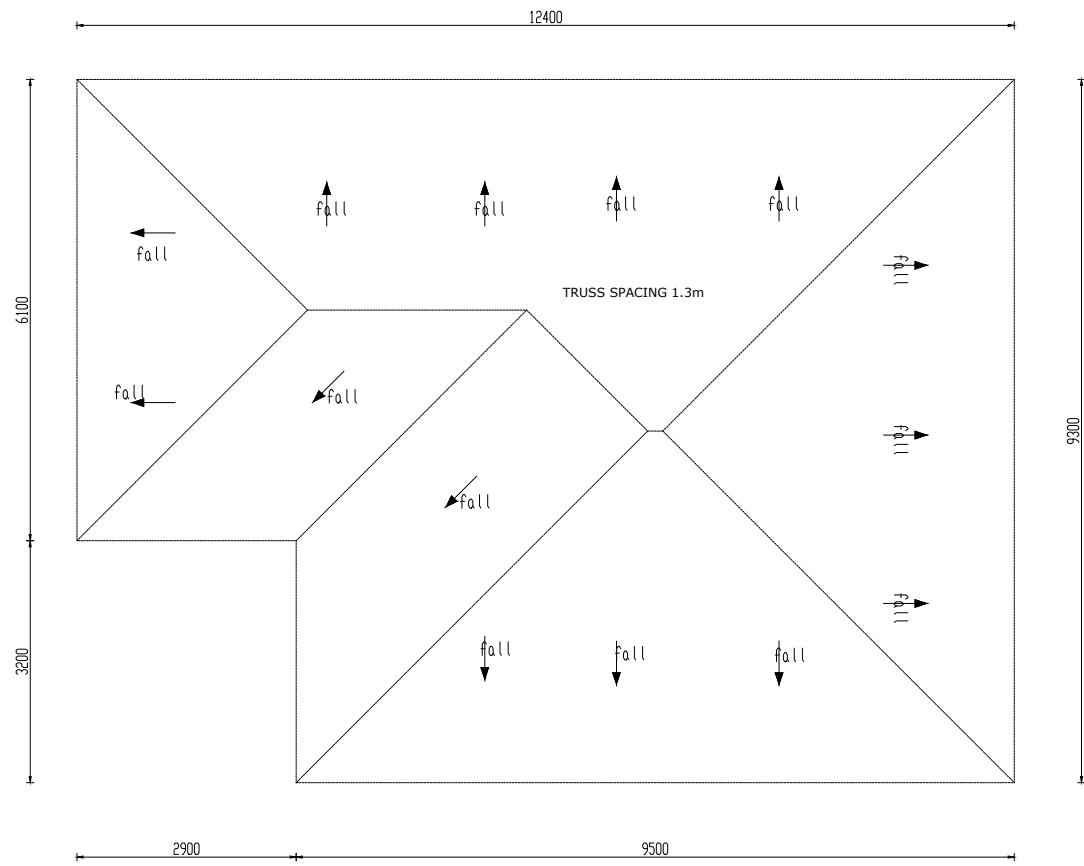
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

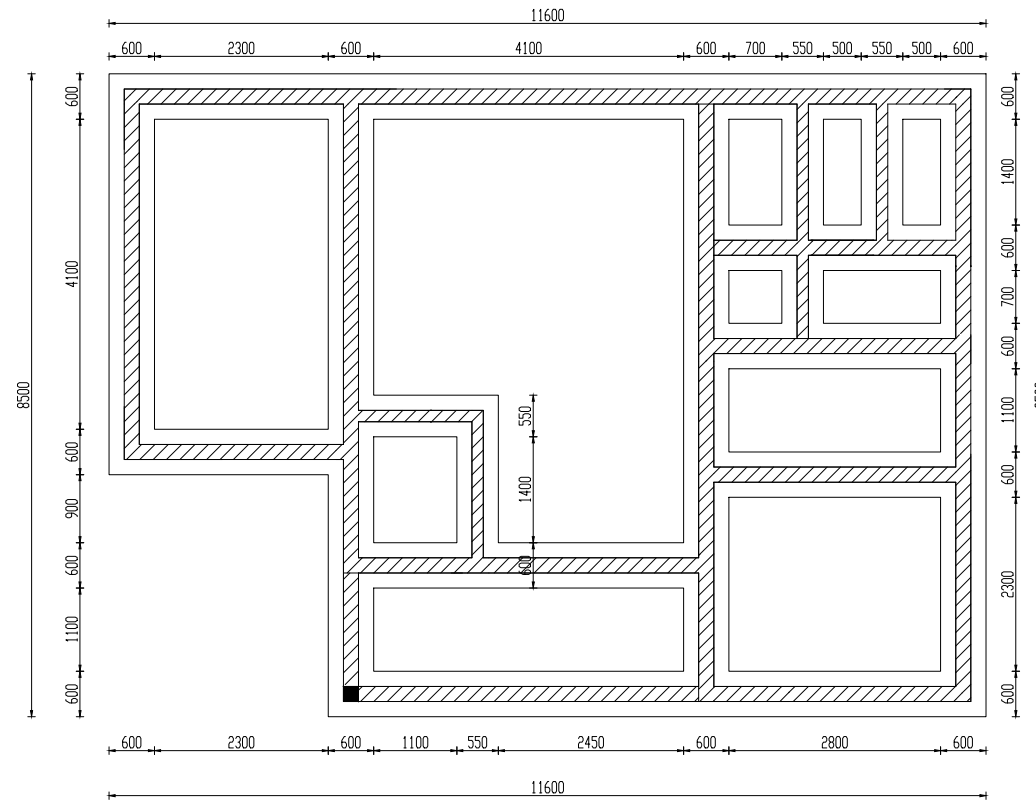
No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
 Water Office

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:100
Sheet No.:	3 of 5



ROOF LAYOUT



FOUNDATION LAYOUT

LEGEND

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SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Water Office Type 1- Foundation and Roof layout

Surveyed by:

R.K

Drawn by:

N.R

Designed by:

W.G.M

Checked by:

J.K.K

Date:

January 2023

DRG. No.:

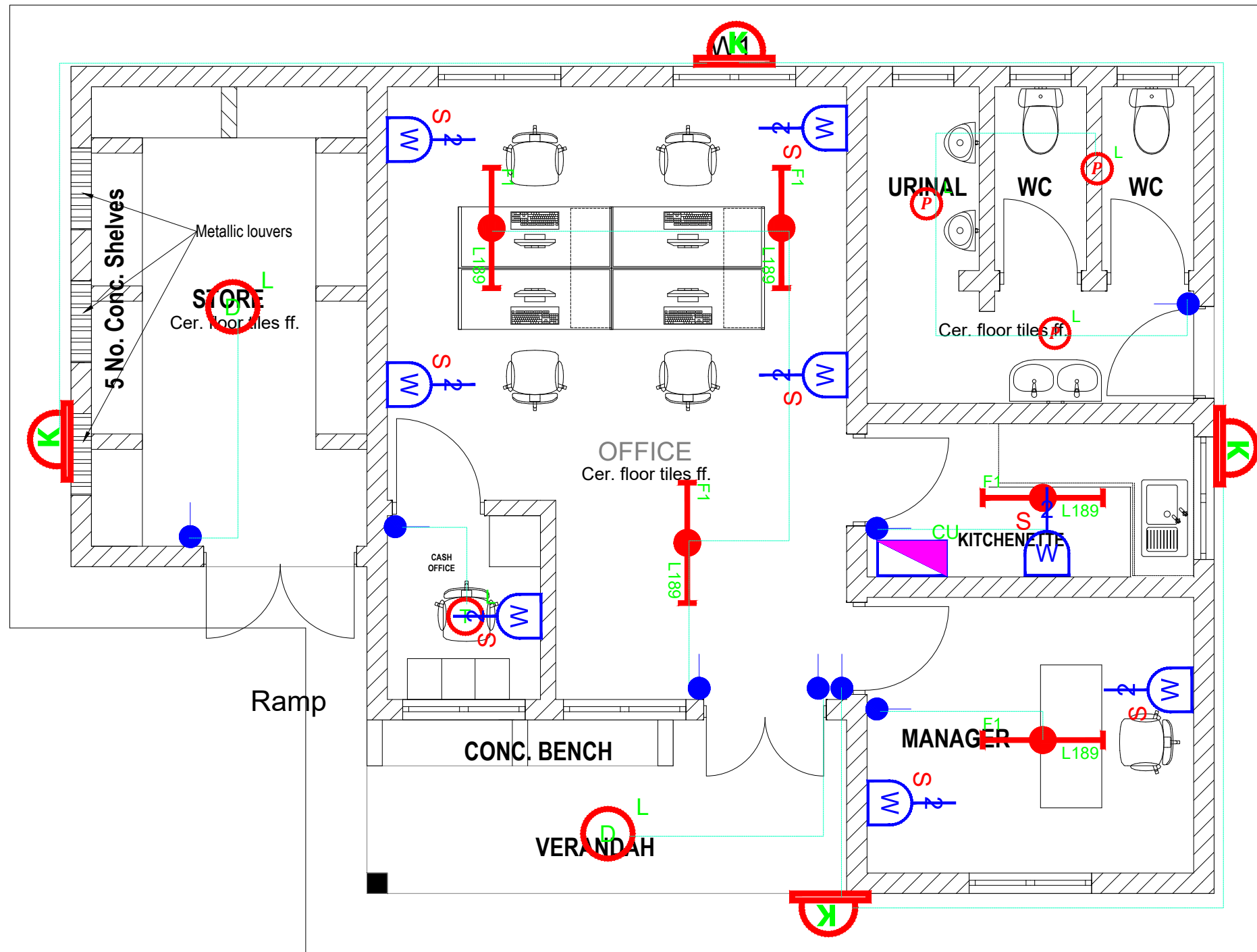
ALA-ORA-SD-016

Scale:

1:100

Sheet No.:

4 of 5



- 1). ALL WALL BRACKETS SHALL BE MOUNTED 1800mm ABOVE FINISHED FLOOR LEVEL
- 2). TELEPHONE, SOCKETS, T.V AND COMPUTER OUTLETS SHALL BE MOUNTED 300mm ABOVE FINISHED FLOOR LEVEL EXCEPT WHERE THEIR IS A WORKTOP.
- 3). WHERE THEIR IS A WORKTOP, TELEPHONE, SOCKETS, T.V AND COMPUTER OUTLETS SHALL BE MOUNTED 150mm ABOVE WORKTOPS.
- 4). CONSUMER UNITS SHALL BE 1800mm ABOVE FINISHED FLOOR LEVEL
- 5). ALL SWITCHES SHALL BE 1400mm ABOVE FINISHED FLOOR LEVEL
- 6). ALL OUTSIDE SOCKETS SHOULD BE WEATHER PROOF
- 7). ALL SHAVER SOCKETS SHOULD BE ON THE RIGHT HAND SIDE OF THE WASH HAND BASIN
- 8). ALL CABLES MUST BE STRANDED

SYMBOL	DESCRIPTION
	1200mm 18W LED batten with a removable LED engine, IP20 As Thorn PopPack LED. or equal approved. (Light Type F1)
	Pendant lighting fitting comprising ceiling Rose 300mm 3x1.5mm ² flexible copper cable lamp holder and 6W LED Lamp
	Pendant lighting fitting comprising ceiling Rose 300mm 3x1.5mm ² flexible copper cable lamp holder and 6W LED Lamp
	Pendant lighting fitting comprising ceiling Rose 300mm 3x1.5mm ² flexible copper cable lamp holder and 6W LED Lamp
	Decorative Bed side lamp complete with flexible spot light arm as LEDS-C4 BALI (05-3217-19-82 + PAN-157-BY) to client's approval.
	wall mounted light
	Socket outlet on Wall
	Consumer's Unit
	One Gang 2way Switch
	Two Gang 2way Switch
	Three Gang 2way Switch
	One Gang 1way Switch
	Two Gang 1way Switch
	Three Gang 1way Switch
	Intermediate Switch
	Photo - Cell

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

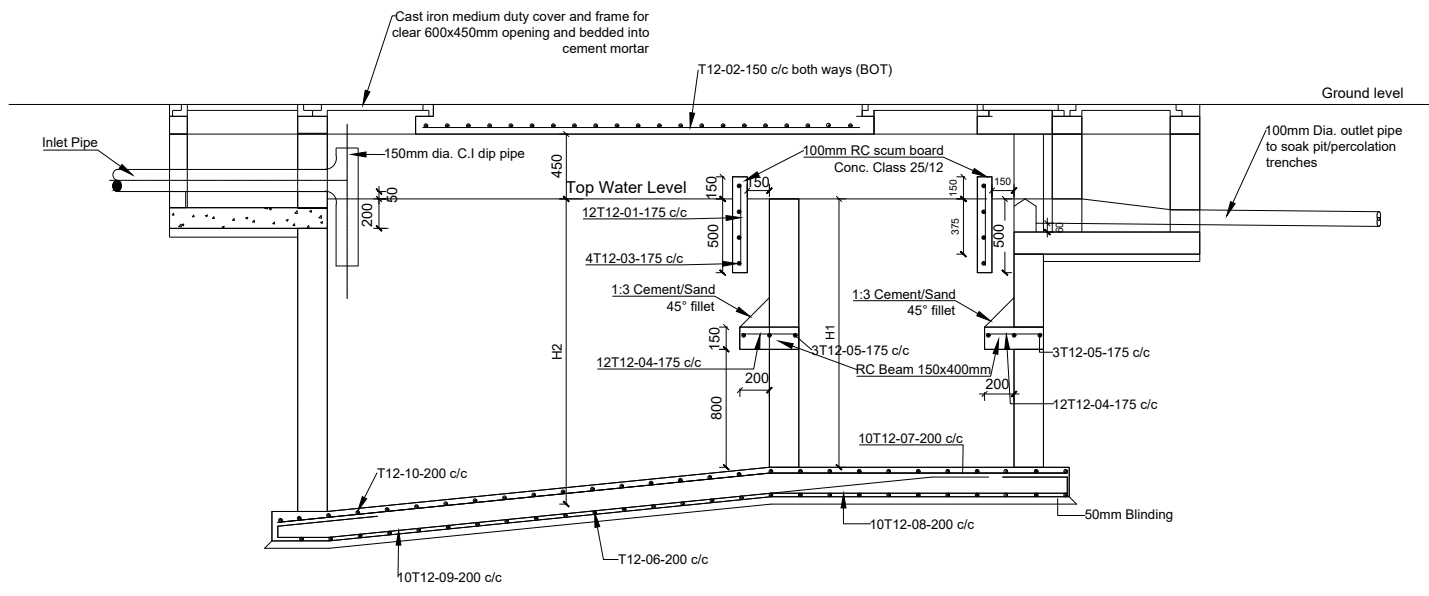
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No	Date	Description

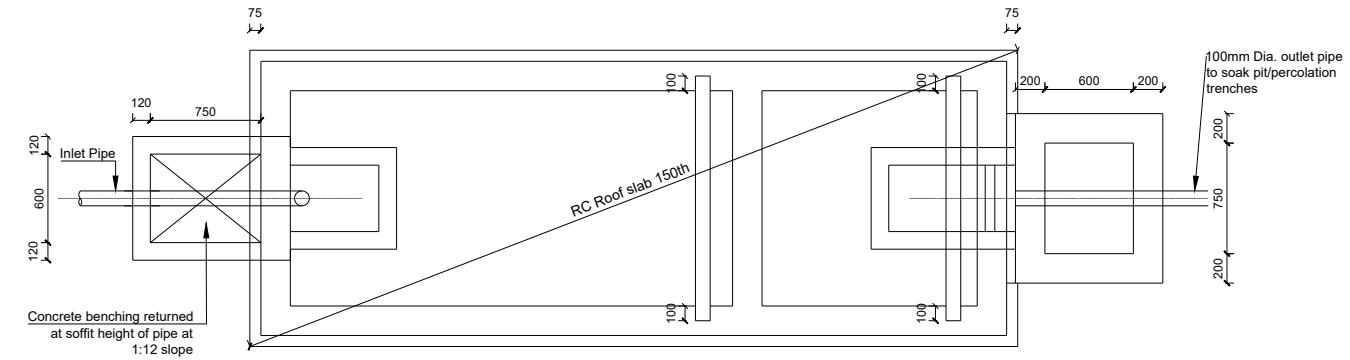
DRAWING TITLE : **STANDARD DRAWINGS**
Water Office Type 1- Foundation and Roof layout

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
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Scale:	1:50
Sheet No.:	5 of 5

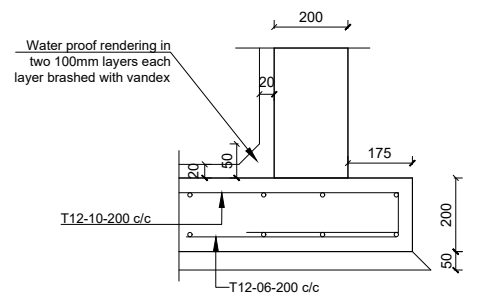
SEPTIC TANK



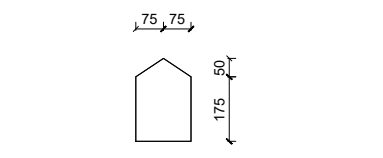
SECTION A-A



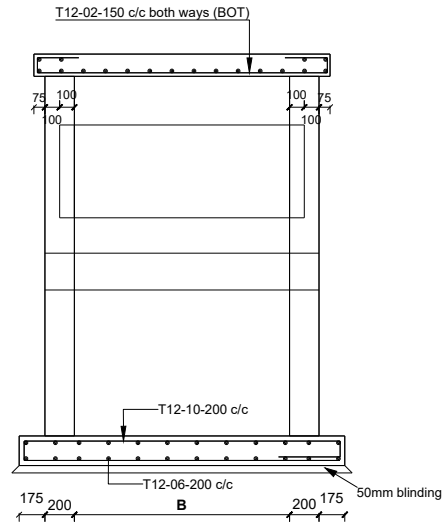
ROOF SLAB PLAN



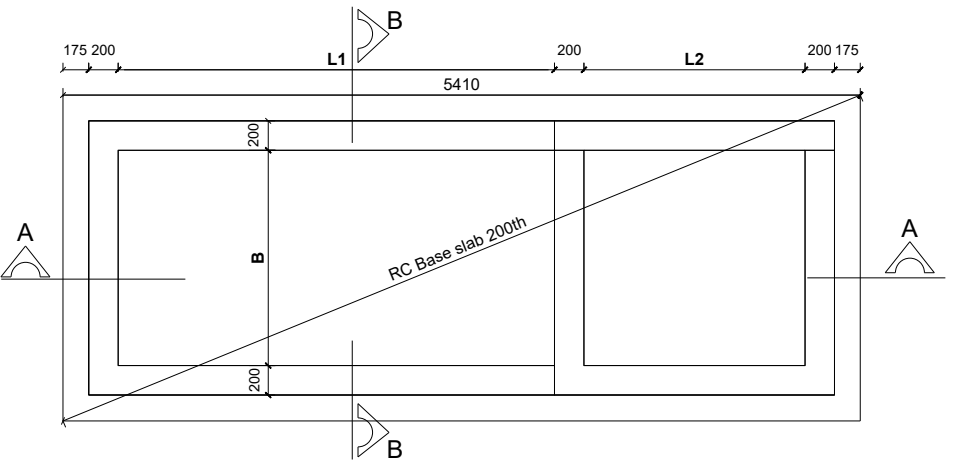
INTERNAL WATER PROOF TO WALLS AND SLABS



CONC. WEIR BLOCK DETAIL



SECTION B-B



SEPTIC TANK DIMENSIONS

INTERNAL DIMENSIONS (mm)					CAPACITY	NO. OF USERS
L1	L2	H1	H2	B	Cu. M	
1540	760	1600	1750	760	3.2	10
1900	900	1800	2000	900	4.5	20
2000	1000	1800	2000	1100	5.9	30
2400	1100	1800	2000	1150	7.24	40
2500	1200	1800	2000	1300	8.6	50
2000	1300	1800	2000	1400	10	60
2000	1400	1800	2000	1450	11.3	70
3000	1500	1800	2000	1560	12.7	80
3200	1600	1800	2000	1600	14	90
3300	1700	1800	2000	1700	15.4	100
4000	2000	1800	2000	2090	24	150
4500	2000	1800	2000	2650	34.3	200

LEGEND

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PROJECT :
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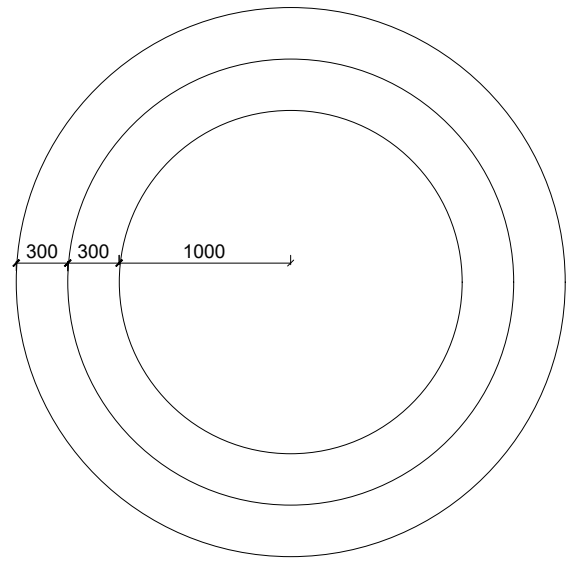
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

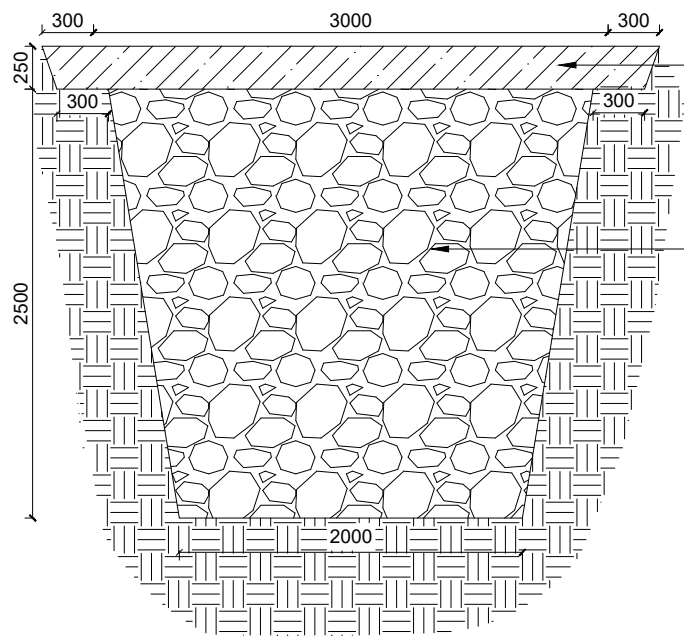
No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Septic Tank

Surveyed by: R.K
 Drawn by: N.R
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: **ALA-ORA-SD-017**
 Scale: 1:120 Sheet No.: 1 of 1



Soak Pit Plan

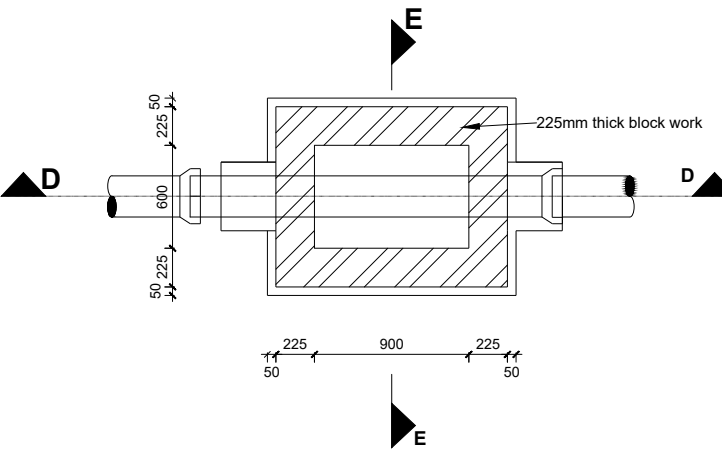
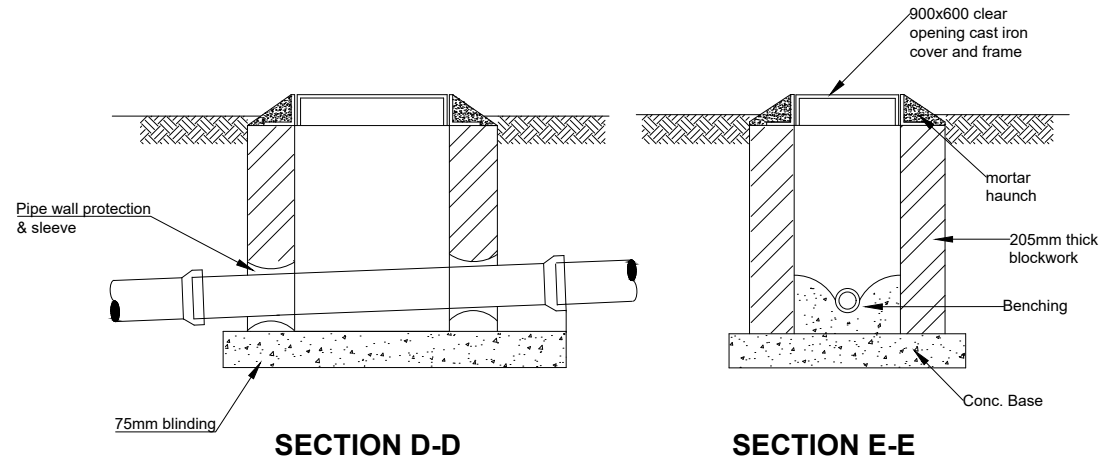


SECTION A - A

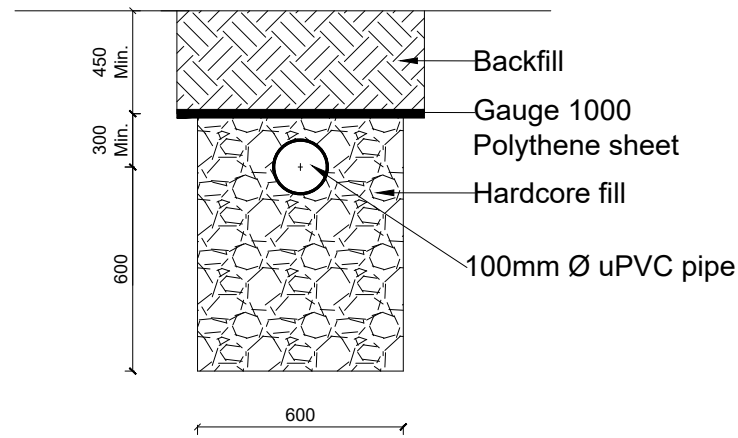
Note:
Detail for areas with sandy or red soils,
for clay or black-cotton soils appropriate
solutions to be determined on site.

Backfill with soil, on filter membrane or Polythene sheet

Loose hardcore fill



**SHALLOW MANHOLE
(DEPTH < 1000mm)**



Percolation Trench Detail

LEGEND

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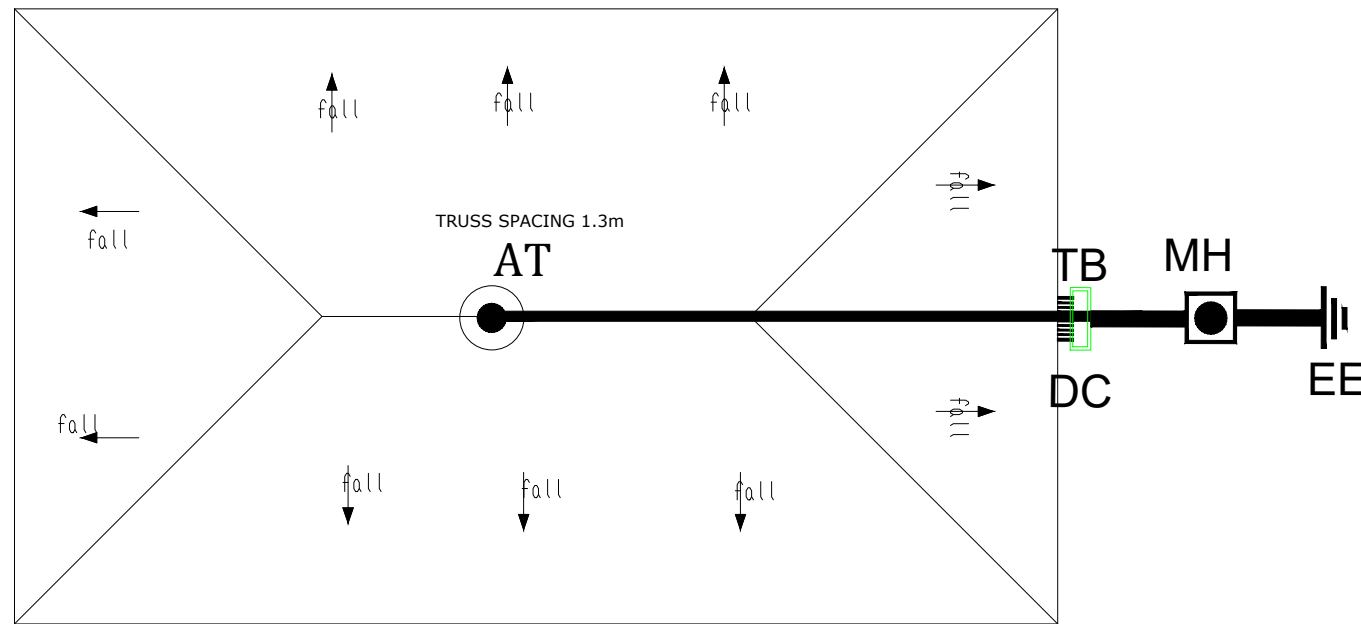
PROJECT :
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 SANITATION PROJECT
**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS
 Manhole and Soak Pit Details**

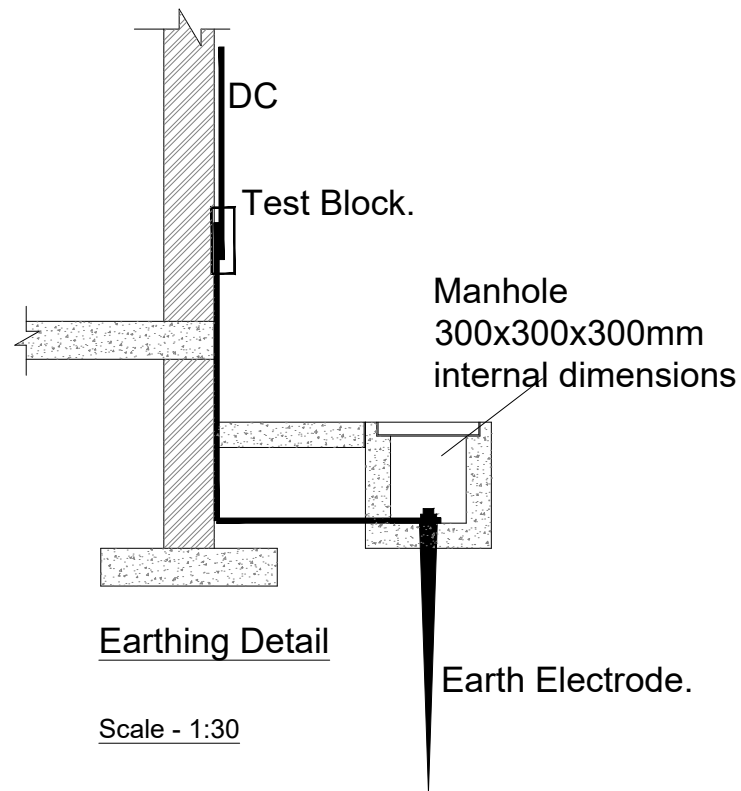
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Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-018
Scale:	1:120
Sheet No.:	1 of 1



- LEGEND**
- AT AIR TERMINAL
 - ▭ TB TEST CLAMP
 - ◻ MH INSPECTION MANHOLE
 - ≡ EE EARTH ELECTRODE
 - HC HORIZONTAL CONDUCTOR
 - DC DOWN CONDUCTOR

NOTE

Air Terminal to be placed at the highest and center point of the roof



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PROJECT :

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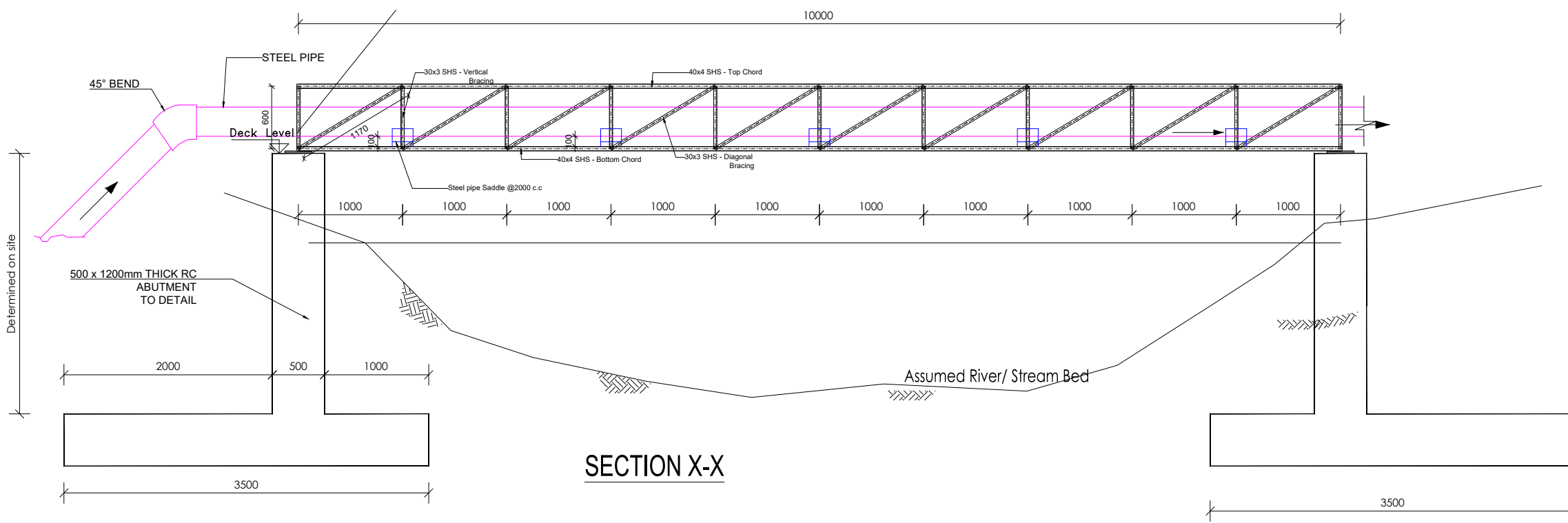
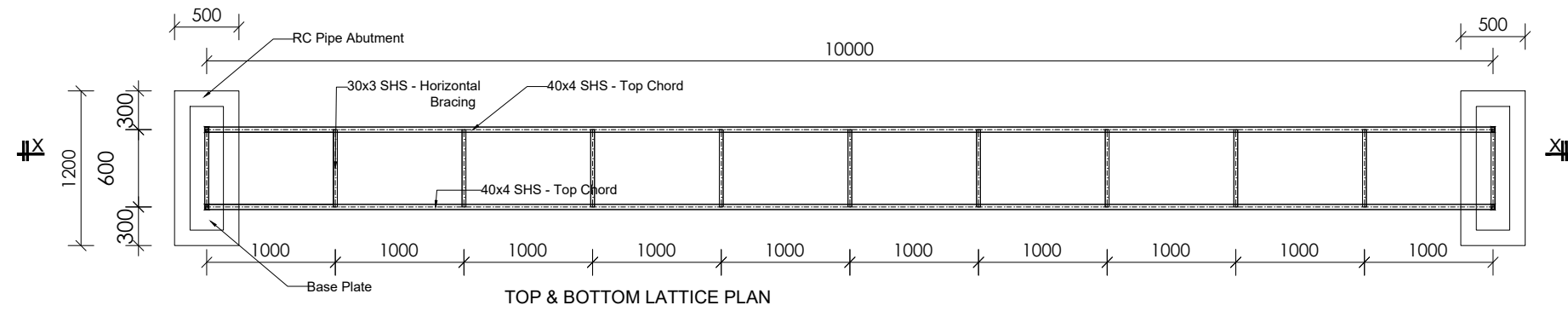
NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

No	Date	Description

DRAWING TITLE : **STANDARD DRAWINGS**
Lightning Conductor

Surveyed by:	R.K
Drawn by:	N.R
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA-SD-019
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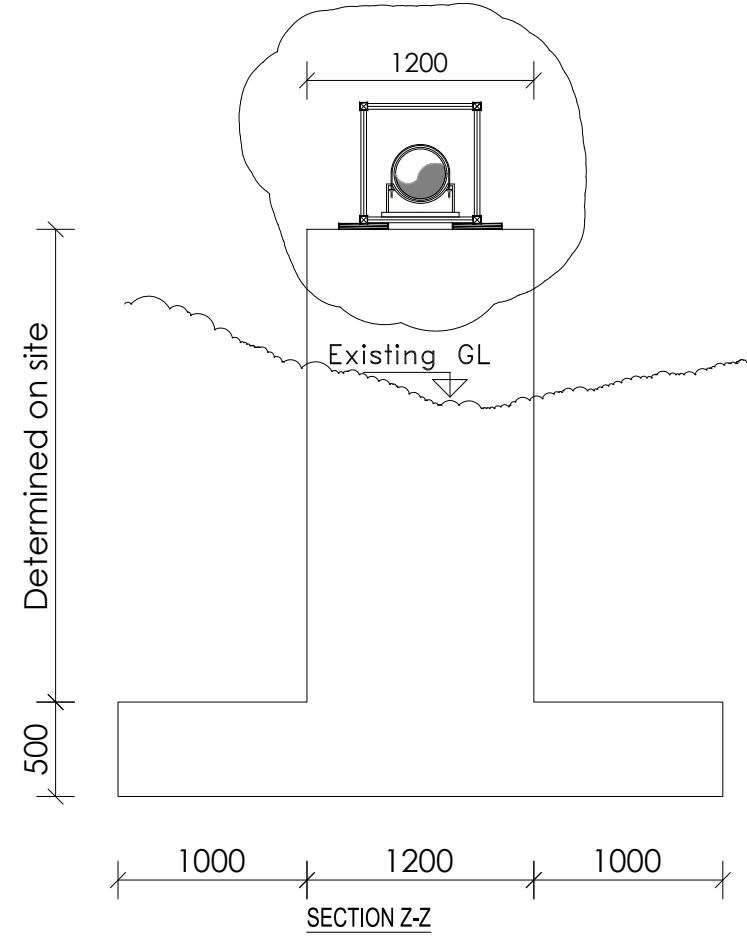
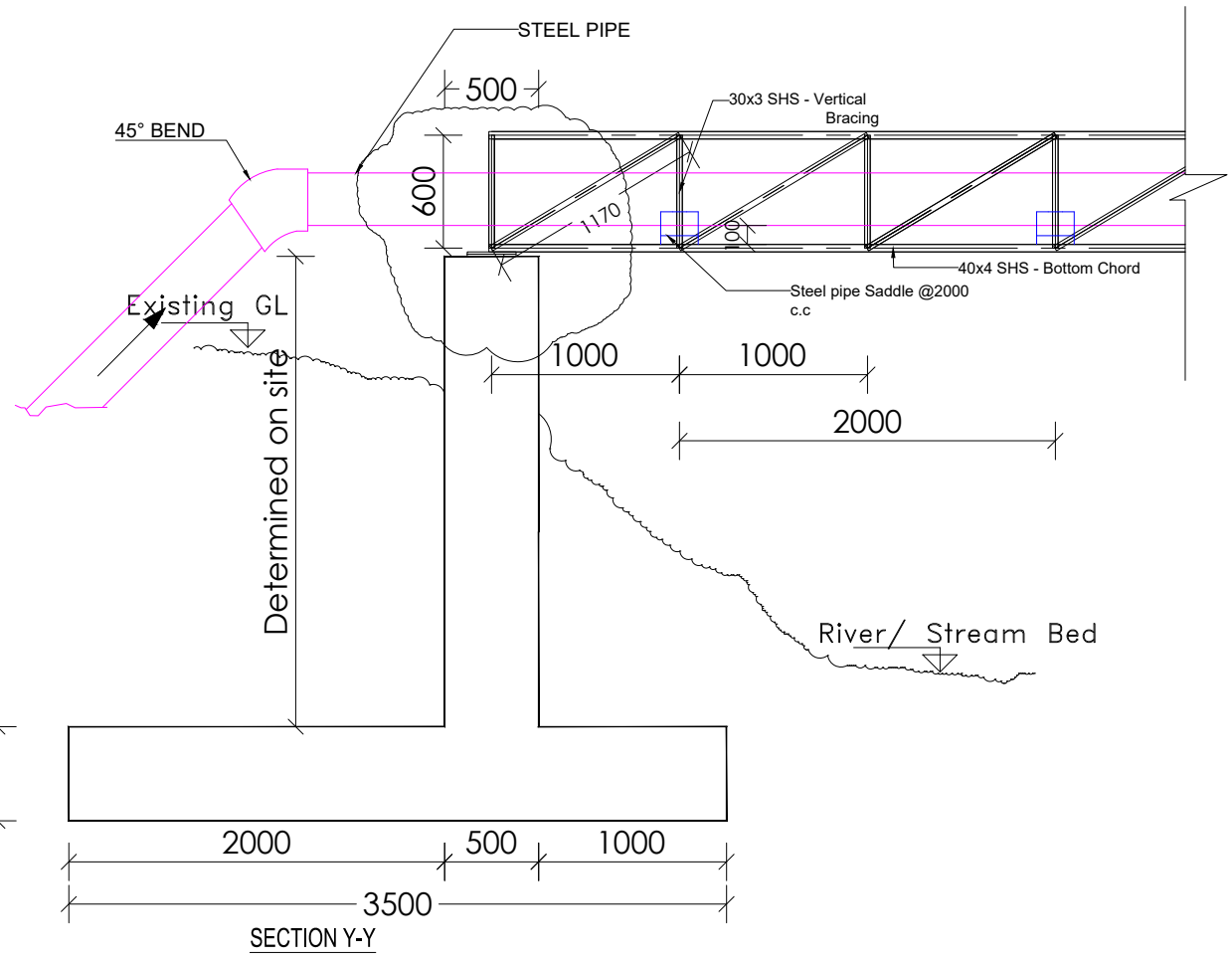
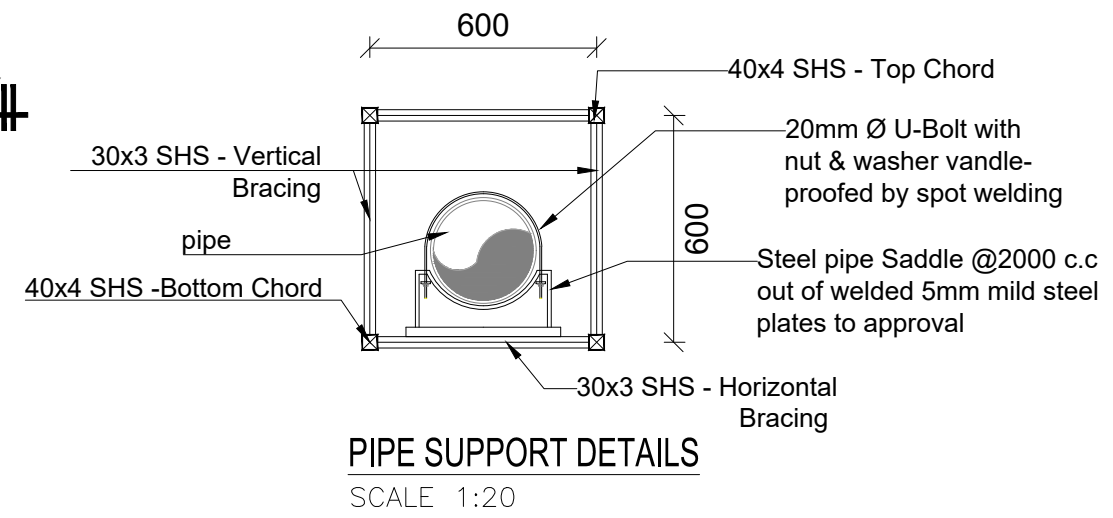
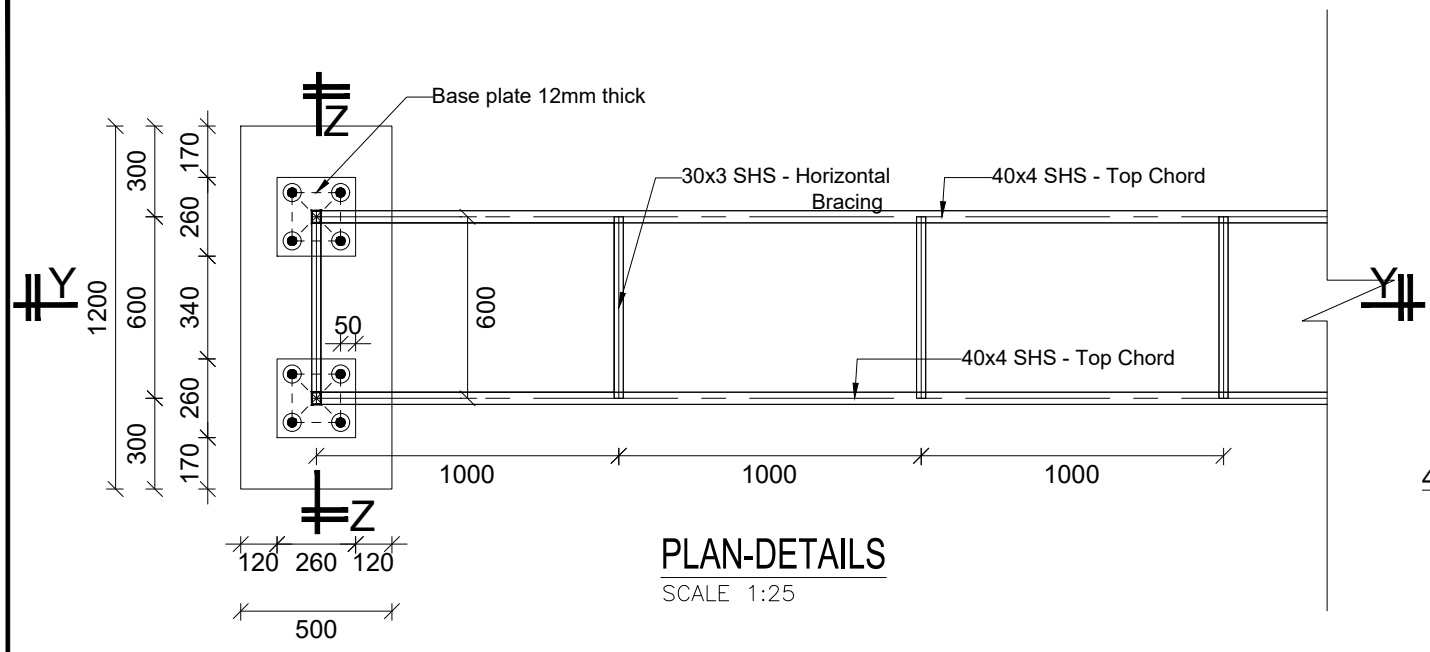
STANDARD DRAWINGS

REVISIONS :

No	Date	Description

DRAWING TITLE : **PIPE BRIDGES-10m**
Plan and Elevation

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-020
Scale:	1:50
Sheet No.:	1 of 3



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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

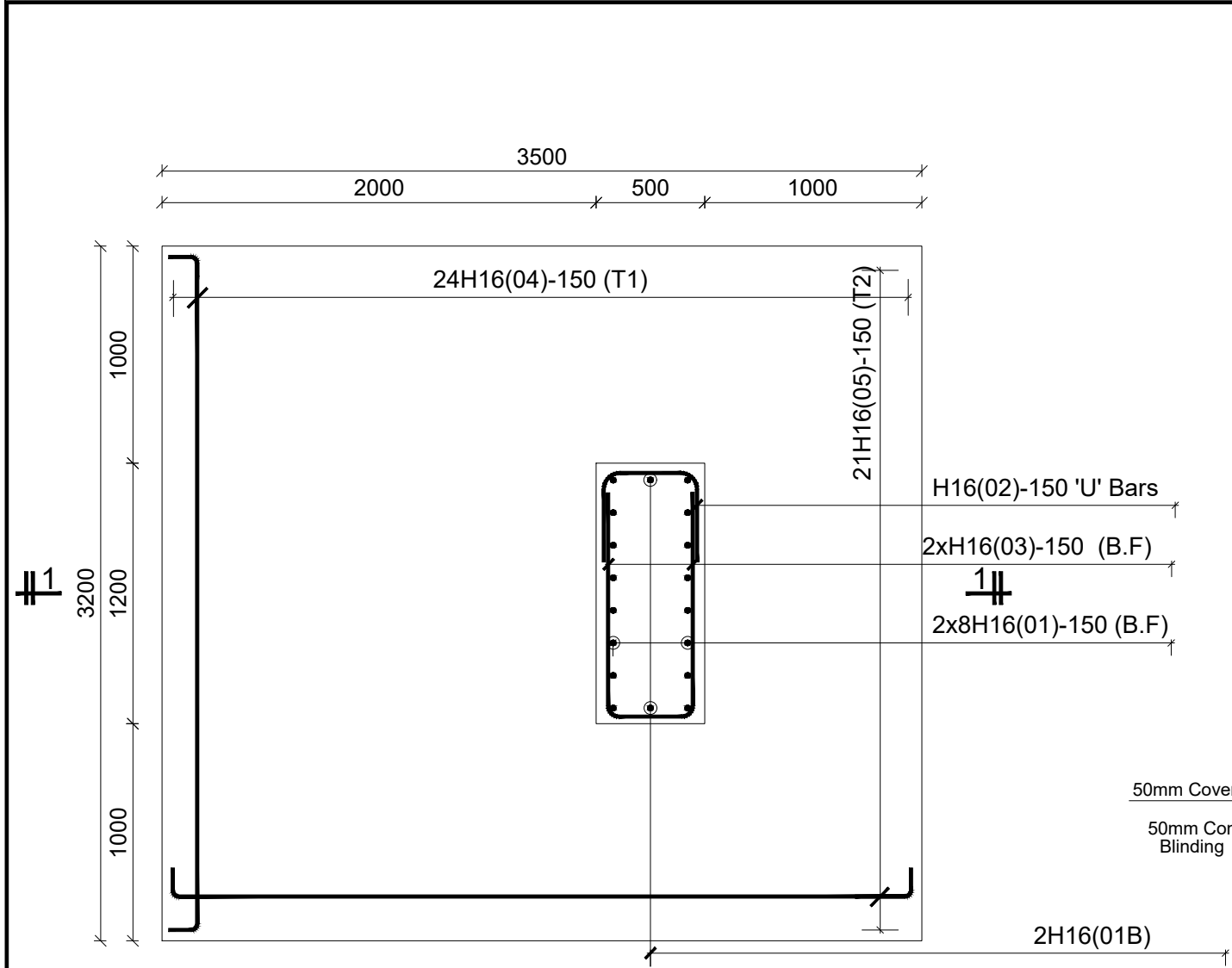
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REVISIONS :

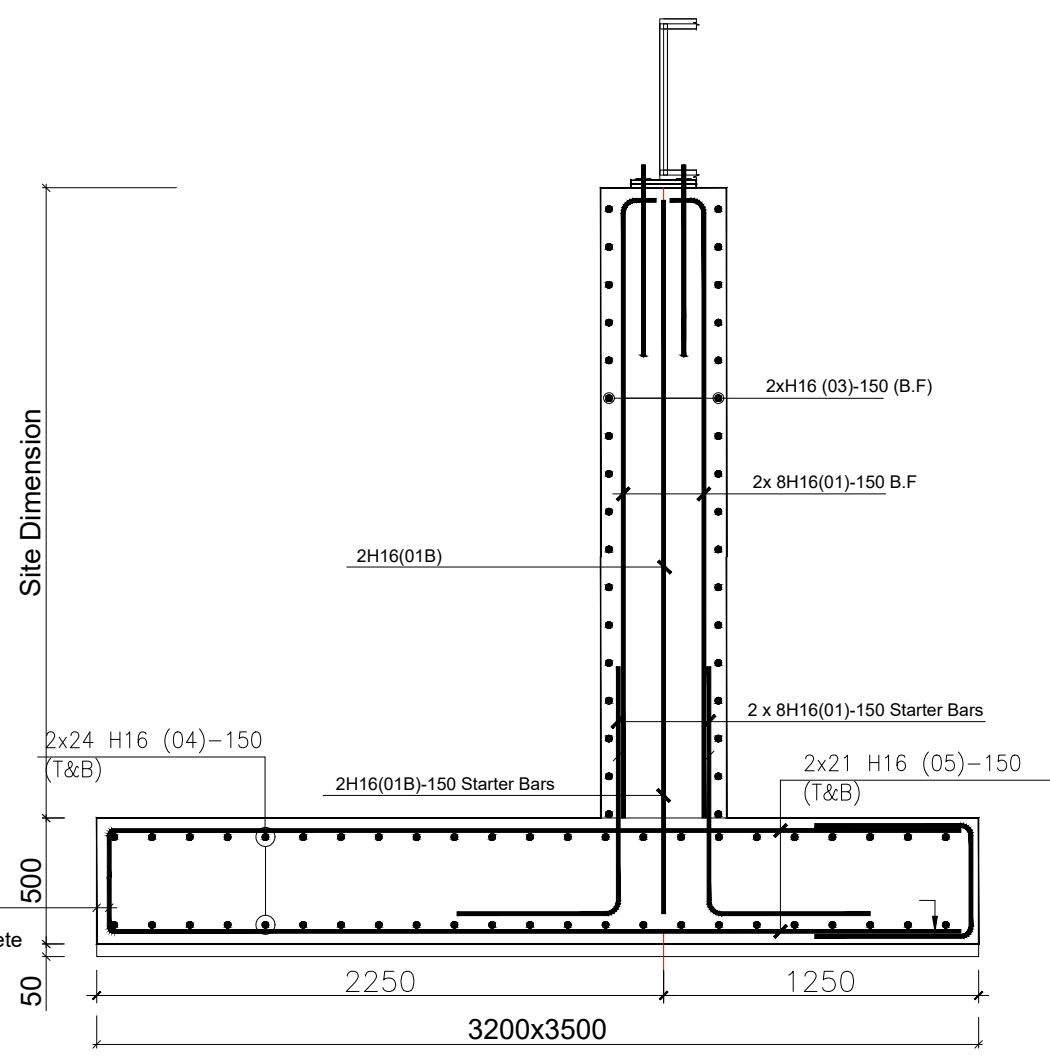
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Details

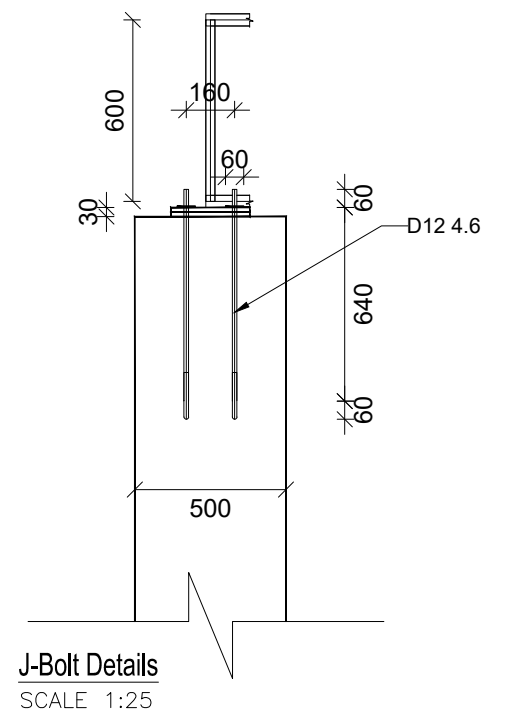
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 Drawn by: A.K
 Designed by: B.A
 Checked by: J.K.K
 Date: March 2023
 DRG. No.: **ALA-ORA-SD-020**
 Scale: 1:40 Sheet No.: 2 of 3



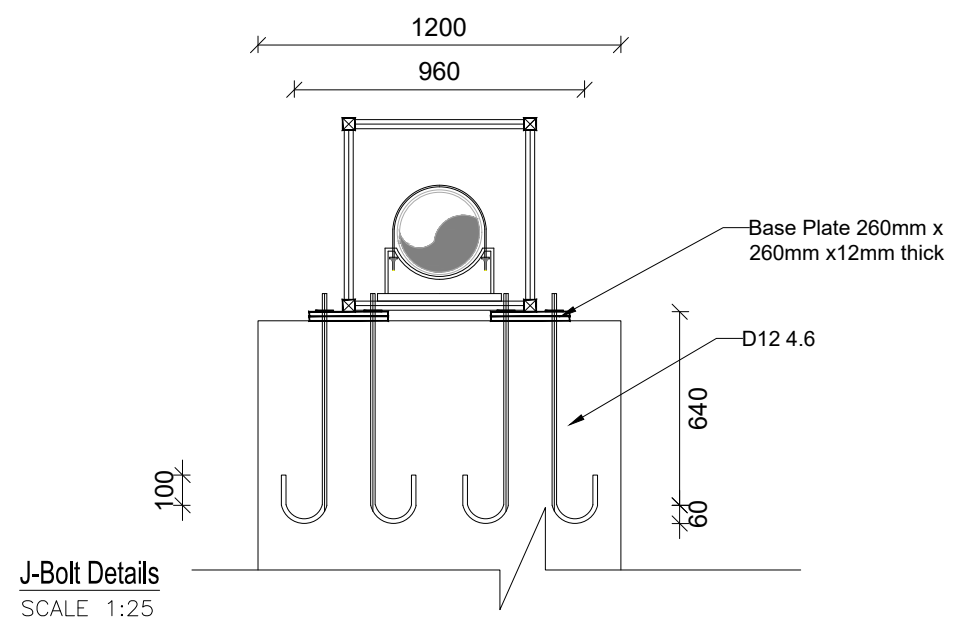
RC PIPE BRIDGE ABUTMENT (2No.) [3500X3200x500]



RC PIPE BRIDGE ABUTMENT SECTION 1-1



J-Bolt Details
SCALE 1:25



J-Bolt Details
SCALE 1:25

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STANDARD DRAWINGS

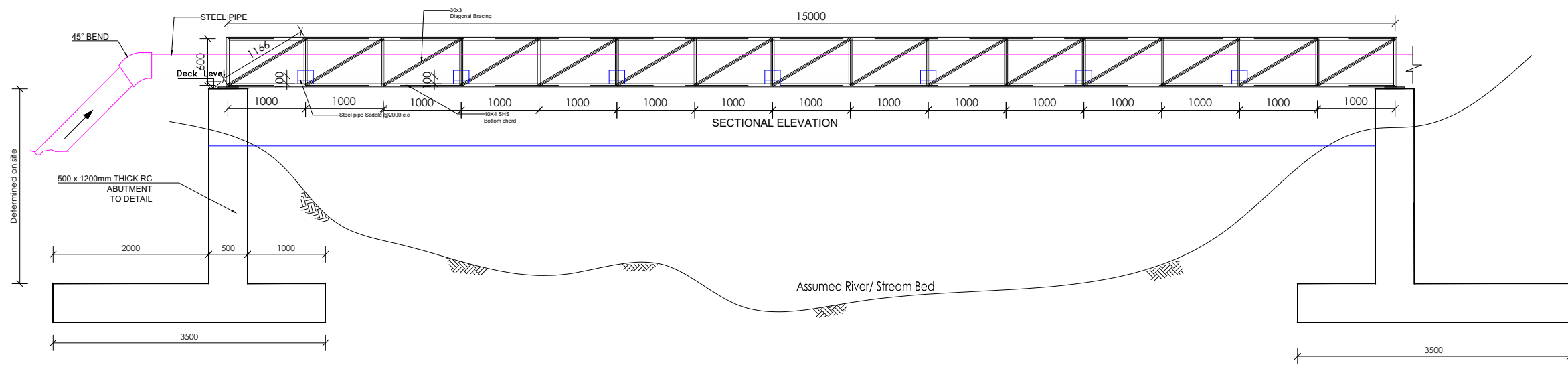
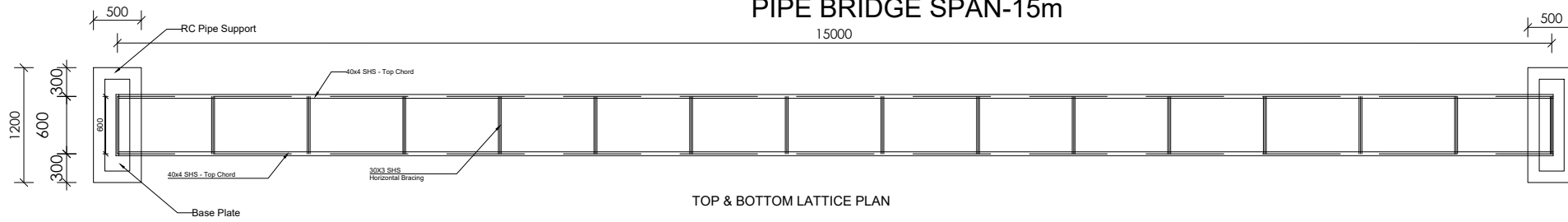
REVISIONS :

No	Date	Description

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Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-020
Scale:	1:30
Sheet No.:	3 of 3

PIPE BRIDGE SPAN-15m




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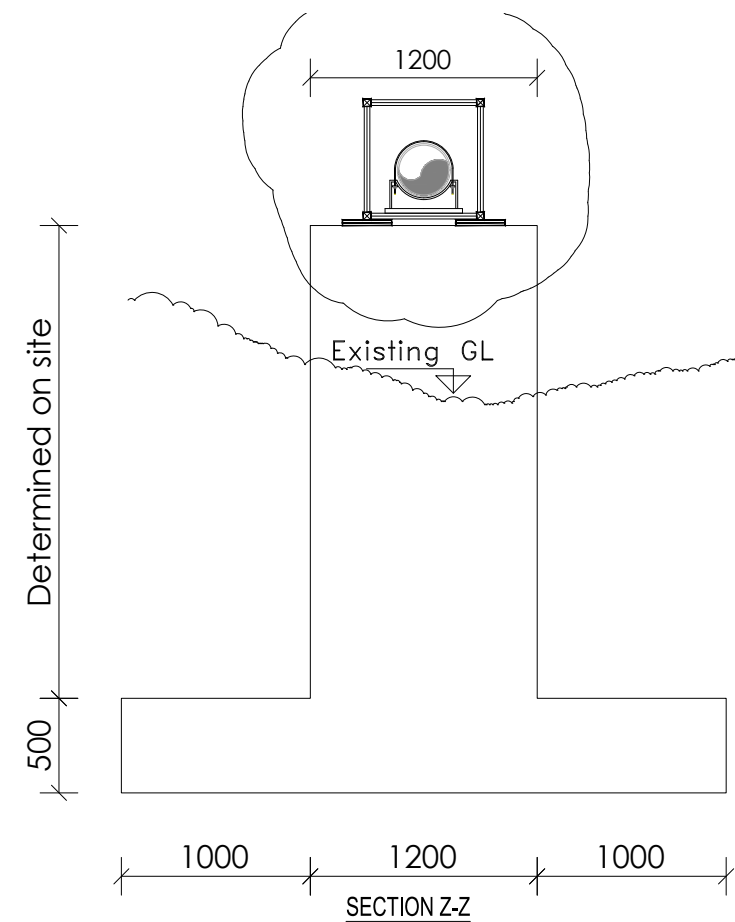
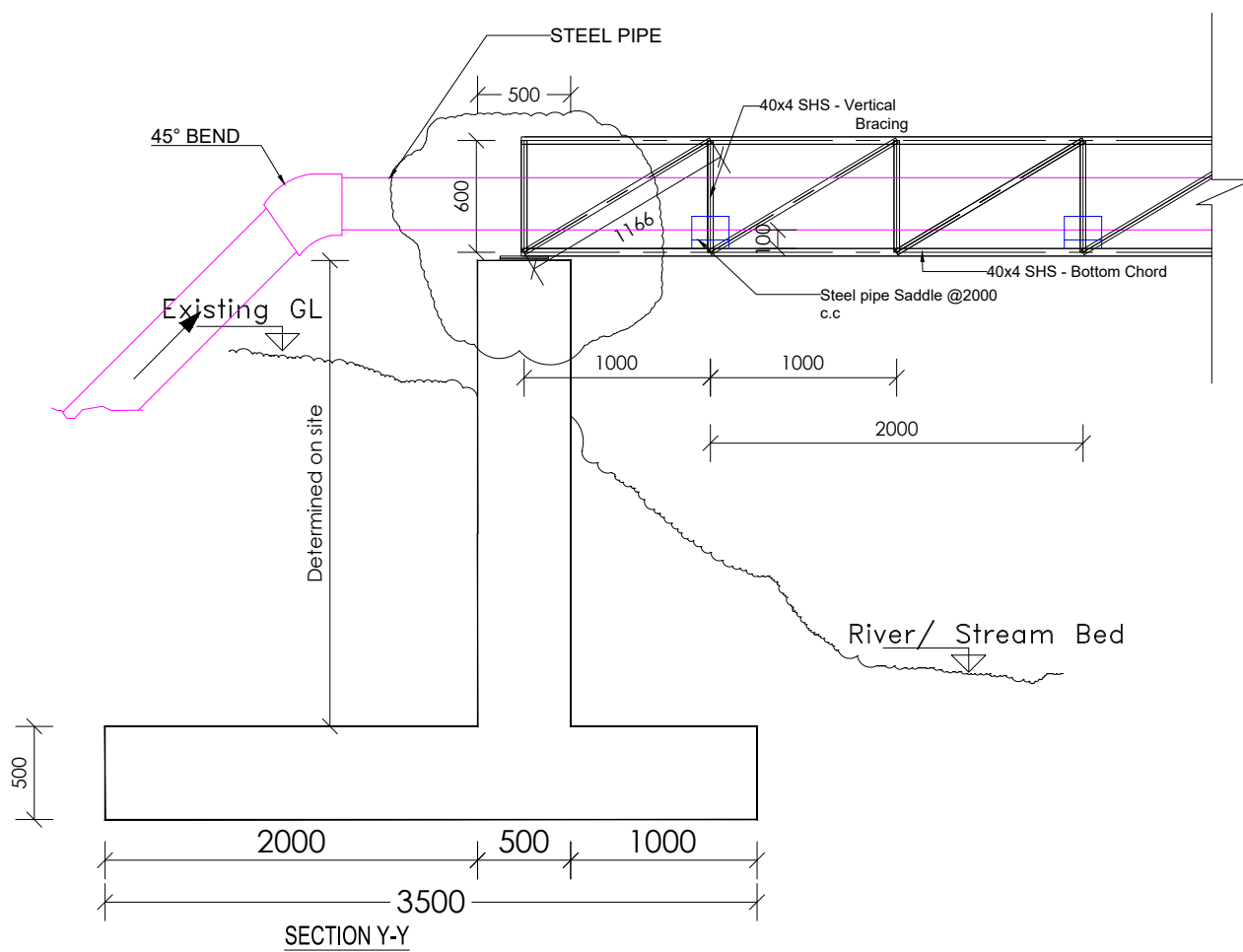
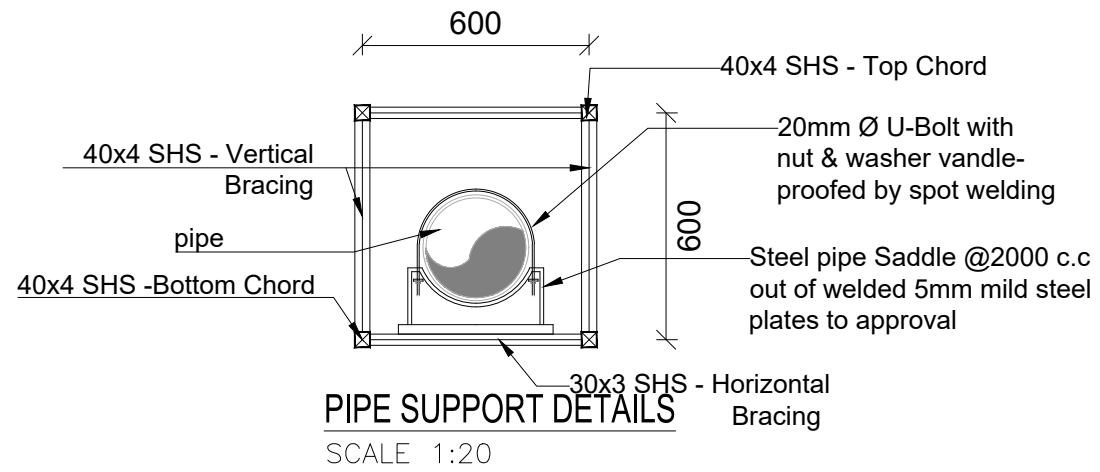
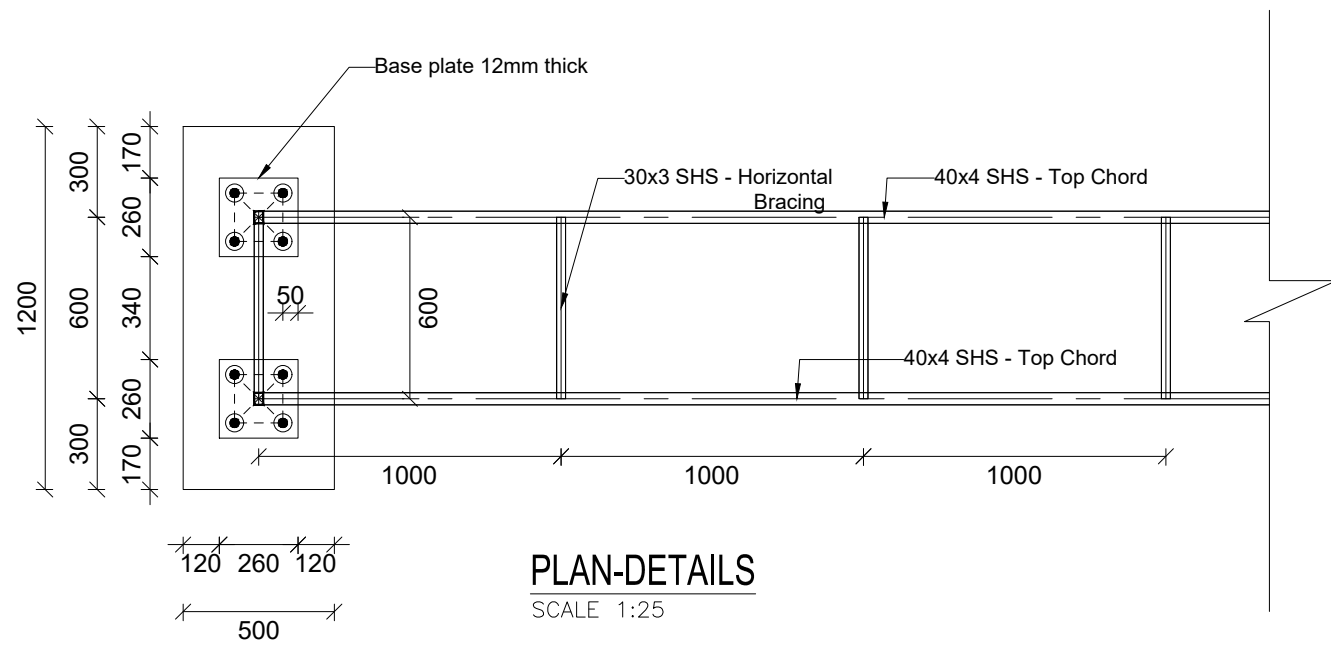
STANDARD DRAWINGS

REVISIONS :

No	Date	Description

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Plan and Elevation

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
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Date:	March 2023
DRG. No.:	ALA-ORA-SD-021
Scale:	1:65
Sheet No.:	1 of 3



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STANDARD DRAWINGS

REVISIONS :

No	Date	Description

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Drawn by: A.K

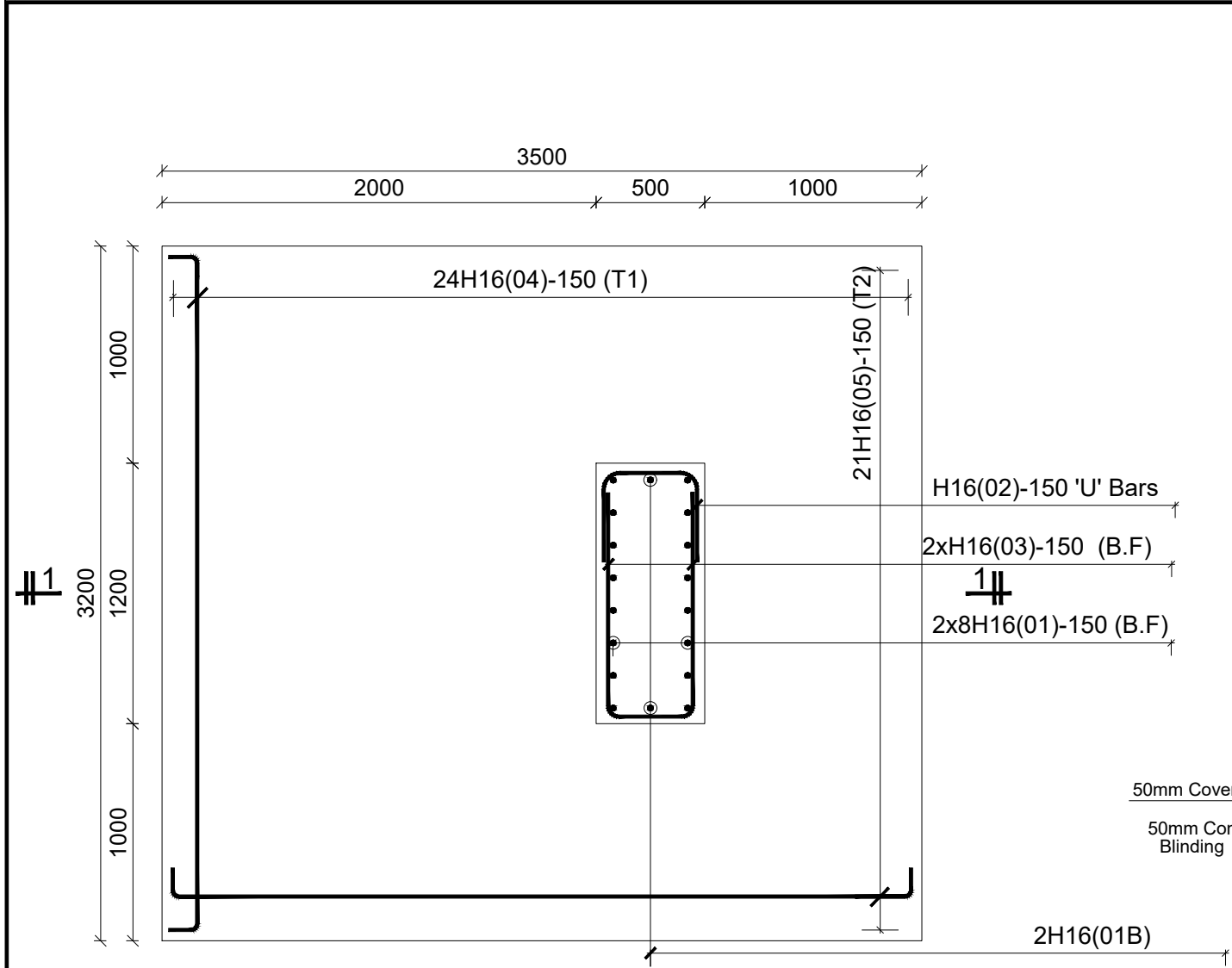
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Checked by: J.K.K

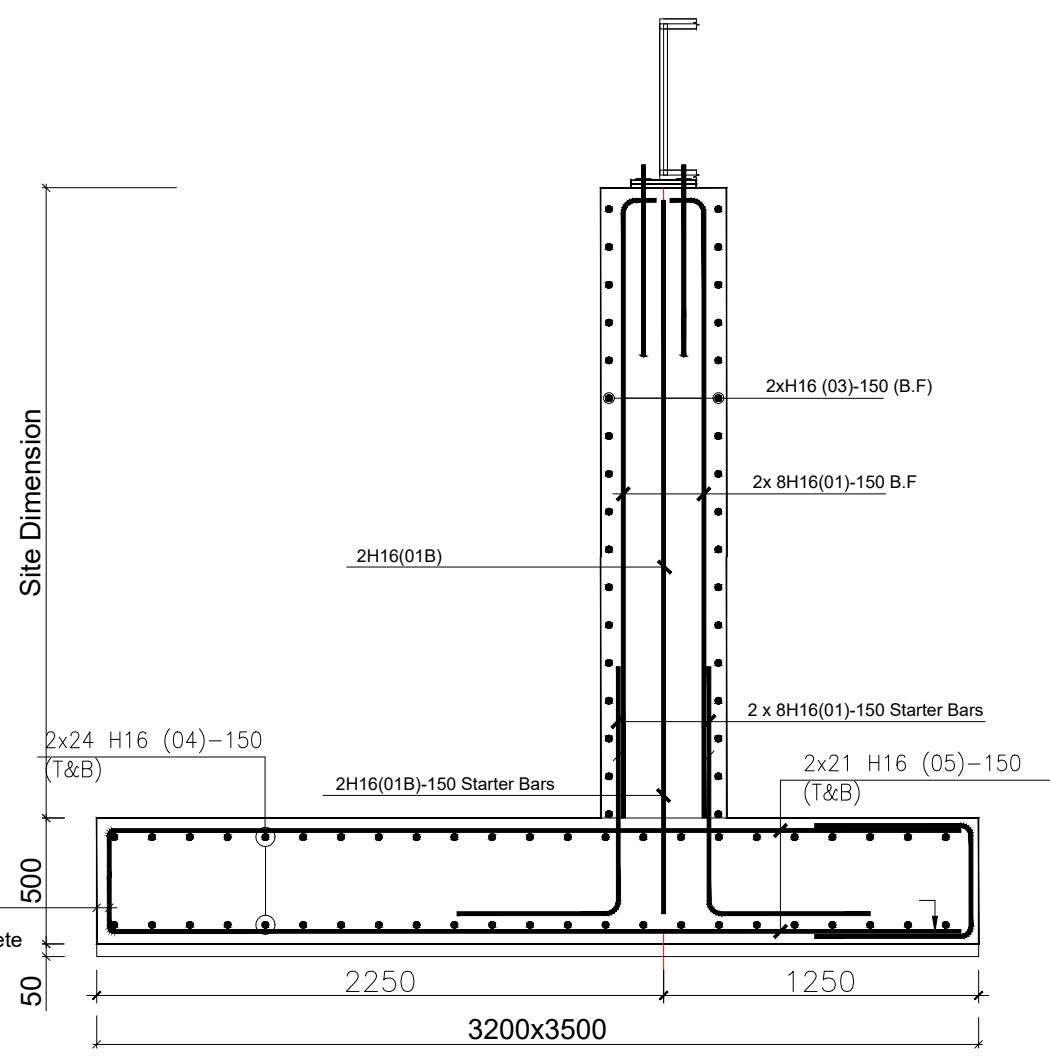
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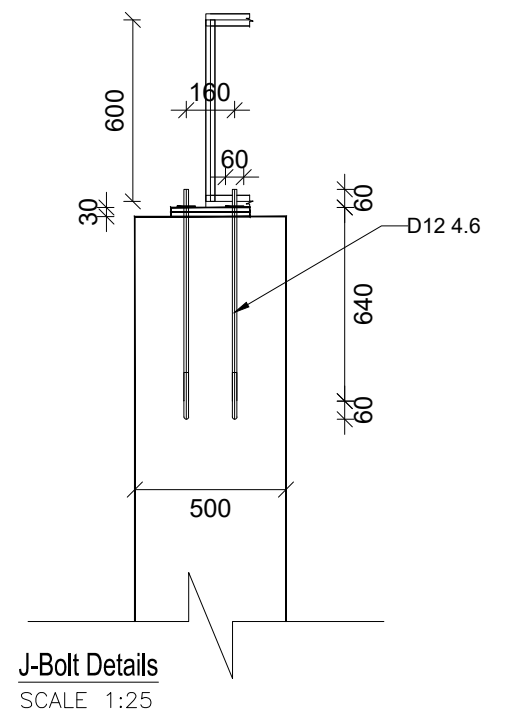
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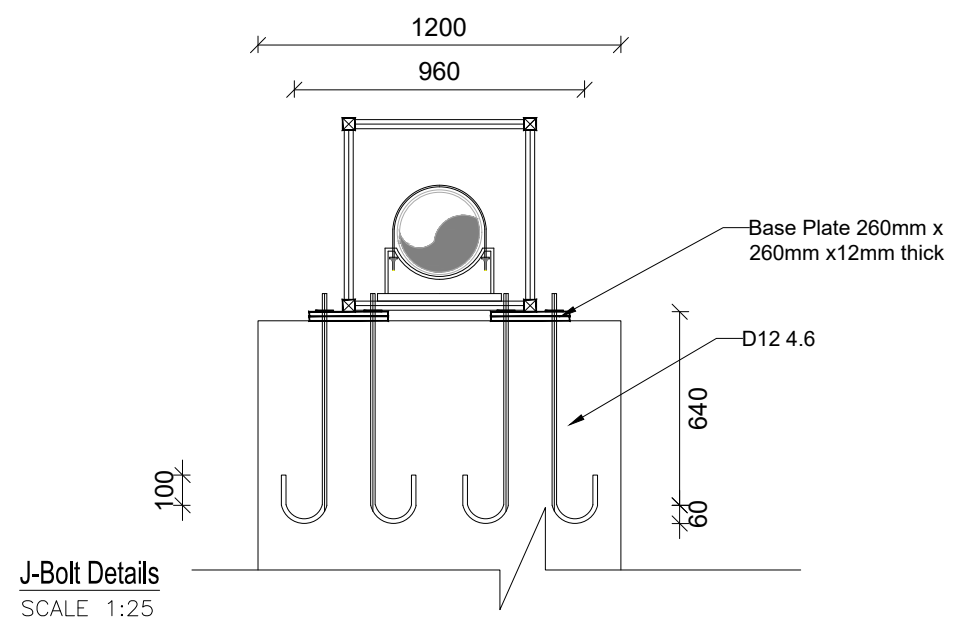
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RC PIPE BRIDGE ABUTMENT SECTION 1-1



J-Bolt Details
SCALE 1:25



J-Bolt Details
SCALE 1:25

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STANDARD DRAWINGS

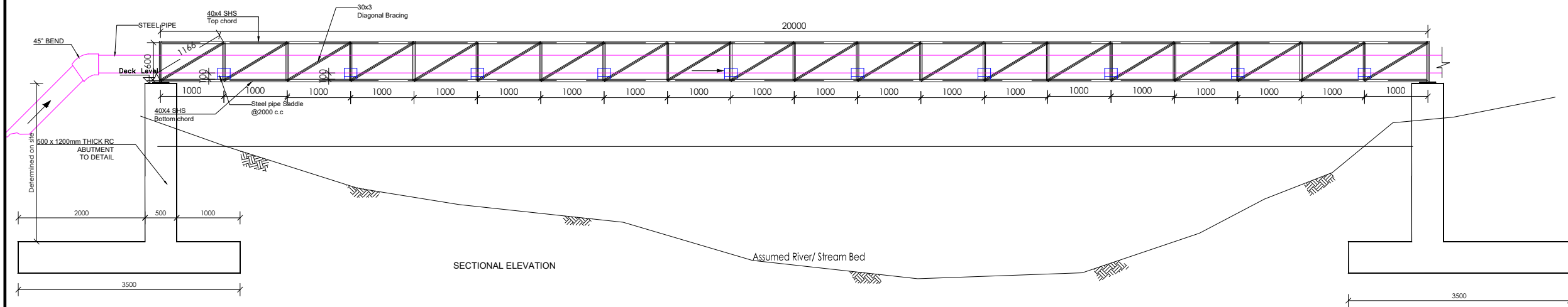
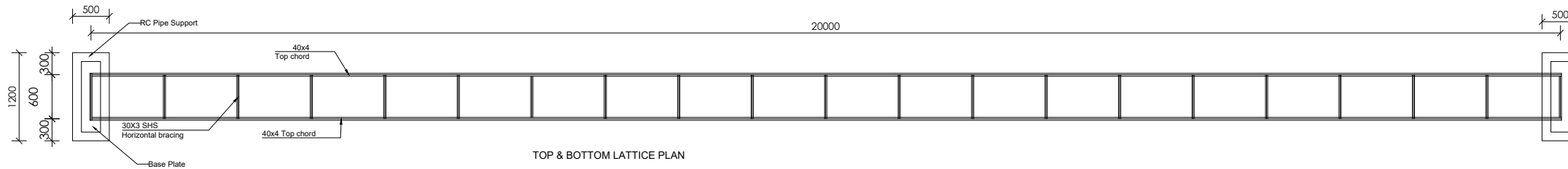
REVISIONS :

No	Date	Description

DRAWING TITLE : **PIPE BRIDGES-15m
 Reinforcement Details**

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-021
Scale:	1:30
Sheet No.:	3 of 3

PIPE BRIDGE SPAN-20m



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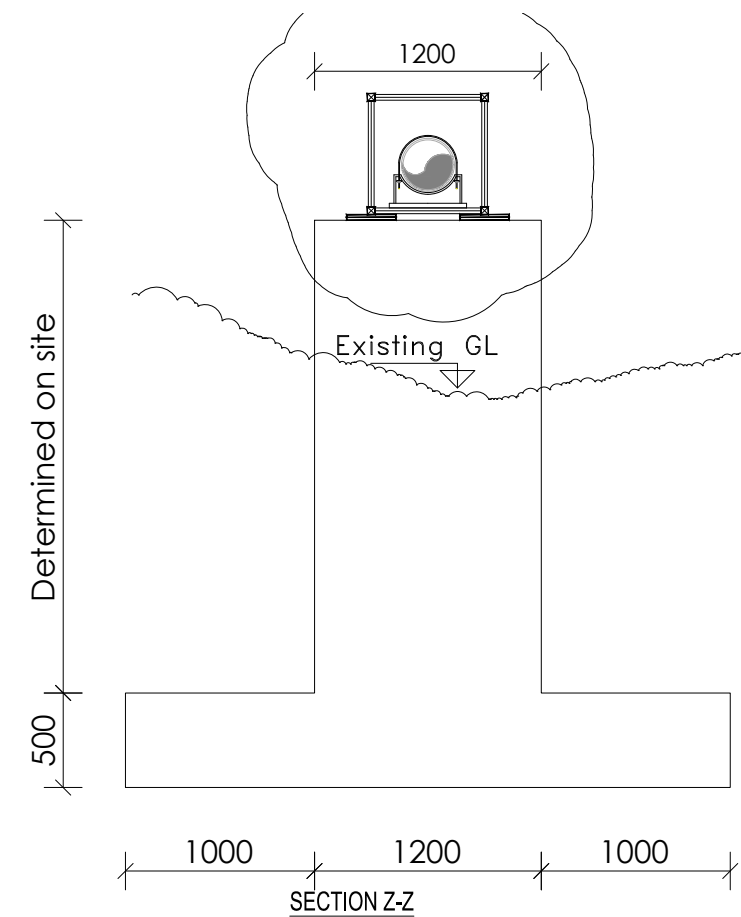
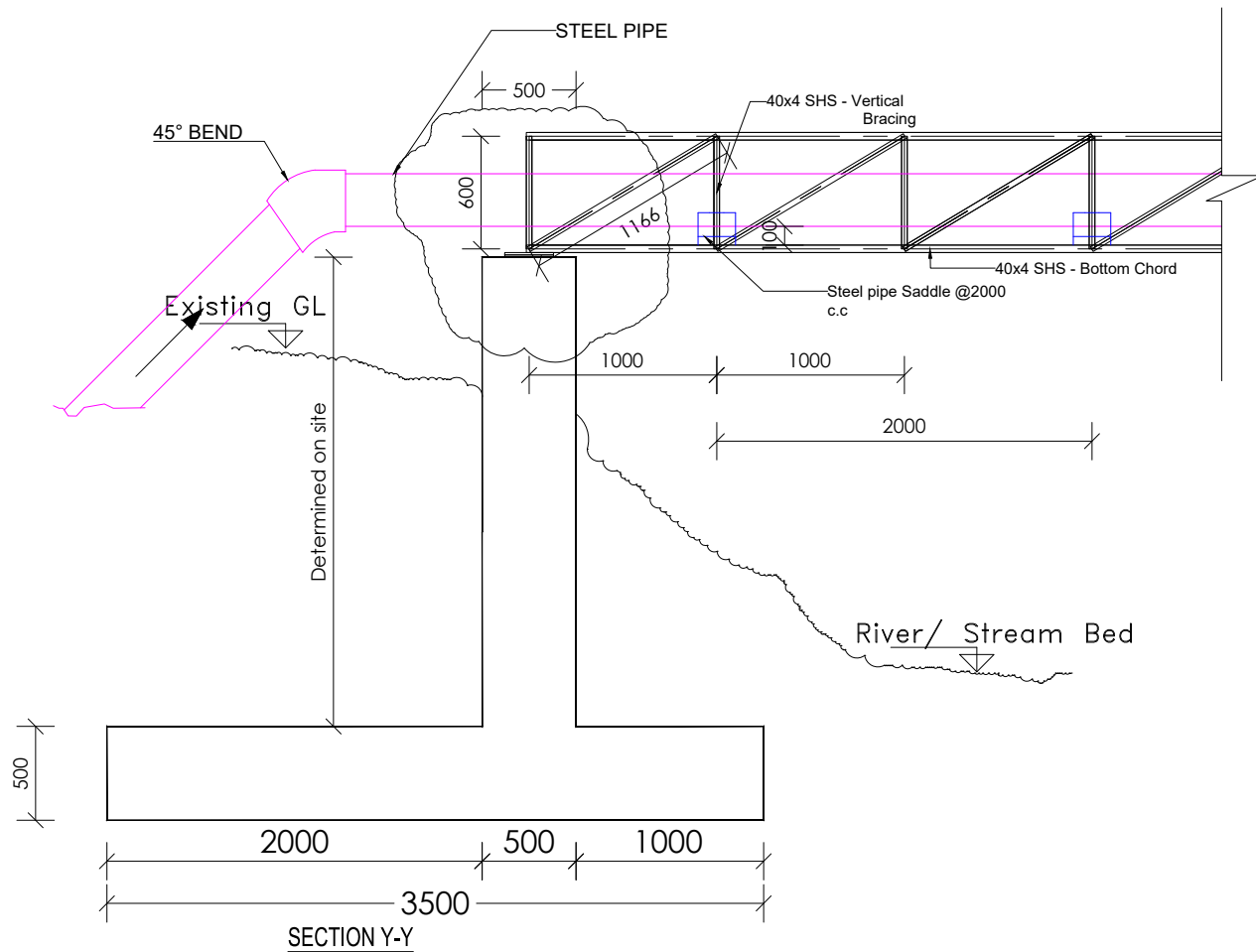
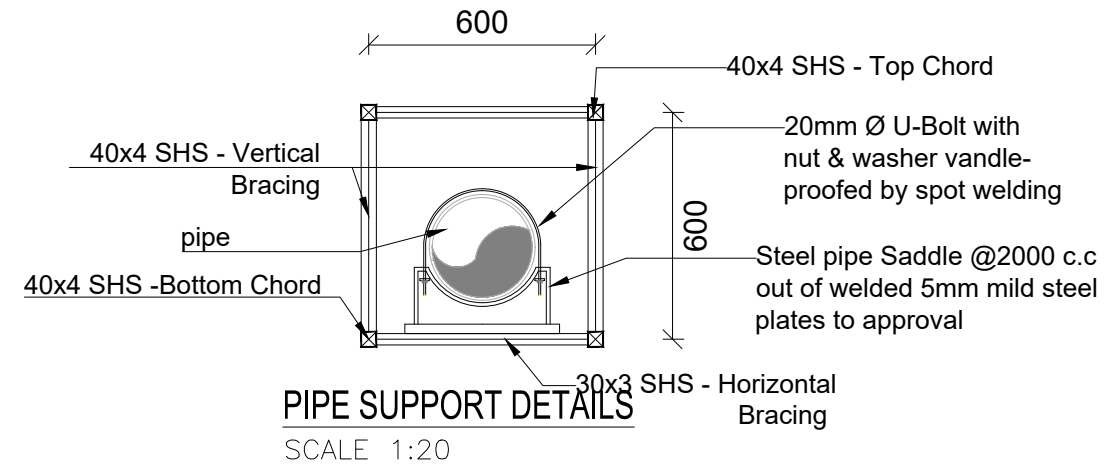
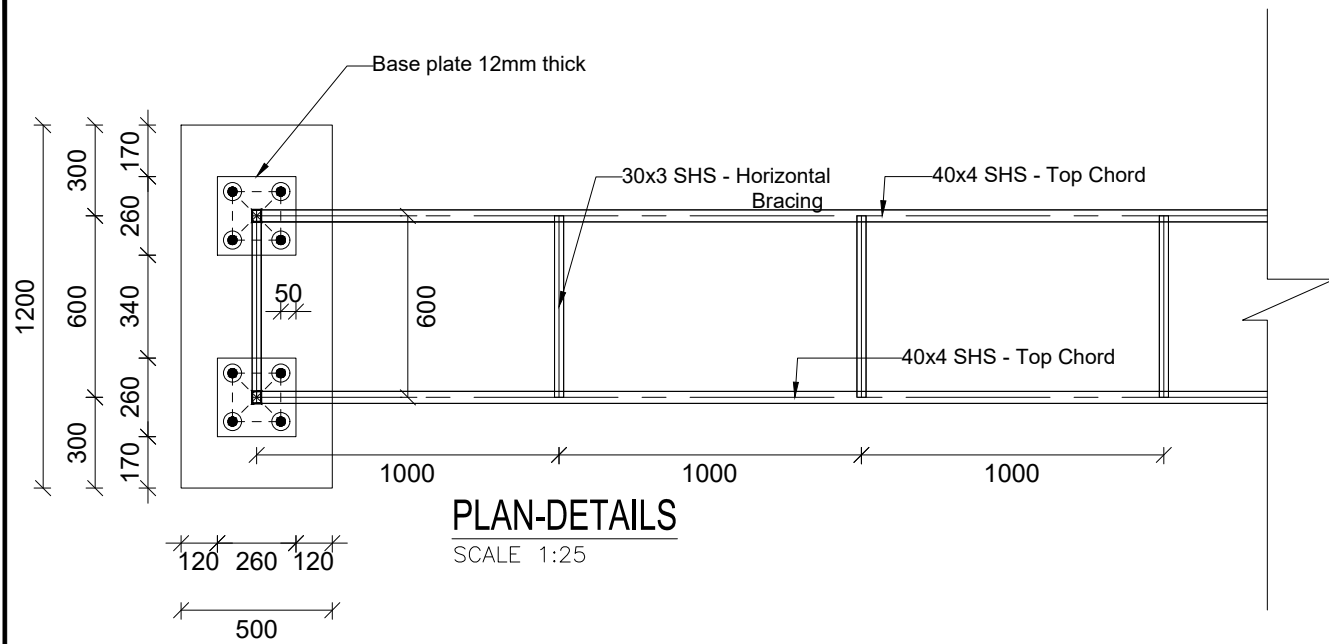
STANDARD DRAWINGS

REVISIONS :


No	Date	Description


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Plan and Elevation

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-022
Scale:	1:75
Sheet No.:	1 of 3



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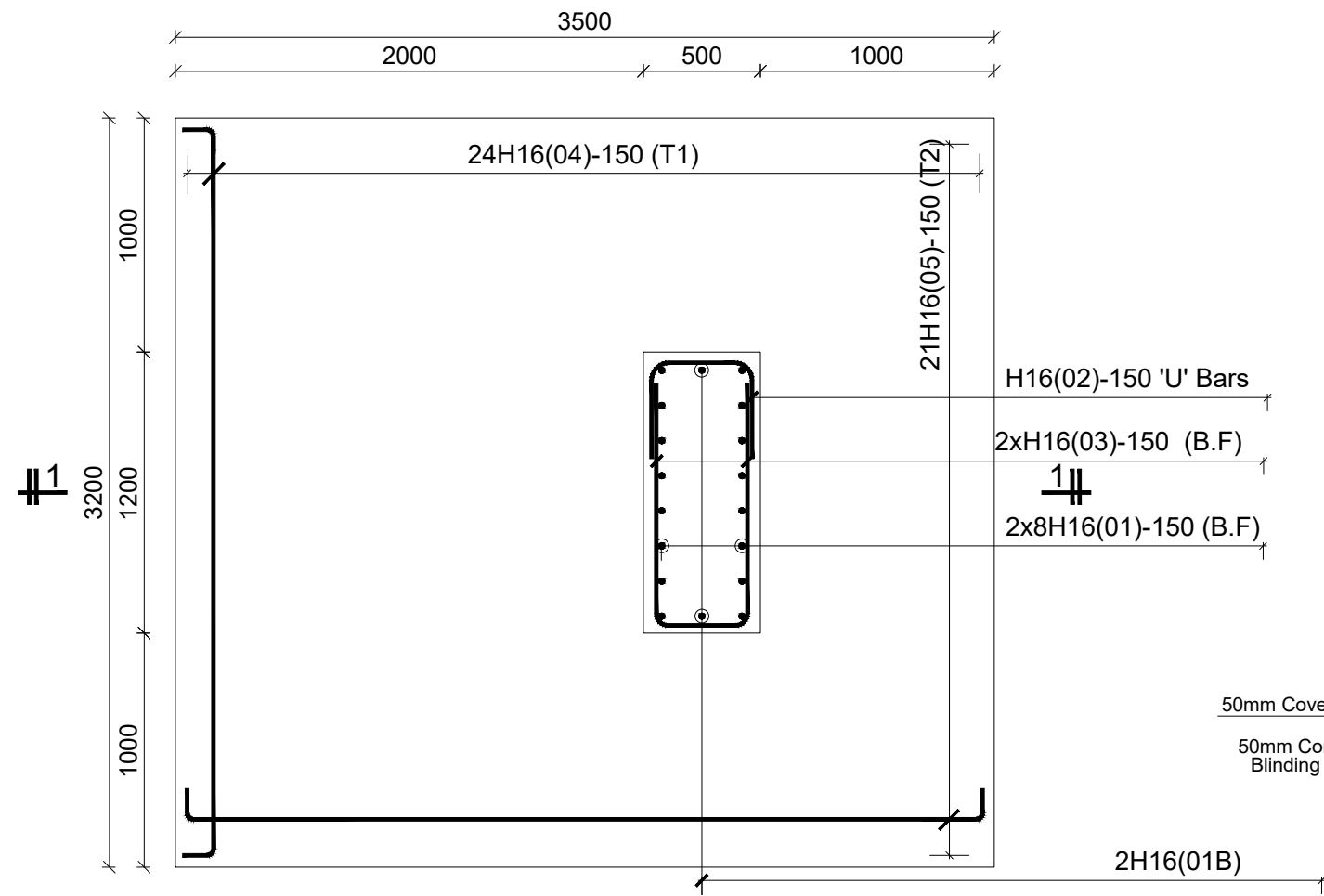
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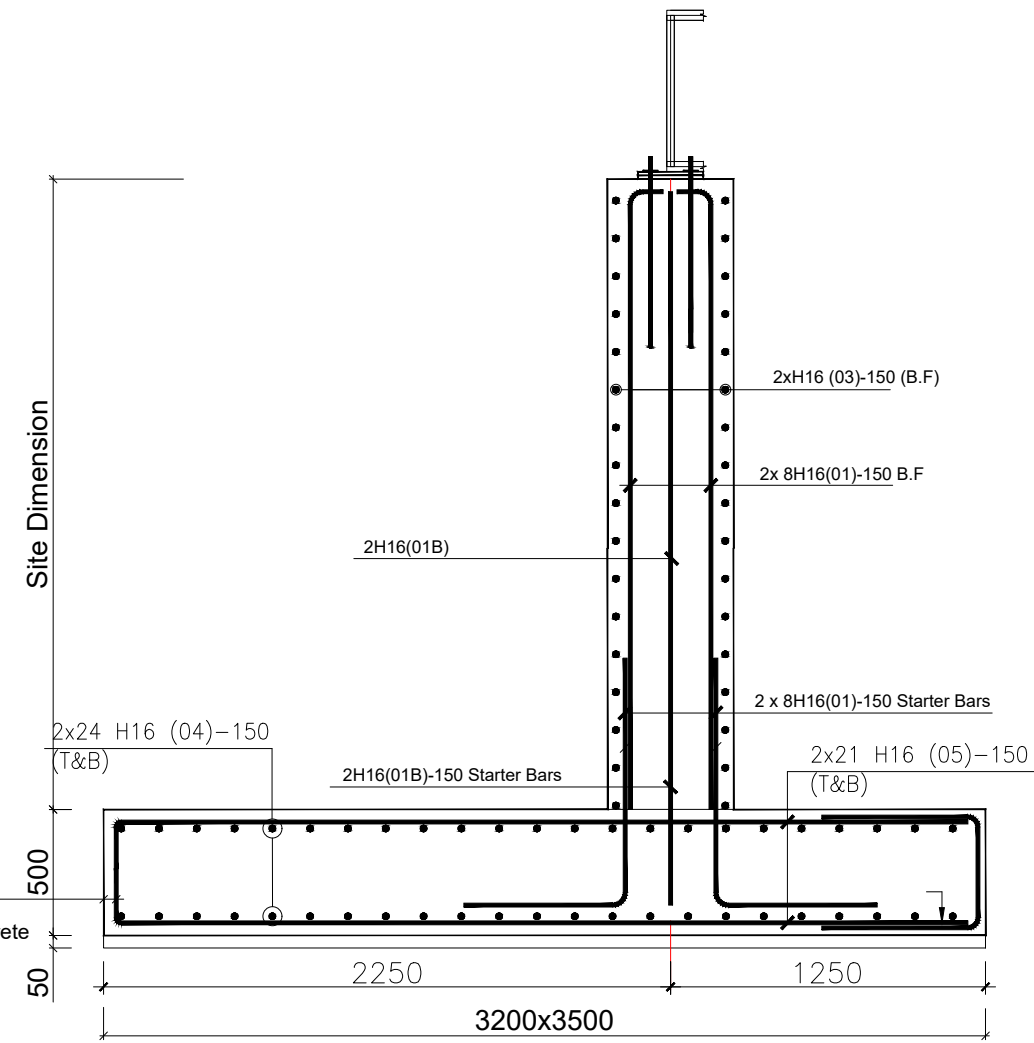
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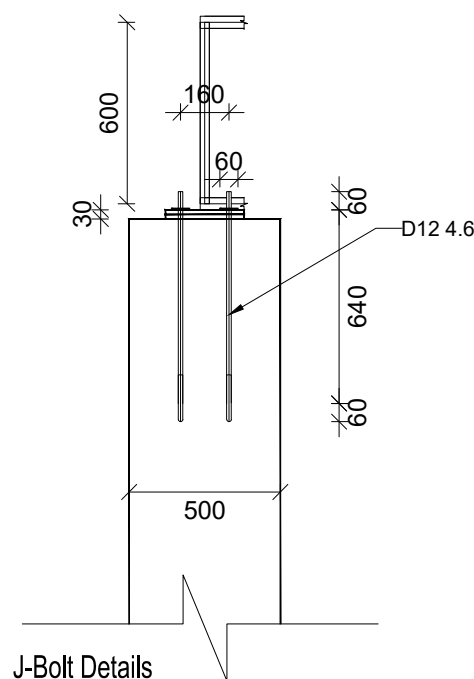
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 Drawn by: A.K
 Designed by: B.A
 Checked by: J.K.K
 Date: March 2023
 DRG. No.: **ALA-ORA-SD-022**
 Scale: 1:40 Sheet No.: 2 of 3



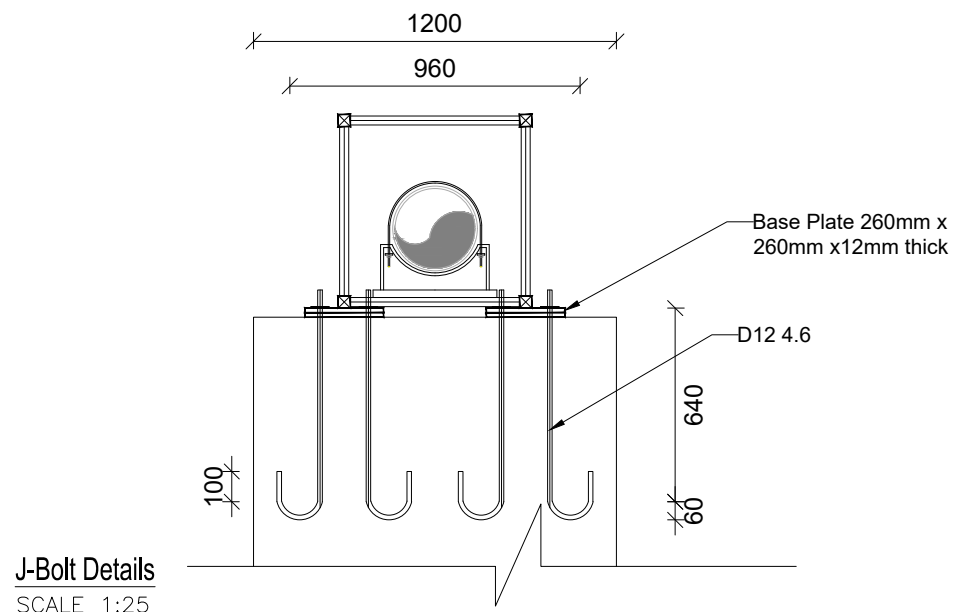
RC PIPE BRIDGE ABUTMENT (2No.) [3500X3200x500]



RC PIPE BRIDGE ABUTMENT SECTION 1-1



J-Bolt Details
SCALE 1:25



J-Bolt Details
SCALE 1:25

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STANDARD DRAWINGS

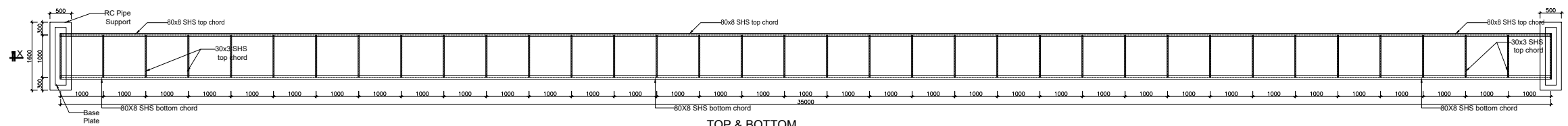
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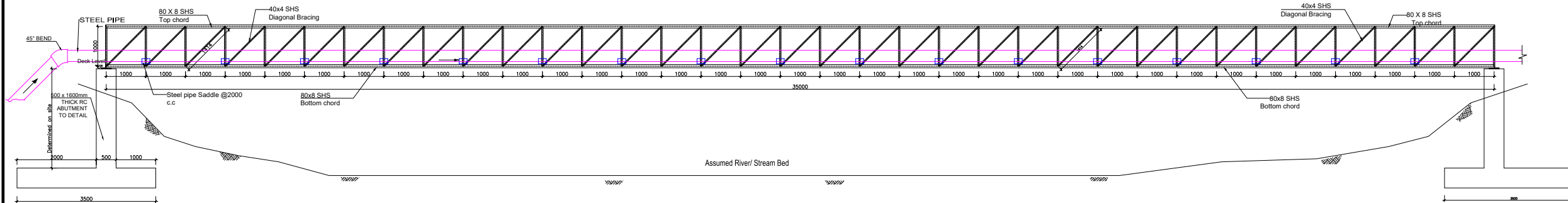
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 Reinforcement Details

Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-022
Scale:	1:30
Sheet No.:	3 of 3

PIPE BRIDGE SPAN-35m



TOP & BOTTOM LATTICE PLAN





SECTIONAL X-X

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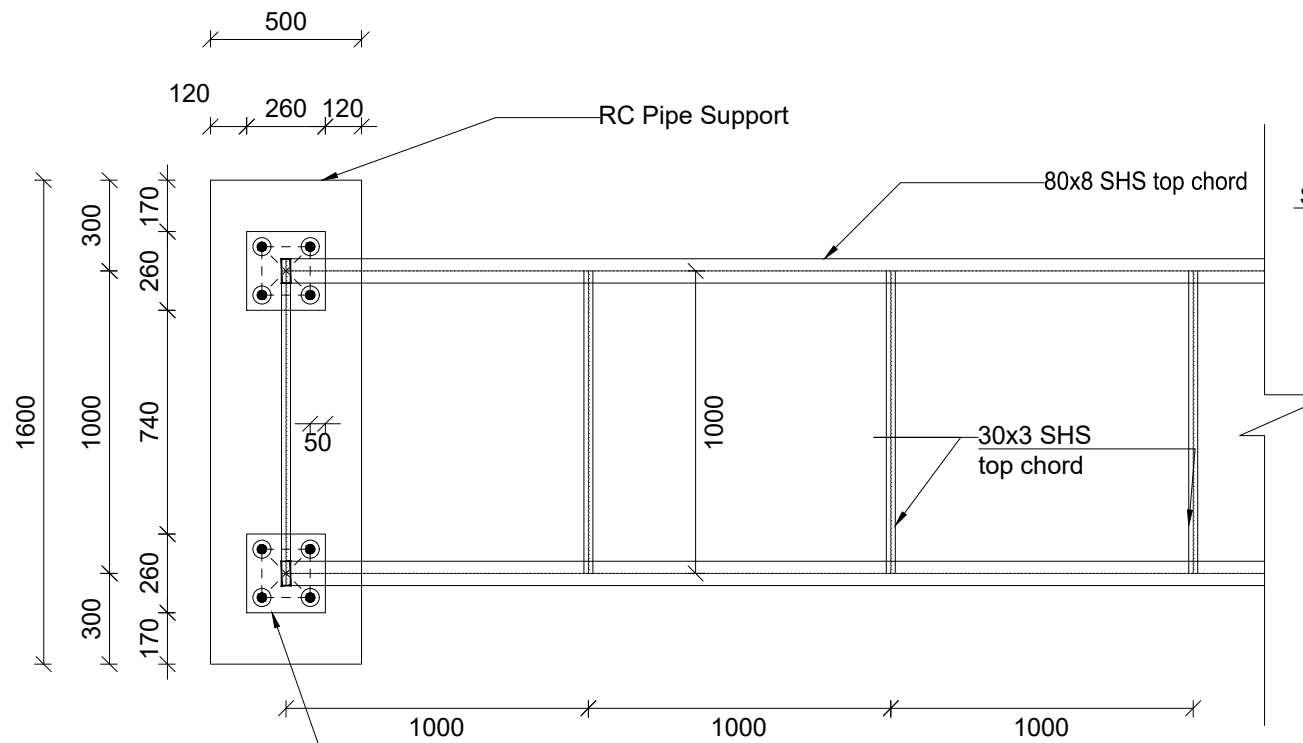
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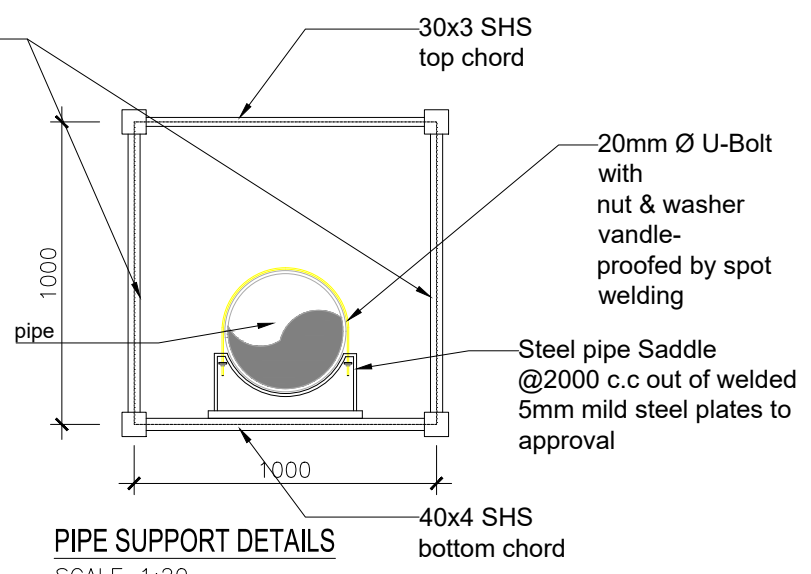
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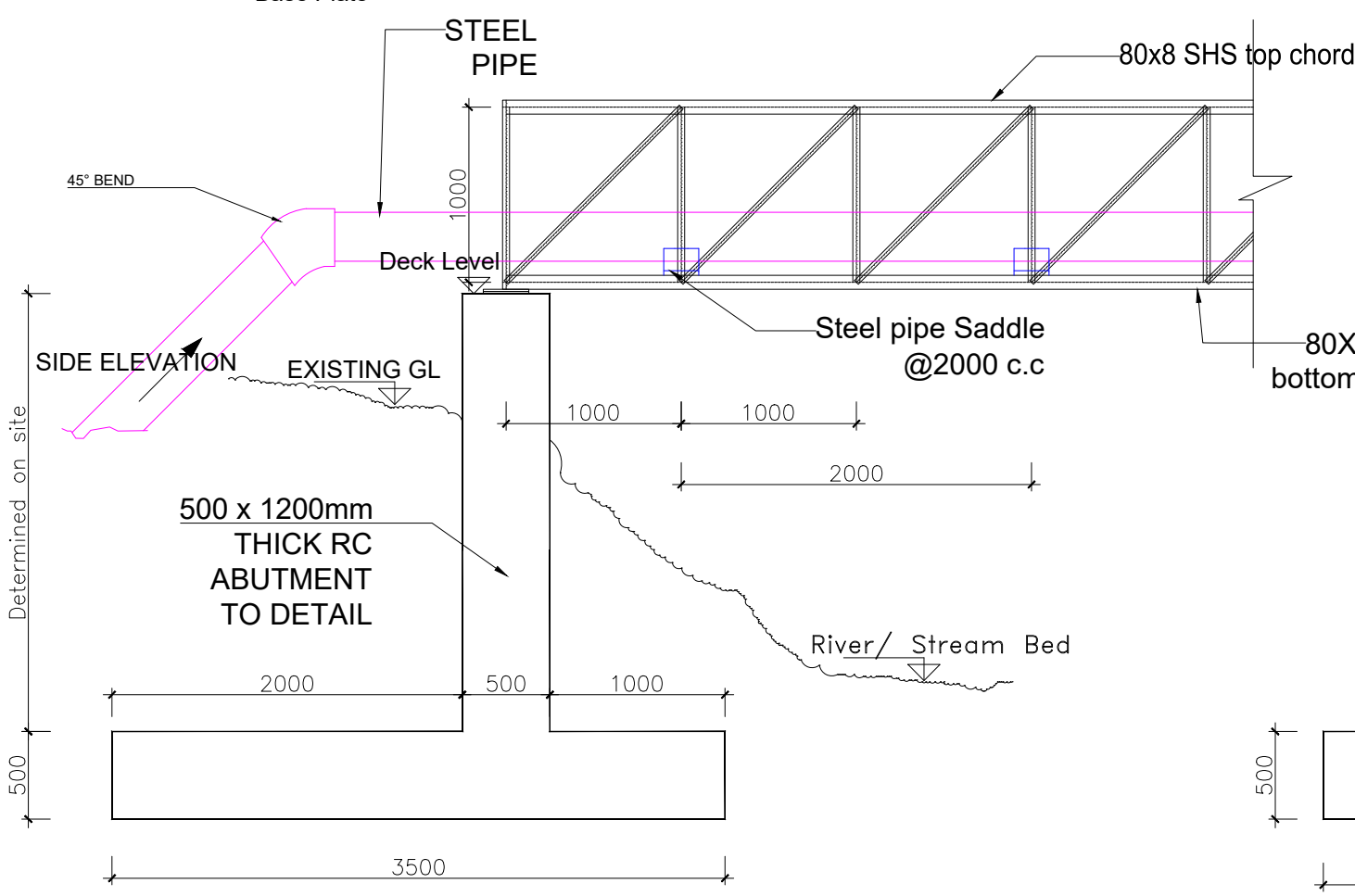
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 Drawn by: A.K
 Designed by: B.A
 Checked by: J.K.K
 Date: March 2023
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 Scale: 1:120 Sheet No.: 1 of 3



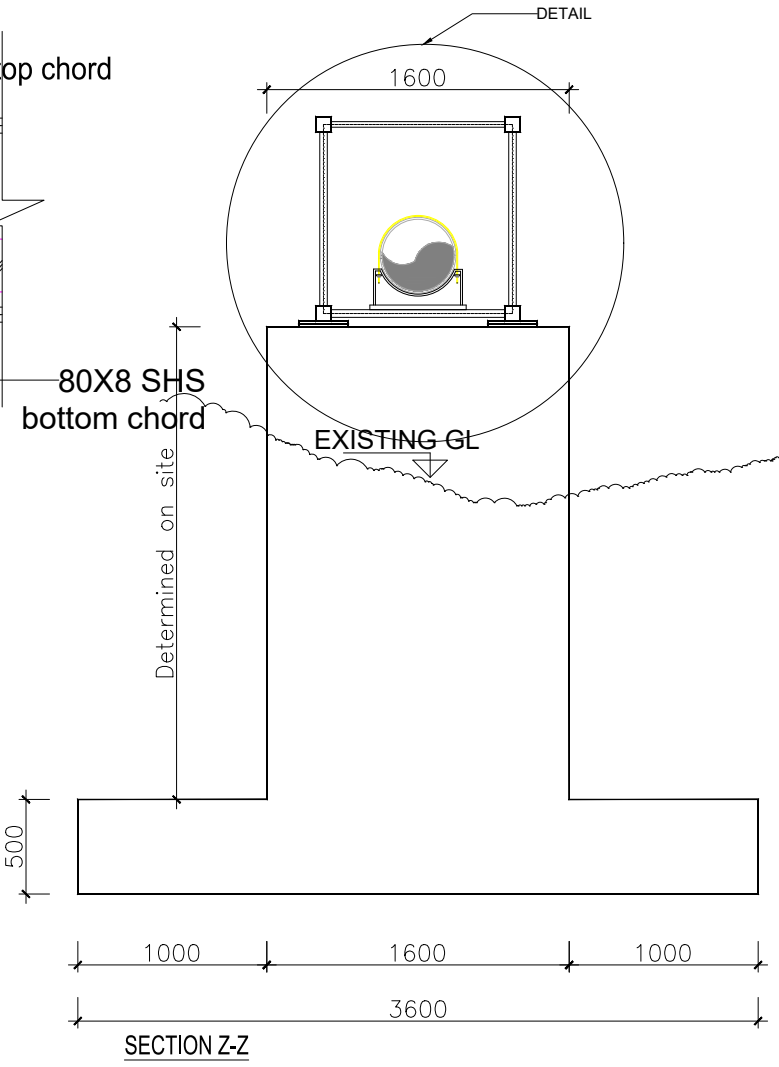
PLAN-DETAILS
SCALE 1:25



PIPE SUPPORT DETAILS
SCALE 1:20



SECTION Y-Y



SECTION Z-Z

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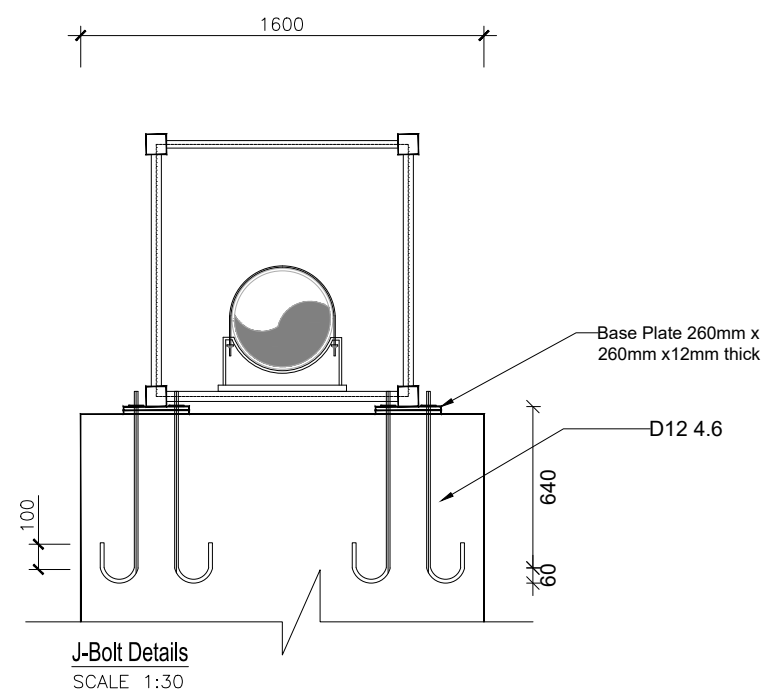
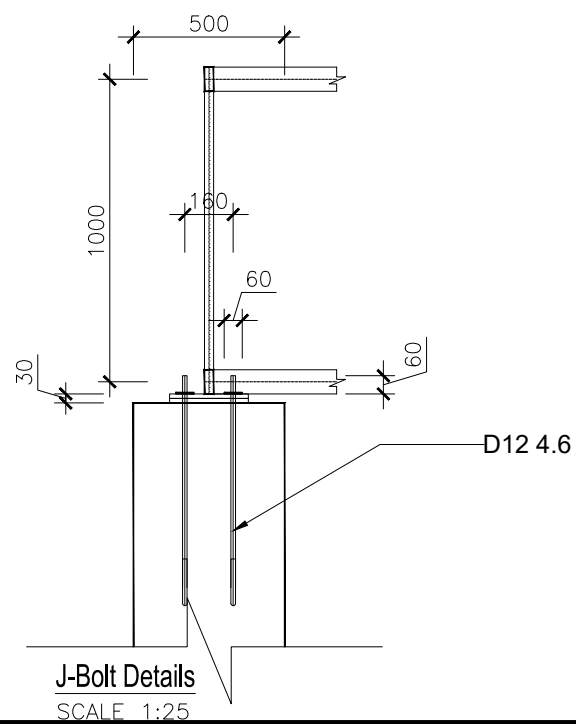
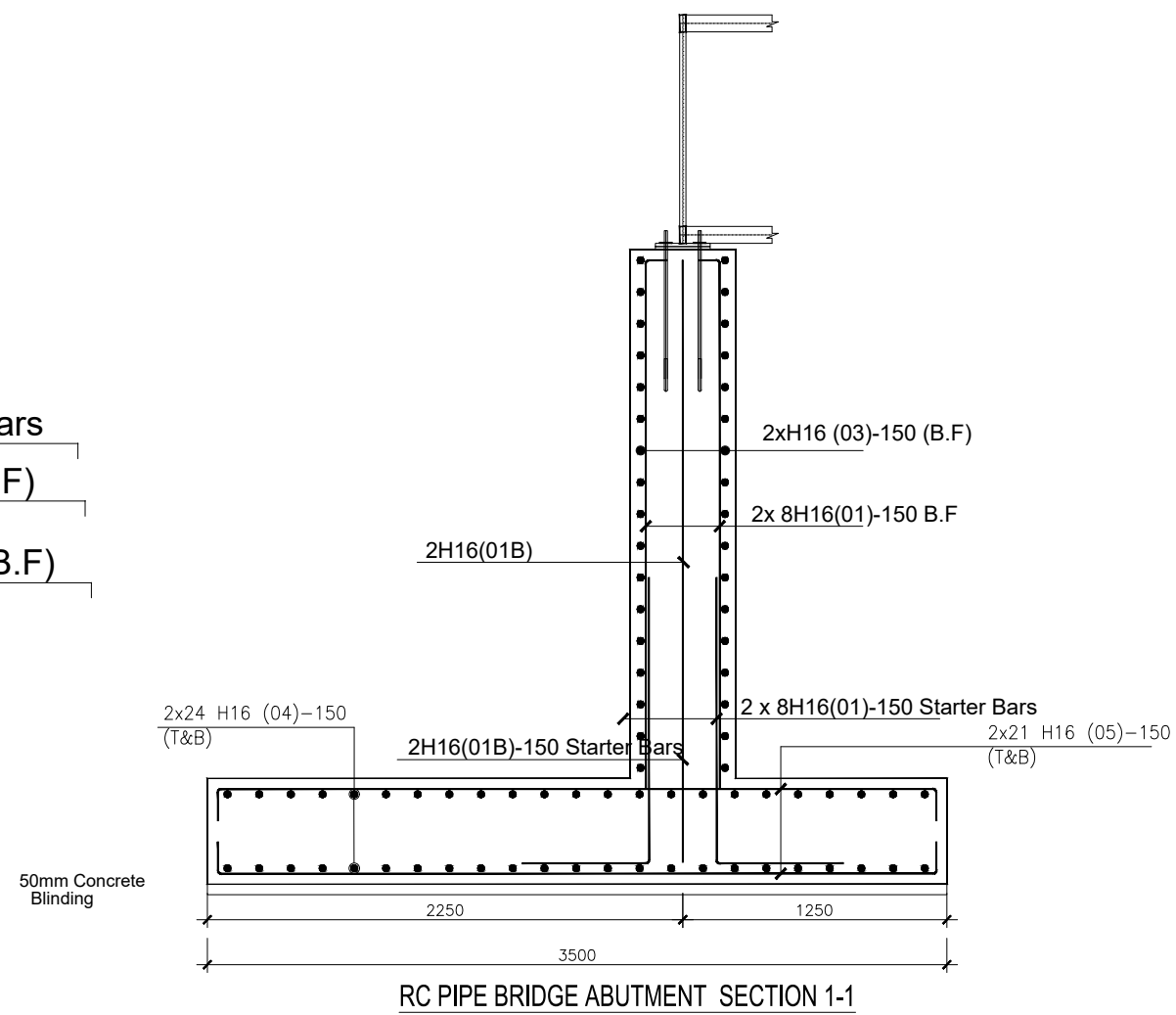
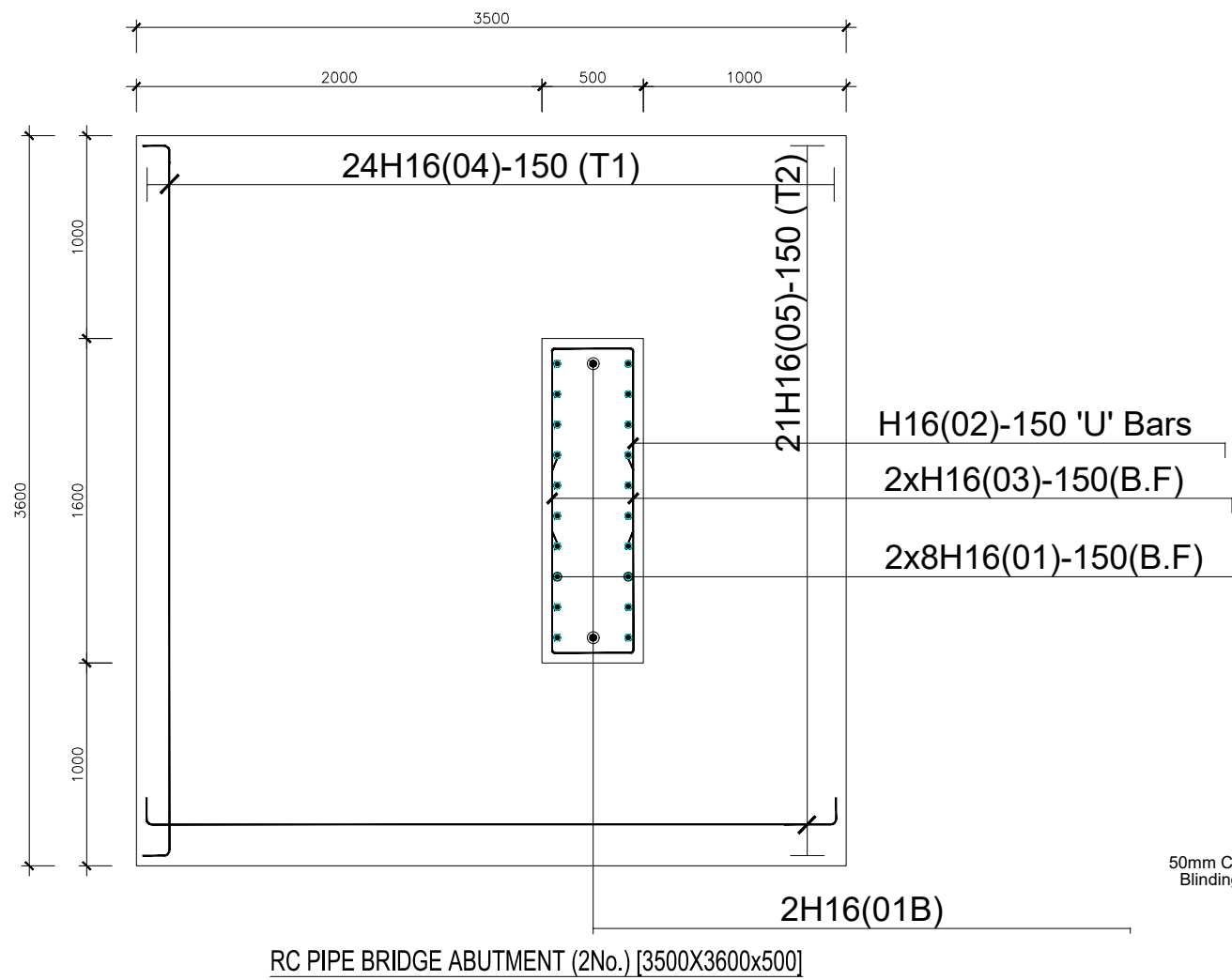
STANDARD DRAWINGS

REVISIONS :

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Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-023
Scale:	1:40
Sheet No.:	2 of 3



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SANITATION PROJECT

STANDARD DRAWINGS

REVISIONS :

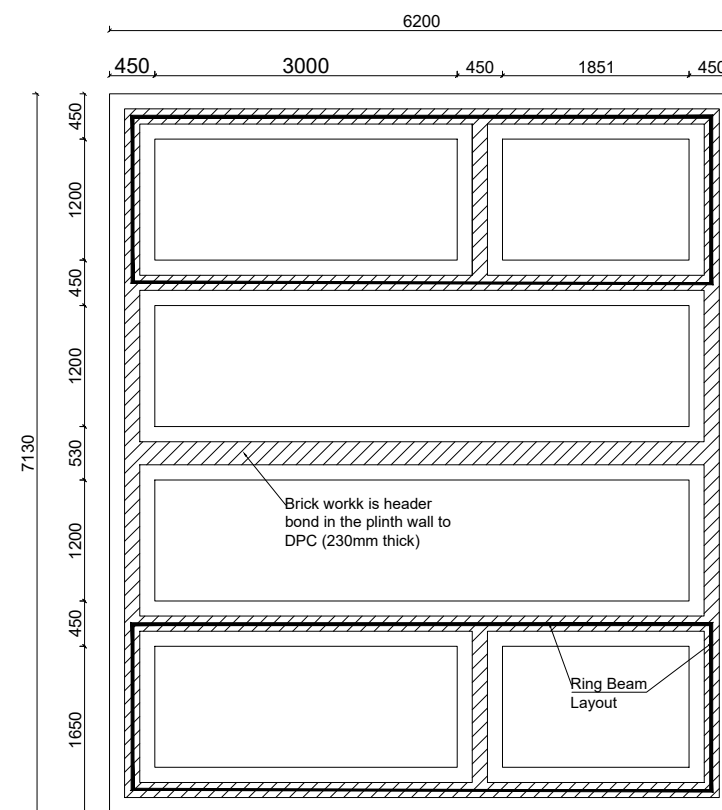
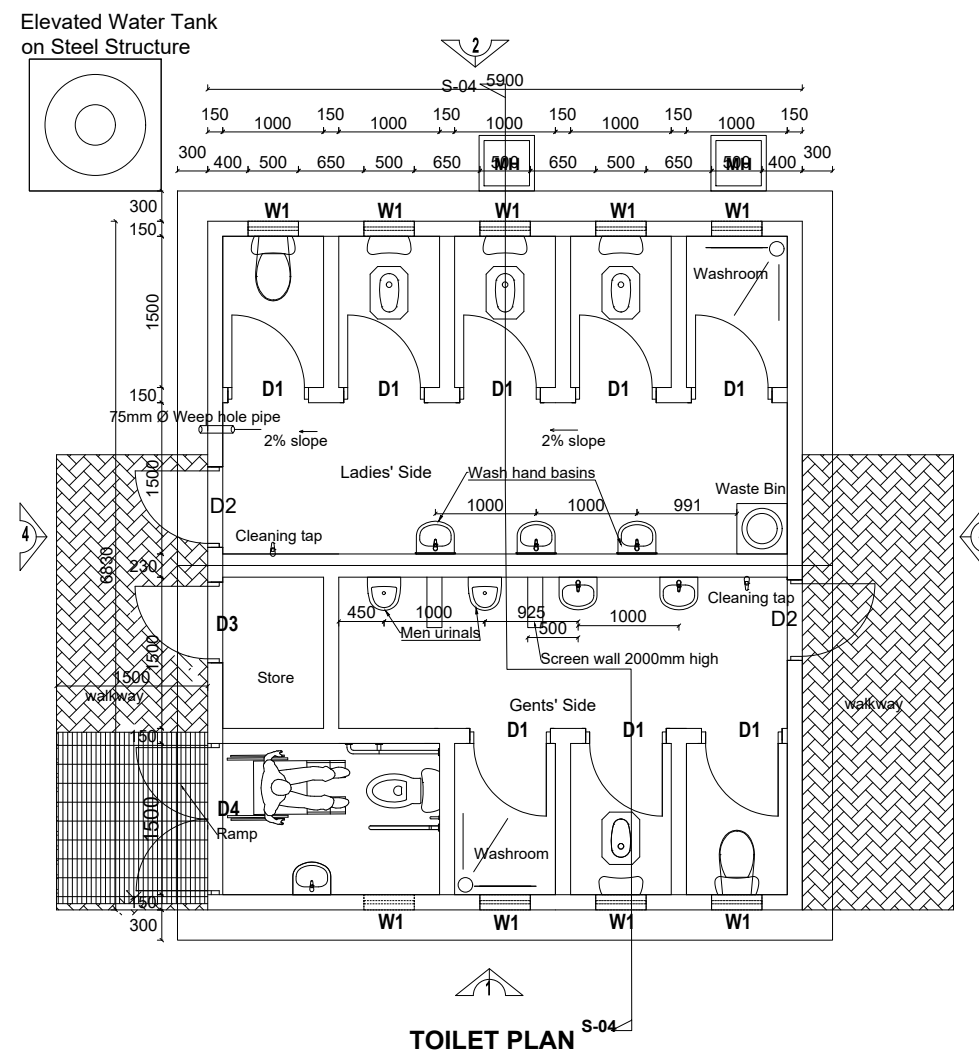
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Surveyed by:	R.K
Drawn by:	A.K
Designed by:	B.A
Checked by:	J.K.K
Date:	March 2023
DRG. No.:	ALA-ORA-SD-023
Scale:	1:35
Sheet No.:	3 of 3

LEGEND

EIGHT STANCE WITH DISABLED UNIT, STORE AND A BATHROOM WATERBORNE TOILET FULLY ROOFED



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PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

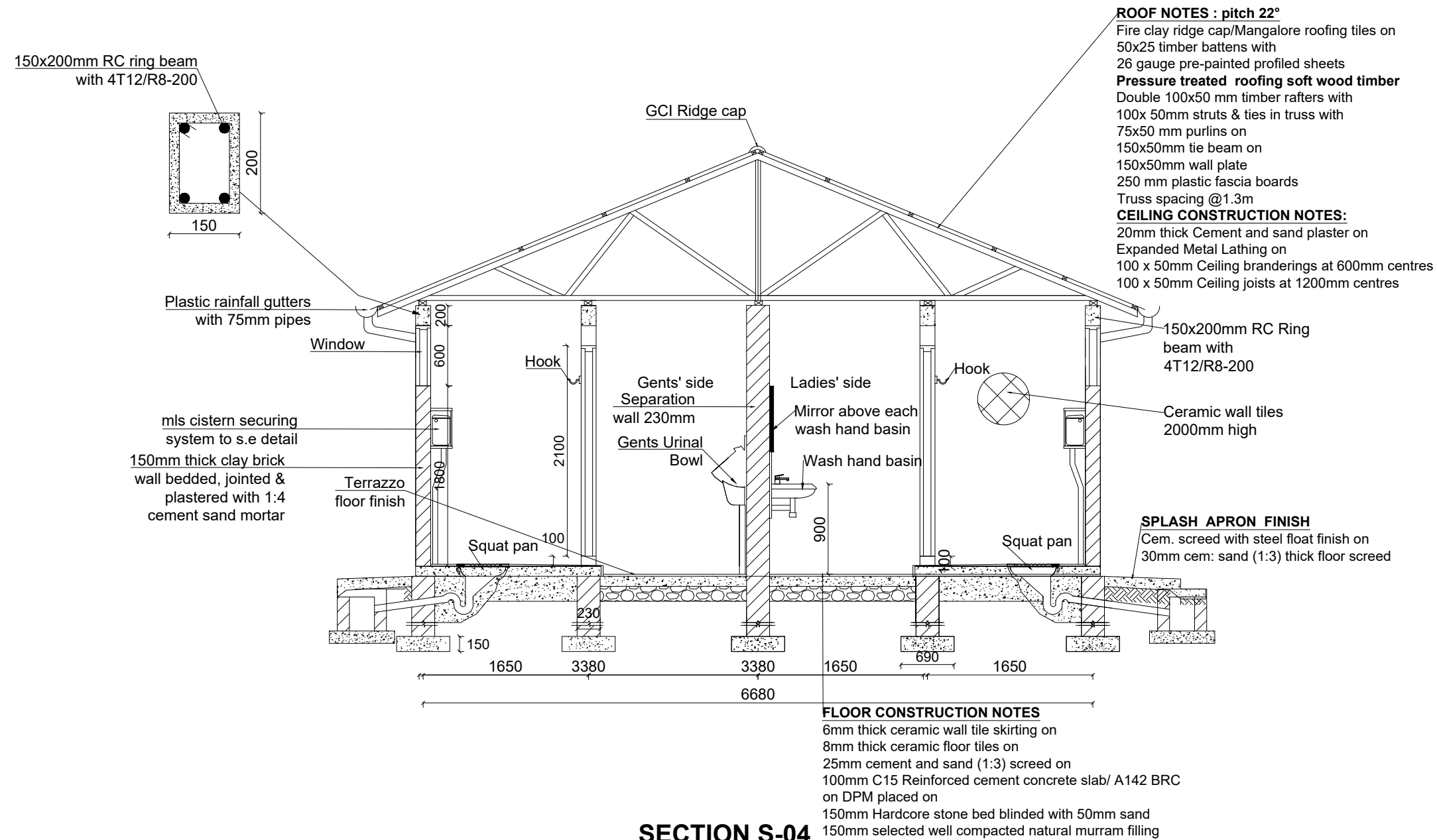
No	Date	Description

DRAWING TITLE : **SANITATION FACILITIES**
Public Toilets - Plan and Foundation Layout

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-001
Scale:	1:75
Sheet No.:	1 of 6

LEGEND

EIGHT STANCE WITH DISABLED UNIT, STORE AND A BATHROOM WATERBORNE TOILET FULLY ROOFED



ROOF NOTES : pitch 22°
Fire clay ridge cap/Mangalore roofing tiles on 50x25 timber battens with 26 gauge pre-painted profiled sheets
Pressure treated roofing soft wood timber
Double 100x50 mm timber rafters with 100x 50mm struts & ties in truss with 75x50 mm purlins on 150x50mm tie beam on 150x50mm wall plate 250 mm plastic fascia boards
Truss spacing @1.3m
CEILING CONSTRUCTION NOTES:
20mm thick Cement and sand plaster on Expanded Metal Lathing on 100 x 50mm Ceiling branderings at 600mm centres 100 x 50mm Ceiling joists at 1200mm centres

SECTION S-04

Notes:
200/230mm thick substructure and 150mm thick super structure walling

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PROJECT :

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

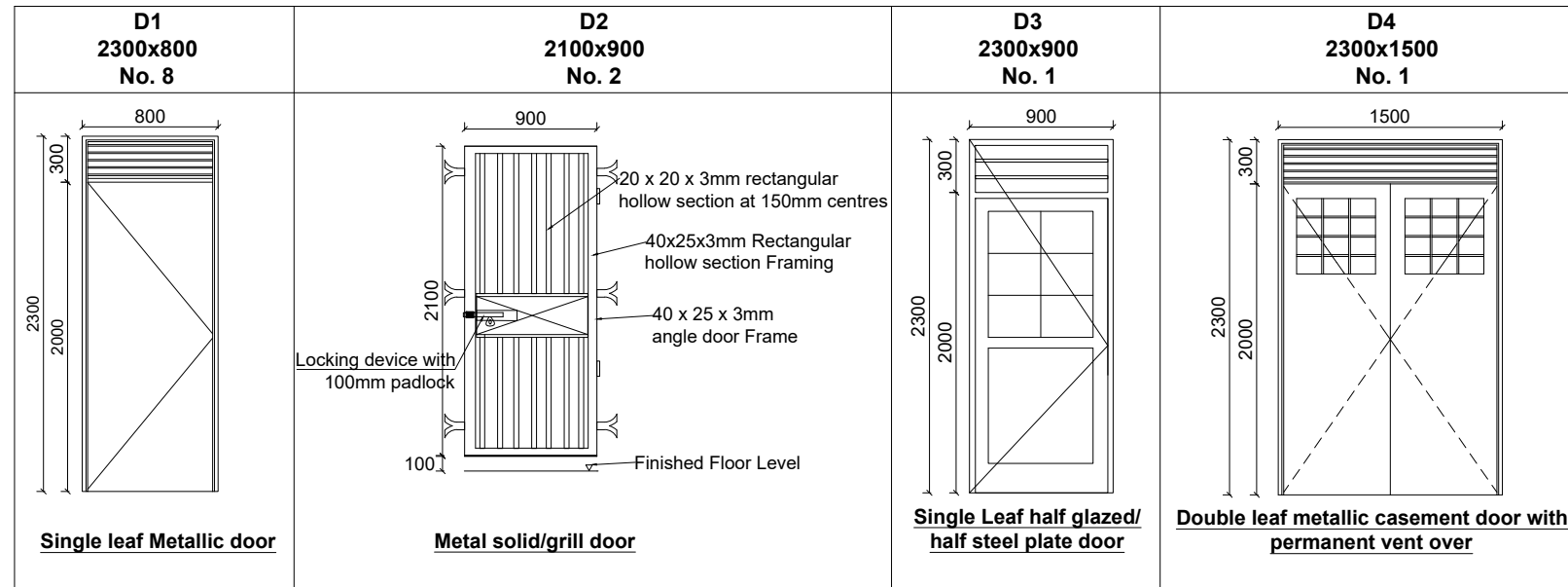
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Public Toilets - Section

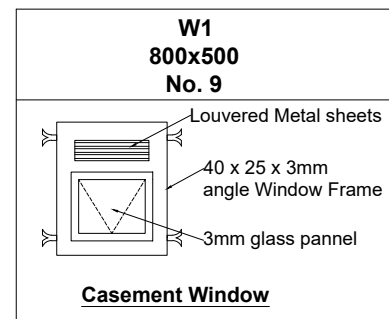
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Date:	January 2023
DRG. No.:	ALA-ORA- SAN-001
Scale:	1:50
Sheet No.:	2 of 6

LEGEND

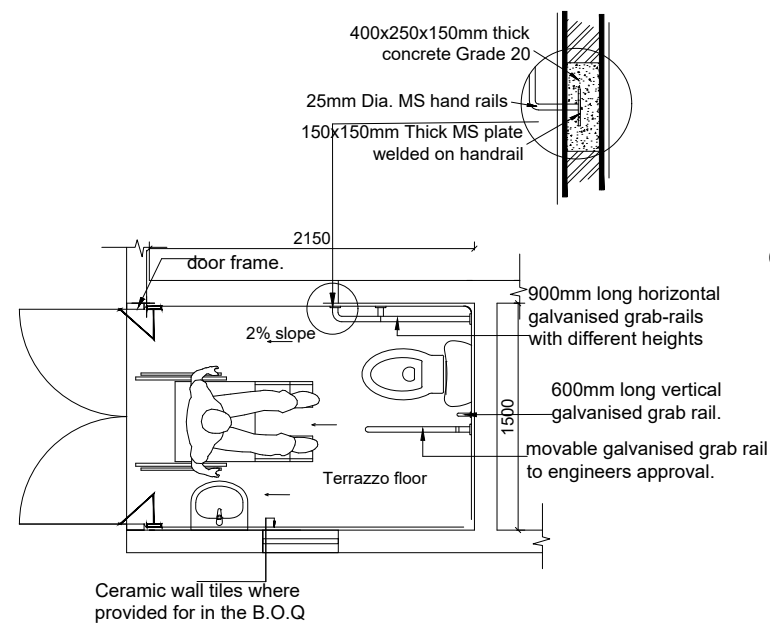
DOOR SCHEDULE



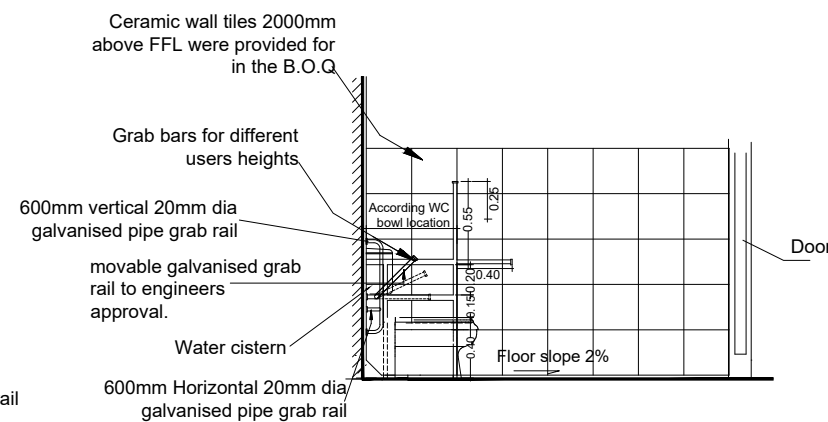
WINDOW SCHEDULE



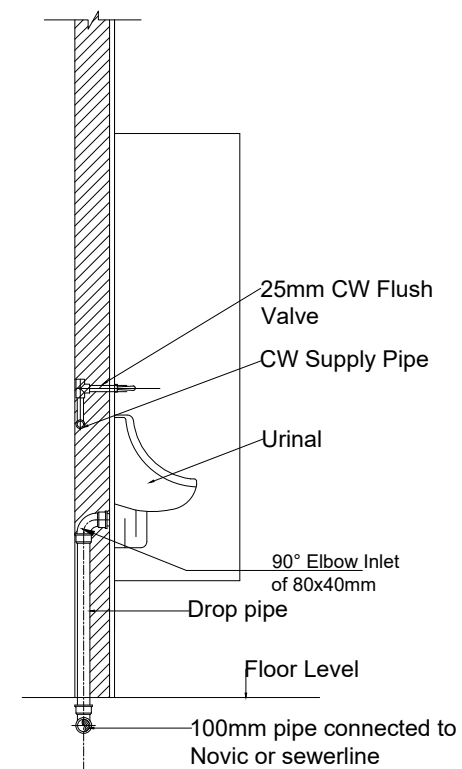
PLAN-DISABLED UNIT



SECTION-DISABLED UNIT



WALL MOUNTED URINAL



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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

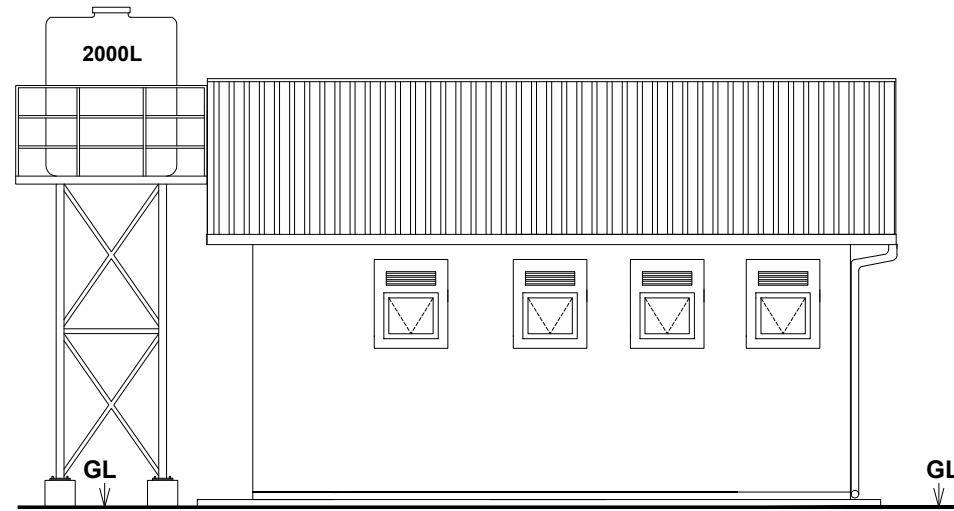
REVISIONS :

No	Date	Description

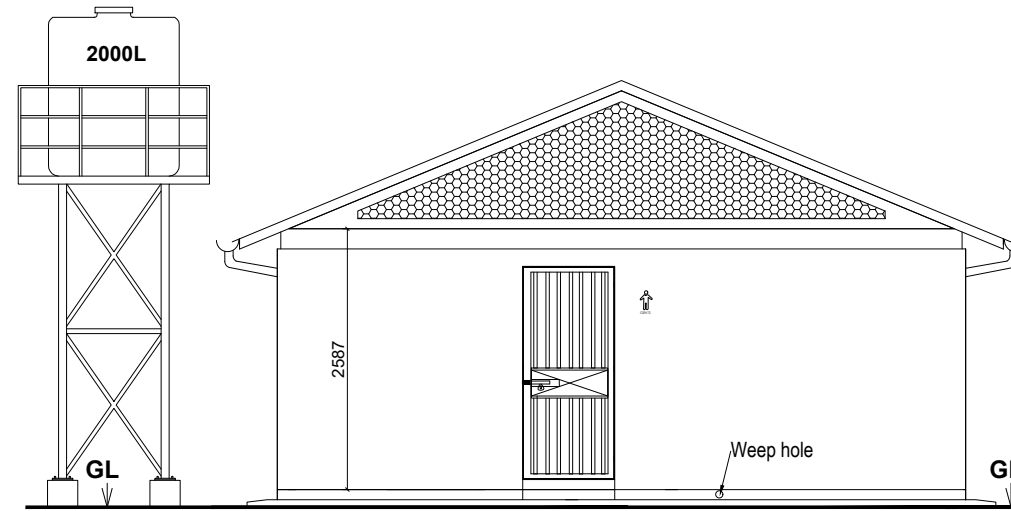
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 Public Toilets - Door and Window Schedule, Disabled Unit Details & Urinal Detail

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-001
Scale:	1:50
Sheet No.:	3 of 6

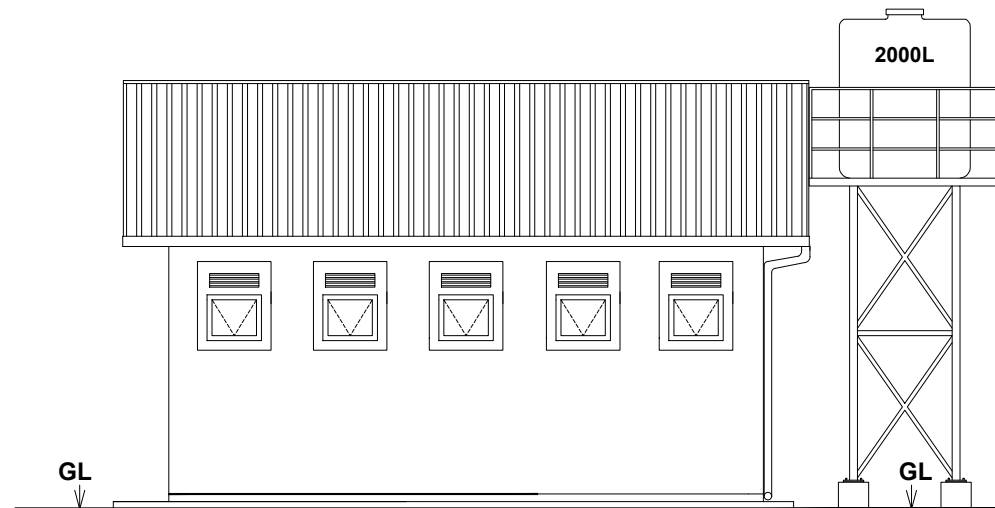
EIGHT STANCE WITH DISABLED UNIT, STORE AND A BATHROOM WATERBORNE TOILET FULLY ROOFED



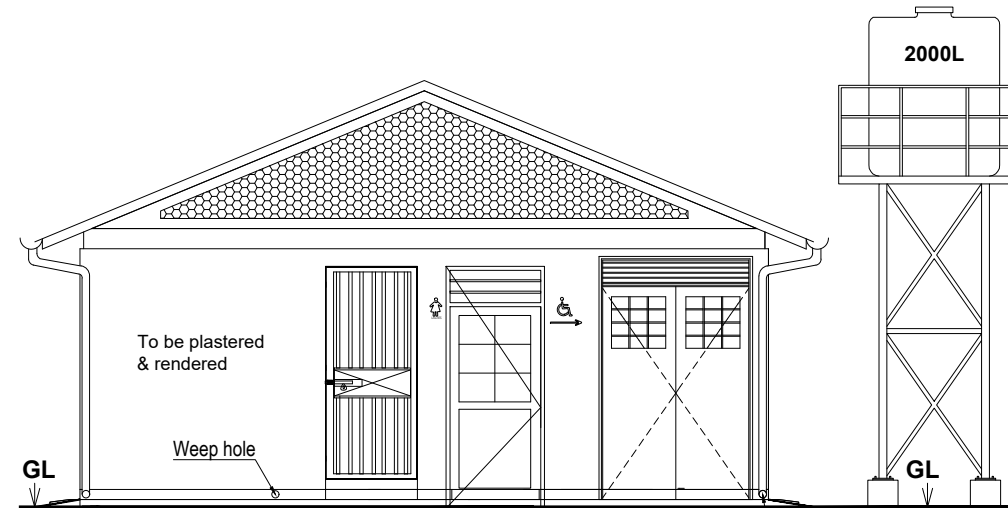
ELEVATION 1



ELEVATION 3



ELEVATION 2



ELEVATION 4

LEGEND

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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

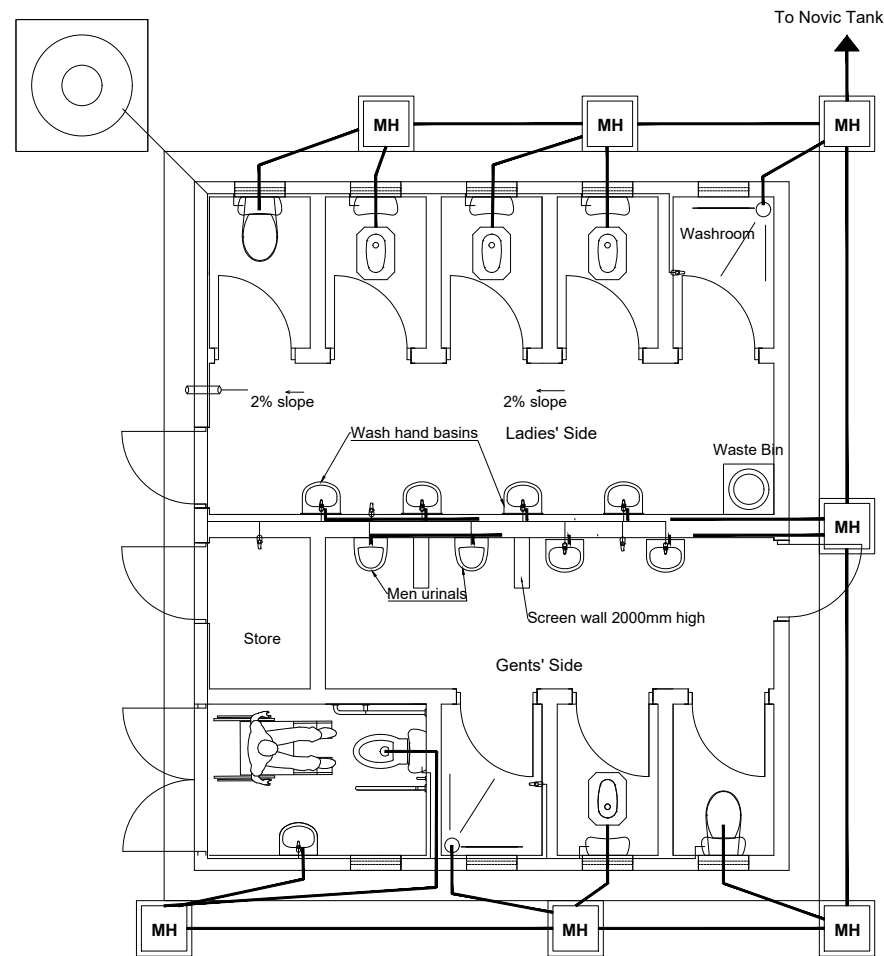
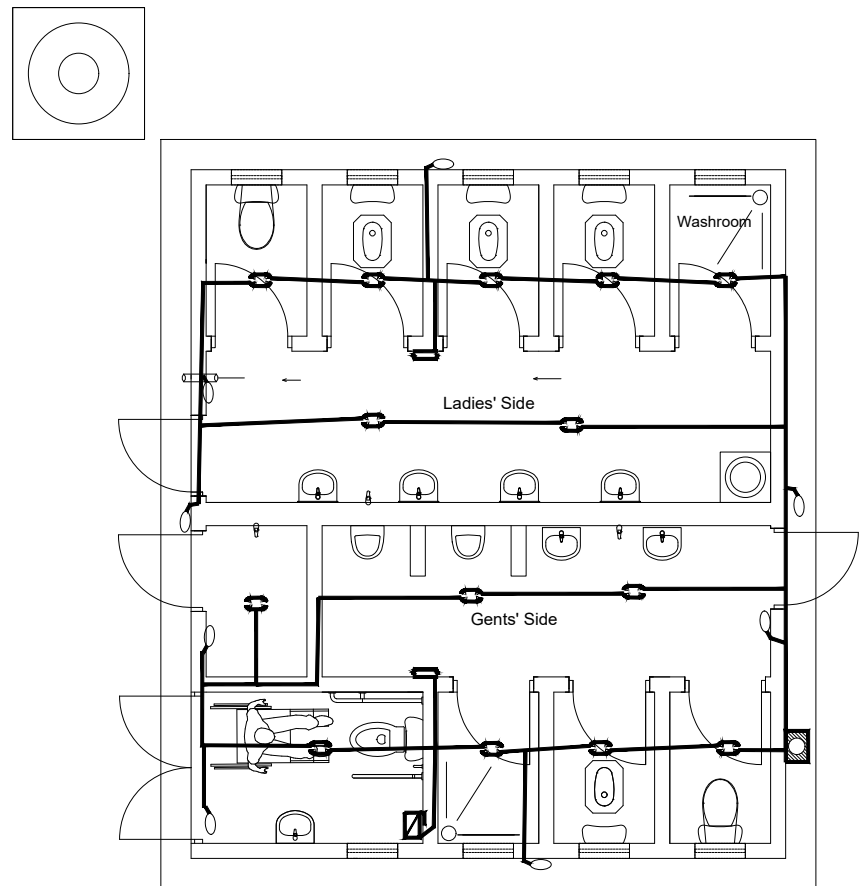
REVISIONS :

No	Date	Description

DRAWING TITLE : **SANITATION FACILITIES**
 Public Toilets - Elevations

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-001
Scale:	1:75
Sheet No.:	4 of 6







EIGHT STANCE WITH DISABLED UNIT, STORE AND A BATHROOM WATERBORNE TOILET FULLY ROOFED



ELECTRICAL LAYOUT

NOTE :-
 Electrical installation limited to
 - Conducting
 - MK boxes and
 - Blanks

LEGEND

-  Meter Reader Box
-  Main Switch
-  One-gang / Three-ways flush wall switch
-  Bulk head fitting (Security Lamp)
-  Ceiling out let lamp
-  Electric Conductor

PLUMBING LAYOUT

LEGEND

CLIENT :

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MINISTRY OF WATER AND ENVIRONMENT

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CONSULTANT :
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 Infra-Consult Ltd

PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

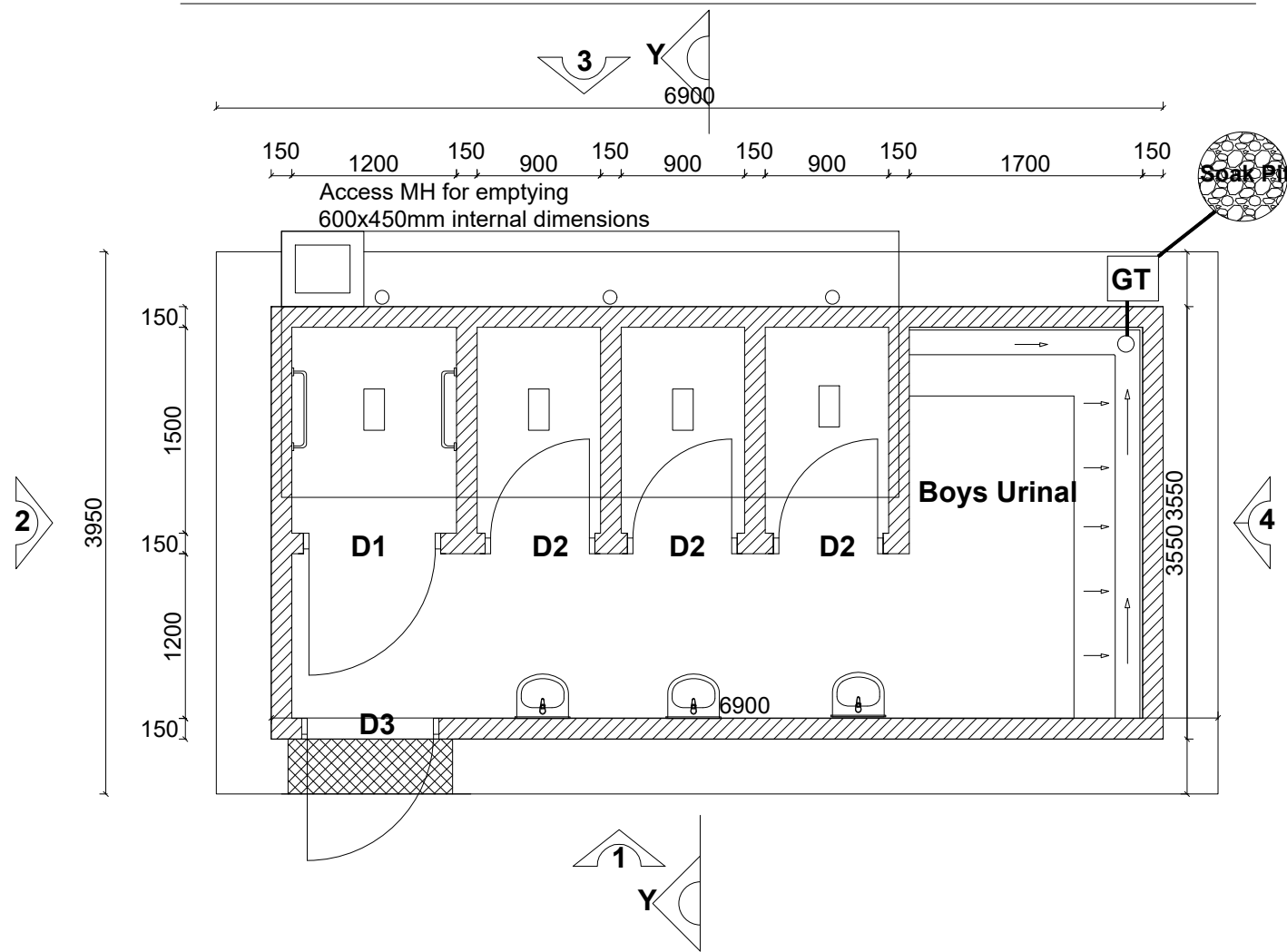
REVISIONS :

No	Date	Description

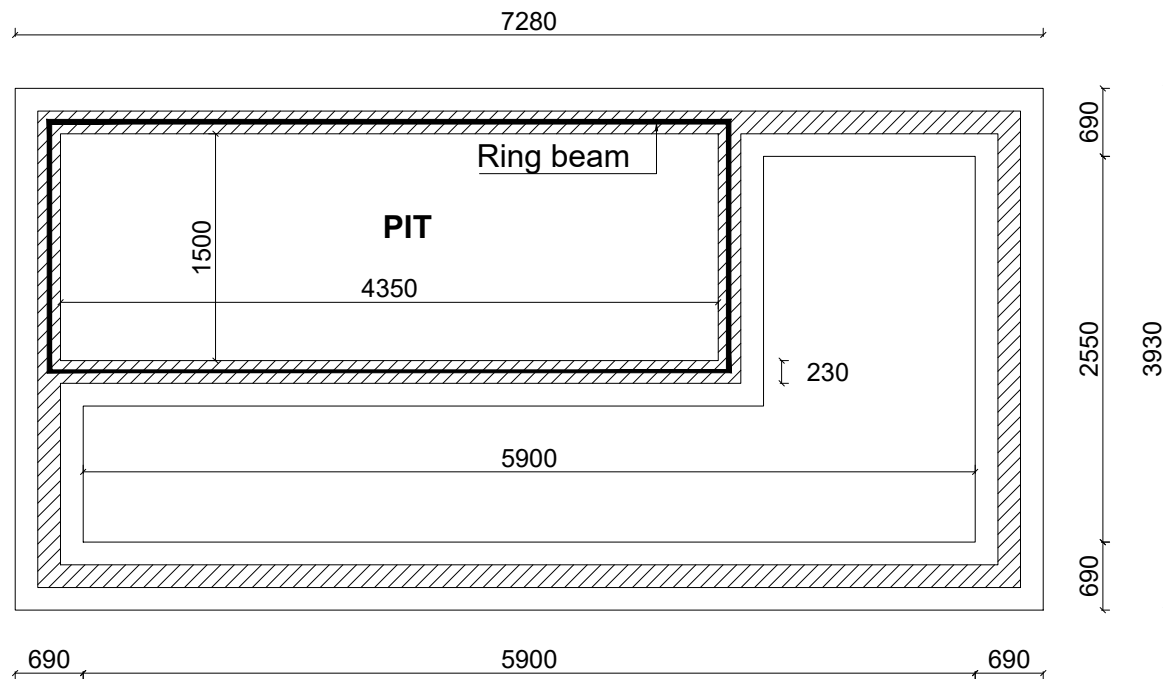
DRAWING TITLE : **SANITATION FACILITIES**
 Public Toilets - Electrical & Plumbing Layouts

Surveyed by: R.K
 Drawn by: M.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: ALA-ORA- SAN-001
 Scale: 1:75 Sheet No.: 6 of 6

FOUR STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND URINAL



GENTS VIP PLAN



FOUNDATION LAYOUT

Note:
200/230mm thick sub-structure and 150mm thick super structure walling

LEGEND

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NYAGAK WATER SUPPLY AND SANITATION SYSTEM

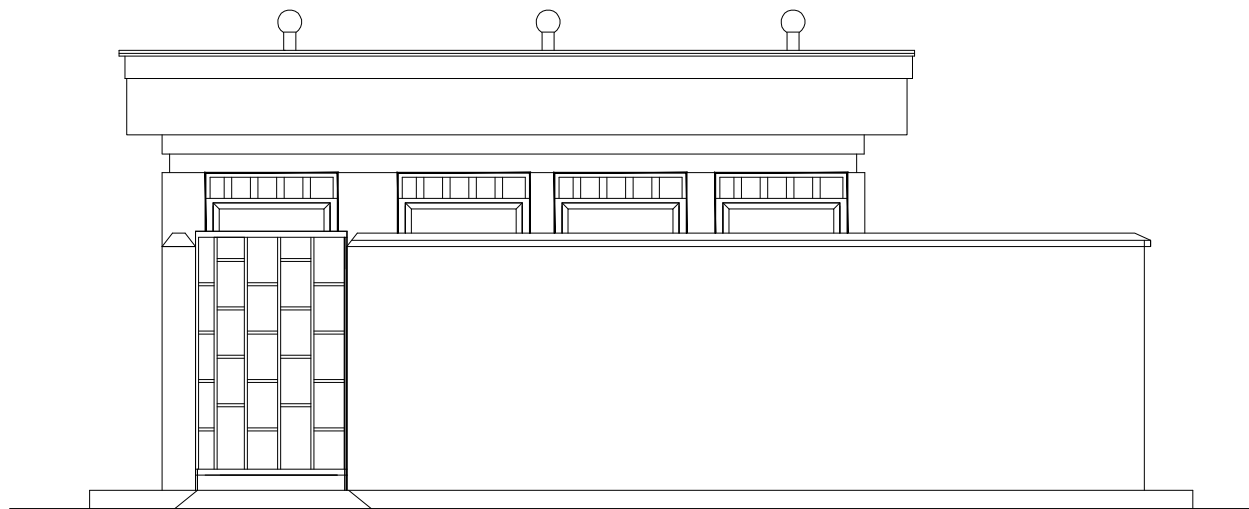
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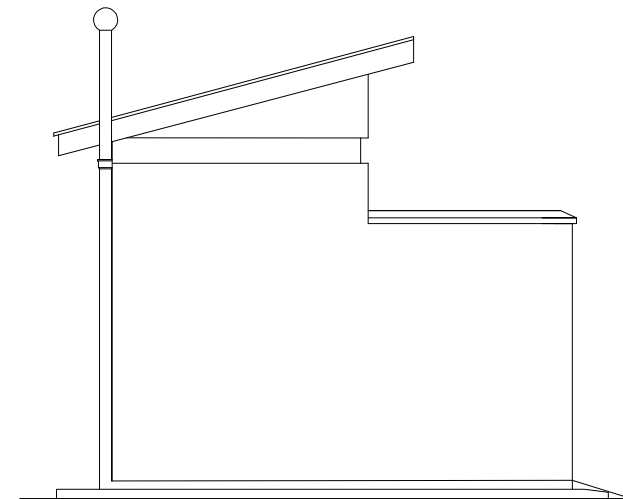
DRAWING TITLE : **SANITATION FACILITIES**
 VIP Latrine Gents - Plan and Foundation Layout

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-002
Scale:	1:50
Sheet No.:	1 of 3

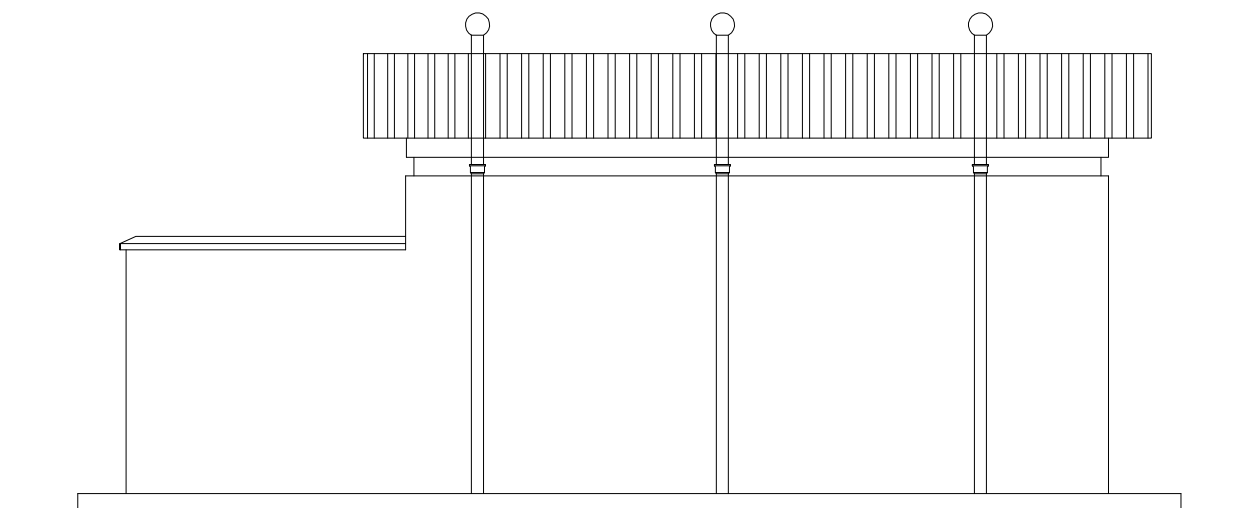
FOUR STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND URINAL



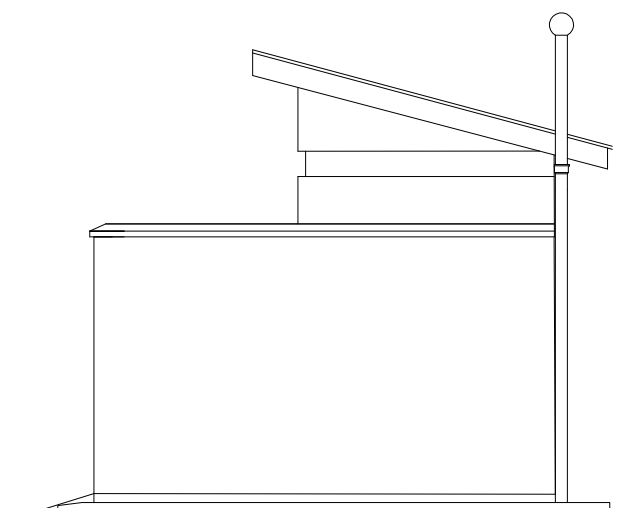
ELEVATION 1



ELEVATION 2



ELEVATION 3



ELEVATION 4

LEGEND

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PROJECT :
 ALA-ORA WATER SUPPLY AND
 SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

REVISIONS :

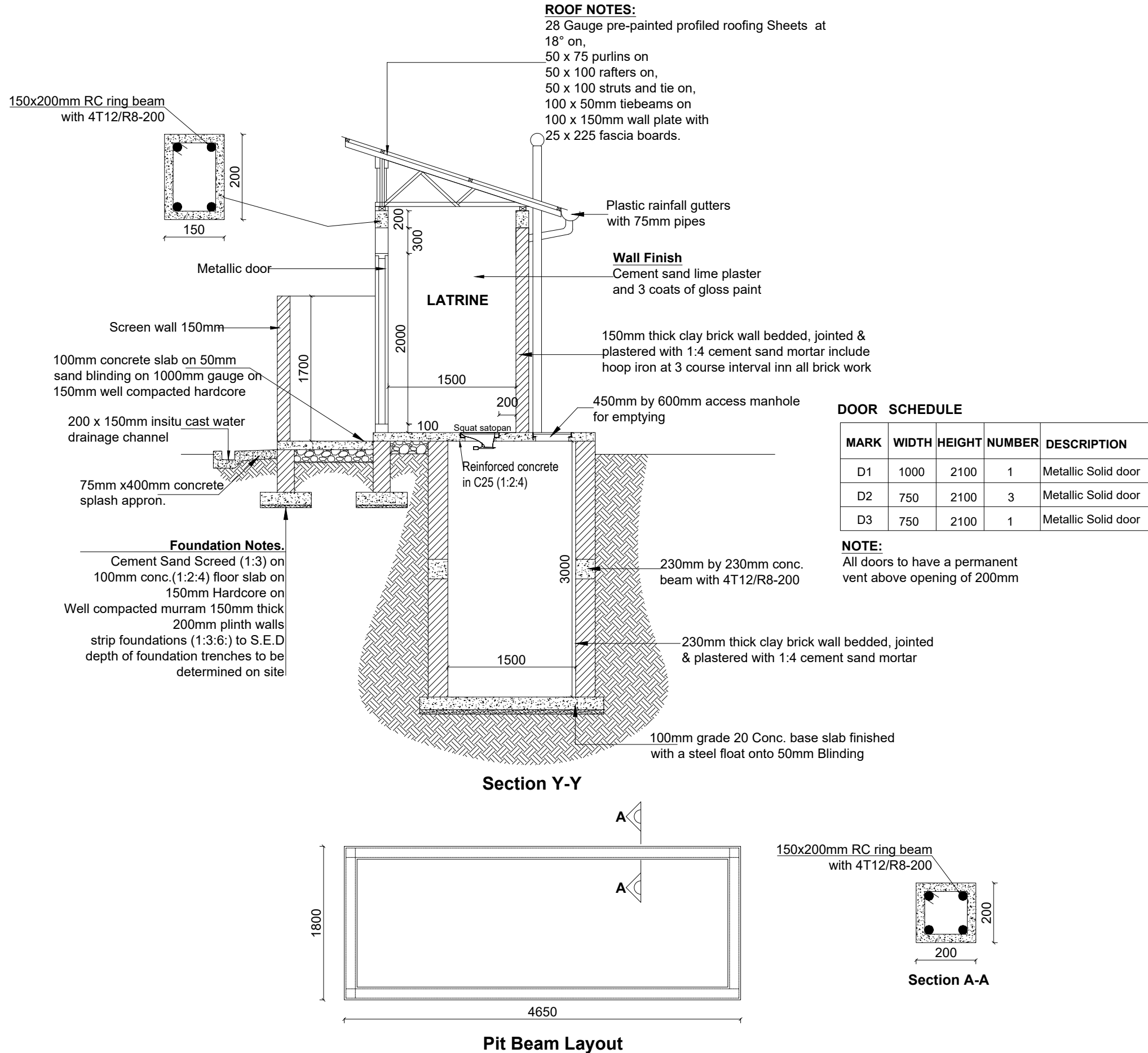
No	Date	Description

DRAWING TITLE : **SANITATION FACILITIES**
 VIP Latrine Gents - Elevations

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-002
Scale:	1:50
Sheet No.:	2 of 3

FOUR STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND URINAL

LEGEND



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PROJECT :
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 SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

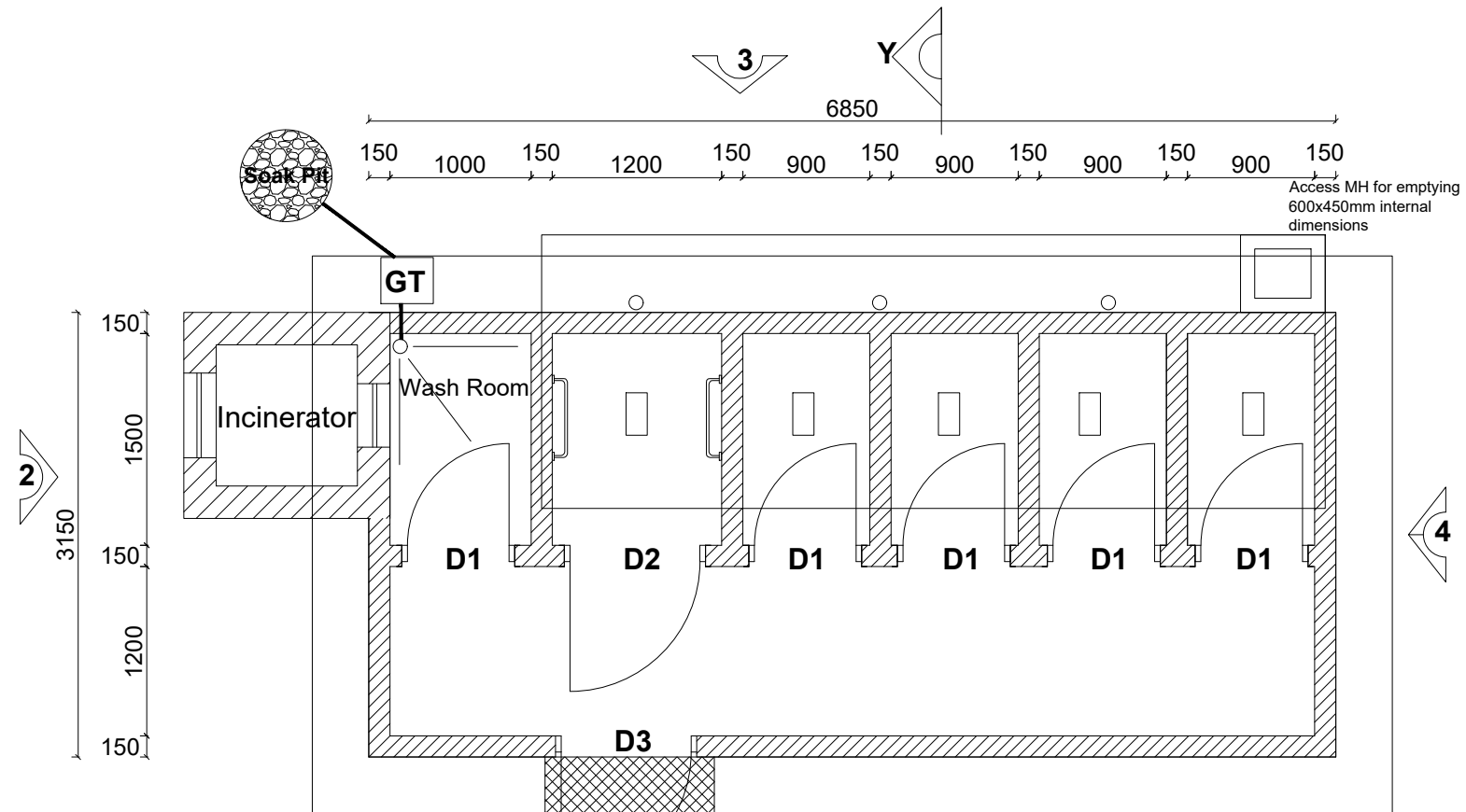
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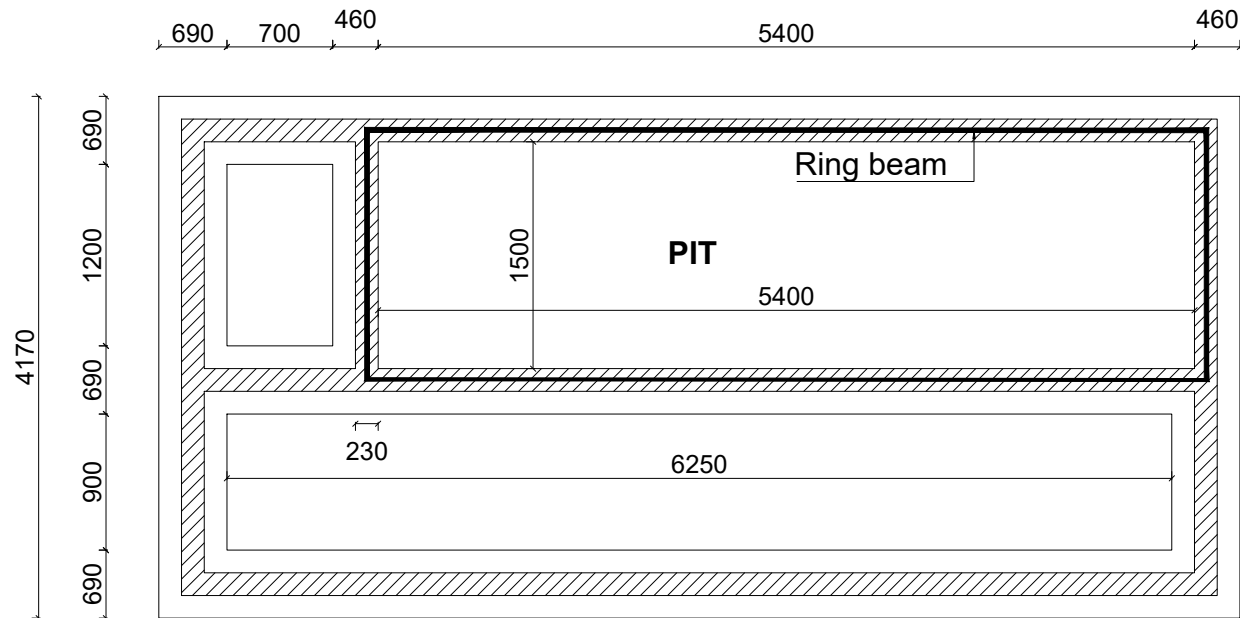
DRAWING TITLE :
SANITATION FACILITIES
 VIP Latrine Gents - Section & Door and Window Schedule

Surveyed by: R.K
 Drawn by: M.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: ALA-ORA- SAN-002
 Scale: 1:50 Sheet No.: 3 of 3

FIVE STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND INCINERATOR



LADIES VIP PLAN



FOUNDATION LAYOUT

LEGEND

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PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

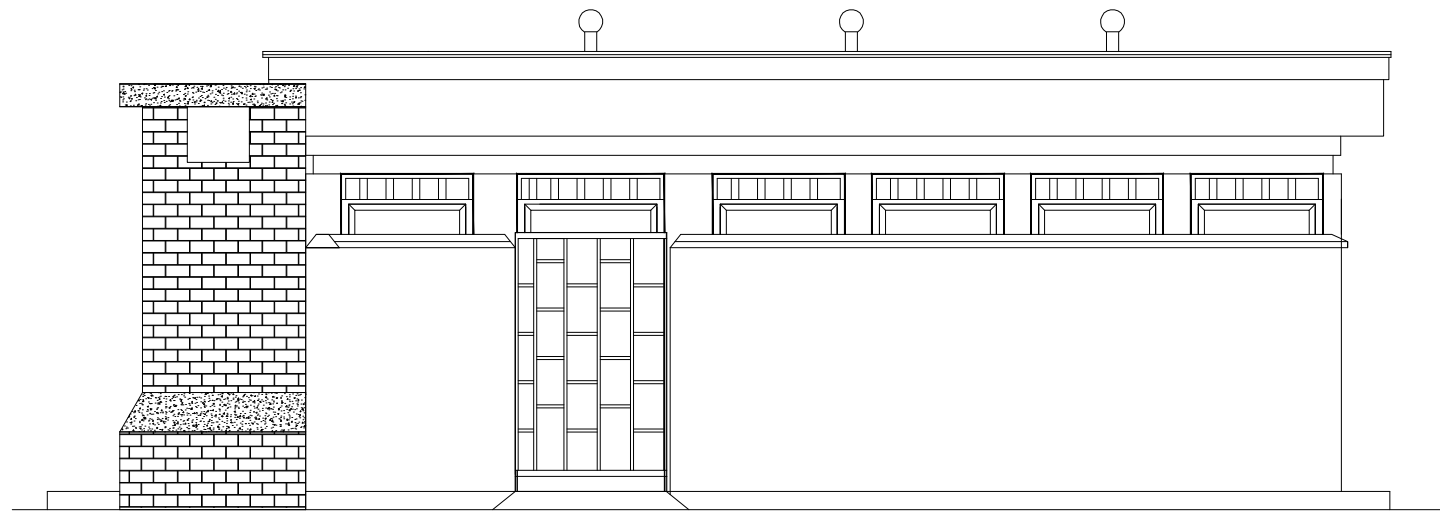
REVISIONS :

No	Date	Description

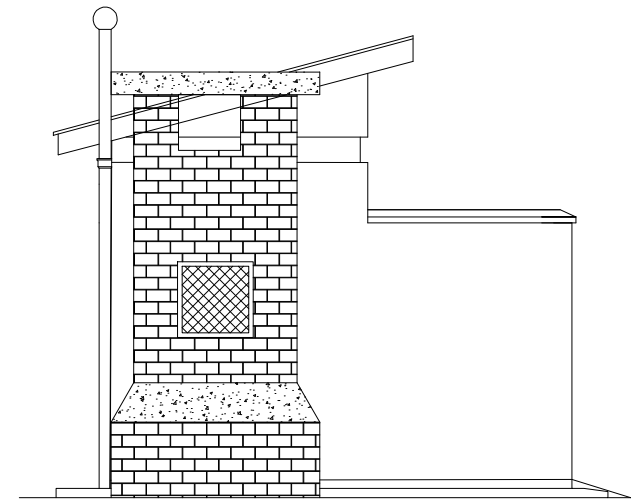
DRAWING TITLE : **SANITATION FACILITIES**
 VIP Latrine Ladies - Plan and Foundation Layout

Surveyed by: R.K
 Drawn by: M.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: ALA-ORA- SAN-003
 Scale: 1:50 Sheet No.: 1 of 3

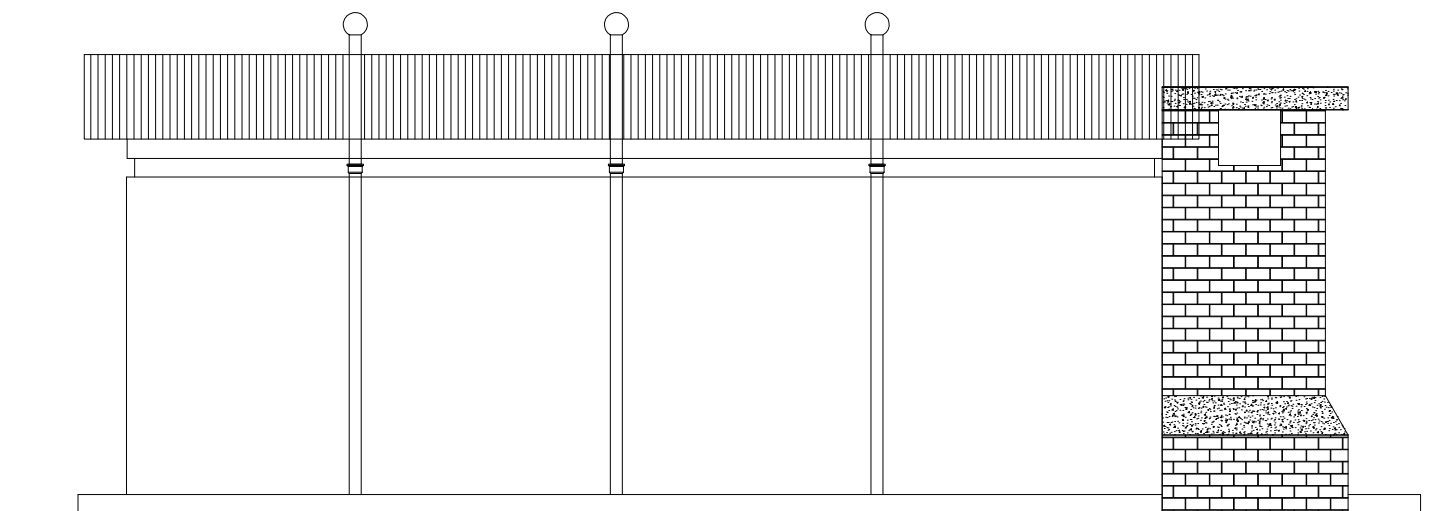
FIVE STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND INCINERATOR



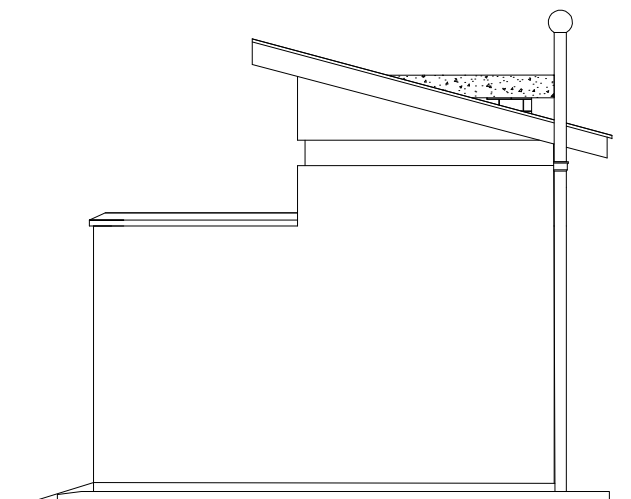
ELEVATION 1



ELEVATION 2



ELEVATION 3



ELEVATION 4

LEGEND

CLIENT :



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PROJECT :

**ALA-ORA WATER SUPPLY AND
SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

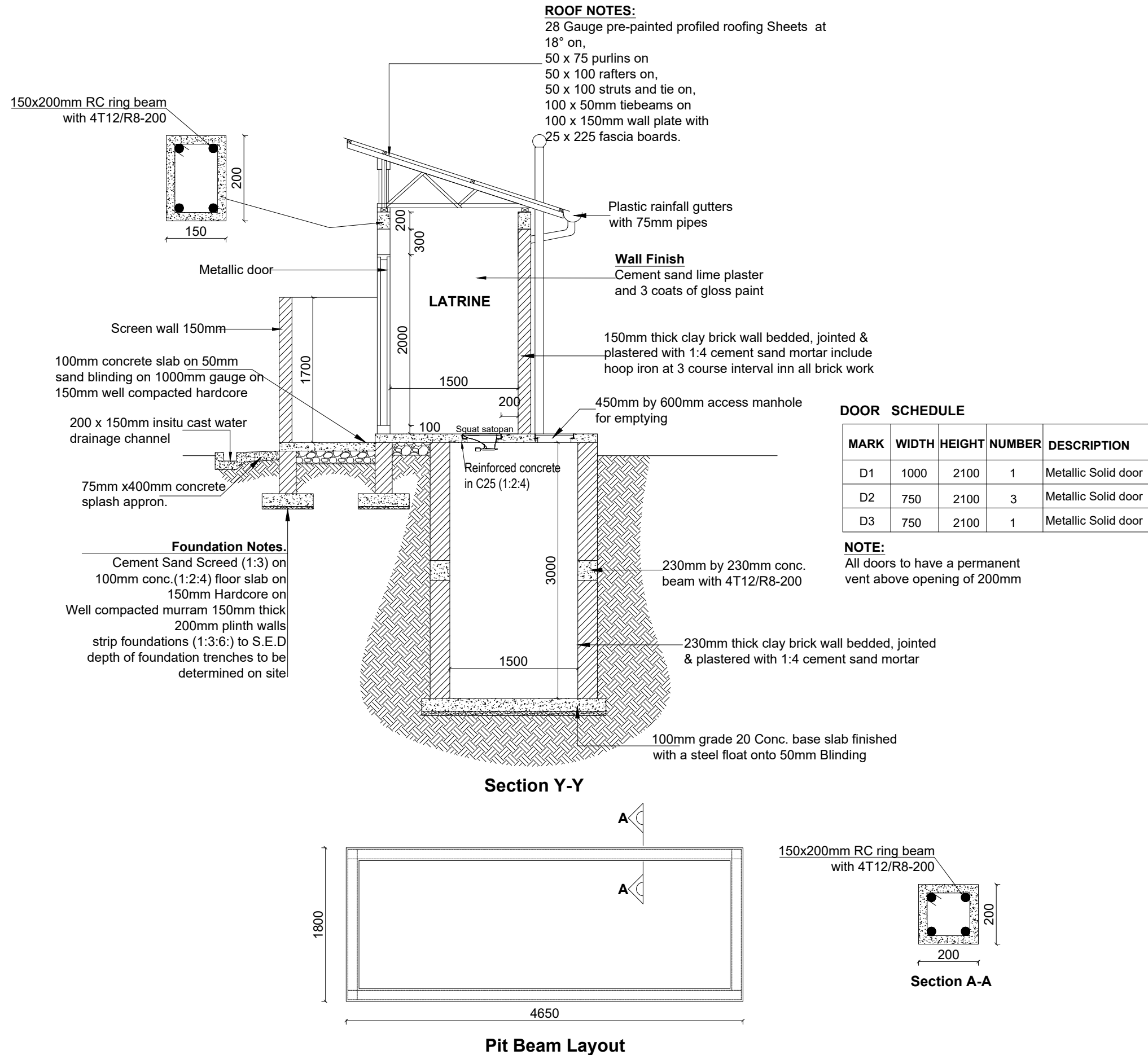
DRAWING TITLE :

SANITATION FACILITIES
VIP Latrine Ladies - Elevations


Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-003
Scale:	1:50
Sheet No.:	2 of 3


FIVE STANCE VIP LATRINE INCLUDING A DISABLED UNIT AND INCINERATOR

LEGEND



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PROJECT :
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 SANITATION PROJECT**

**NYAGAK WATER SUPPLY AND
 SANITATION SYSTEM**

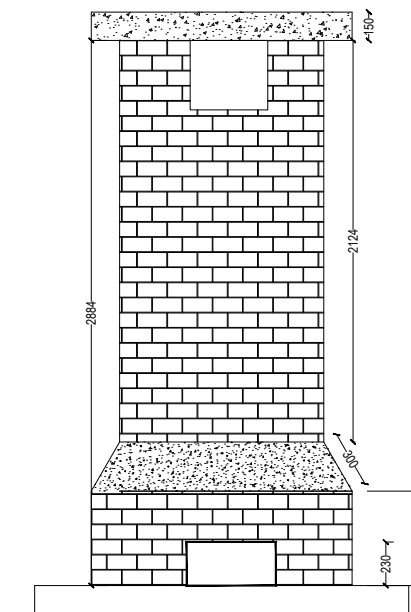
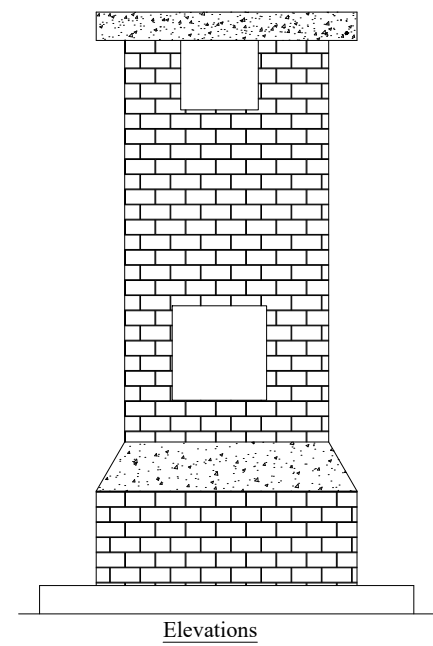
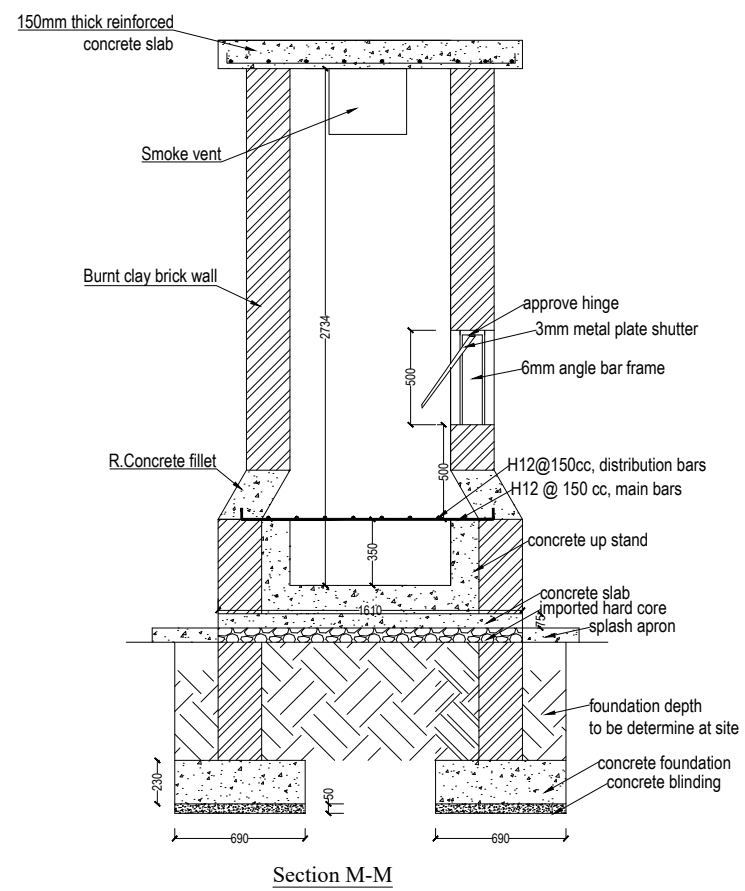
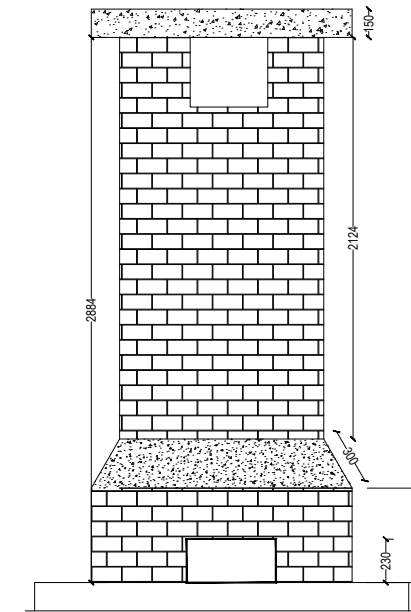
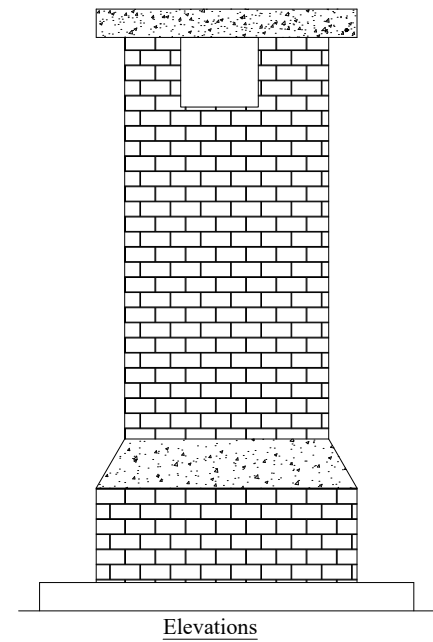
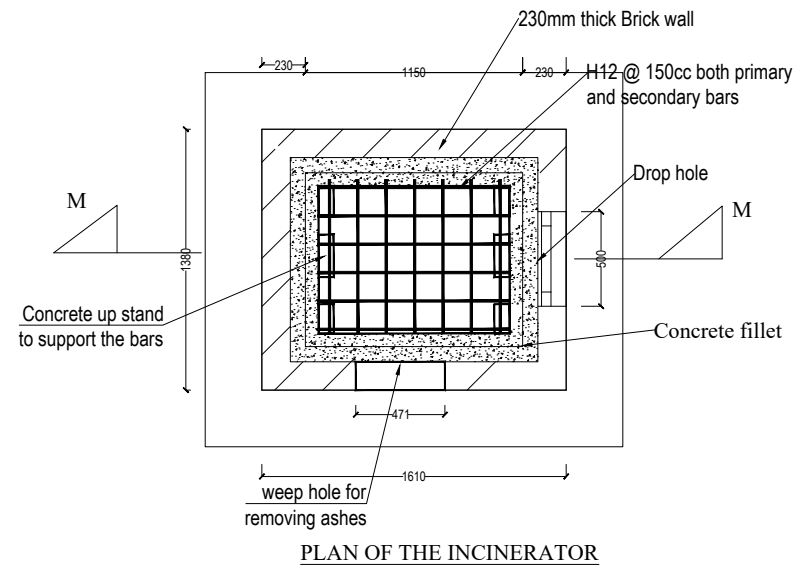
REVISIONS :

No	Date	Description

DRAWING TITLE :
SANITATION FACILITIES
 VIP Latrine Ladies - Section & Door and Window Schedule

Surveyed by: R.K
 Drawn by: M.K
 Designed by: W.G.M
 Checked by: J.K.K
 Date: January 2023
 DRG. No.: ALA-ORA- SAN-003
 Scale: 1:50 Sheet No.: 3 of 3

INCINERATOR DETAILS



LEGEND

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ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

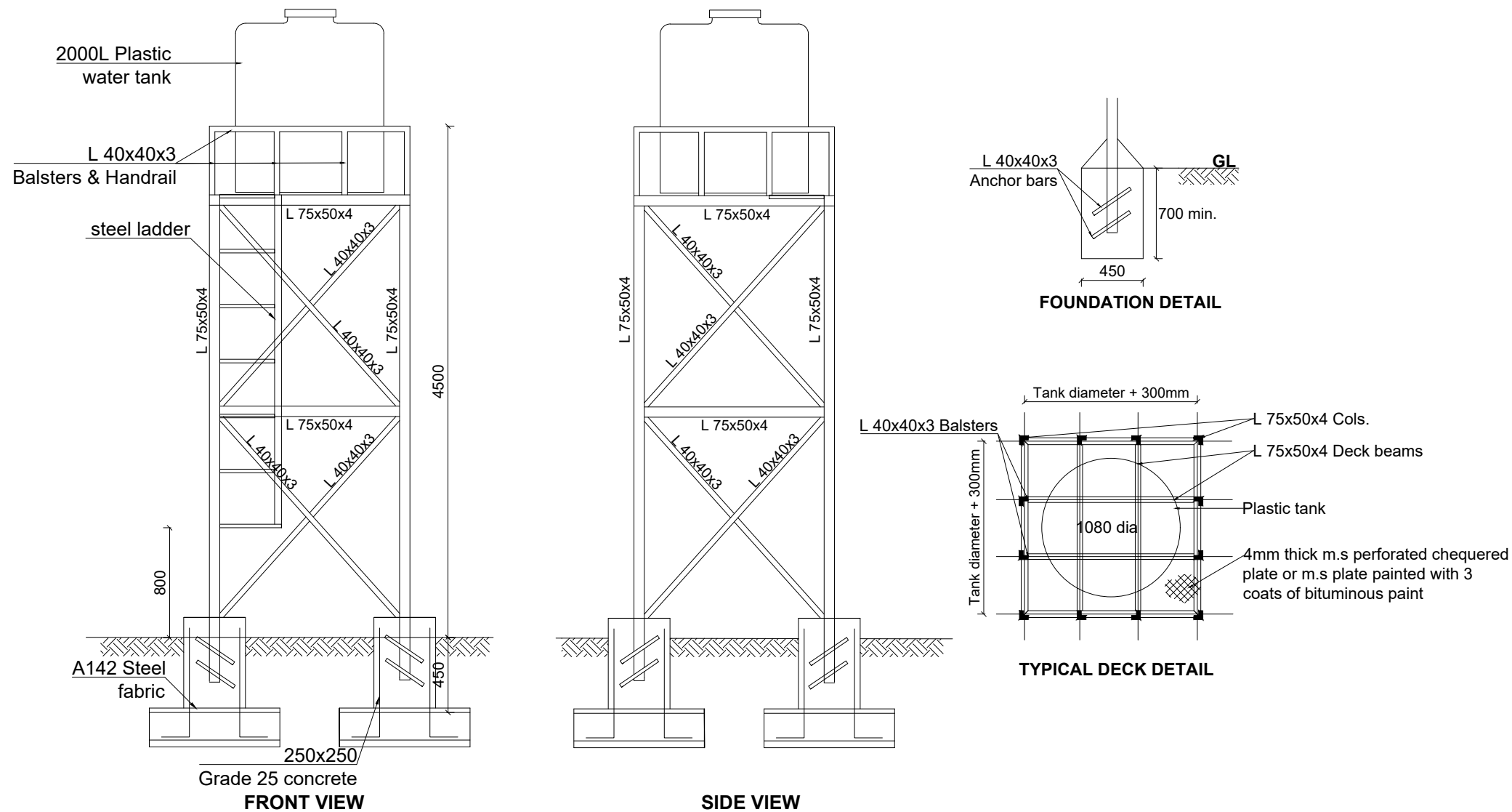
REVISIONS :

No	Date	Description

DRAWING TITLE : **SANITATION FACILITIES**
 Incinerator

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-004
Scale:	1:40
Sheet No.:	1 of 1

WATER TANK SUPPORTING STRUCTURE



LEGEND

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PROJECT :
ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

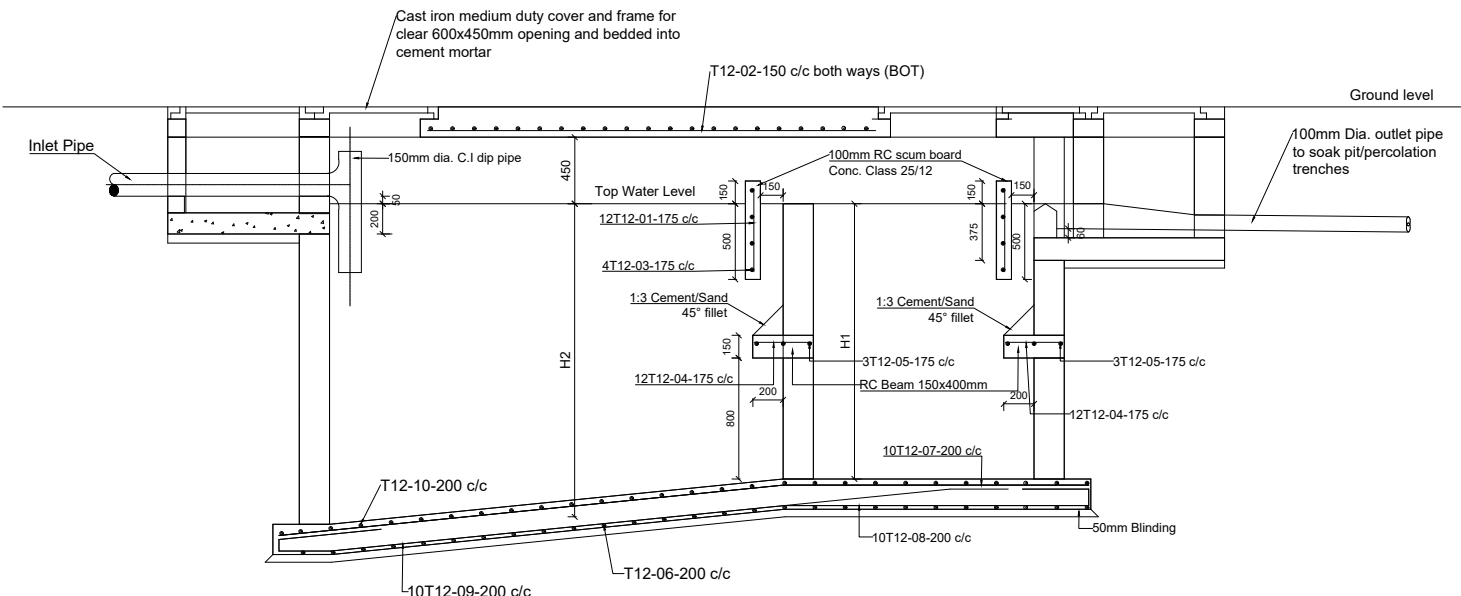
REVISIONS :

No	Date	Description

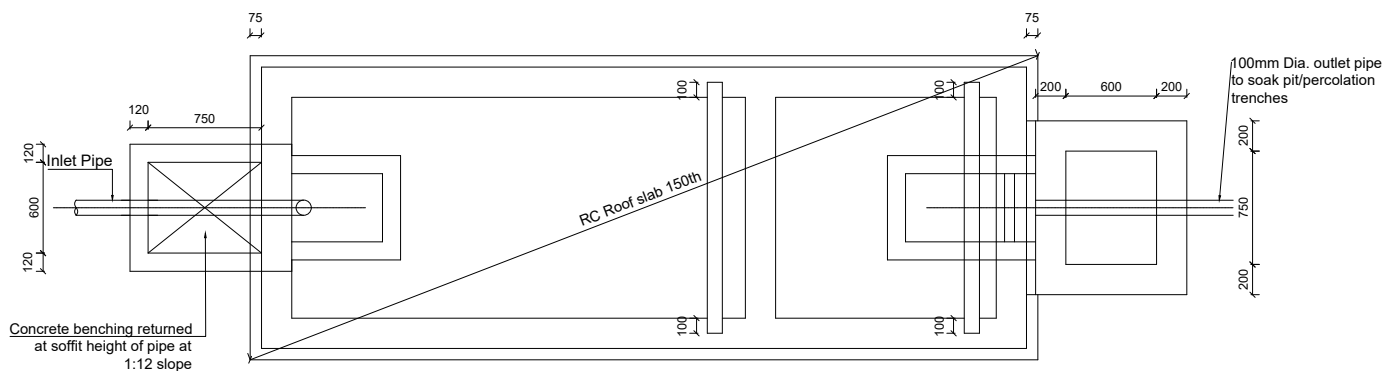
DRAWING TITLE : **SANITATION FACILITIES**
 Public Toilets - Elevated Tank Details

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-005
Scale:	1:40
Sheet No.:	5 of 6

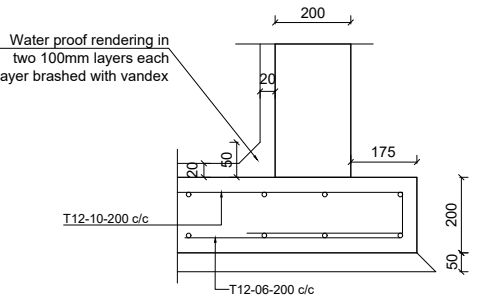
NoviC TANK



SECTION A-A

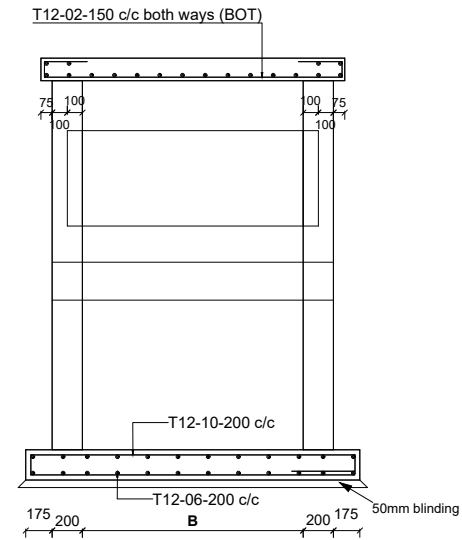
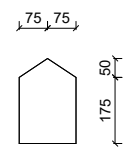


ROOF SLAB PLAN

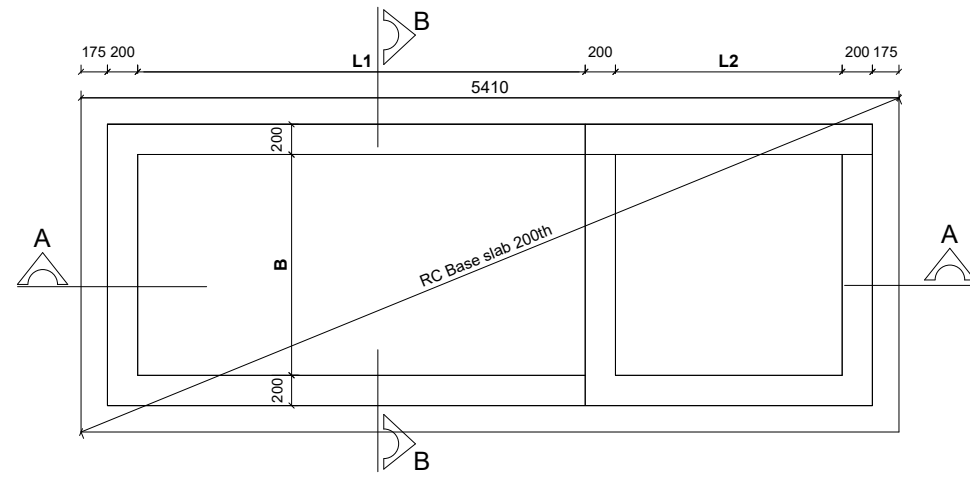


INTERNAL WATER PROOF TO WALLS AND SLABS

CONC. WEIR BLOCK DETAIL



SECTION B-B



NoviC TANK DIMENSIONS

INTERNAL DIMENSIONS (mm)					CAPACITY	NO. OF USERS
L1	L2	H1	H2	B	Cu. M	
1540	760	1600	1750	760	3.2	10
1900	900	1800	2000	900	4.5	20
2000	1000	1800	2000	1100	5.9	30
2400	1100	1800	2000	1150	7.24	40
2500	1200	1800	2000	1300	8.6	50
2000	1300	1800	2000	1400	10	60
2000	1400	1800	2000	1450	11.3	70
3000	1500	1800	2000	1560	12.7	80
3200	1600	1800	2000	1600	14	90
3300	1700	1800	2000	1700	15.4	100
4000	2000	1800	2000	2090	24	150
4500	2000	1800	2000	2650	34.3	200

LEGEND

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In Association with

PROJECT :

ALA-ORA WATER SUPPLY AND SANITATION PROJECT

NYAGAK WATER SUPPLY AND SANITATION SYSTEM

REVISIONS :

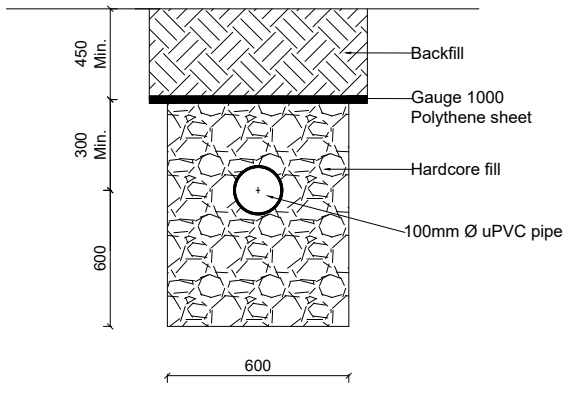
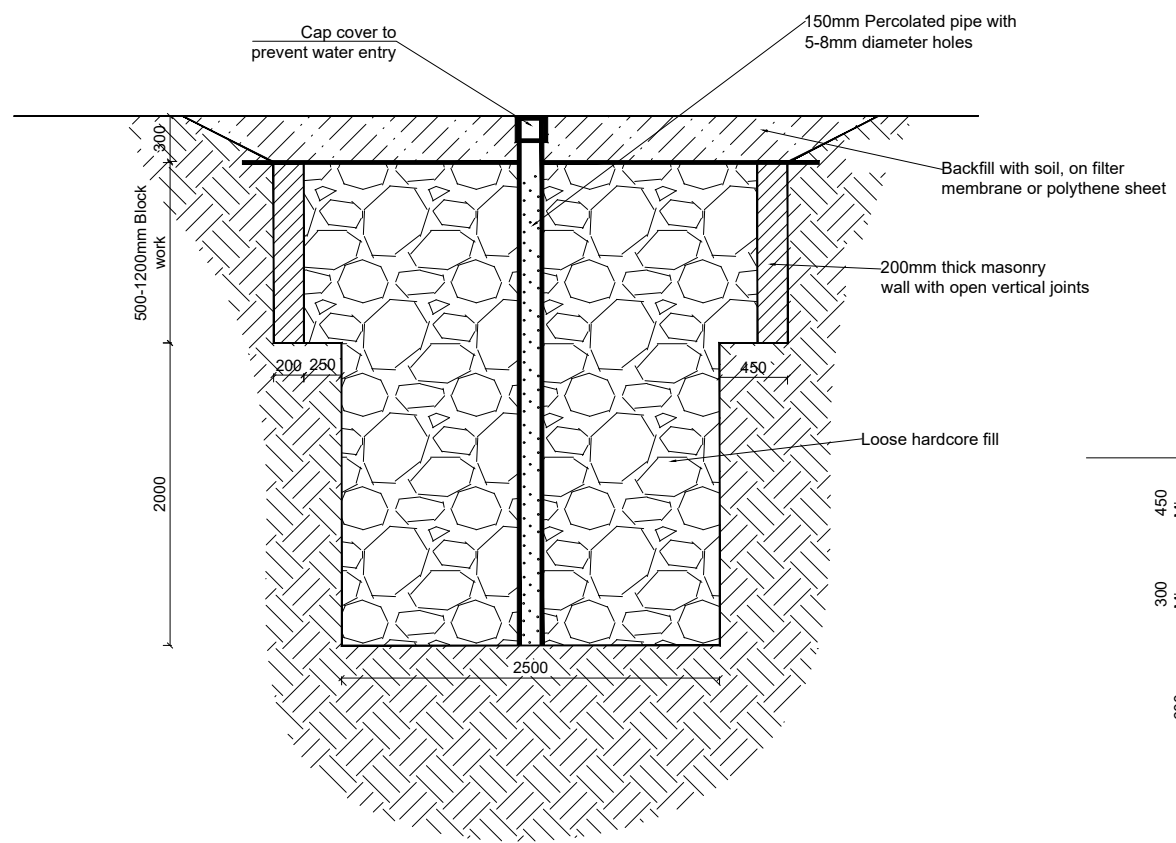
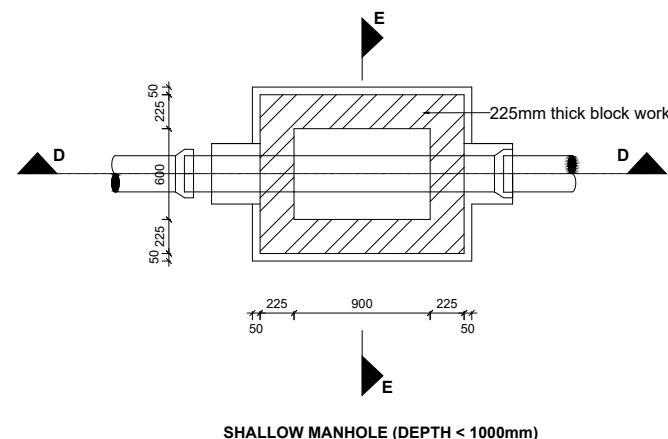
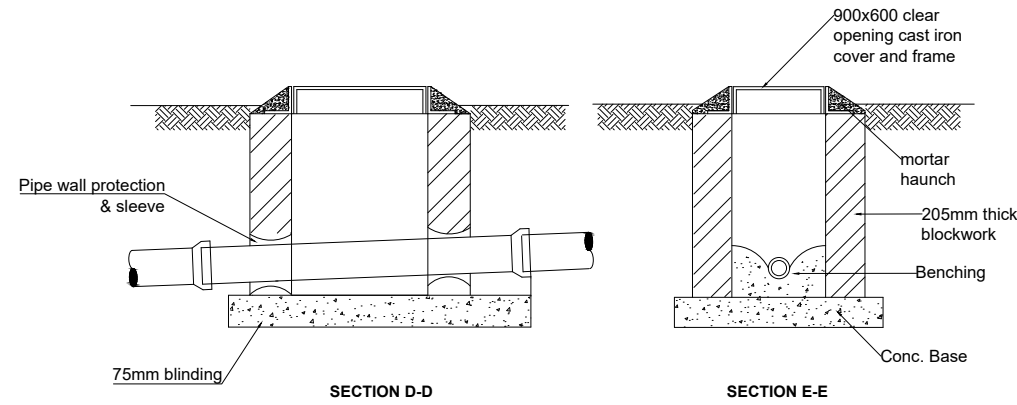
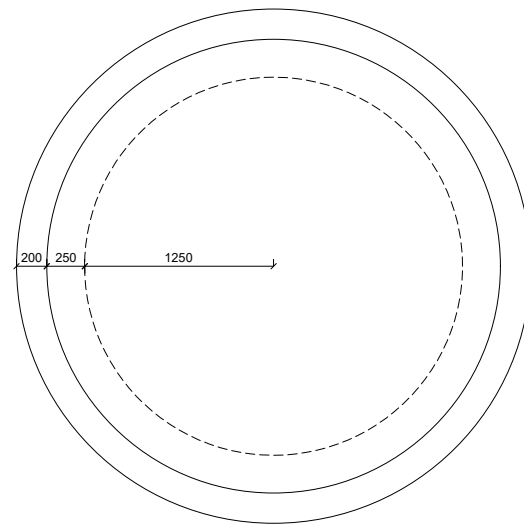
No	Date	Description

DRAWING TITLE :

SANITATION FACILITIES
NoviC Tank

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-006
Scale:	1:50
Sheet No.:	1 of 1

SOAK AWAY PIT AND MANHOLE DETAILS



Note:
Detail for areas with sandy or red soils,
for clay or black-cotton soils appropriate
solutions to be determined on site.

LEGEND

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PROJECT :

ALA-ORA WATER SUPPLY AND
SANITATION PROJECT

**NYAGAK WATER SUPPLY AND
SANITATION SYSTEM**

REVISIONS :

No	Date	Description

DRAWING TITLE: **SANITATION FACILITIES**
Manhole and Soak away Pit

Surveyed by:	R.K
Drawn by:	M.K
Designed by:	W.G.M
Checked by:	J.K.K
Date:	January 2023
DRG. No.:	ALA-ORA- SAN-007
Scale:	1:50
Sheet No.:	1 of 1