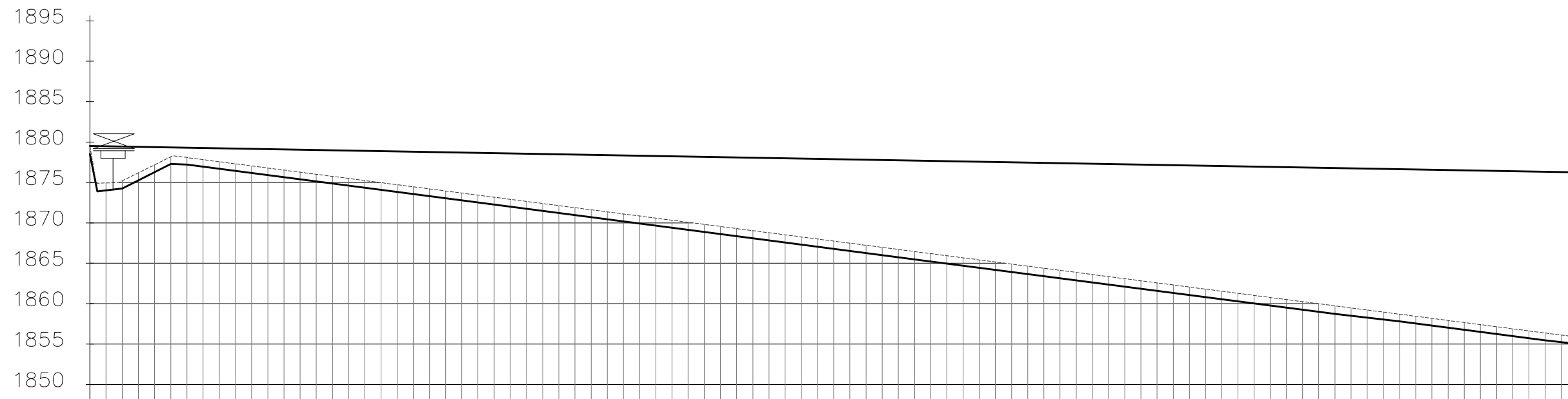


- NOTES**
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
 - COORDINATES ARE BASED ON UTM.
 - LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
 - GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
 - PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
 - ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
 - IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.

- LEGEND:**
- PROPOSED PIPELINE
 - - - - - EXISTING GROUND PROFILE
 - PIPE INVERT PROFILE
 - EXISTING ROAD
 - ◇ AIR VALVE
 - DAV DOUBLE AIR VALVE
 - ▽ WASHOUT
 - W01 WASHOUT TYPE 1
 - W02 WASHOUT TYPE 2
 - DN NOMINAL DIAMETER
 - PN NOMINAL PRESSURE
 - VB VERTICAL BEND
 - HB HORIZONTAL BEND
 - ▨ EXISTING STRUCTURE
 - ER EARTH ROAD
 - GR GRAVEL ROAD
 - ▩ CUT




DISTANCE DATUM (m)	GROUND LEVELS (m)	INVERT LEVELS(m)	DEPTH FROM GROUND LEVEL TO INVERT LEVEL (m)	HGL(m)	TYPE OF PIPE AND SIZE
0+000.00	1879.52	1874.00	5.52	1879.52	100mm
0+020.00	1879.49	1874.03	5.46	1879.49	100mm
0+040.00	1879.45	1874.26	5.19	1879.45	100mm
0+060.00	1879.42	1875.28	4.14	1879.42	100mm
0+080.00	1879.38	1876.29	3.09	1879.38	100mm
0+100.00	1879.34	1877.30	2.04	1879.34	100mm
0+120.00	1879.31	1877.20	2.11	1879.31	100mm
0+140.00	1879.27	1876.94	2.33	1879.27	100mm
0+160.00	1879.24	1876.68	2.56	1879.24	100mm
0+180.00	1879.20	1876.42	2.78	1879.20	100mm
0+200.00	1879.17	1876.16	3.01	1879.17	100mm
0+220.00	1879.13	1875.90	3.23	1879.13	100mm
0+240.00	1879.10	1875.64	3.46	1879.10	100mm
0+260.00	1879.06	1875.38	3.68	1879.06	100mm
0+280.00	1879.02	1875.12	3.90	1879.02	100mm
0+300.00	1878.99	1874.86	4.13	1878.99	100mm
0+320.00	1878.95	1874.60	4.35	1878.95	100mm
0+340.00	1878.92	1874.34	4.58	1878.92	100mm
0+360.00	1878.88	1874.08	4.80	1878.88	100mm
0+380.00	1878.85	1873.82	5.03	1878.85	100mm
0+400.00	1878.81	1873.56	5.25	1878.81	100mm
0+420.00	1878.77	1873.30	5.47	1878.77	100mm
0+440.00	1878.74	1873.04	5.70	1878.74	100mm
0+460.00	1878.70	1872.78	5.92	1878.70	100mm
0+480.00	1878.67	1872.52	6.15	1878.67	100mm
0+500.00	1878.63	1872.26	6.37	1878.63	100mm
0+520.00	1878.60	1872.00	6.60	1878.60	100mm
0+540.00	1878.56	1871.74	6.82	1878.56	100mm
0+560.00	1878.53	1871.48	7.05	1878.53	100mm
0+580.00	1878.49	1871.22	7.27	1878.49	100mm
0+600.00	1878.45	1870.96	7.49	1878.45	100mm
0+620.00	1878.42	1870.70	7.72	1878.42	100mm
0+640.00	1878.38	1870.44	7.94	1878.38	100mm
0+660.00	1878.35	1870.18	8.17	1878.35	100mm
0+680.00	1878.31	1869.92	8.39	1878.31	100mm
0+700.00	1878.28	1869.66	8.62	1878.28	100mm
0+720.00	1878.24	1869.40	8.84	1878.24	100mm
0+740.00	1878.21	1869.14	9.07	1878.21	100mm
0+760.00	1878.17	1868.88	9.29	1878.17	100mm
0+780.00	1878.13	1868.61	9.52	1878.13	100mm
0+800.00	1878.10	1868.35	9.75	1878.10	100mm
0+820.00	1878.06	1868.09	9.97	1878.06	100mm
0+840.00	1878.03	1867.83	10.20	1878.03	100mm
0+860.00	1877.99	1867.57	10.42	1877.99	100mm
0+880.00	1877.96	1867.30	10.65	1877.96	100mm
0+900.00	1877.92	1867.04	10.88	1877.92	100mm
0+920.00	1877.88	1866.78	11.10	1877.88	100mm
0+940.00	1877.85	1866.52	11.33	1877.85	100mm
0+960.00	1877.81	1866.26	11.55	1877.81	100mm
0+980.00	1877.78	1866.00	11.78	1877.78	100mm
1+000.00	1877.74	1865.73	12.01	1877.74	100mm
1+020.00	1877.71	1865.47	12.24	1877.71	100mm
1+040.00	1877.67	1865.21	12.46	1877.67	100mm
1+060.00	1877.64	1864.95	12.69	1877.64	100mm
1+080.00	1877.60	1864.69	12.91	1877.60	100mm
1+100.00	1877.56	1864.43	13.13	1877.56	100mm
1+120.00	1877.53	1864.17	13.36	1877.53	100mm
1+140.00	1877.49	1863.91	13.58	1877.49	100mm
1+160.00	1877.46	1863.65	13.81	1877.46	100mm
1+180.00	1877.42	1863.40	14.03	1877.42	100mm
1+200.00	1877.39	1863.14	14.25	1877.39	100mm
1+220.00	1877.35	1862.88	14.47	1877.35	100mm
1+240.00	1877.32	1862.62	14.70	1877.32	100mm
1+260.00	1877.28	1862.36	14.92	1877.28	100mm
1+280.00	1877.24	1862.10	15.14	1877.24	100mm
1+300.00	1877.21	1861.84	15.37	1877.21	100mm
1+320.00	1877.17	1861.58	15.59	1877.17	100mm
1+340.00	1877.14	1861.32	15.82	1877.14	100mm
1+360.00	1877.10	1861.06	16.04	1877.10	100mm
1+380.00	1877.07	1860.80	16.27	1877.07	100mm
1+400.00	1877.03	1860.54	16.49	1877.03	100mm
1+420.00	1876.99	1860.28	16.71	1876.99	100mm
1+440.00	1876.96	1860.02	16.94	1876.96	100mm
1+460.00	1876.92	1859.76	17.16	1876.92	100mm
1+480.00	1876.89	1859.50	17.39	1876.89	100mm
1+500.00	1876.85	1859.24	17.61	1876.85	100mm
1+520.00	1876.82	1858.98	17.84	1876.82	100mm
1+540.00	1876.78	1858.72	18.06	1876.78	100mm
1+560.00	1876.75	1858.46	18.29	1876.75	100mm
1+580.00	1876.71	1858.20	18.51	1876.71	100mm
1+600.00	1876.67	1857.94	18.73	1876.67	100mm
1+620.00	1876.64	1857.68	18.96	1876.64	100mm
1+640.00	1876.60	1857.42	19.18	1876.60	100mm
1+660.00	1876.57	1857.16	19.41	1876.57	100mm
1+680.00	1876.53	1856.90	19.63	1876.53	100mm
1+700.00	1876.50	1856.64	19.86	1876.50	100mm
1+720.00	1876.46	1856.38	20.08	1876.46	100mm
1+740.00	1876.43	1856.12	20.31	1876.43	100mm
1+760.00	1876.39	1855.86	20.53	1876.39	100mm
1+780.00	1876.35	1855.60	20.75	1876.35	100mm
1+800.00	1876.32	1855.34	20.98	1876.32	100mm
1+820.00	1876.28	1855.08	21.20	1876.28	100mm

FOR CONSTRUCTION
signed CMTS

REV	REVISIONS	SIGN	DATE	APPROVED
	BY			
	CHECKED			
	BY			
	CHECKED			
	BY			
	CHECKED			
60	ISSUED FOR CONSTRUCTION	BY		
		CHECKED		

CLIENT




TANA WATER WORKS
DEVELOPMENT AGENCY
P. O. BOX 1292-10100
NYERI

PROJECT

DESIGNS FOR AUGMENTATION OF
TIGITHI-HUMUKA WATER PROJECT

Civil/Structural Engineers



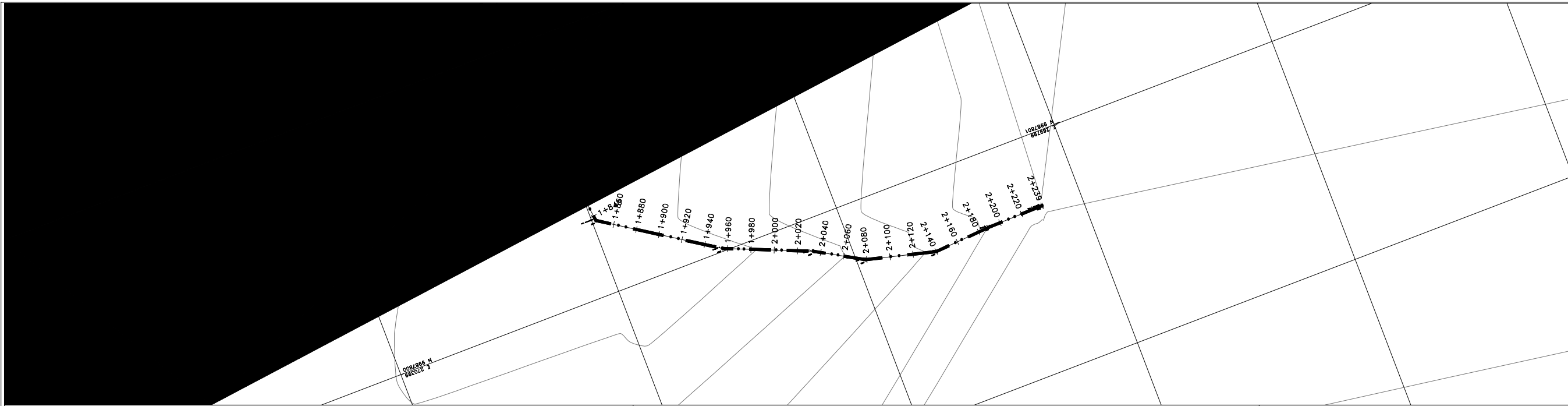
TANA WATER WORKS
DEVELOPMENT AGENCY
P. O. BOX 1292-10100
NYERI

Drawing Title

MWIYOGO TANK SUPPLY
LINE 1
PLAN AND PROFILE (SHEET 1 OF 2)

Designed by KNG	Drawn by MK
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date SEPTEMBER 2023
Job No. 1	ACAD File:
PD STATUS	DRAWING No.TWDA/THWP/MTS1/0

Mwiyo Tank Supply Line 1
SCALE: HOR 1:2000 VERT 1:1000



NOTES

1. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
2. COORDINATES ARE BASED ON UTM.
3. LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
4. GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
5. PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
6. ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
7. IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.

- LEGEND:**
- PROPOSED PIPELINE
 - EXISTING GROUND PROFILE
 - PIPE INVERT PROFILE
 - EXISTING ROAD
 - AIR VALVE
 - DOUBLE AIR VALVE
 - WASHOUT
 - W01 - WASHOUT TYPE 1
 - W02 - WASHOUT TYPE 2
 - DN - NOMINAL DIAMETER
 - PN - NOMINAL PRESSURE
 - VB - VERTICAL BEND
 - HB - HORIZONTAL BEND
 - EXISTING STRUCTURE
 - ER - EARTH ROAD
 - GR - GRAVEL ROAD
 - CUT

FOR CONSTRUCTION
signed CMTS

REV	REVISIONS	SIGN	DATE	APPROVED
	BY			
	CHECKED			
	BY			
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	BY			
	CHECKED			
CO	ISSUED FOR CONSTRUCTION	BY		
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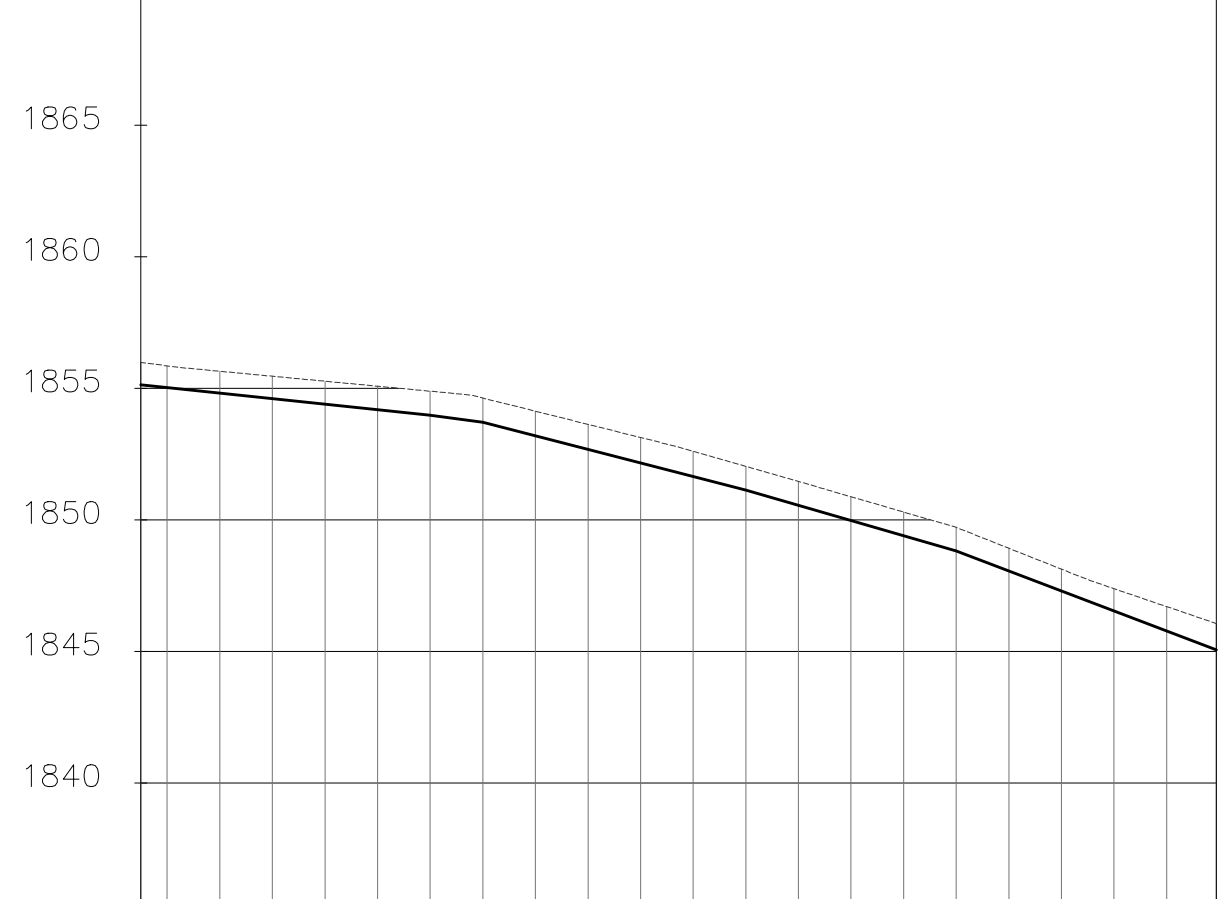
CLIENT
 TANA WATER WORKS DEVELOPMENT AGENCY
 P. O. BOX 1292-10100 NYERI

PROJECT
 DESIGNS FOR AUGMENTATION OF TIGITHI-HUMUKA WATER PROJECT

Civil/Structural Engineers
 TANA WATER WORKS DEVELOPMENT AGENCY
 P. O. BOX 1292-10100 NYERI

Drawing Title
 MWIYOGO TANK SUPPLY LINE 1
 PLAN AND PROFILE (SHEET 2 OF 2)

Designed by KNG	Drawn by MK
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date SEPTEMBER 2023
Job No. 1	ACAD File:
PD STATUS	DRAWING NoJWWDA/THWP/MTS1/02/REV



DISTANCE DATUM (m)	GROUND LEVELS (m)	INVERT LEVELS(m)	DEPTH FROM GROUND LEVEL TO INVERT LEVEL (m)	HGL(m)	TYPE OF PIPE AND SIZE
1+830.00	1876.27	1875.54	0.85	1876.27	PN10 0DS0MM HDPE
1+840.00	1876.25	1875.55	0.82	1876.25	
1+860.00	1876.21	1875.65	0.83	1876.21	
1+880.00	1876.18	1875.46	0.85	1876.18	
1+900.00	1876.14	1875.27	0.87	1876.14	
1+920.00	1876.10	1875.08	0.89	1876.10	
1+940.00	1876.07	1874.89	0.91	1876.07	
1+960.00	1876.03	1874.63	0.92	1876.03	
1+980.00	1876.00	1874.13	0.94	1876.00	
2+000.00	1875.96	1873.63	0.95	1875.96	
2+020.00	1875.93	1873.13	0.97	1875.93	
2+040.00	1875.89	1872.60	0.96	1875.89	
2+060.00	1875.86	1872.03	0.91	1875.86	
2+080.00	1875.82	1871.46	0.91	1875.82	
2+100.00	1875.78	1870.88	0.91	1875.78	
2+120.00	1875.75	1870.29	0.90	1875.75	
2+140.00	1875.71	1869.71	0.90	1875.71	
2+160.00	1875.68	1869.12	0.86	1875.68	
2+180.00	1875.64	1868.53	0.83	1875.64	
2+200.00	1875.61	1867.94	0.85	1875.61	
2+220.00	1875.57	1867.35	0.93	1875.57	
2+238.87	1875.54	1866.76	1.00	1875.54	

Mwiyo Tank Supply Line 1
 SCALE: HOR 1:2000 VERT 1:1000