

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

REPUBLIC OF YEMEN

Ministry of Water & Environment

Urban Water supply & Sanitation Project  
(UWSSP)



الجمهورية اليمنية

وزارة المياه والبيئة

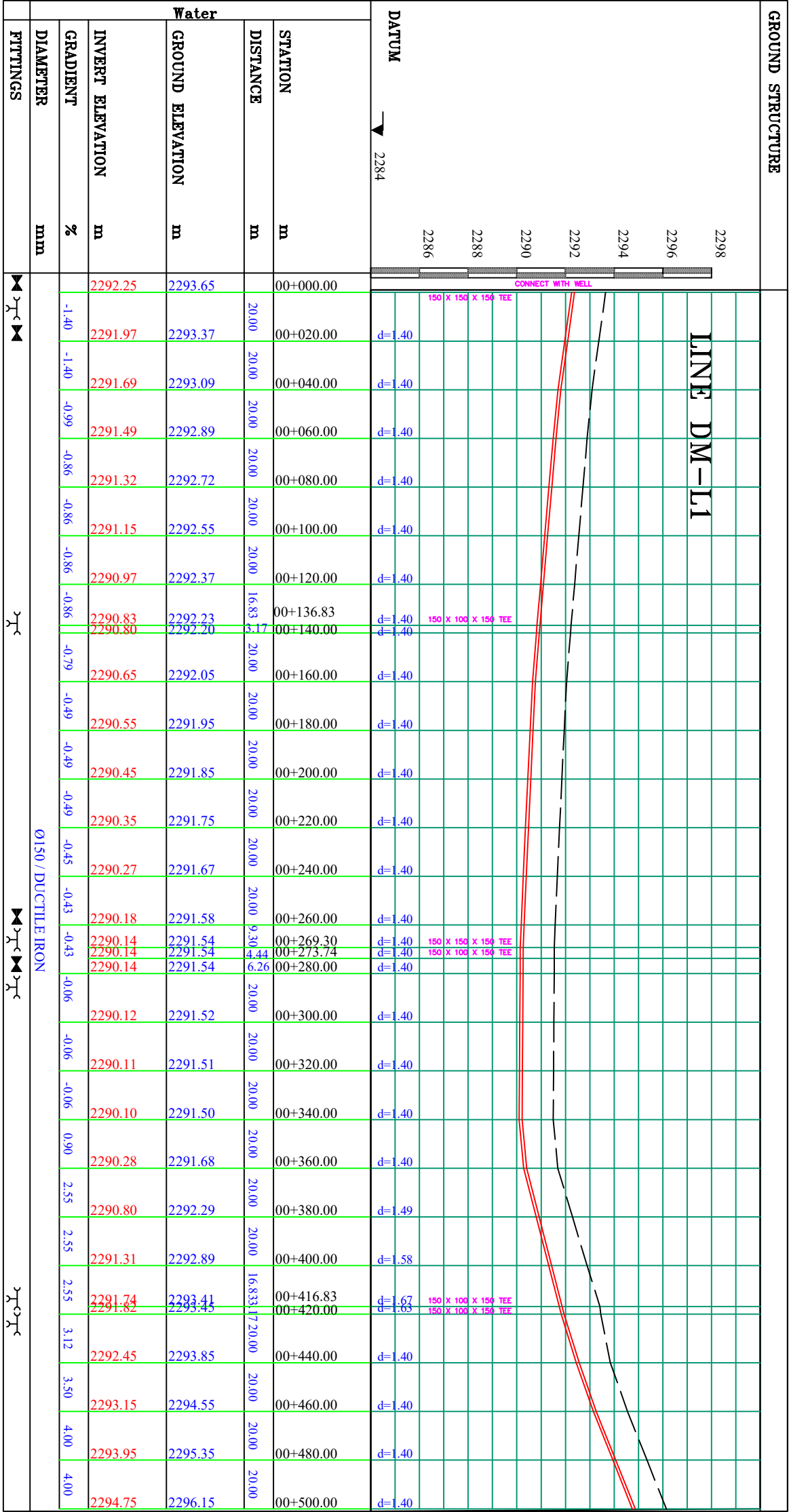
مشروع المياه والصرف الصحي للمدن الحضرية



## Bait Bous (Al-Nahdeen) Water Distribution Network

(Profiles)

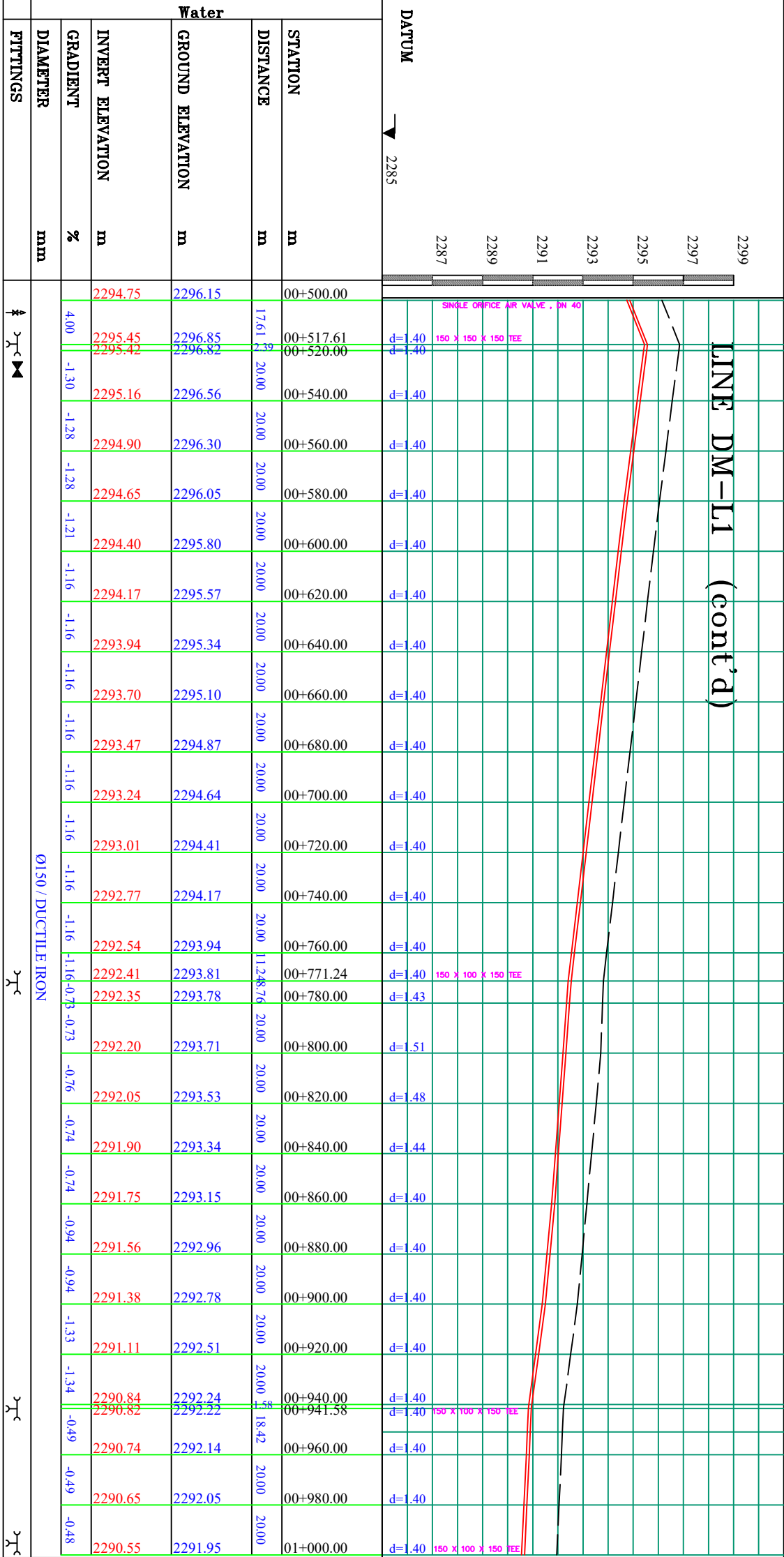
2023





REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT

GROUND STRUCTURE



- LEGEND:
- GROUND
  - PIPE
  - TEE
  - BEND
  - WASHOUT
  - AIR VALVE
  - REDUCER
  - ISOLATION VALVE



Project Name

Al-Nahdeen Water Distribution Network  
and Elevated Tank


Drawing Title

Profile

Line - DM- L1

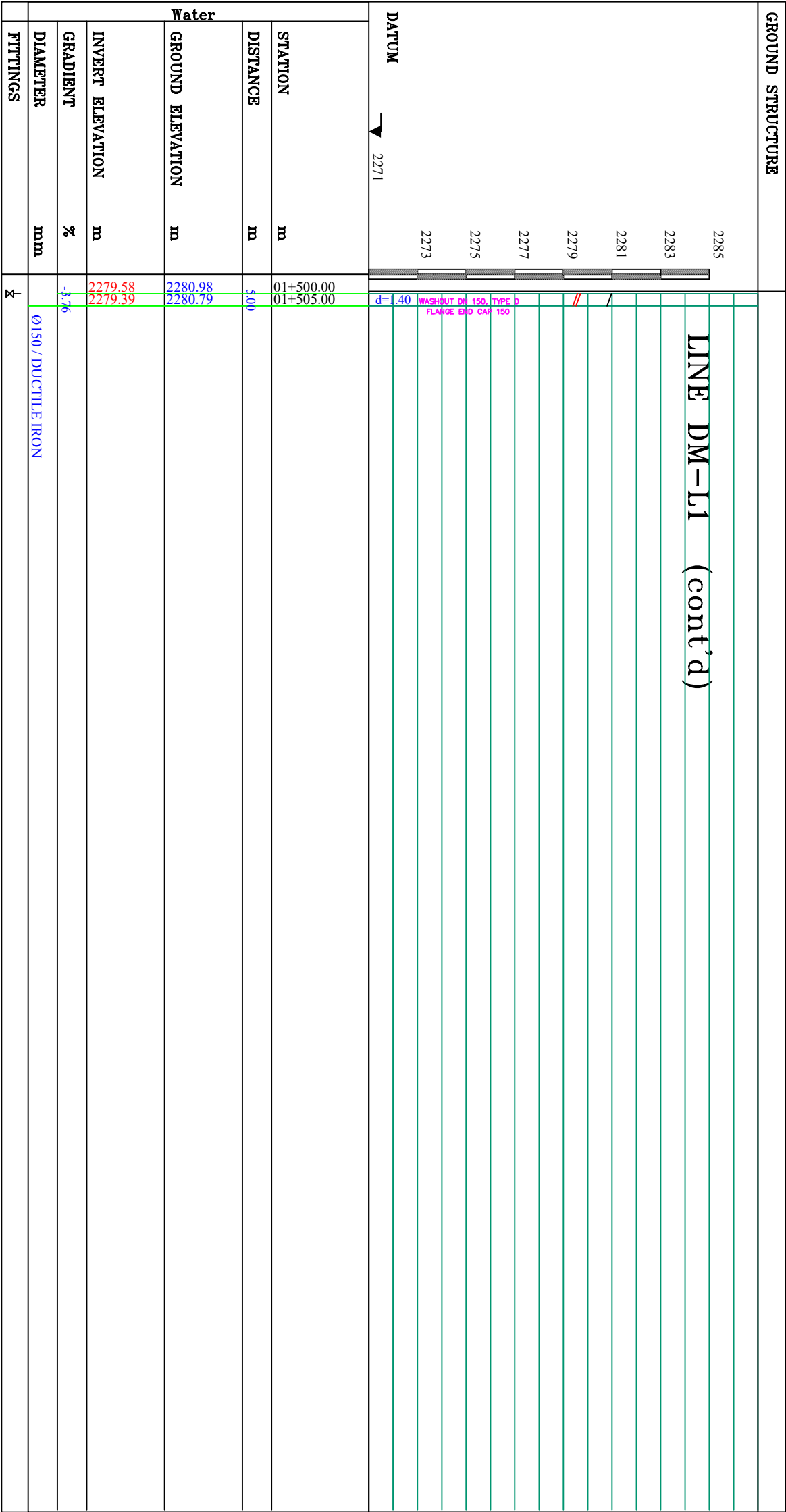
Designed By:	Eng. Ameen Al-Maweri	Drawing No.	Pr-02
Reviewed By:	Eng. Fares Hubaish	Scale	As Shown
Approved By:	Eng. Mohammed Al-Magdami		
Contract No	(IUS-AF-UWS-SAN-021)	Date	2023



 <p>REPUBLIC OF YEMEN MINISTRY OF WATER AND ENVIRONMENT</p>		
<p><b>LEGEND:</b></p> <p>— — — — — GROUND</p> <p>==== PIPE</p> <p>┌┐ TEE</p> <p>└└ BEND</p> <p>┌┐ WASHOUT</p> <p>┌┐ AIR VALVE</p> <p>┌┐ REDUCER</p> <p>┌┐ ISOLATION VALVE</p>		
<p><b>Project Name</b></p> <p>Al-Nahdeen Water Distribution Network and Elevated Tank</p>		
<p><b>Drawing Title</b></p> <p>Profile</p> <p>Line - DM- L1</p>		
Designed By:	Eng. Ameen Al-Maweri	Drawing Pr.-03
Reviewed By:	Eng. Fares Hubaish	Scale As Shown
Approved By:	Eng. Mohammed Al-Maghlami	
Contract No	(UWS-AF-UWS-SAN-021)	Date 2023



REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT



- LEGEND:
- GROUND
  - PIPE
  - TEE
  - BEND
  - WASHOUT
  - AIR VALVE
  - REDUCER
  - ISOLATION VALVE



Project Name  
Al-Nahdeen Water Distribution Network  
and Elevated Tank

Drawing Title  
Line - DM-L1

Designed By:	Eng. Ameen Al-Maweri	Drawing No.	Pr-04
Reviewed By:	Eng. Fares Hubaish	Scale	As Shown
Approved By:	Eng. Mohammed Al-Magdami		
Contract No	(UUS-AF-UWS-SAN-021)	Date	2023



REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT

LEGEND:

GROUND

PIPE

BEND

WASHOUT

AIR VALVE

REDUCER

ISOLATION VALVE

UNOPS

US Project

مشاريع المياه والبيئة

Project Name

Al-Nahdeen Water Distribution Network and Elevated Tank

Drawing Title

Profile  
Line - DM- L2

Designed By:

Eng. Ameen Al-Maweri

Reviewed By:

Eng. Fares Hubaish

Approved By:

Eng. Mohammed Al-Magdami

Contract No

(IUS-AF-UWS-SAN-021)

Drawing No.

Pr-05

Scale

As Shown

Date

2023

GROUND STRUCTURE		
<div><div><div>2298</div><div>2296</div><div>2294</div><div>2292</div><div>2290</div><div>2288</div><div>2286</div></div><div><div>CONNECT WITH LINE --DM-L1</div><div>d=1.40</div><div>150 X 150 X 150 TEE</div><div>d=1.50</div><div>WASHOUT DM 150,TYPE D</div><div>d=1.50</div><div>d=1.49</div><div>d=1.49</div><div>d=1.49</div><div>d=1.49</div><div>d=1.43</div><div>d=1.42</div><div>d=1.40</div><div>d=1.45</div><div>d=1.49</div><div>d=1.40</div><div>d=1.42</div><div>d=1.50</div><div>d=1.59</div><div>d=1.67</div><div>d=1.66</div><div>d=1.65</div><div>d=1.63</div><div>d=1.64</div><div>d=1.45</div><div>d=1.39</div><div>d=1.45</div><div>d=1.50</div><div>d=1.48</div><div>d=1.48</div><div>d=1.56</div><div>d=1.64</div><div>d=1.54</div></div></div>		<div>LINE DM-L2</div>
<div>DATUM</div> <div>2284</div>		
<div>Water</div>		
<div>GROUND ELEVATION</div> <div>m</div>	<div>2291.54</div> <div>2291.54</div> <div>2291.60</div> <div>2291.66</div> <div>2291.73</div> <div>2291.80</div> <div>2291.87</div> <div>2291.94</div> <div>2291.91</div> <div>2291.94</div> <div>2291.94</div> <div>2292.01</div> <div>2292.09</div> <div>2292.14</div> <div>2292.21</div> <div>2292.50</div> <div>2292.78</div> <div>2293.06</div> <div>2293.35</div> <div>2293.63</div> <div>2293.92</div> <div>2294.21</div> <div>2294.31</div> <div>2294.46</div> <div>2294.69</div> <div>2294.83</div> <div>2294.89</div> <div>2294.90</div> <div>2295.16</div> <div>2295.42</div> <div>2295.68</div>	
<div>INVERT ELEVATION</div> <div>m</div>	<div>2290.14</div> <div>2290.14</div> <div>2290.10</div> <div>2290.16</div> <div>2290.24</div> <div>2290.31</div> <div>2290.38</div> <div>2290.45</div> <div>2290.48</div> <div>2290.52</div> <div>2290.54</div> <div>2290.57</div> <div>2290.59</div> <div>2290.74</div> <div>2290.79</div> <div>2290.99</div> <div>2291.19</div> <div>2291.39</div> <div>2291.69</div> <div>2291.99</div> <div>2292.28</div> <div>2292.56</div> <div>2292.86</div> <div>2293.06</div> <div>2293.24</div> <div>2293.33</div> <div>2293.41</div> <div>2293.42</div> <div>2293.60</div> <div>2293.78</div> <div>2294.14</div>	
<div>GRADIENT</div> <div>%</div>	<div>0.00</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.35</div> <div>0.12</div> <div>0.12</div> <div>0.12</div> <div>1.00</div> <div>1.00</div> <div>1.00</div> <div>1.00</div> <div>1.48</div> <div>1.50</div> <div>1.48</div> <div>1.40</div> <div>1.46</div> <div>1.03</div> <div>0.90</div> <div>0.90</div> <div>0.90</div> <div>0.90</div> <div>1.78</div>	
<div>DIAMETER</div> <div>mm</div>	<div>Ø150 / DUCTILE IRON</div>	
<div>FITTINGS</div>	<div>150 X 150 X 150 TEE</div> <div>WASHOUT DM 150,TYPE D</div> <div>150 X 100 X 150 TEE</div> <div>150 X 150 X 150 TEE</div> <div>150 X 100 X 150 TEE</div> <div>150 X 100 X 150 TEE</div>	

00+000.00

00+003.00

00+020.00

00+040.00

00+060.00

00+080.00

00+100.00

00+120.00

00+128.90

00+140.00

00+160.00

00+180.00

00+200.00

00+215.10

00+220.00

00+240.00

00+260.00

00+280.00

00+300.00

00+320.00

00+340.00

00+360.00

00+380.00

00+400.00

00+420.00

00+430.00

00+438.90

00+440.00

00+460.00

00+480.00

00+500.00





---



Project Name

## Al-Nahdeen Water Distribution Network and Elevated Tank

### Drawing Title

## Profile

Line - DM-L2

Designed By:	Eng. Ameen Al-Maweri	Drawing Pr-06
Reviewed By:	Eng. Fares Hubaish	
Approved By:	Eng. Mohammed Al-Magdani	
Contract No	(IUS-AF-UWS-SAN-021)	
	Date	



REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT

LEGEND:  

---

GROUND

=====

PIPE

TEE

BEND

WASHOUT

AIR VALVE

REDUCER

ISOLATION VALVE

Project Name

Al-Nahdeen Water Distribution Network  
and Elevated Tank

Drawing Title

Profile

Line - DM- L3

Designed By:

Eng. Ameen Al-Maweri

Reviewed By:

Eng. Fares Hubaish

Approved By:

Eng. Mohammed Al-Magdami

Contract No

(IUS-AF-UWS-SAN-021)

Drawing No.

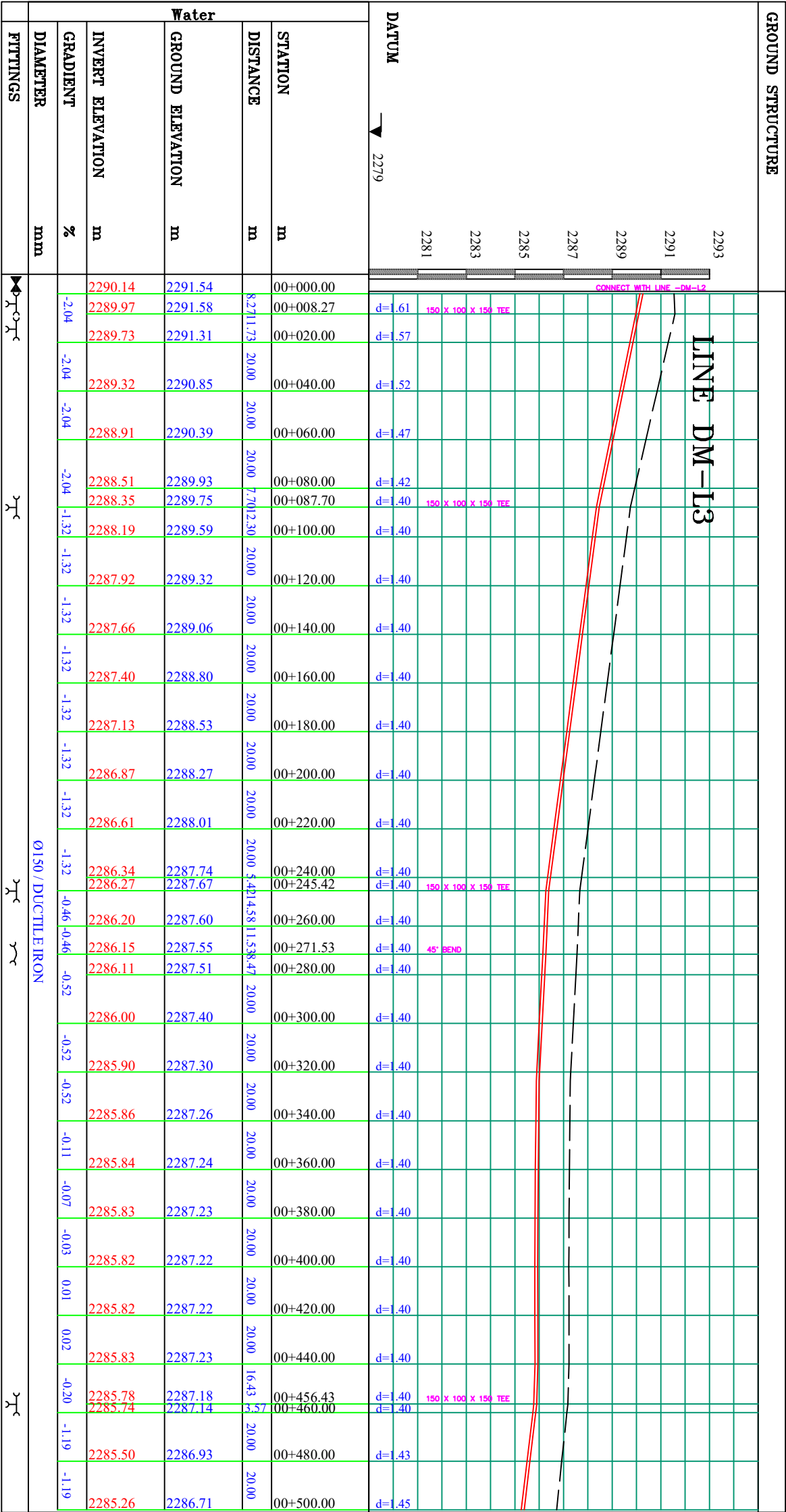
Pr-07

Scale

As Shown

Date

2023







REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT

LEGEND:

GROUND

PIPE

BEND

WASHOUT

AIR VALVE

REDUCER

ISOLATION VALVE

UNOPS

UN Project

Project Name

Al-Nahdeen Water Distribution Network and Elevated Tank

Drawing Title

Profile

Line - DM- L3

Designed By:

Eng. Amreen Al-Maweri

Reviewed By:

Eng. Fares Hubaish

Approved By:

Eng. Mohammed Al-Maqdami

Contract No

(IUS-AF-UWS-SAN-021)

Drawing No.

Pr-08

Scale

As Shown

Date

2023



Project Name

## Al-Nahdeen Water Distribution Network and Elevated Tank

Drawing Title

## Profile

Line - DM-L4

Designed By:	Eng. Ameen Al-Maweri	Drawing No.	PI-09
Reviewed By:	Eng. Fares Hubaish	Scale	As Shown
Approved By:	Eng. Mohammed Al-Magdani		
Contract No	(IUS-AF-UWS-SAN-021)	Date	2023



**Project Name**  
Al-Nahdeen Water Distribution Network  
and Elevated Tank

Drawing Title

## Profile

Line - DM-L4

Designed By:	Eng. Ameen Al-Mawri	Drawing No. Pr.-10
Reviewed By:	Eng. Fares Hubaish	Scale As Shown
Approved By:	Eng. Mohammed Al-Magdani	
Contract No	(IUS-AF-UWS-SAN-021)	Date 2023



## Al-Nahdeen Water Distribution Network and Elevated Tank

## Profile

Line - DM-L5

Designed By:	Eng. Ameen Al-Maweri	Drawing No. Pr-11
Reviewed By:	Eng. Fares Hubaish	Scale As Shown
Approved By:	Eng. Mohammed Al-Magdani	
Contract No	(IUS-AF-UWS-SAN-021)	Date 2023



REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT

UNOPS

USS

Project

Project Name

Al-Nahdeen Water Distribution Network and Elevated Tank

Drawing Title

Profile

Line - DM- L5

Designed By: Eng. Ameen Al-Maweri

Reviewed By: Eng. Fares Hubaish

Approved By: Eng. Mohammed Al-Maqdami

Contract No (IUS-AF-UWS-SAN-021)

Drawing No. Pr-12

Scale As Shown

Date 2023

ISOLATION VALVE

REDUCER

AIR VALVE

WASHOUT

BEND

TEE

PIPE

GROUND

LEGEND:

GROUND STRUCTURE

LINE DM-L5(cont'd)

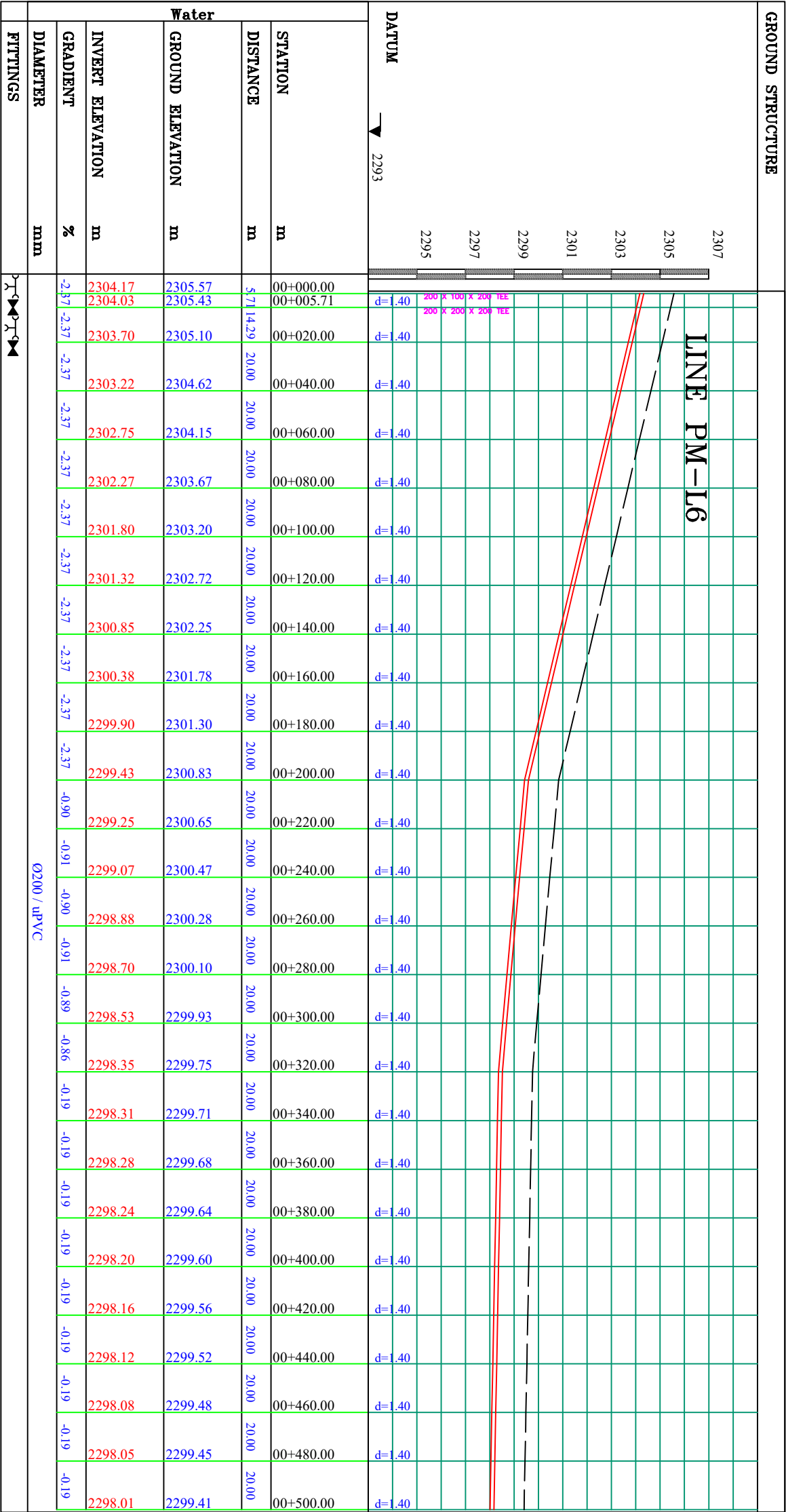
GROUND STRUCTURE	
DAFTUM 2294	
2308	
2306	
2304	
2302	
2300	
2298	
2296	

Water	
GROUND ELEVATION m	STATION m
2301.23	00+500.00
2301.27	00+503.47
2301.36	00+510.71
2301.35	00+520.00
2301.31	00+540.00
2301.28	00+560.00
2301.25	00+580.00
2301.22	00+600.00
2301.19	00+615.88
2301.22	00+620.00
2301.35	00+640.00
2301.47	00+660.00
2301.60	00+680.00
2301.74	00+700.00
2301.77	00+703.20
2302.14	00+720.00
2302.59	00+740.00
2303.04	00+760.00
2303.23	00+770.00
2303.48	00+780.00
2303.93	00+800.00
2304.37	00+820.00
2304.61	00+829.90
2304.84	00+840.00
2305.31	00+860.00
2305.77	00+880.00
2305.85	00+900.00
2305.93	00+920.00
2306.00	00+940.00
2306.07	00+956.68
2306.01	00+960.00
2305.64	00+980.00
2305.57	00+984.00

INVERT ELEVATION m	GRADIENT %	DIAMETER mm	FITTINGS
2299.83	1.21	Ø150 / uPVC	
2299.87	-0.11		
2299.96	-0.20		
2299.95	-0.15		
2299.91	-0.15		
2299.88	-0.15		
2299.85	-0.15		
2299.82	-0.19		
2299.79	0.65		
2299.87	0.60		
2299.95	0.65		
2300.07	0.70		
2300.20	2.20		
2300.34	2.25		
2300.37	2.25		
2300.74	2.25		
2301.19	2.25		
2301.64	1.90		
2301.83	2.50		
2302.08	2.25		
2302.53	2.20		
2302.97	2.42		
2303.21	2.31		
2303.44	2.31		
2303.91	2.31		
2304.37	0.39		
2304.45	0.39		
2304.53	0.39		
2304.60	0.39		
2304.67	0.39		
2304.61	-1.83		
2304.24			
2304.17			



REPUBLIC OF YEMEN  
MINISTRY OF WATER AND  
ENVIRONMENT



- LEGEND:
- GROUND
  - PIPE
  - TEE
  - BEND
  - WASHOUT
  - AIR VALVE
  - REDUCER
  - ISOLATION VALVE



Project Name  
Al-Nahdeen Water Distribution Network  
and Elevated Tank

Drawing Title

Profile

Line - PM- L6

Designed By:	Eng. Ameen Al-Maweri	Drawing No.	Pr.-13
Reviewed By:	Eng. Fares Hubaish	Scale	As Shown
Approved By:	Eng. Mohammed Al-Magdami		
Contract No	(IUS-AF-UWS-SAN-021)	Date	2023





Drawing Title

Line - PM-L6

Designed By:	Eng. Ameen Al-Maweri	Drawing No.	Pr-14
Reviewed By:	Eng. Fares Hubaish	Scale	As Show
Approved By:	Eng. Mohammed Al-Magdani		
Contract No	(IU-S-AF-UWS-SAN-021)	Date	2023

