

The Project for the Improvement
of Water Supply System of Juba
in Southern Sudan

Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.

Facility

Water Treatment Plant

Title

Generator Plan

Scale

1/60

Original Paper Size
A3

Drawing No :

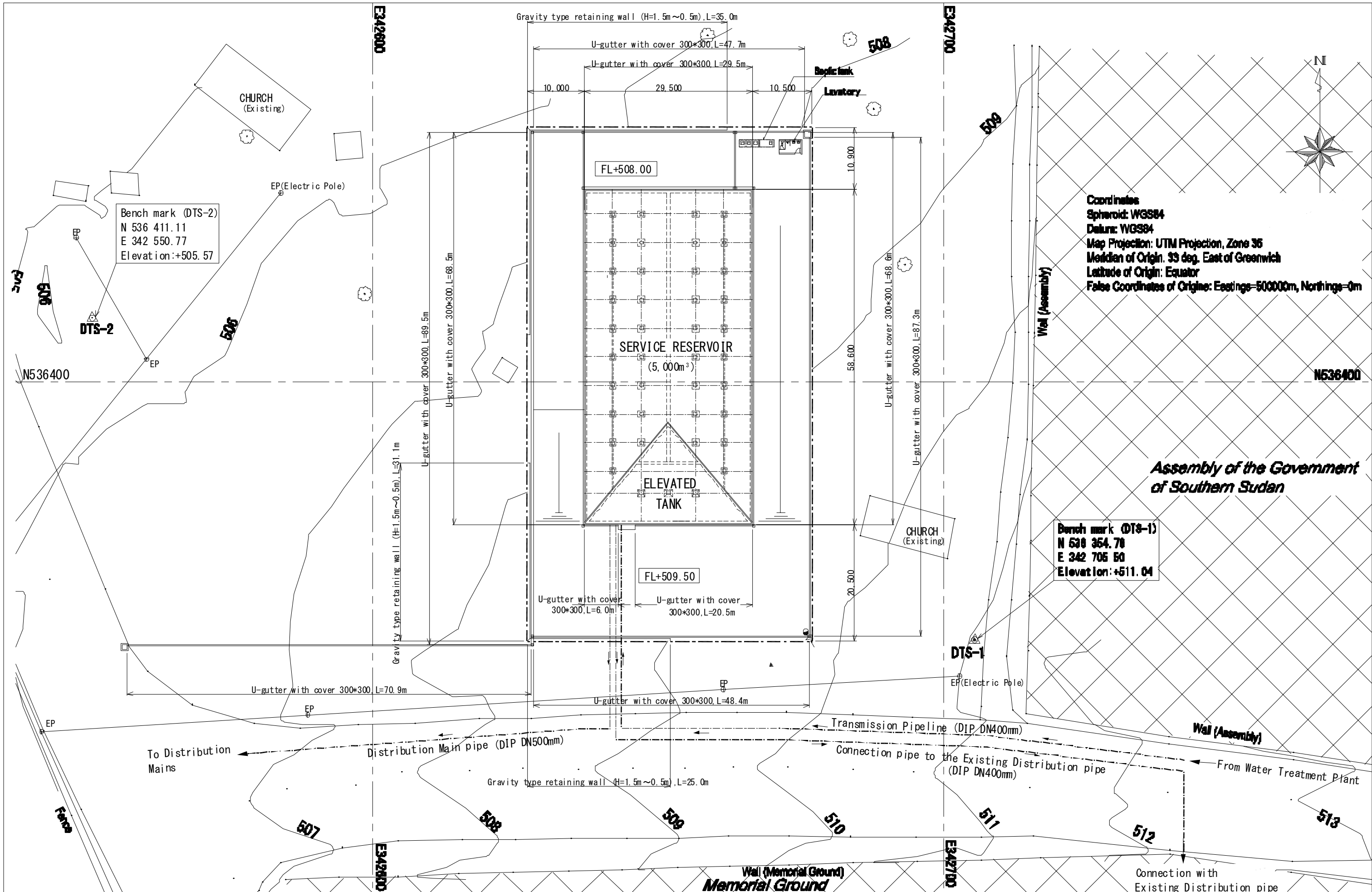
WTP-019

Date

Mar. 2011

Revision

Rev. 1.0



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 36
 Meridian of Origin: 39 deg. East of Greenwich
 Latitude of Origin: Equator
 False Coordinates of Origin: Eastings=500000m, Northings=0m

*Assembly of the Government
 of Southern Sudan*

Bench mark (DTS-1)
 N 536 354.78
 E 342 705.50
 Elevation: +511.04

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 of Water Supply System of Juba
 in Southern Sudan

Ministry of Water Resources and Irrigation
 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

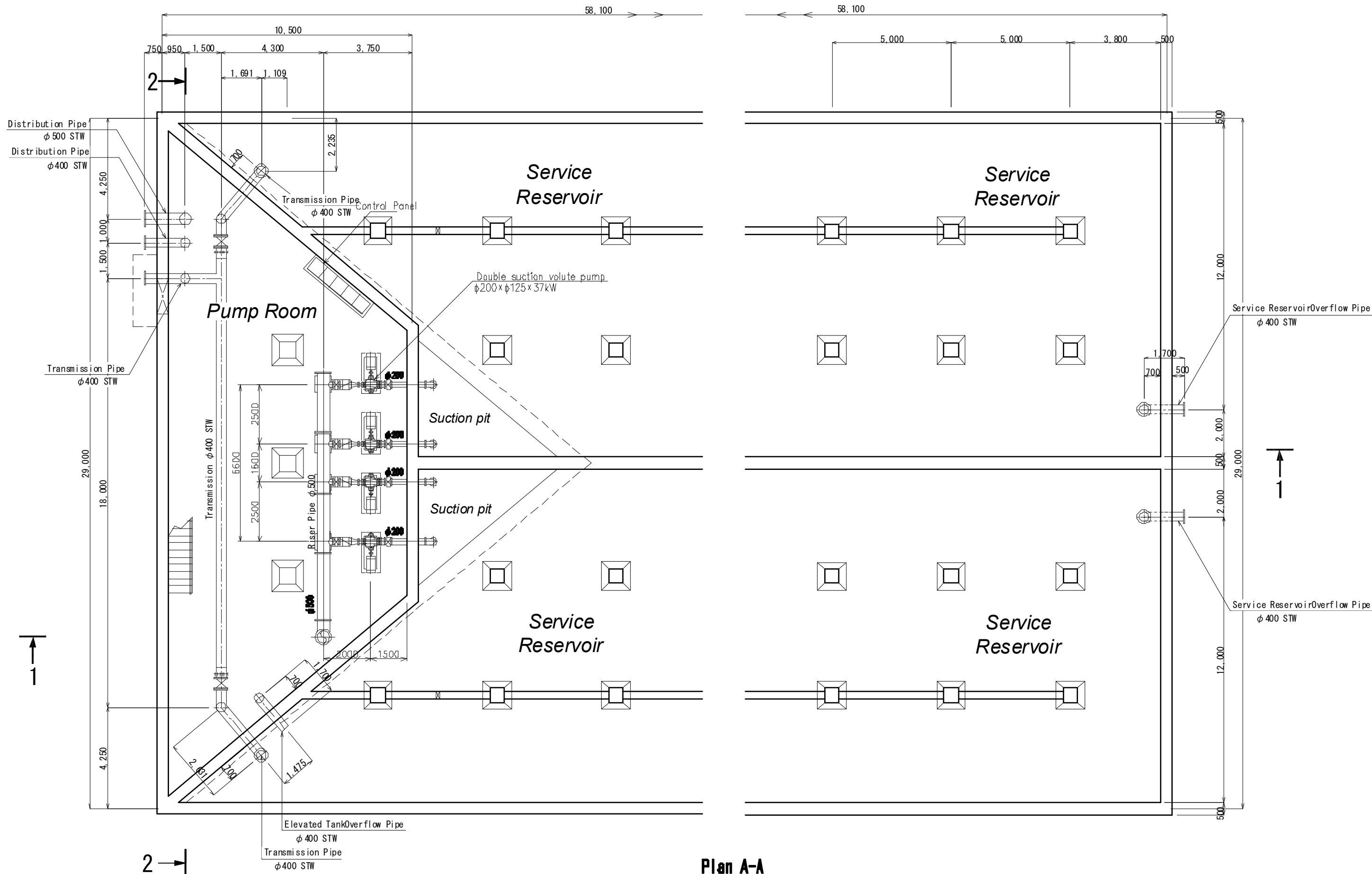
Facility:
Service Reservoir

Title:
Layout Plan

Scale:
1/600
 Original Paper Size:
A3

Drawing No.:
RES-001
 Date:
Mar. 2011

Revision:
Rev. 2.0



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Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.

Facility:

Service Reservoir

Title:

Plan A-A
(Pump Room)

Scale:

1/150

Original Paper Size:
A3

Drawing No.:

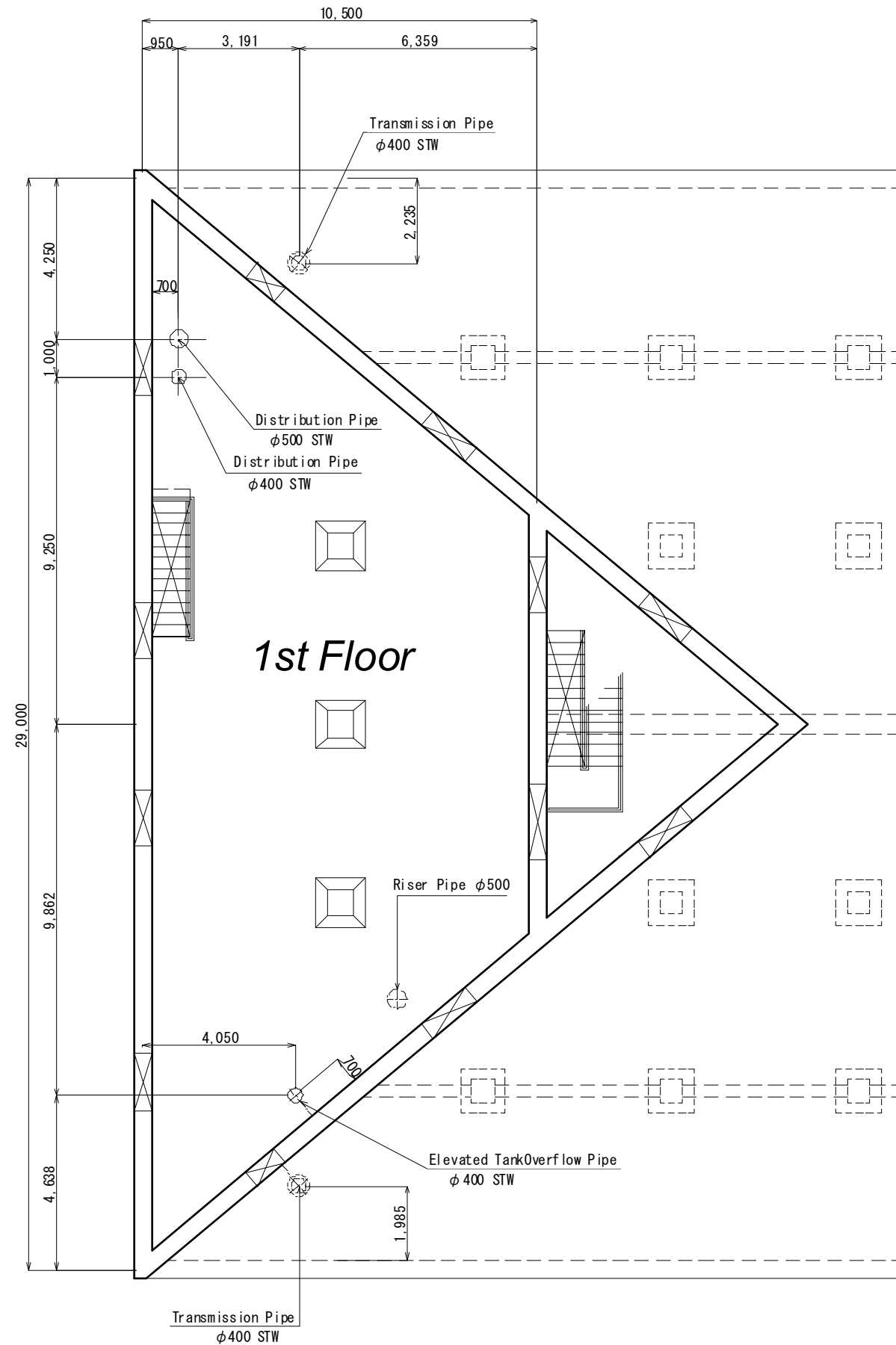
RES-002

Date:

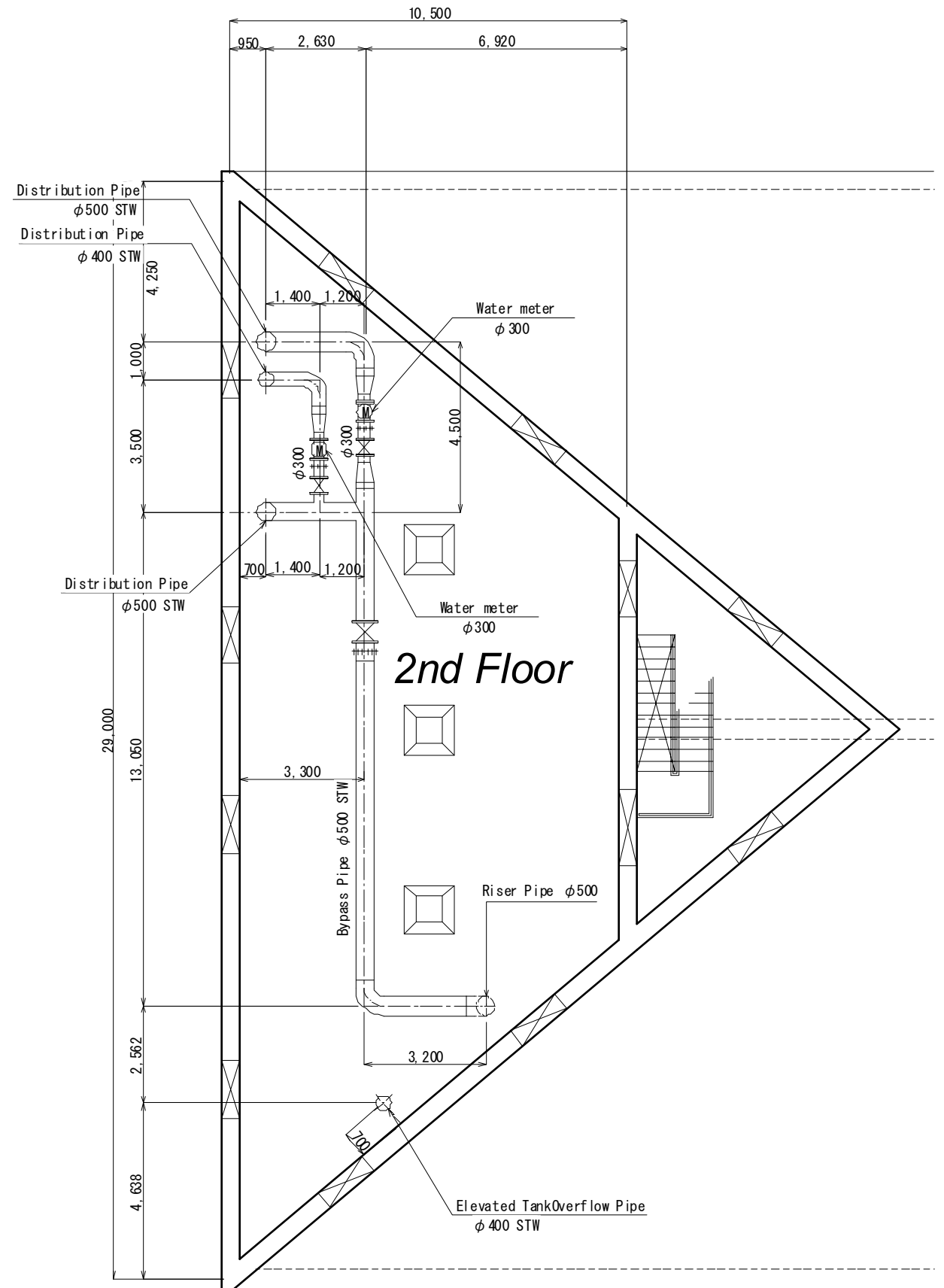
Mar. 2010

Revision:

Rev. 2.0



Plan B-B



Plan C-C

The Project for the Improvement
of Water Supply System of Juba
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Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

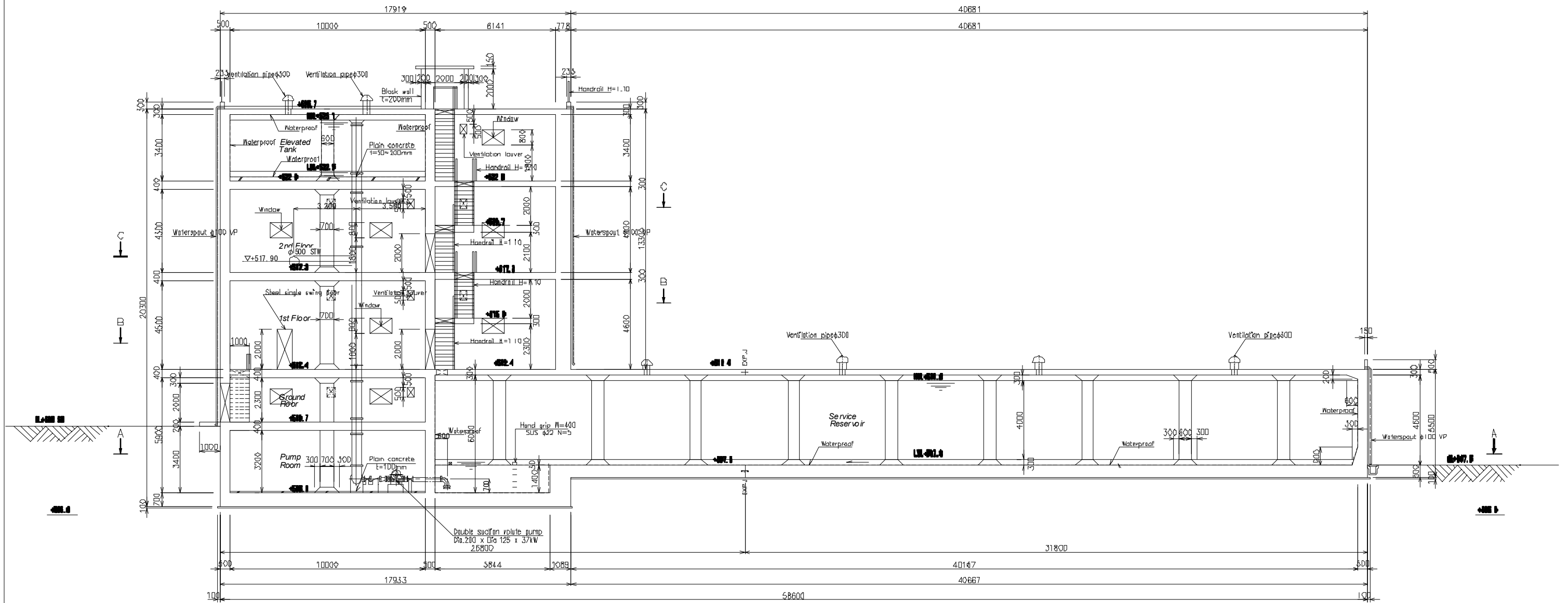
Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.

Facility:
Service Reservoir

Title:
Plan B-B, C-C
{1st, 2nd Floors}

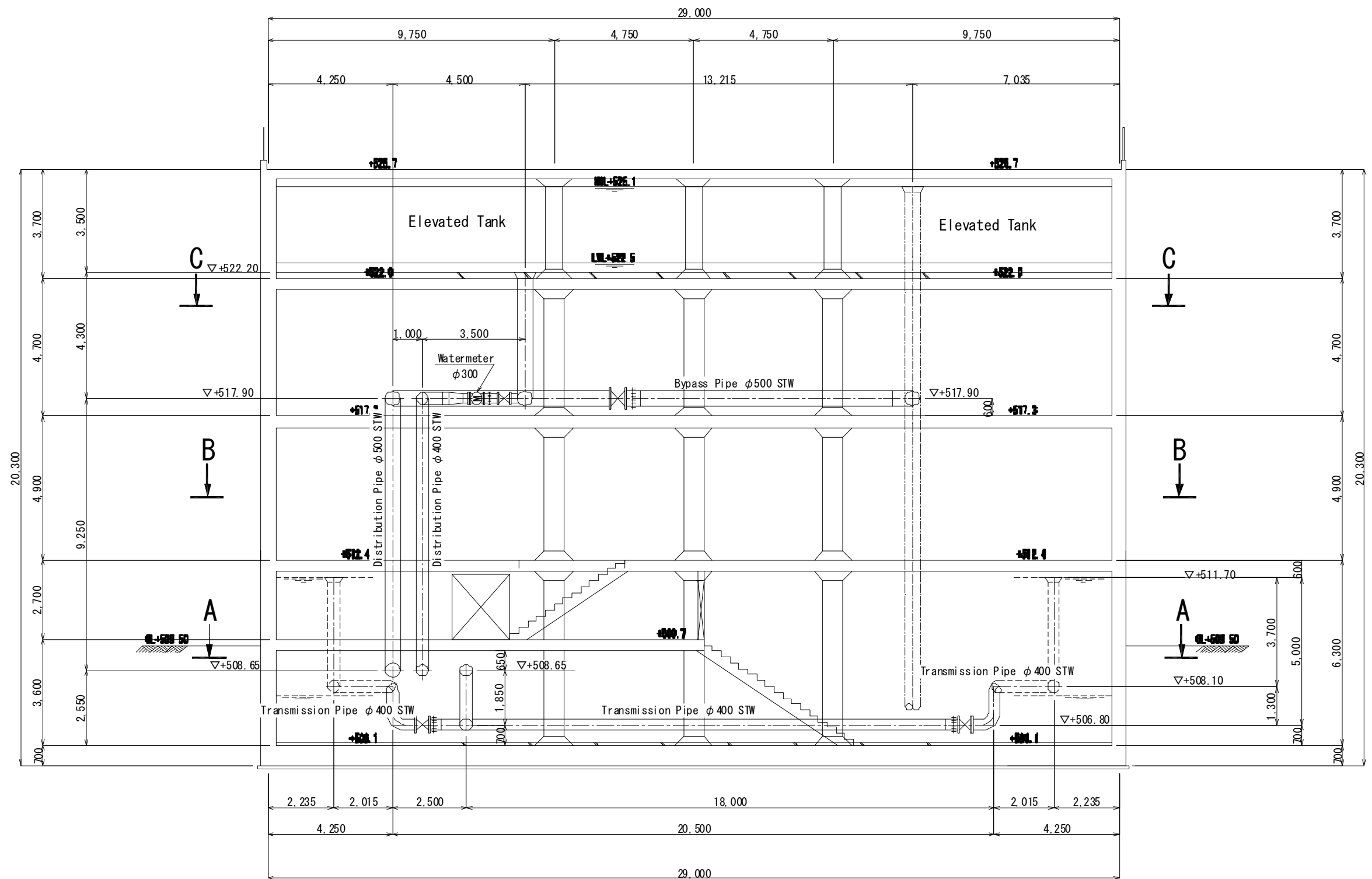
Scale:
1/150
Original Paper Size:
A3

Drawing No.:
RES-003
Date:
Mar. 2011
Revision:
Rev. 2.0



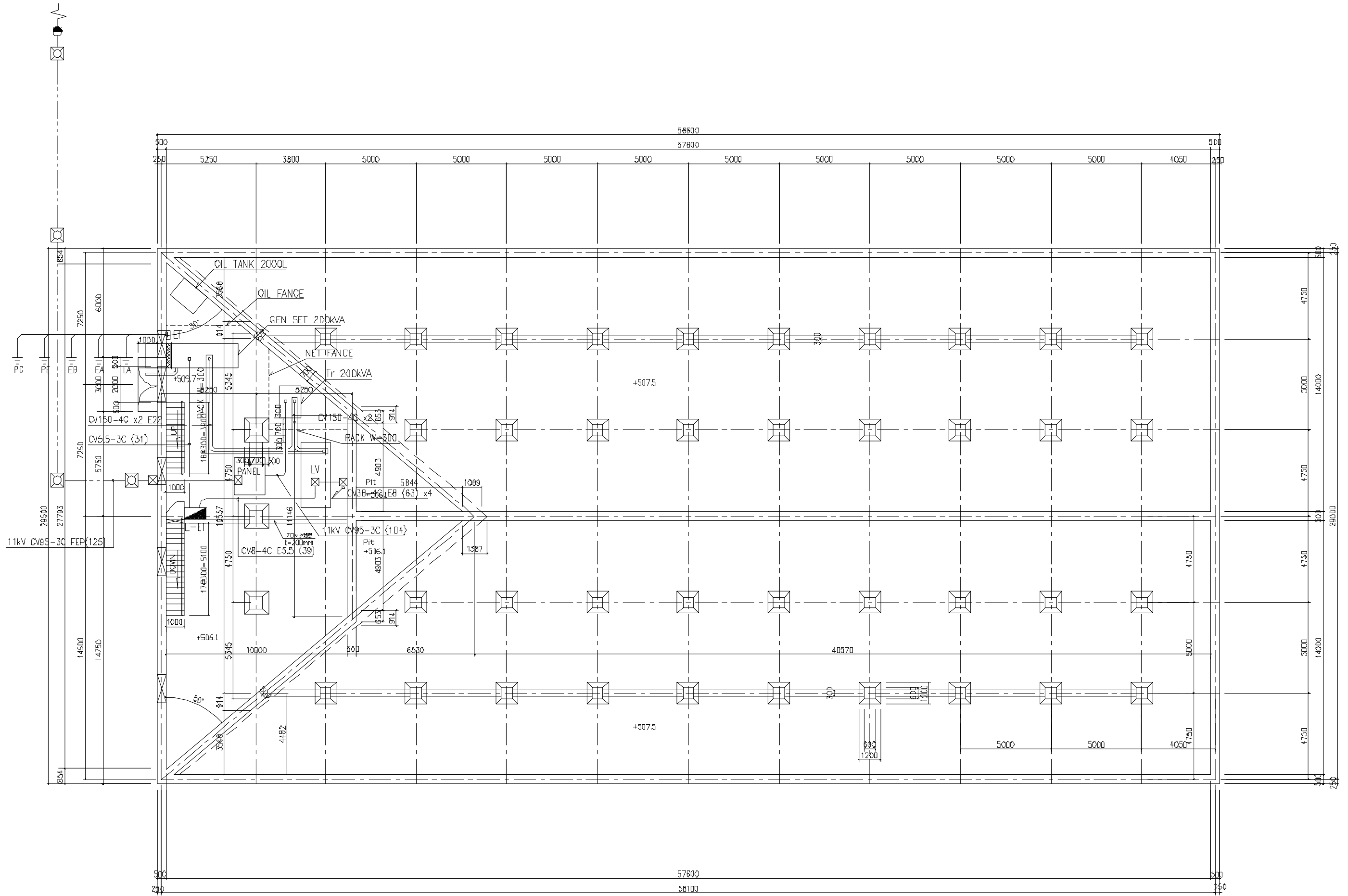
SECTION 1-1

<p>The Project for the Improvement of Water Supply System of Juba in Southern Sudan</p>	<p>Ministry of Water Resources and Irrigation Government of Southern Sudan</p>	<p>Japan International Cooperation Agency (JICA)</p>	<p>Facility:</p>	<p>Title:</p>	<p>Scale:</p>	<p>Drawing No.:</p>
	<p>Southern Sudan Urban Water Corporation</p>	<p>Tokyo Engineering Consultants, Co., Ltd.</p>	<p>Service Reservoir</p>	<p>Section 1-1</p>	<p>1/200 Original Paper Size: A3</p>	<p>RES-004 Date: Mar. 2011 Revision: Rev. 2.1</p>



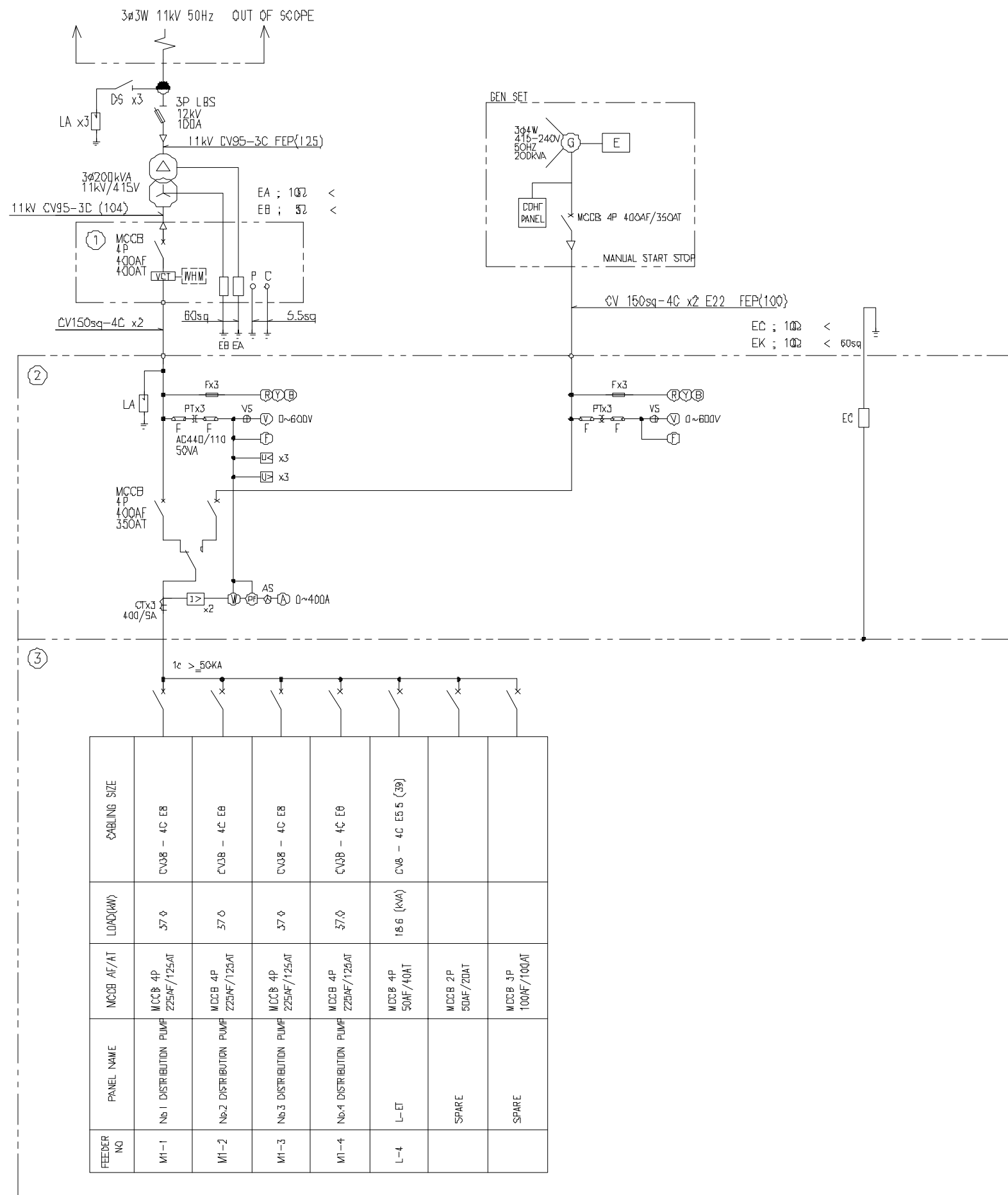
Section 2-2

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Facility:	Title:	Scale:	Drawing No.:
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.	Service Reservoir	Section 2-2	1/150 Original Paper Size: A3	RES-005 Date: Mar. 2011 Revision: Rev. 2.0



SECTION E-E

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Facility	Title	Scale: 1/200	Drawing No.: RES-006
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.	Service Reservoir	Electrical System	Original Paper Size: A3	Date: Mar. 2011 Revision: Rev. 1.0



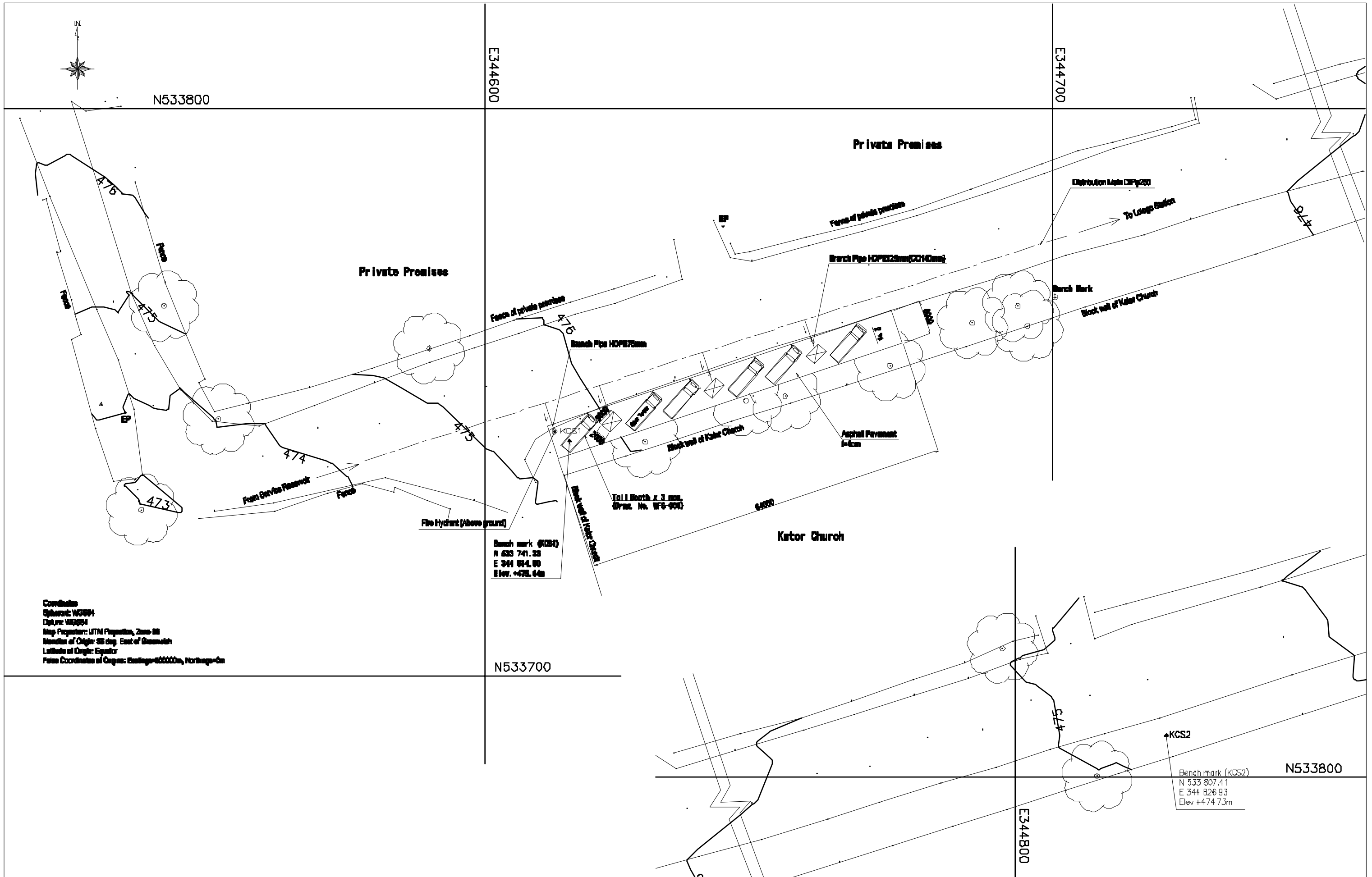
LEGEND

SYMBOL	NAME	F	FUSE
CT	CURRENT TRANSFORMER		OVER CURRENT GRONDING RELAY
PT	POTENTIAL TRANSFORMER		2E RELAY
SC	STATIC CAPACITOR		AMMETER
MC	ELECTROMAGNETIC CONTACTOR		VOLT METER
MCCB	MOLDED CASE CIRCUIT BREAKER		WHITE LAMP
M	MOTOR		TIMER
ZCT	ZERD PHASE CURRENT TRANSFORMER		AMMETER SWITCH
LA	LIGHTING ARRESTER		VOLTMETER SWITCH

LEGEND

NO.	NAME
①	WH METER PANEL
②	INCOMING PANEL
③	LV FEEDER PANEL

FEEEDER NO	PANEL NAME	MCCB AF/AT	LOAD(KVA)	CABLING SIZE
M1-1	No.1 DISTRIBUTION PUMF	MCCB 4P 225AF/125AT	57.0	CV38 - 4C EB
M1-2	No.2 DISTRIBUTION PUMF	MCCB 4P 225AF/125AT	57.0	CV38 - 4C EB
M1-3	No.3 DISTRIBUTION PUMF	MCCB 4P 225AF/125AT	57.0	CV38 - 4C EB
M1-4	No.4 DISTRIBUTION PUMF	MCCB 4P 225AF/125AT	57.0	CV38 - 4C EB
L-4	L-ET	MCCB 4P 50AF/40AT	18.6 (KVA)	CV8 - 4C ES 5 (39)
	SPARE	MCCB 2P 50AF/20AT		
	SPARE	MCCB 3P 100AF/100AT		



Coordinate System: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38N
 Meridian of Origin: 33 deg. East of Greenwich
 Latitude of Origin: Equator
 False Coordinate of Origin: Easting=500000m, Northing=0m

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Facility: Water Tanker Filling Station	Title: Station No.1 Kator Church	Scale: 1/300 Original Paper Size: A3	Drawing No: WFS-001 Date: Nov. 2010 Revision: Rev. 1.0
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.				



Coordinate System:
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 39
 Meridian of Origin: 39 deg. East of Greenwich
 Latitude of Origin: Equator
 False Coordinate of Origin: Easting=960000m, Northing=0m

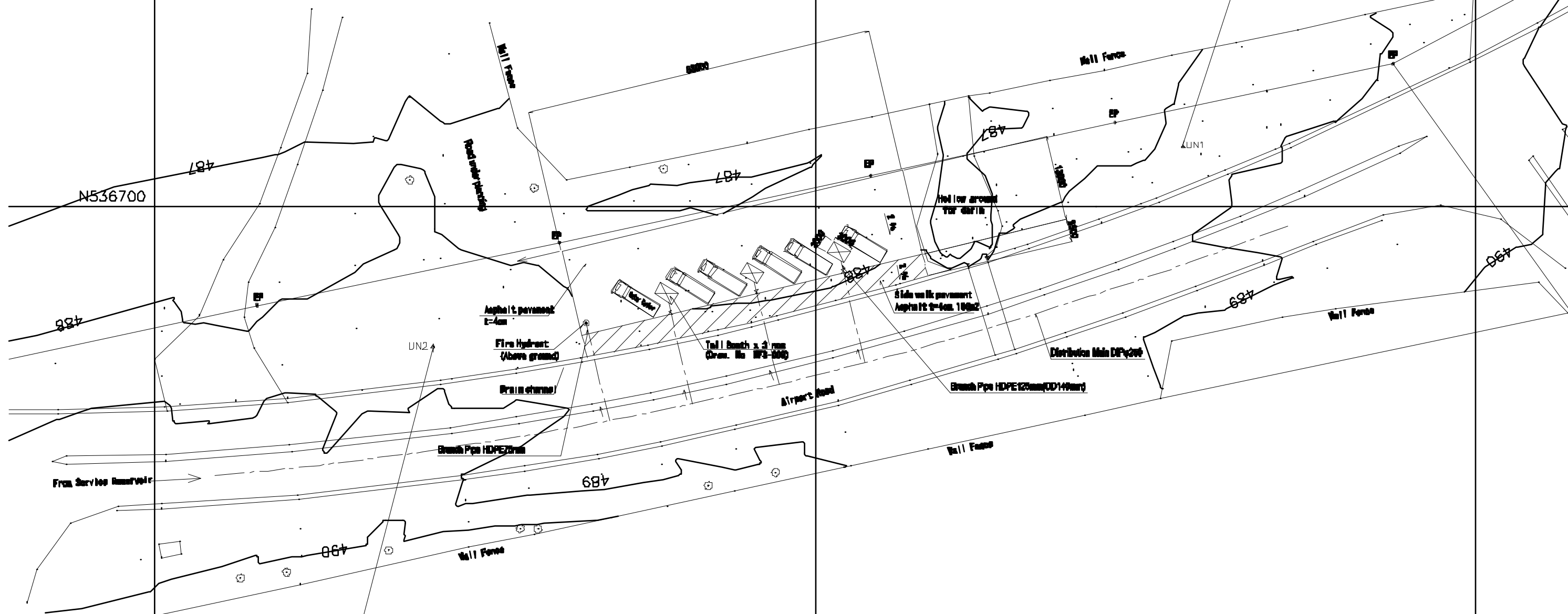
E343800

E343900

E344000

Bench mark (BM1)
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 E 343 865.04
 Elev. +498.20m

Bench mark (BM2)
 N 334 878.77
 E 343 862.08
 Elev. +498.47m

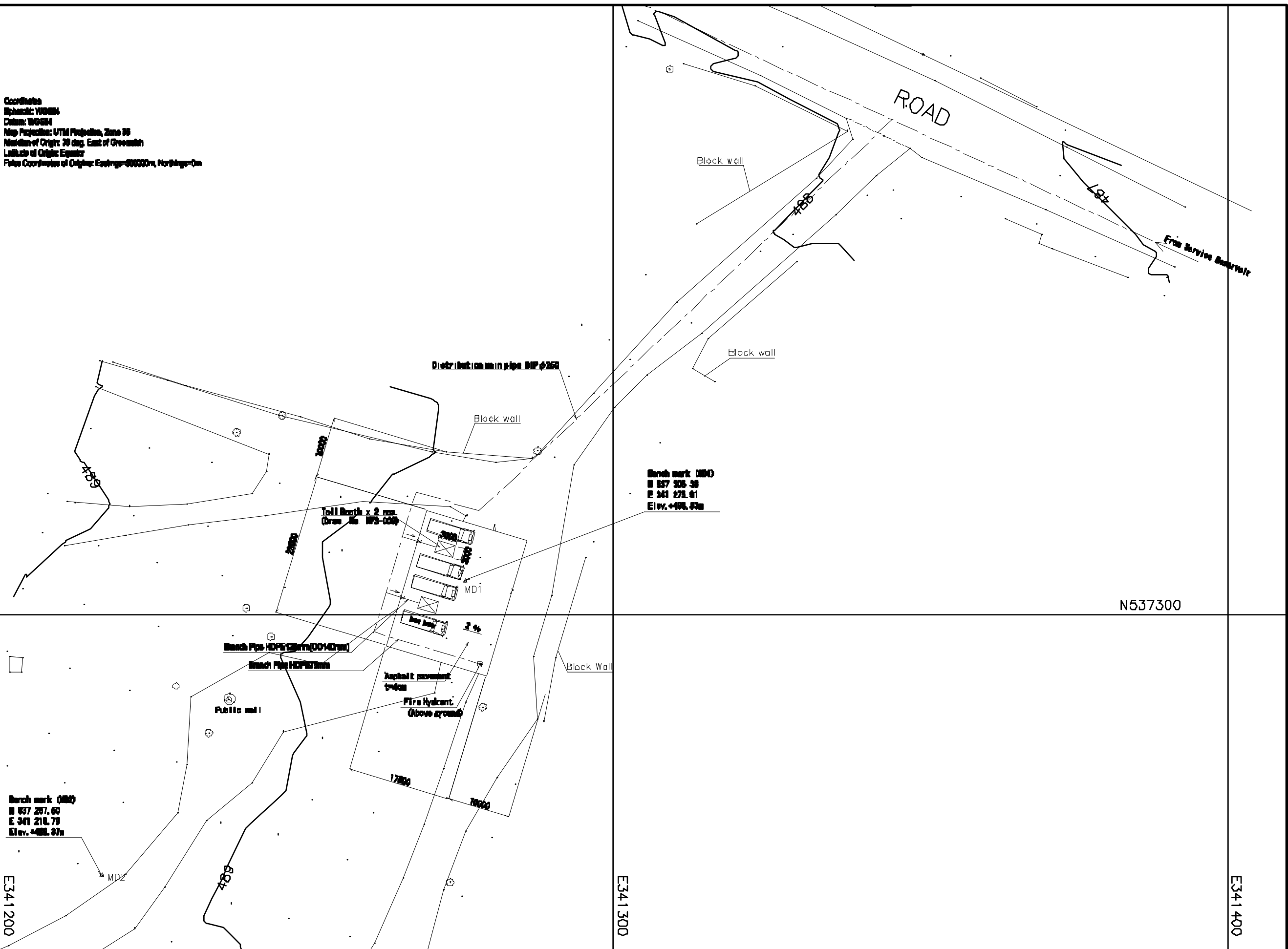


300

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Facility Water Tanker Filling Station	Title Station No.2 UN Compound	Scale 1/300	Drawing No. WFS-002	
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.			Original Paper Size A3	Date Sept. 2010	Revision Rev. 0



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Meridian of Origin: 39 deg. East of Greenwich
 Latitude of Origin: Equator
 False Coordinate of Origin: Easting=500000m, Northing=0m



The Project for the Improvement
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Ministry of Water Resources and Irrigation
 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

Facility
 Water Tanker Filling Station

Title
 Station No.3
 Dar el-Salam

Scale
 1/300
 Original Paper Size
 A3

Drawing No.
 WFS-003
 Date
 Sept. 2010
 Revision
 Rev. 0

E338550

E338600

E338700

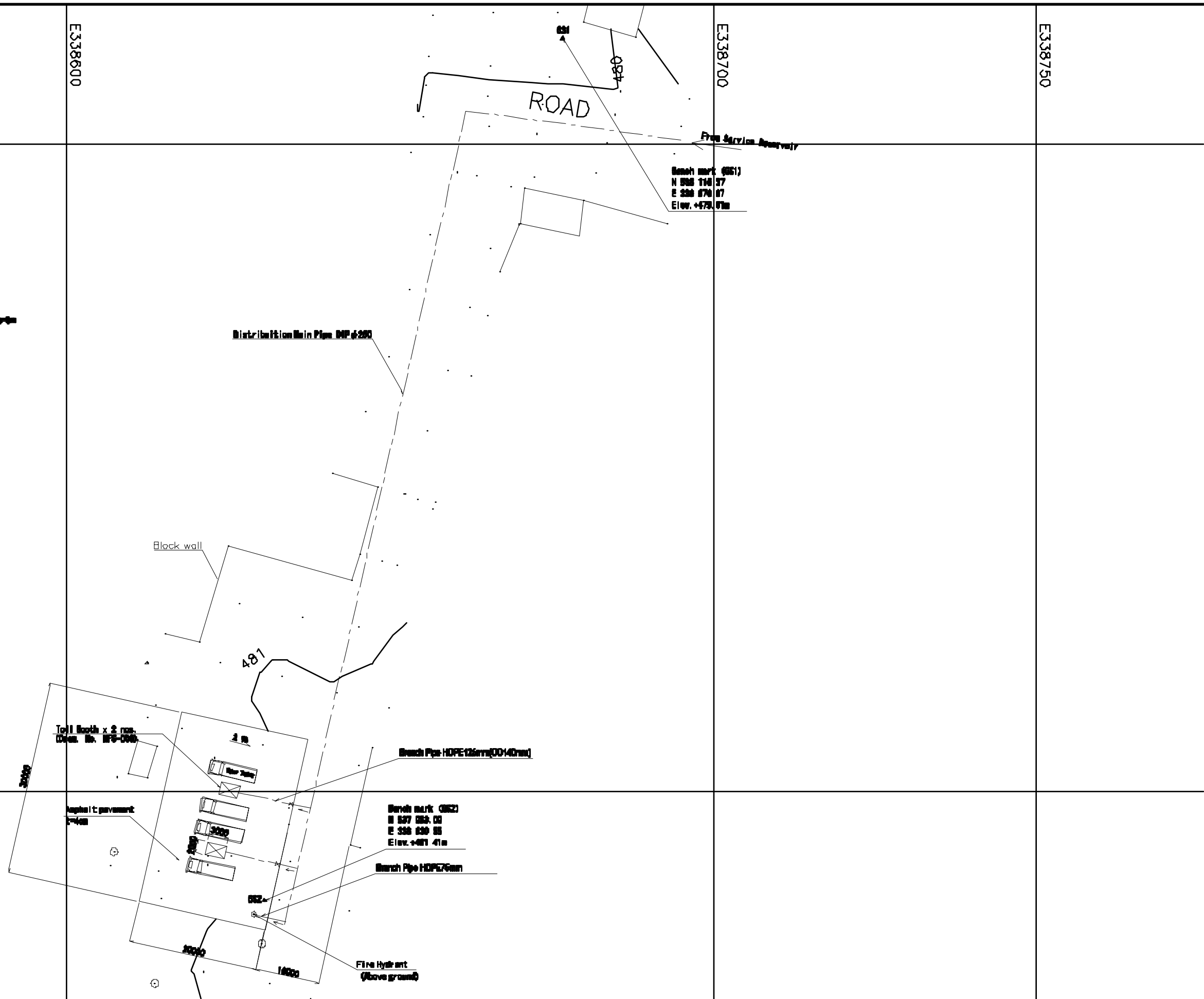
E338750

N538100

N538000



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Meridian of Origin: 33 deg. East of Greenwich
 Latitude of Origin: Equator
 False Coordinate of Origin: Easting=500000m, Northing=0m



The Project for the Improvement
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Ministry of Water Resources and Irrigation
 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

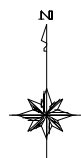
Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

Facility
 Water Tanker Filling Station

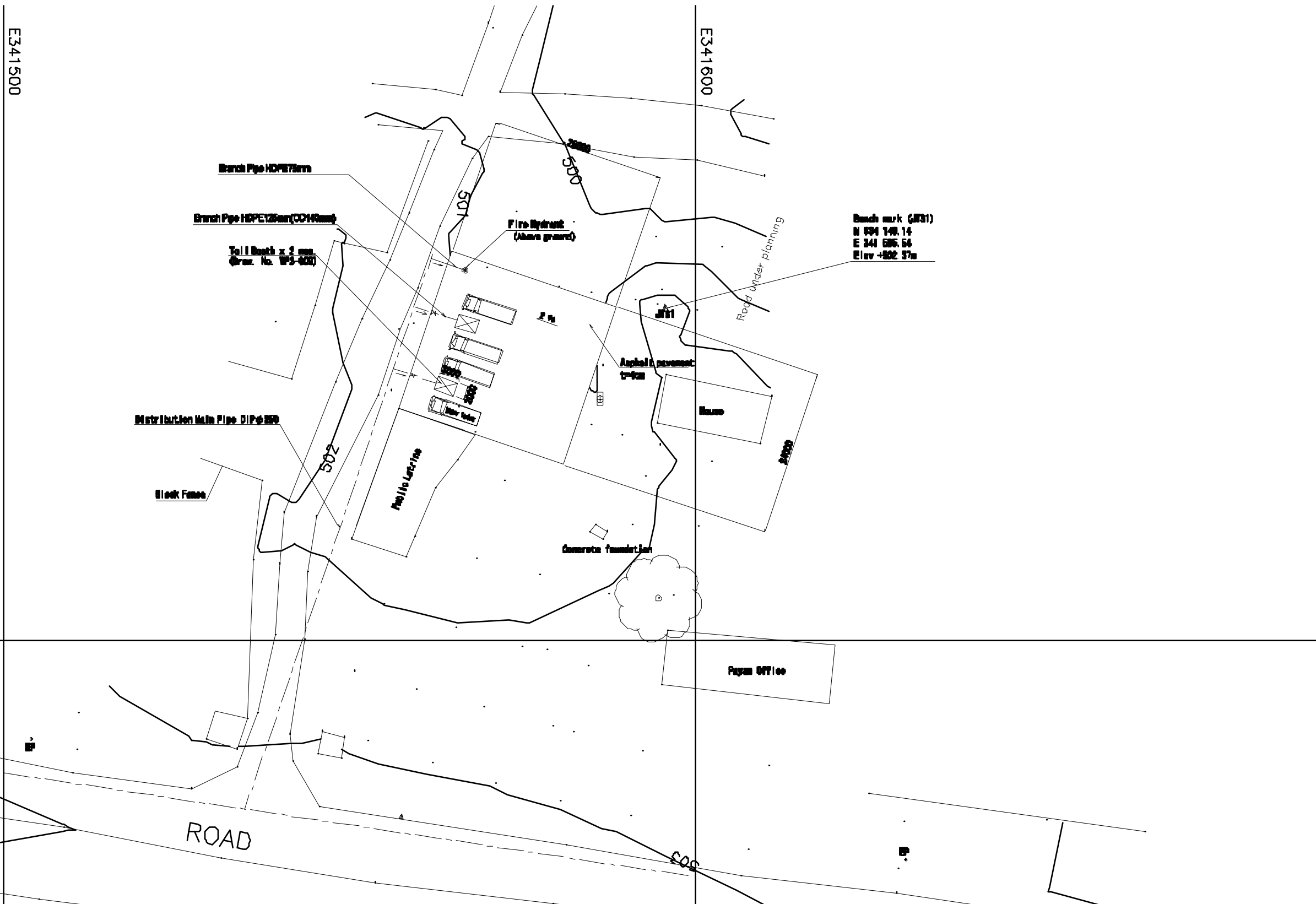
Title
 Station No.4
 Guide

Scale
 1/300
 Original Paper Size
 A3

Drawing No.
 WFS-004
 Date
 Sept. 2010
 Revision
 Rev. 0



Coordinate
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Meridian of Origin: 33 deg. East of Greenwich
 Latitude of Origin: Equator
 False-Coordinate of Origin: Northing=50000m, Easting=50000m



The Project for the Improvement
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 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

Facility
 Water Tanker Filling Station

Title
 Station No.5
 Jebel Market

Scale
 1/300
 Original Paper Size
 A3

Drawing No.
 WFS-005
 Date
 Sept. 2010
 Revision
 Rev. 0

N535700

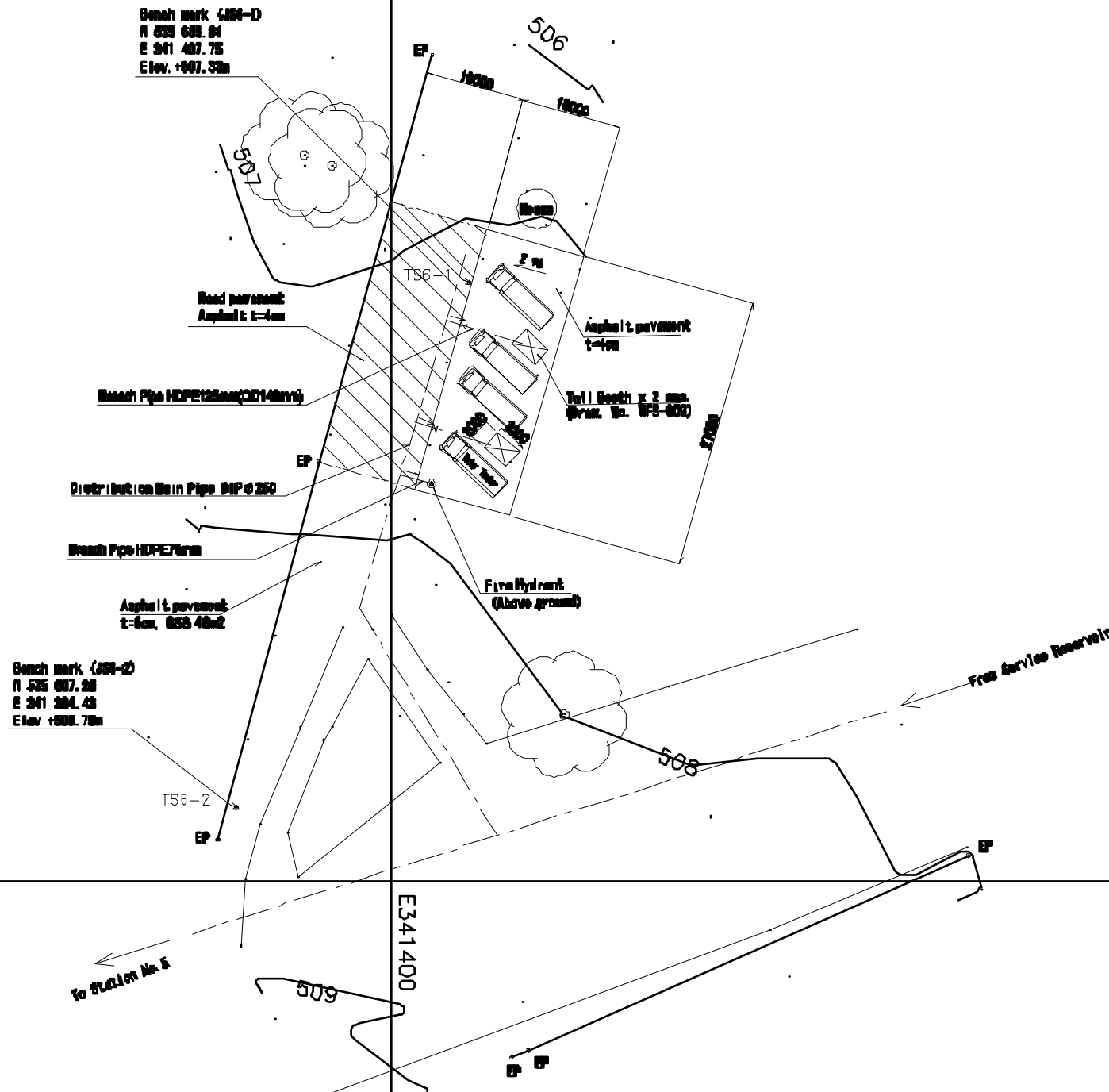
E341300

E341400

E341500



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Meridian of Origin: 33 deg. East of Greenwich
 Latitude of Origin: Equator
 False Convergence of Origin: Eastings-50000m, Northings-0m



N535600

E341300

E341400

E341500

The Project for the Improvement
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Ministry of Water Resources and Irrigation
 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

Facility
 Water Tanker Filling Station

Title
 Station No.6
 Nyokoran

Scale
 1/300
 Original Paper Size
 A3

Drawing No.
 WFS-006
 Date
 Sept. 2010
 Revision
 Rev. 0

N532800

E344000

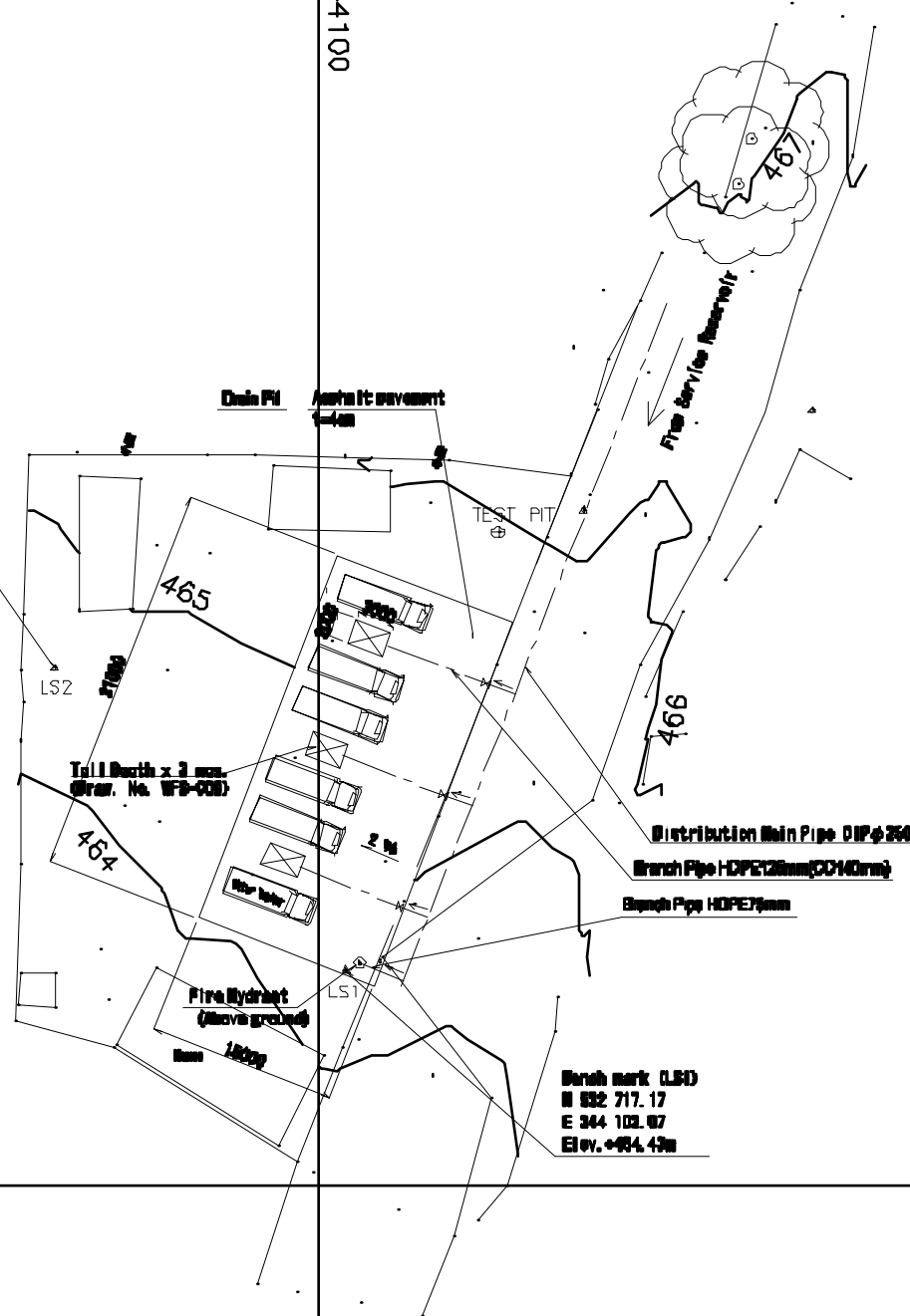


Coordinate
Datum: WGS84
Map Projection: UTM Projection, Zone 36
Meridian of Origin: 28 deg. East of Greenwich
Latitude of Origin: Equator
False Coordinates of Origin: Easting=500000m, Northing=0m

E344100

E344200

Bench mark (LS2)
 N 532 741.26
 E 344 078.81
 Elev. +494.47m



Bench mark (LS1)
 N 532 717.17
 E 344 103.87
 Elev. +494.43m

N532700

E344000

E344100

E344200

The Project for the Improvement
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Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

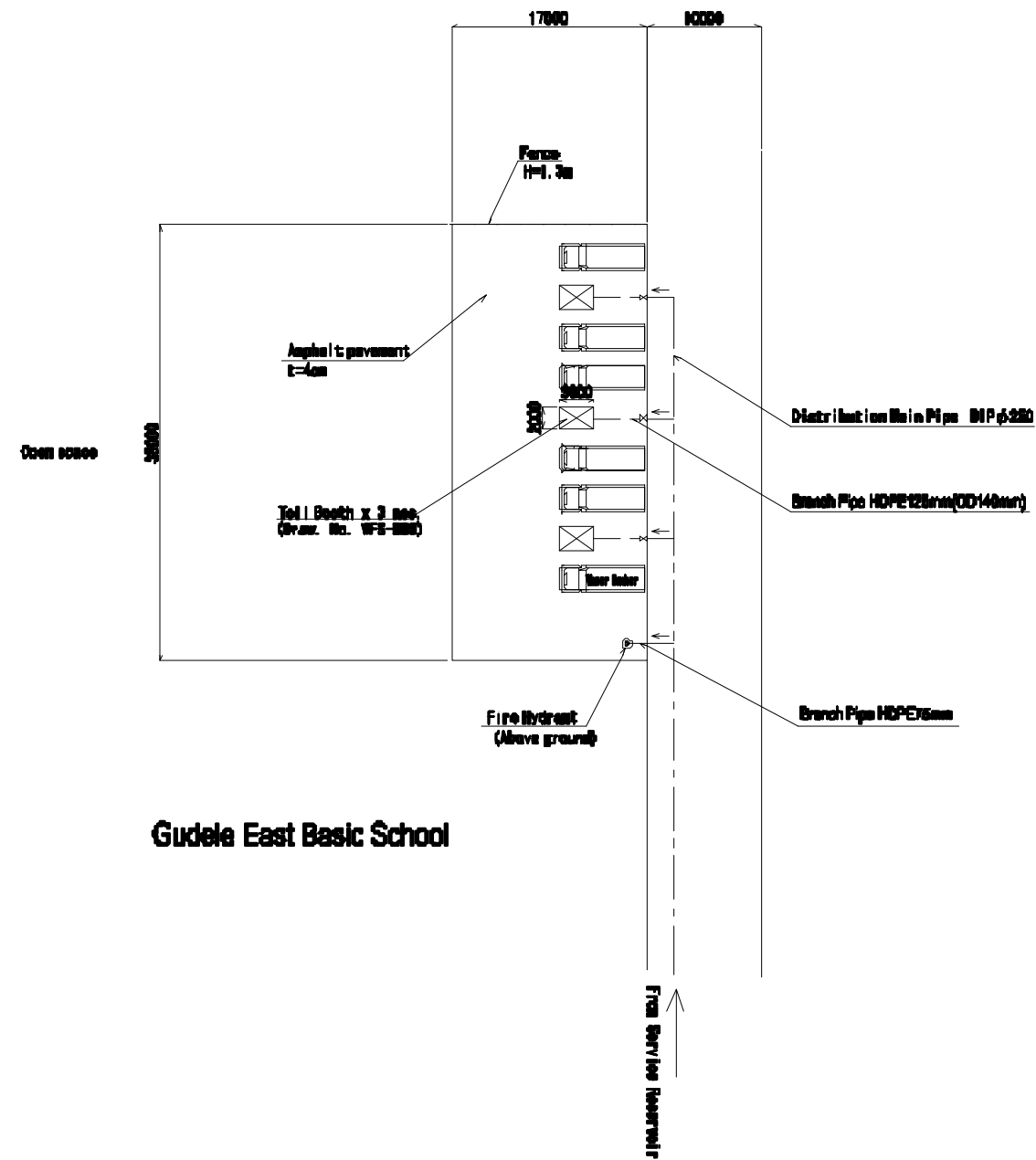
Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.

Facility
Water Tanker Filling Station

Title
Station No.7
Lologo

Scale
1/300
Original Paper Size
A3

Drawing No.
WFS-007
Date
Sept. 2010
Revision
Rev. 0



(N.B.)
 The layout plan is prepared based on preliminary site survey by using simple measurement apparatus.
 It shall be finalized based on accurate topographic survey to be carried out in Detailed Design.

The Project for the Improvement
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Ministry of Water Resources and Irrigation
 Government of Southern Sudan
 Southern Sudan Urban Water Corporation

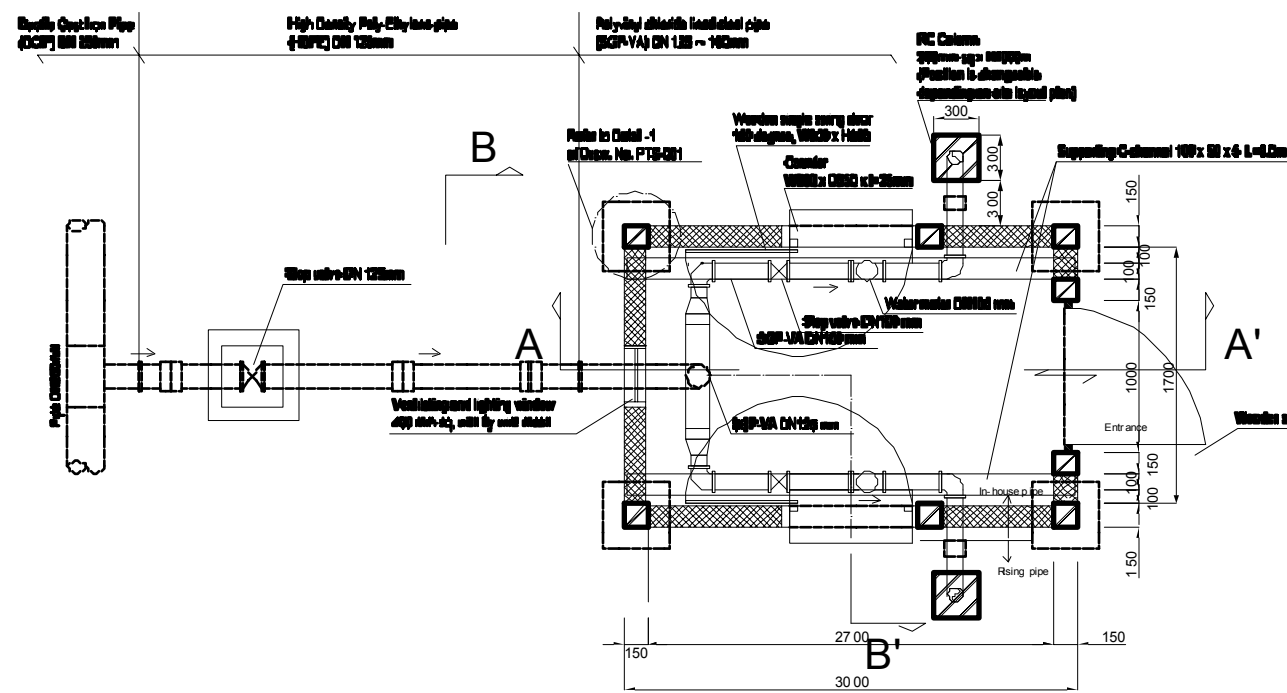
Japan International Cooperation Agency
 (JICA)
 Tokyo Engineering Consultants, Co., Ltd.

Facility
 Water Tanker Filling Station

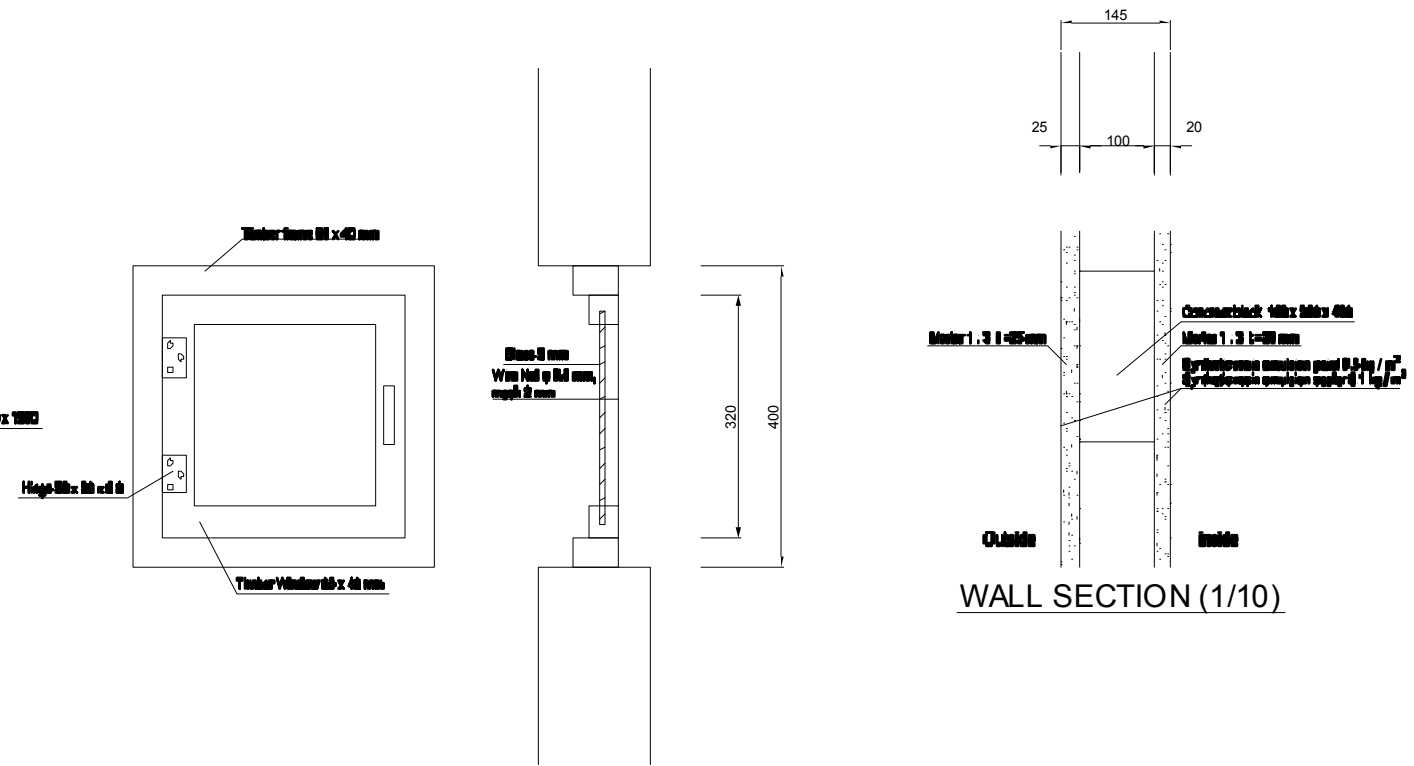
Title
 Station No.8
 Gudele-Gurai

Scale
 1/300
 Original Paper Size
 A3

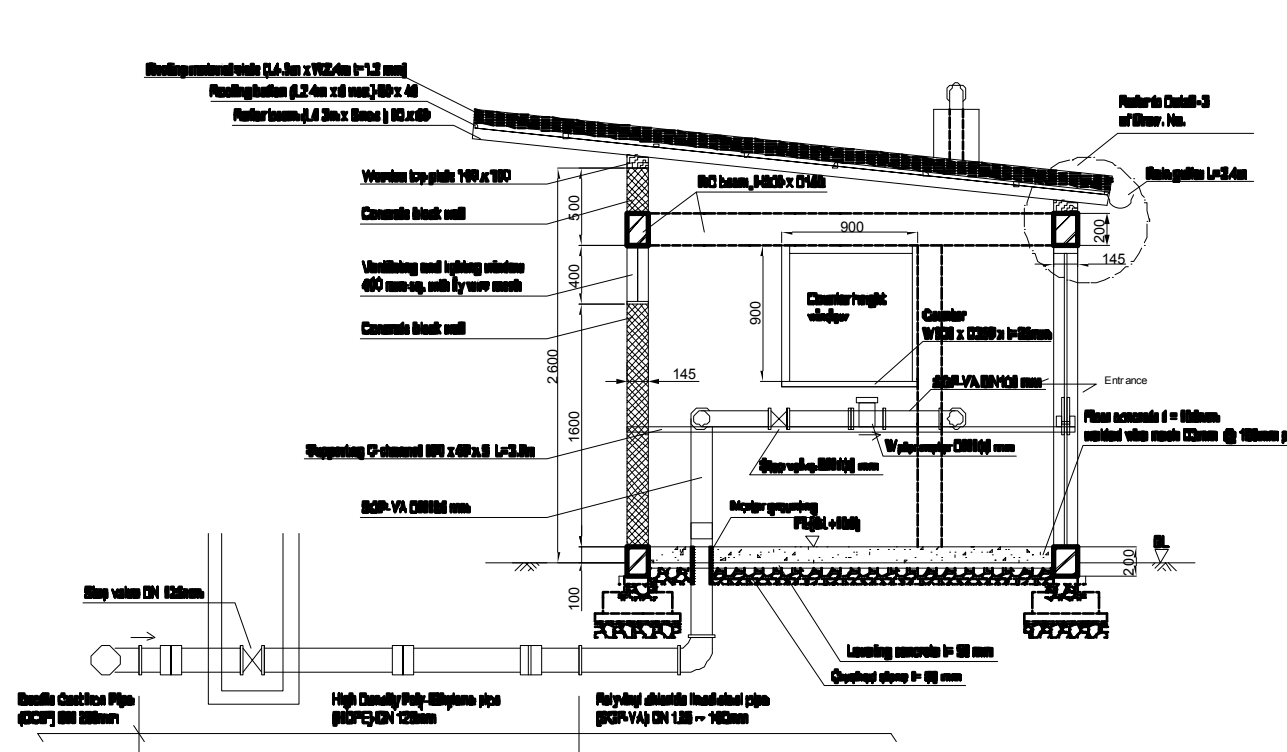
Drawing No.
 WFS-008
 Date
 Dec. 2010
 Revision
 Rev. 2.0



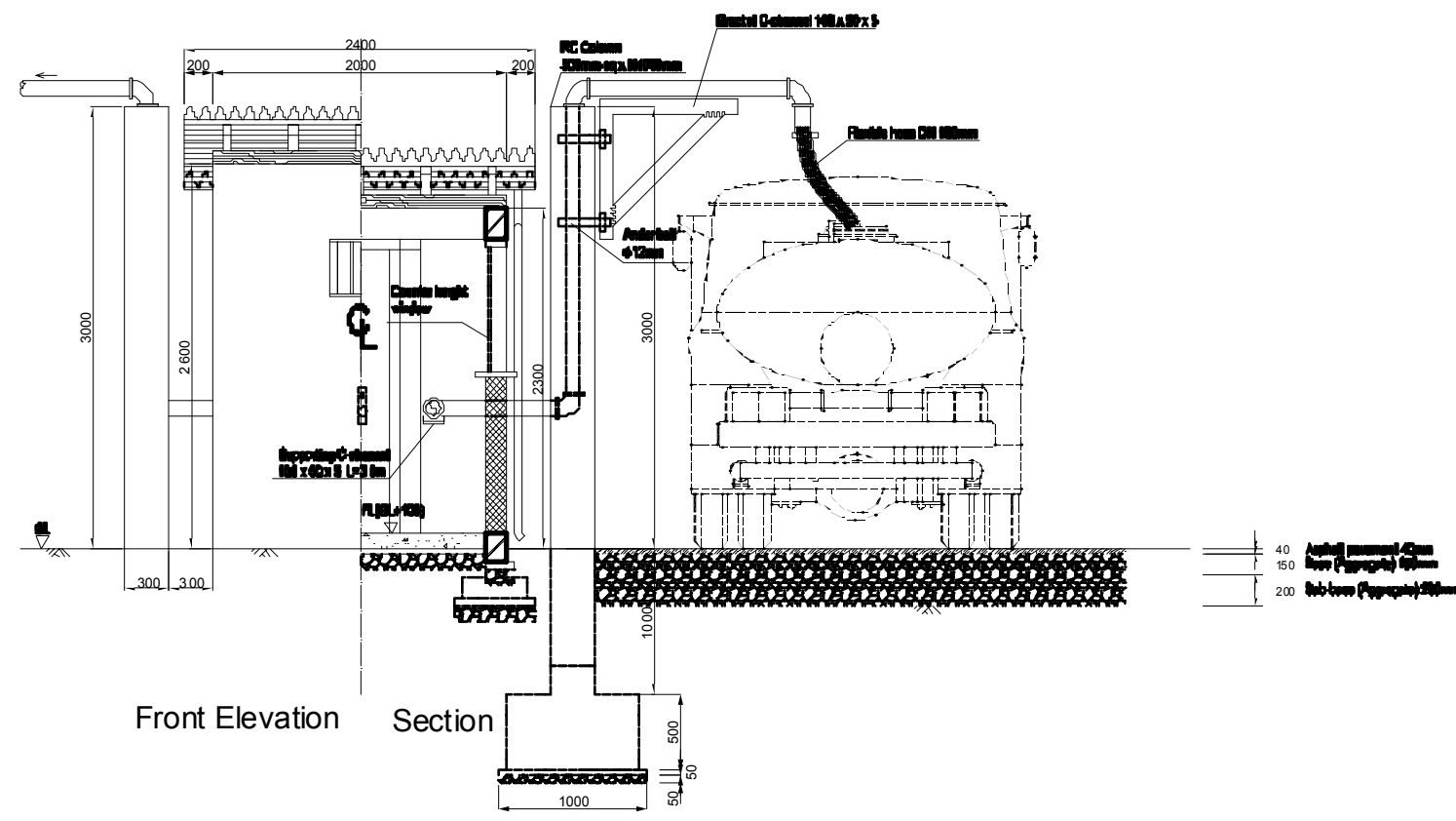
SECTION PLAN (1/50)



VENTILATING WINDOW (1/10)



SECTION A-A' (1/50)



SECTION B-B' (1/50)

The Project for the Improvement of Water Supply System of Juba in Southern Sudan

Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

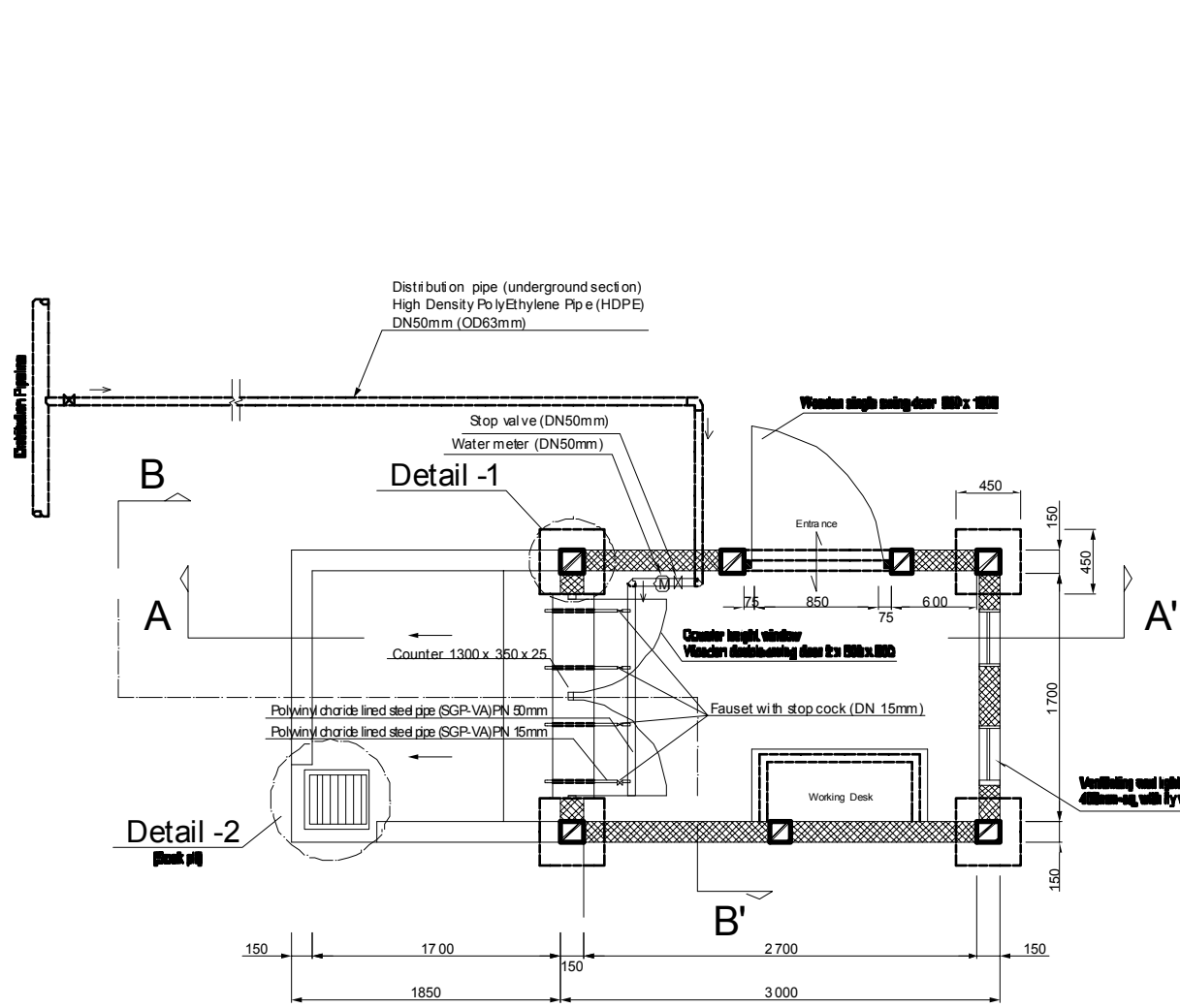
Japan International Cooperation Agency (JICA)
Tokyo Engineering Consultants, Co., Ltd.

Project:
Water Tanker Filling Station

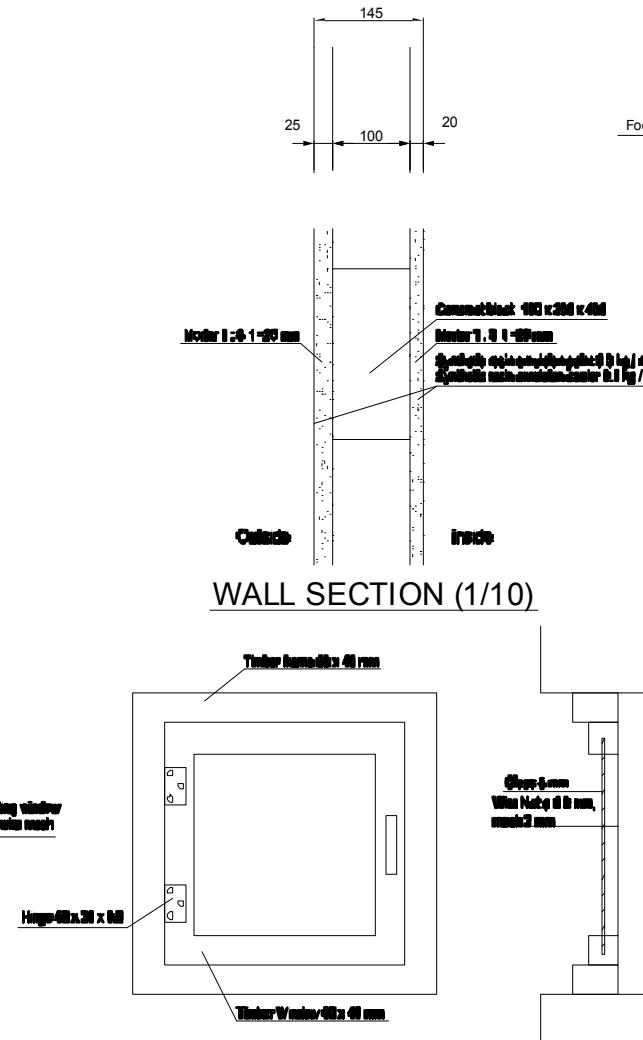
Title:
Toilet Booth

Scale:
1/50
Original Paper Size:
A3

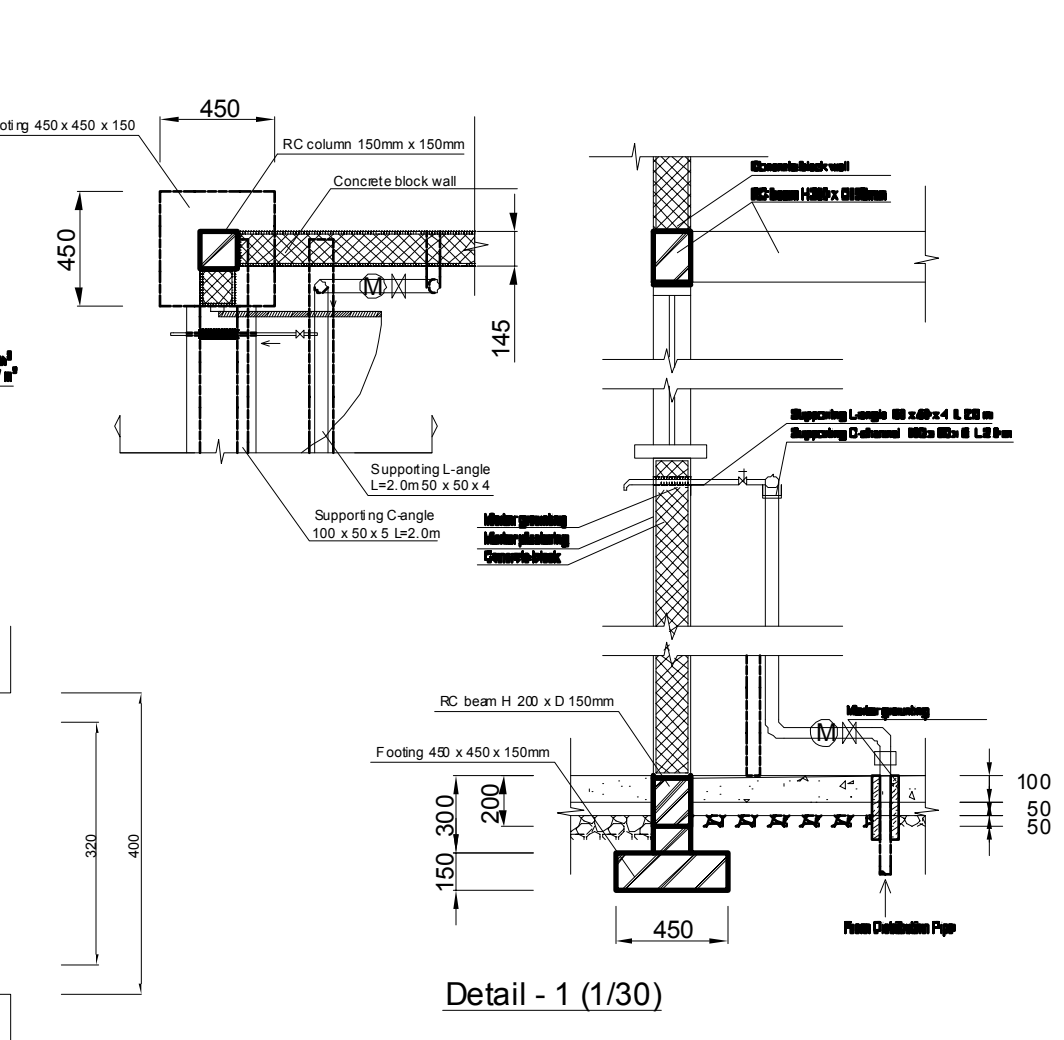
Drawing No.:
WFS-008
Date:
Mar. 2011
Revision:
Rev. 2.0



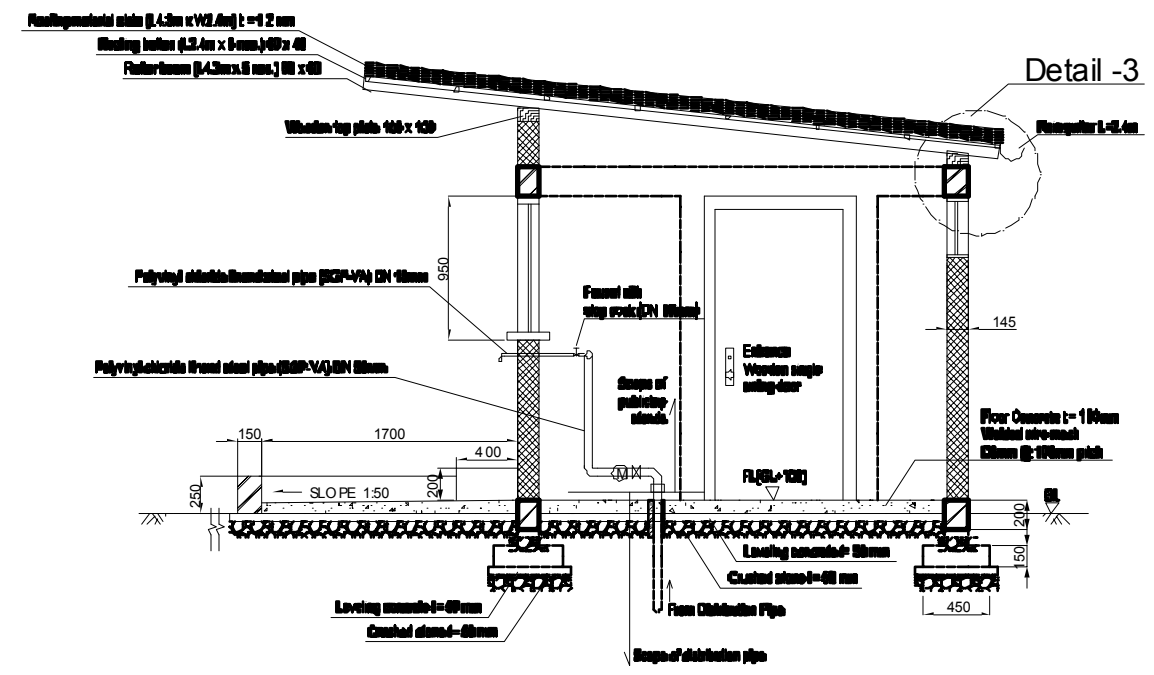
SECTION PLAN (1/50)



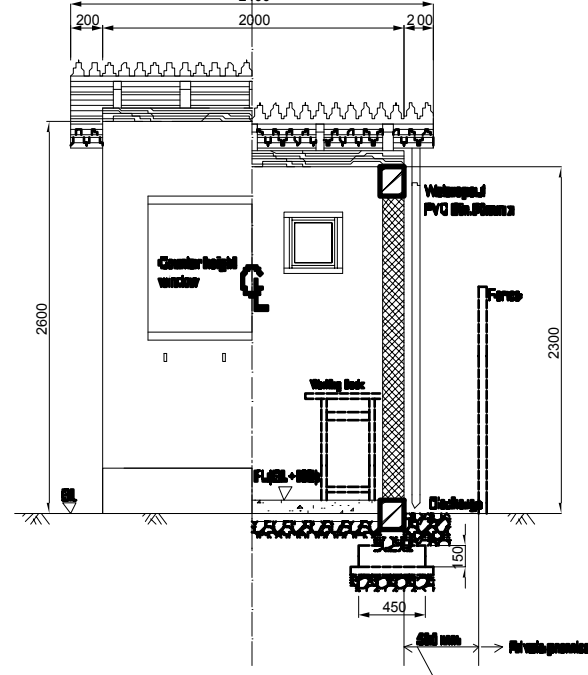
WALL SECTION (1/10)



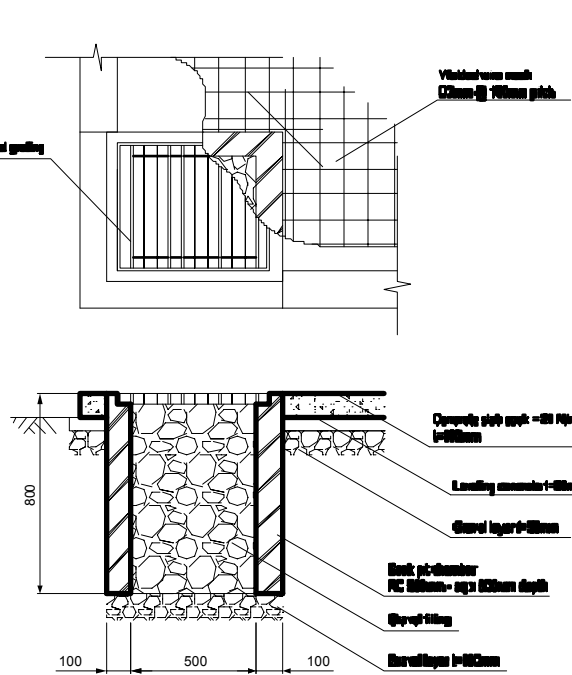
Detail - 1 (1/30)



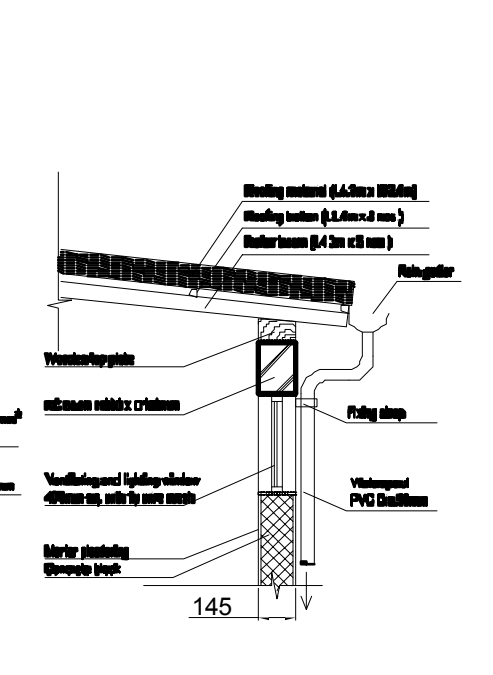
SECTION A-A' (1/50)



SECTION B-B' (1/50)



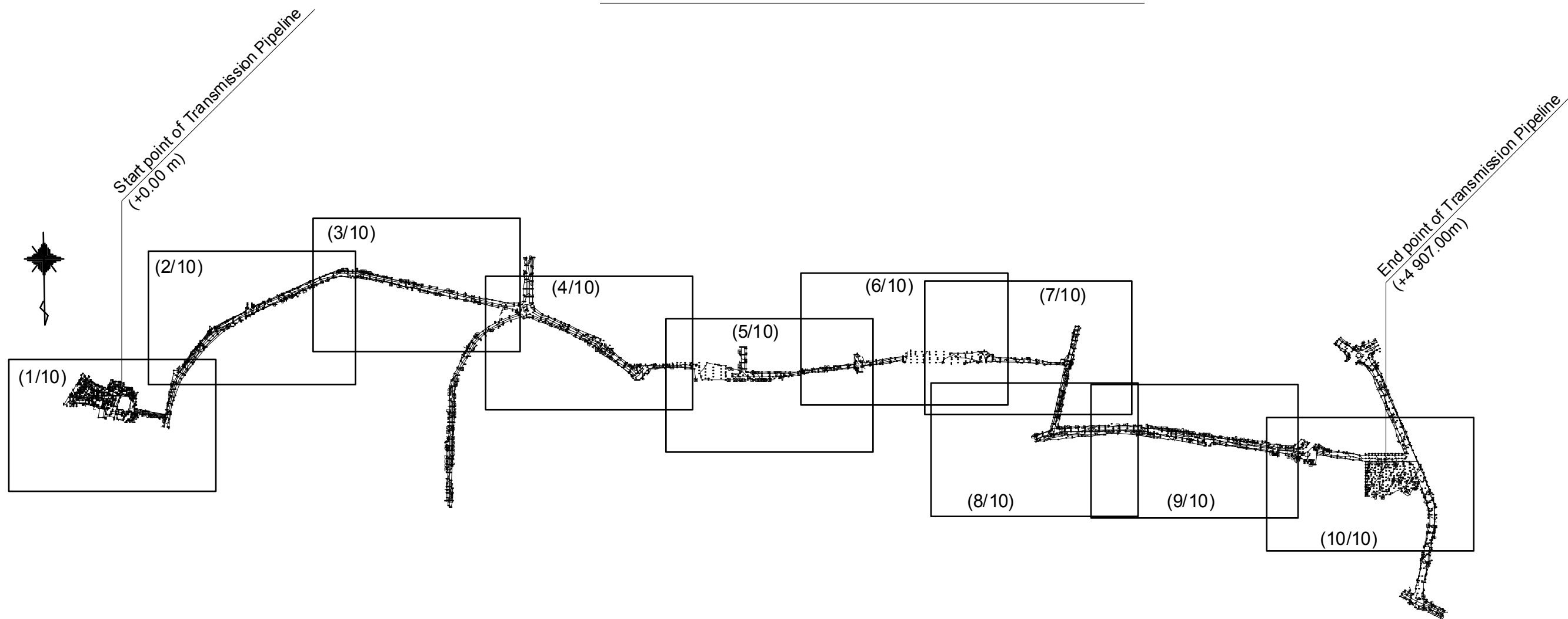
Detail - 2 Soak Pit (1/30)



Detail - 3 (1/30)

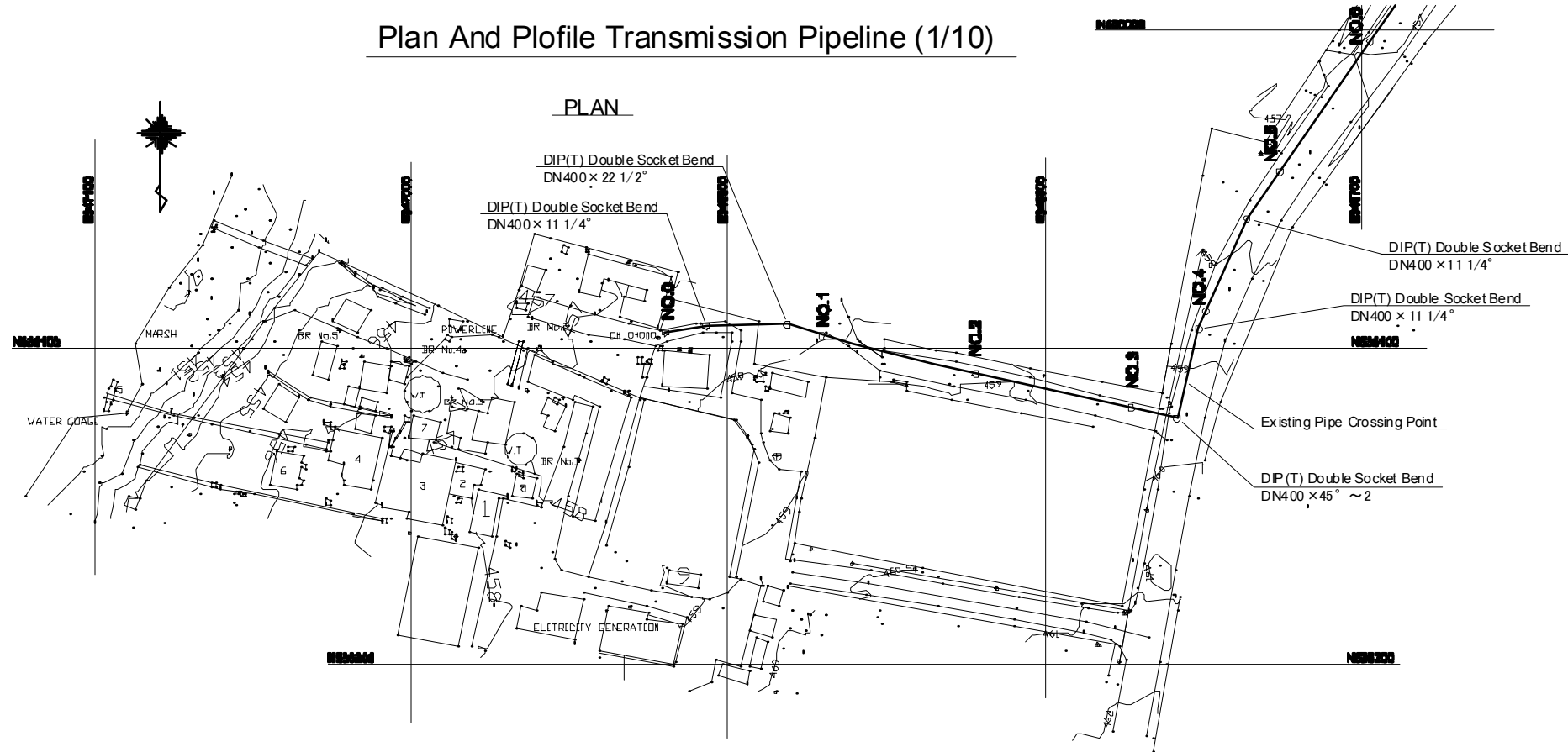
The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Public:	Water Kiosk	Scale: 1/50 Original Paper Size: A3	Drawing No.: PTS-001
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.				

Transmission Pipeline KEY PLAN

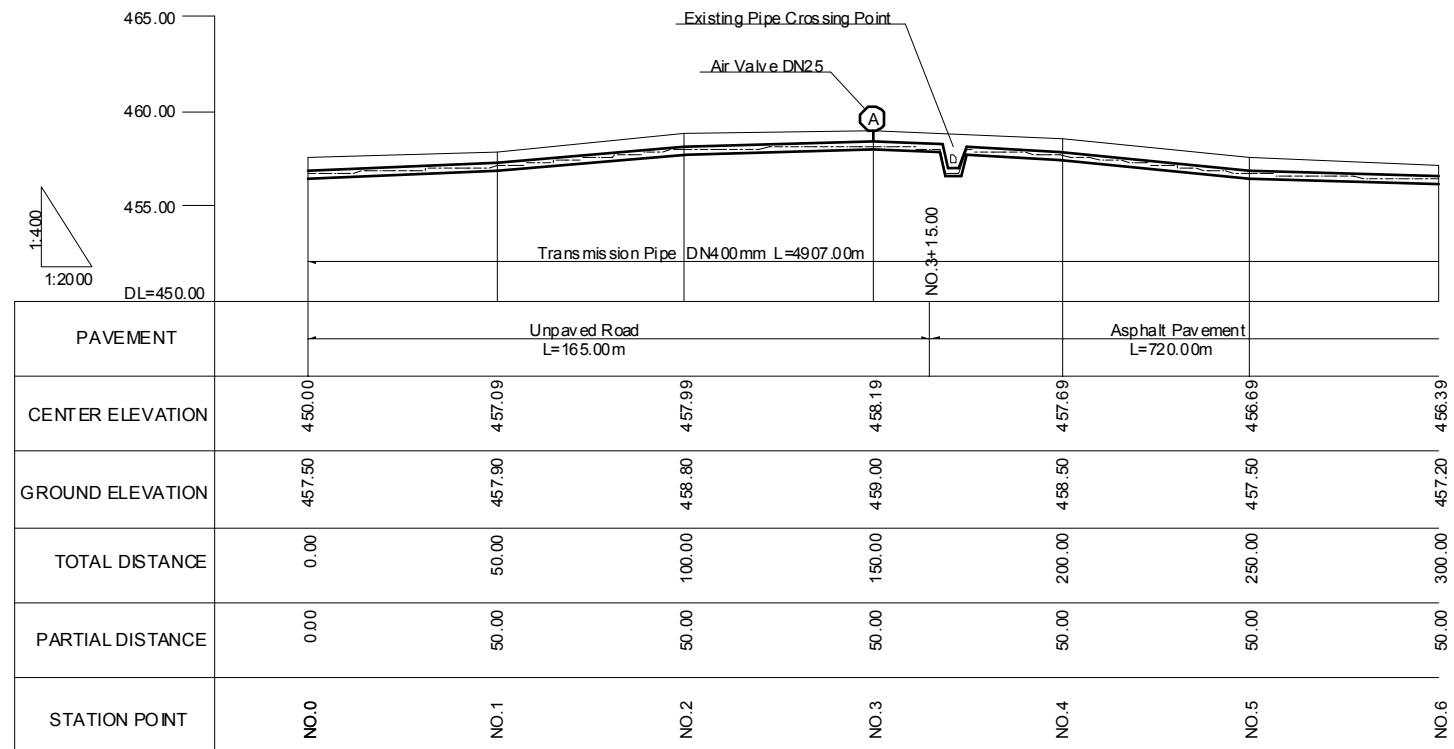


The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Facility:	Title:	Scale:	Drawing No.:	
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.	Transmission Pipeline	Key Plan	1/15000	TRP-001	
					Original Paper Size: A3	Date: Sept. 2010	Revision: Rev. 0

Plan And Profile Transmission Pipeline (1/10)

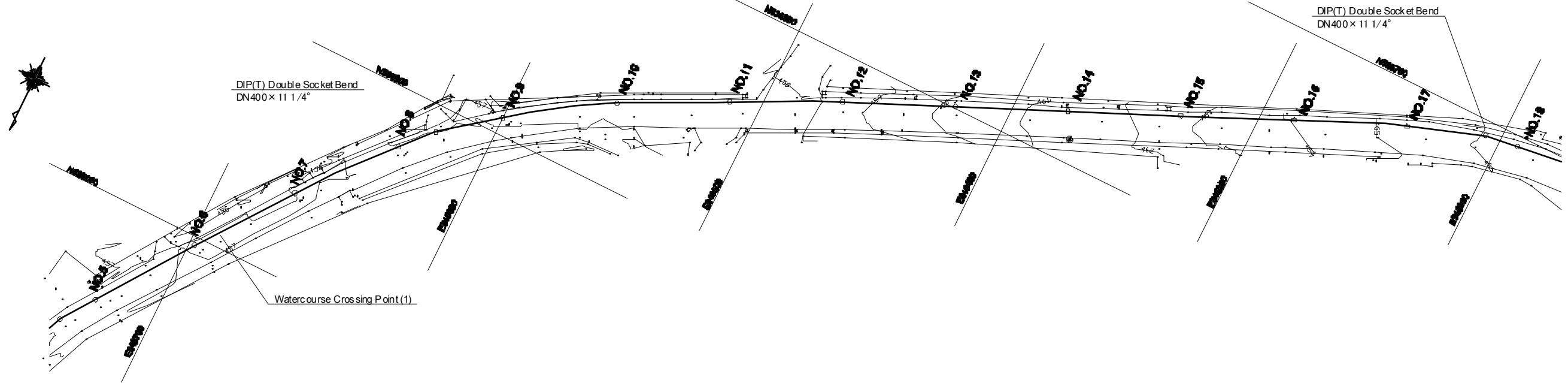


PROFILE

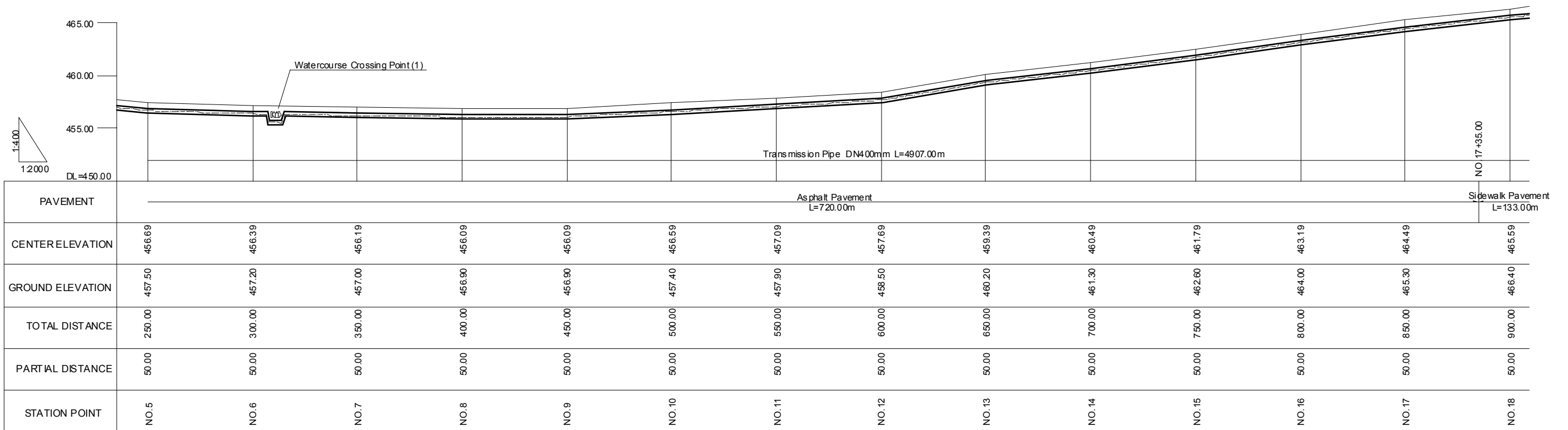


Plan And Plofile Transmission Pipeline (2/10)

PLAN



PROFILE



The Project for the Improvement
of Water Supply System of Juba
in Southern Sudan

Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation

Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.

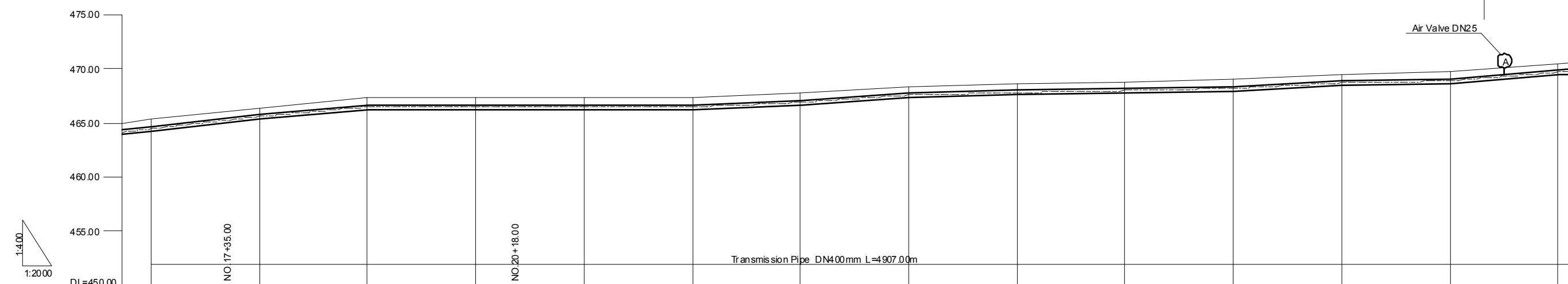
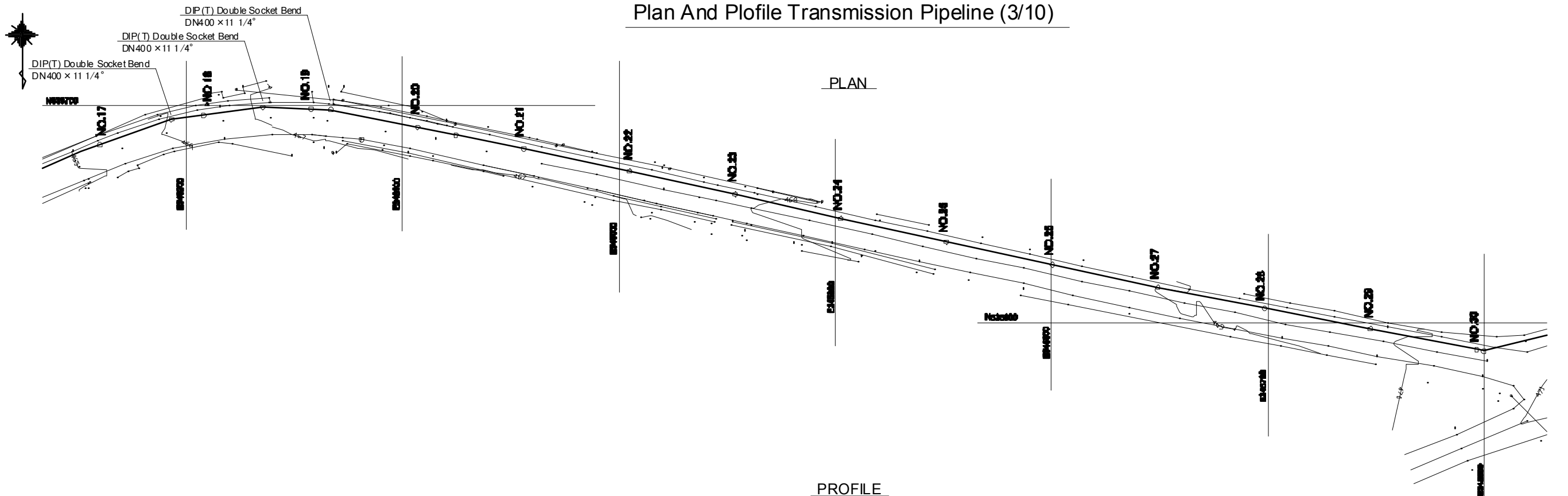
Facility:
Transmission Pipeline

Title:
Plan and Profile-(2/10)

Scale:
1/2000
Original Paper Size:
A3

Drawing No.:
TRP-003
Date:
Sept. 2010
Revision:
Rev. 0

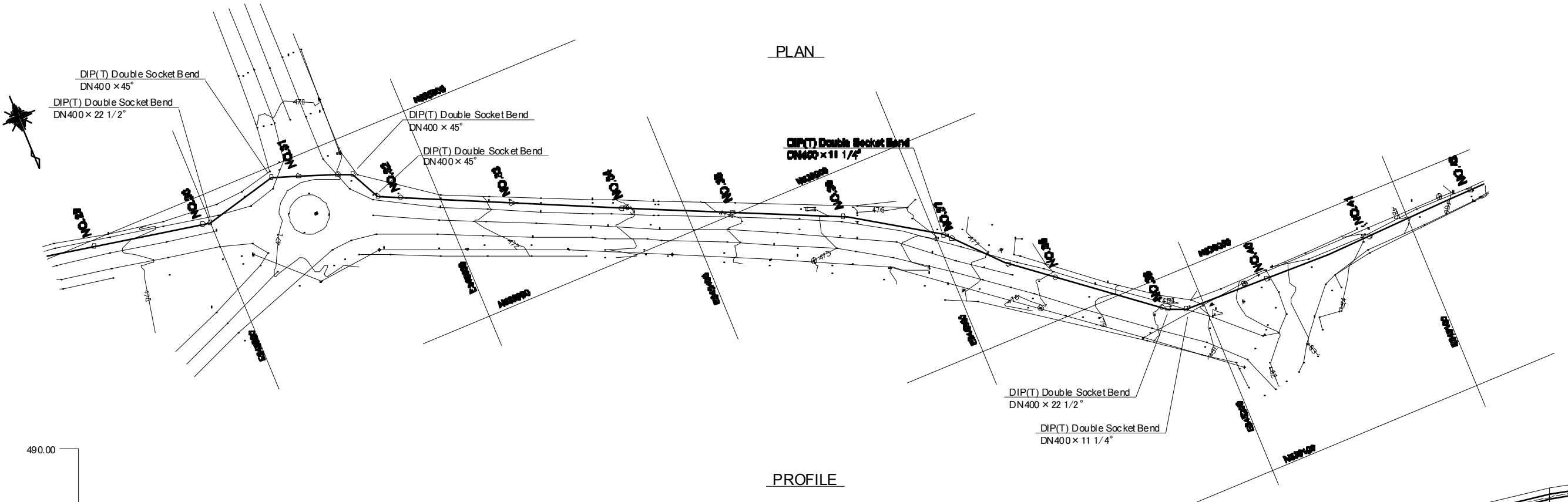
Plan And Profile Transmission Pipeline (3/10)



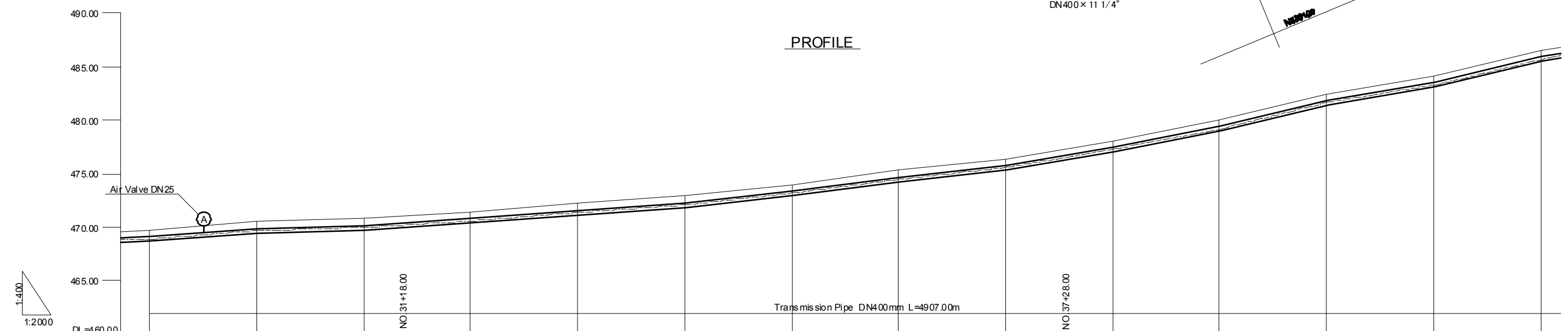
PAVEMENT	Asphalt Pavement L=720.00m		Sidewalk Pavement L=133.00m				Asphalt Pavement L=550.00m									
CENTER ELEVATION	464.49	465.59	466.49	466.49	466.49	466.49	466.89	467.59	467.79	467.99	468.19	468.69	468.89	468.89	469.69	
GROUND ELEVATION	465.30	466.40	467.30	467.30	467.30	467.30	467.70	468.40	468.60	468.80	469.00	469.50	469.70	469.70	470.50	
TOTAL DISTANCE	850.00	900.00	950.00	1000.00	1050.00	1100.00	1150.00	1200.00	1250.00	1300.00	1350.00	1400.00	1450.00	1500.00		
PARTIAL DISTANCE	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	
STATION POINT	NO.17	NO.18	NO.19	NO.20	NO.21	NO.22	NO.23	NO.24	NO.25	NO.26	NO.27	NO.28	NO.29	NO.30		

Plan And Profile Transmission Pipeline (4/10)

PLAN



PROFILE



PAVEMENT	Asphalt Pavement L=550.00m			Unpaved Road L=313.00m						Asphalt Pavement L=313.00m				
	NO.29	NO.30	NO.31	NO.32	NO.33	NO.34	NO.35	NO.36	NO.37	NO.38	NO.39	NO.40	NO.41	NO.42
CENTER ELEVATION	468.89	469.69	469.99	470.59	471.39	472.09	473.19	474.49	475.59	477.29	479.19	481.69	483.29	485.69
GROUND ELEVATION	469.70	470.50	470.80	471.40	472.20	472.90	474.00	475.30	476.40	478.10	480.00	482.50	484.10	486.50
TOTAL DISTANCE	1450.00	1500.00	1550.00	1600.00	1650.00	1700.00	1750.00	1800.00	1850.00	1900.00	1950.00	2000.00	2050.00	2100.00
PARTIAL DISTANCE	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
STATION POINT	NO.29	NO.30	NO.31	NO.32	NO.33	NO.34	NO.35	NO.36	NO.37	NO.38	NO.39	NO.40	NO.41	NO.42

**The Project for the Improvement
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in Southern Sudan**

**Ministry of Water Resources and Irrigation
Government of Southern Sudan
Southern Sudan Urban Water Corporation**

**Japan International Cooperation Agency
(JICA)
Tokyo Engineering Consultants, Co., Ltd.**

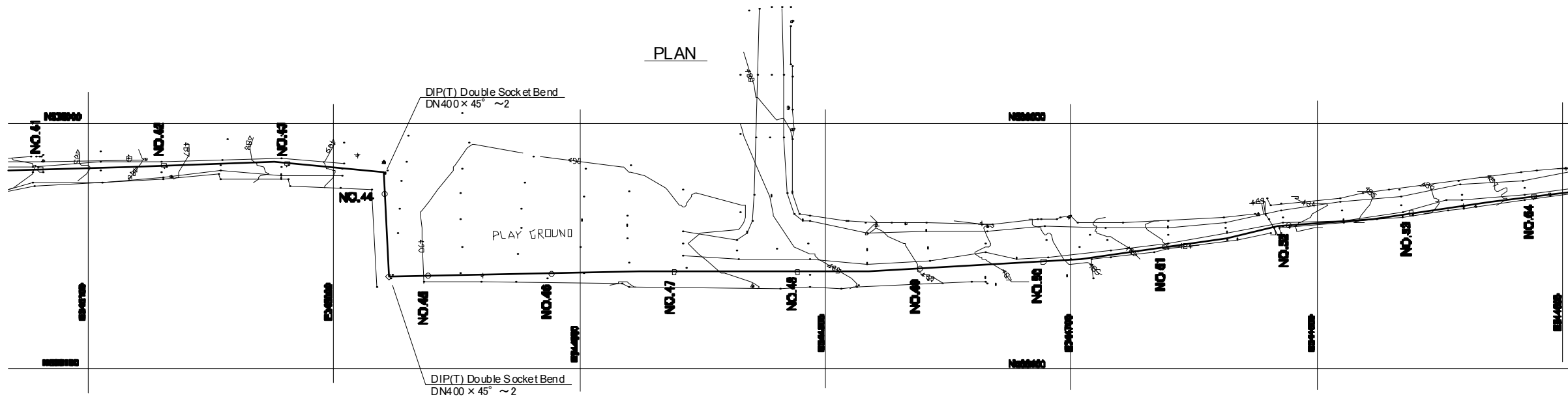
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Transmission Pipeline**

**Title:
Plan and Profile-(4/10)**

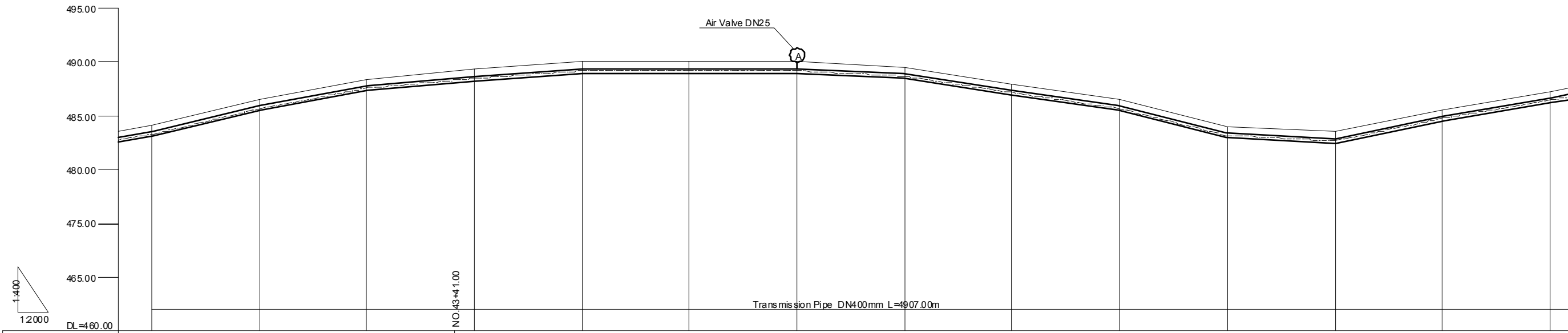
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1/2000
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**Drawing No.:
TRP-005
Date:
Sept. 2010
Revision:
Rev. 0**

Plan And Profile Transmission Pipeline (5/10)



PROFILE



PAVEMENT	Asphalt Pavement L=313.00m			Unpaved Road L=1321.00m											
CENTER ELEVATION	483.29	485.69	487.59	488.49	489.19	489.19	489.19	489.19	488.69	487.19	485.69	483.19	482.69	484.79	486.49
GROUND ELEVATION	484.10	486.50	488.40	489.30	490.00	490.00	490.00	490.00	489.50	488.00	486.50	484.00	483.50	485.60	487.30
TOTAL DISTANCE	2050.00	2100.00	2150.00	2200.00	2250.00	2300.00	2350.00	2400.00	2450.00	2500.00	2550.00	2600.00	2650.00	2700.00	2700.00
PARTIAL DISTANCE	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
STATION POINT	NO.41	NO.42	NO.43	NO.44	NO.45	NO.46	NO.47	NO.48	NO.49	NO.50	NO.51	NO.52	NO.53	NO.54	NO.54

**The Project for the Improvement
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**Japan International Cooperation Agency
(JICA)
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**Facility:
Transmission Pipeline**

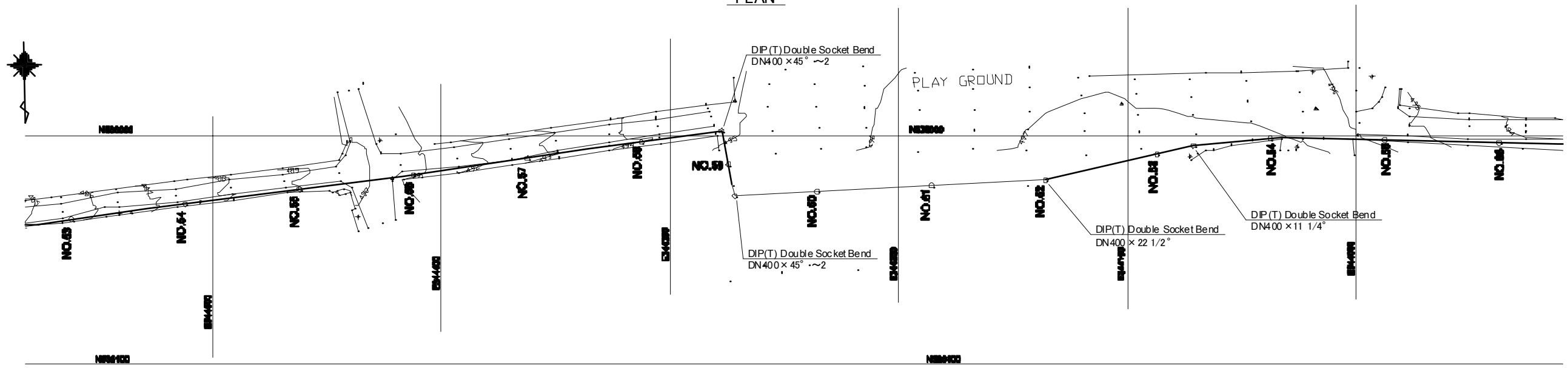
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Plan and Profile-(5/10)**

**Scale:
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Original Paper Size:
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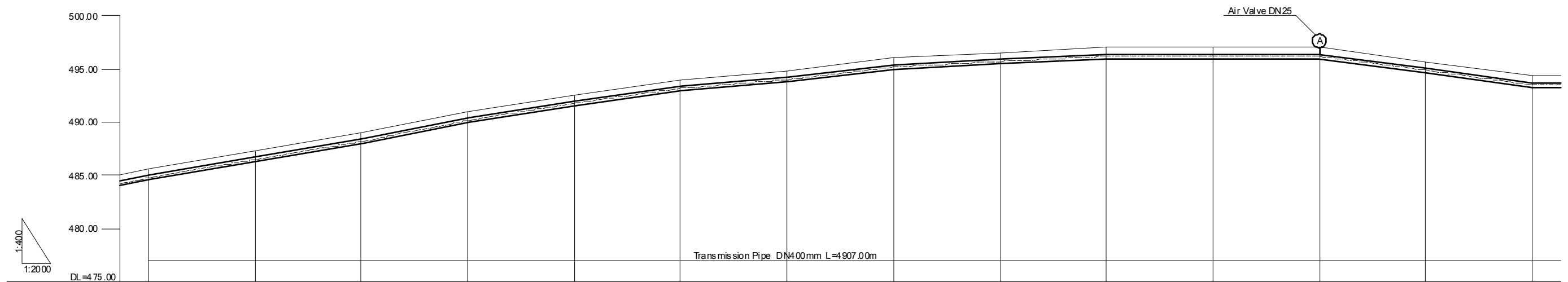
**Drawing No.:
TRP-006
Date:
Sept. 2010
Revision:
Rev. 0**

Plan And Profile Transmission Pipeline (6/10)

PLAN



PROFILE



PAVEMENT	Unpaved Road L=1321.00m													
CENTER ELEVATION	484.79	486.49	488.19	490.19	491.79	493.19	493.99	495.19	495.69	496.19	496.19	496.19	494.89	483.49
GROUND ELEVATION	485.60	487.30	489.00	491.00	492.60	494.00	494.80	496.00	496.50	497.00	497.00	497.00	495.70	494.30
TOTAL DISTANCE	2650.00	2700.00	2750.00	2800.00	2850.00	2900.00	2950.00	3000.00	3050.00	3100.00	3150.00	3200.00	3250.00	3300.00
PARTIAL DISTANCE	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
STATION POINT	NO.53	NO.54	NO.55	NO.56	NO.57	NO.58	NO.59	NO.60	NO.61	NO.62	NO.63	NO.64	NO.65	NO.66

The Project for the Improvement of Water Supply System of Juba in Southern Sudan

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Japan International Cooperation Agency (JICA)
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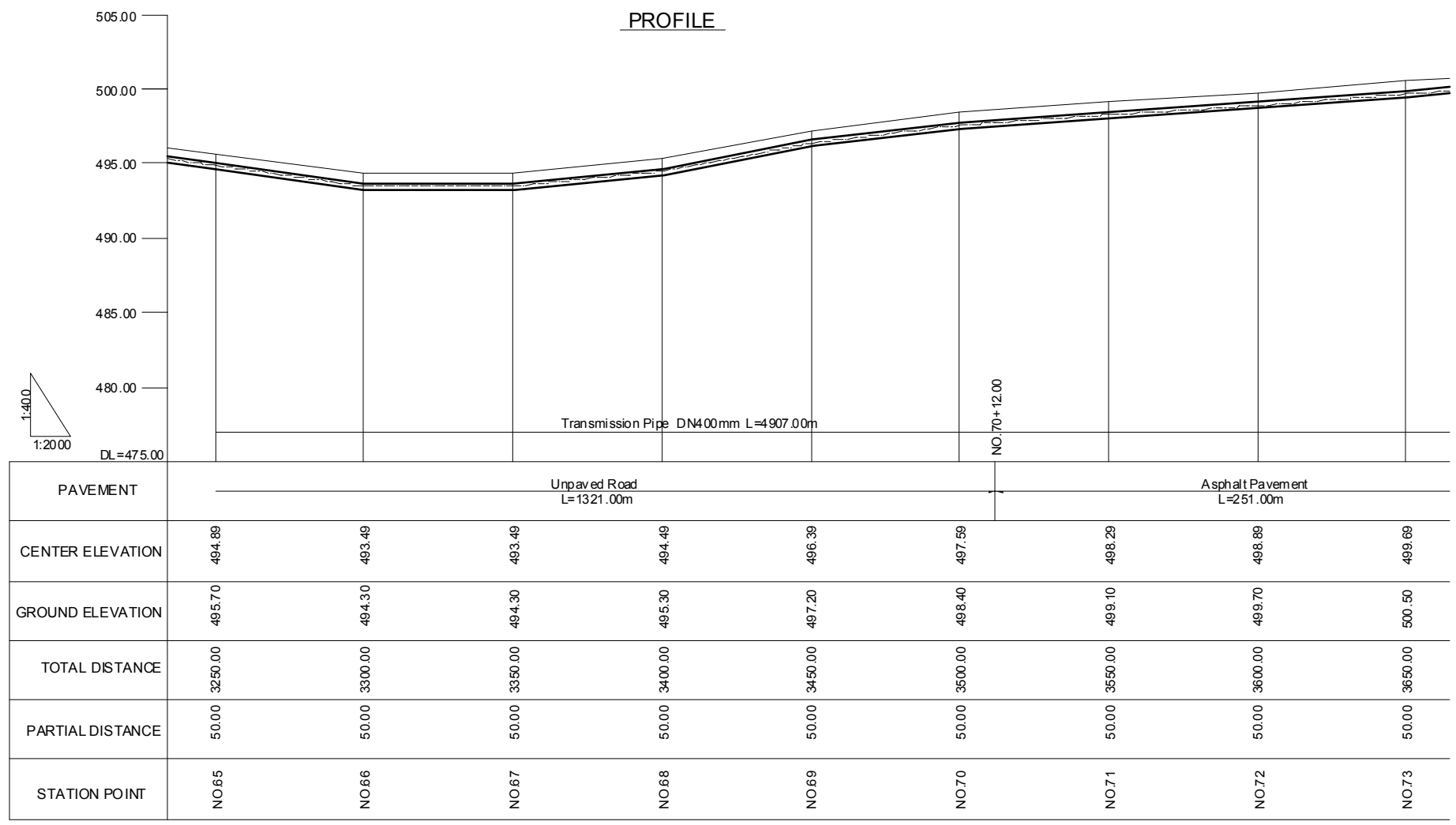
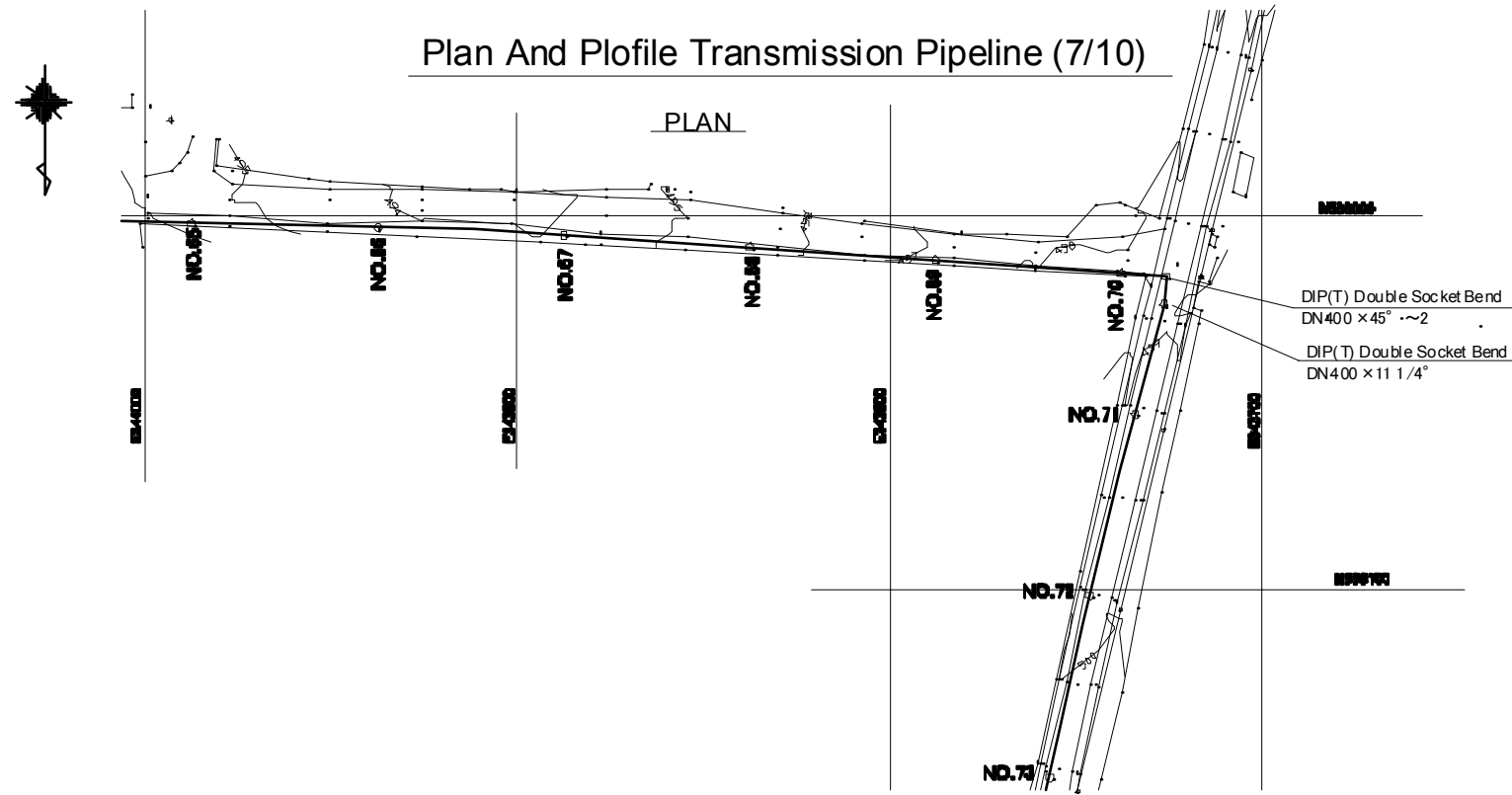
Facility: Transmission Pipeline

Title: Plan and Profile-(6/10)

Scale: 1/2000
Original Paper Size: A3

Drawing No.: TRP-007
Date: Sept. 2010
Revision: Rev. 0

Plan And Profile Transmission Pipeline (7/10)



The Project for the Improvement of Water Supply System of Juba in Southern Sudan

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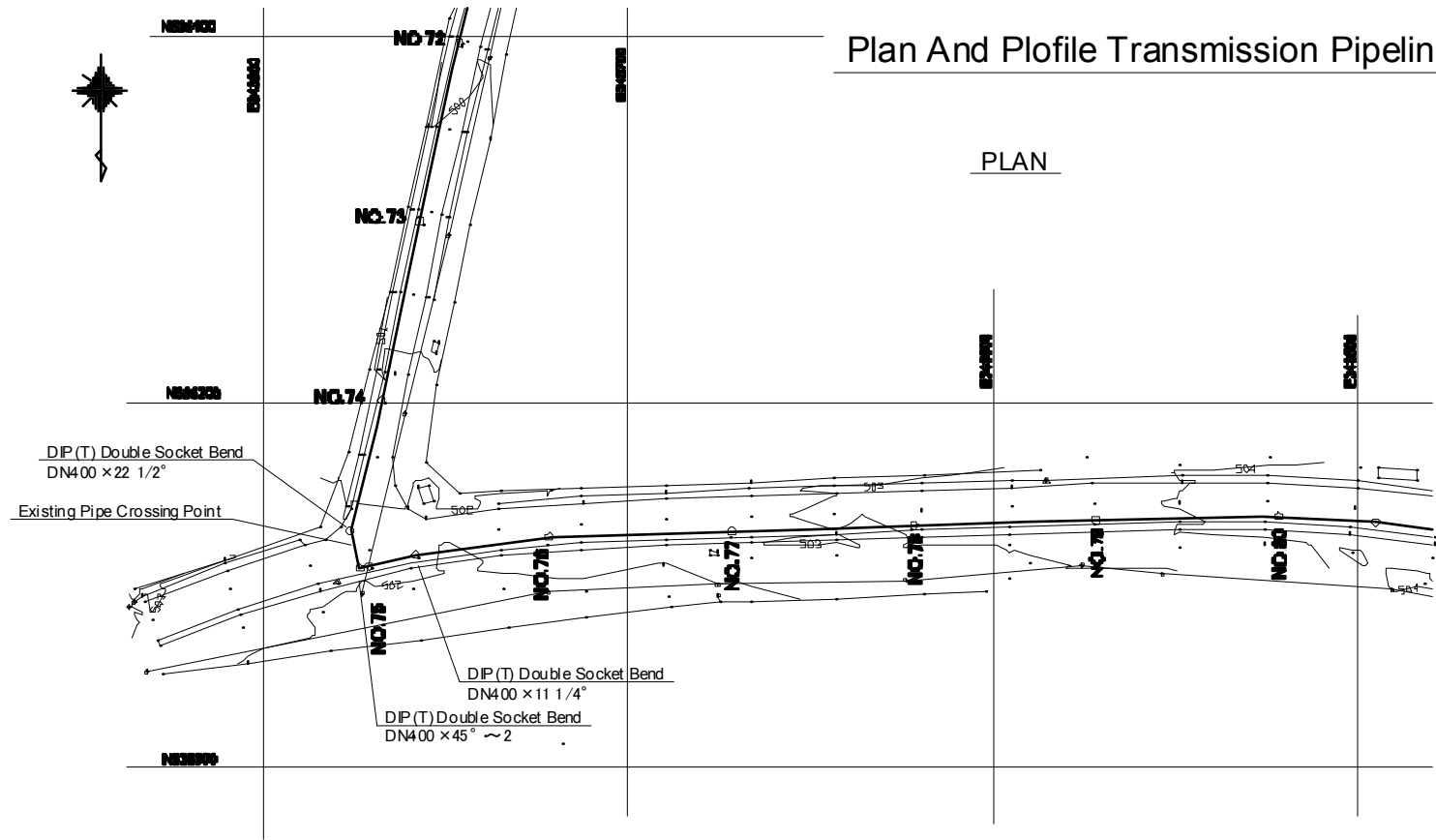
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Title: Plan and Profile-(7/10)

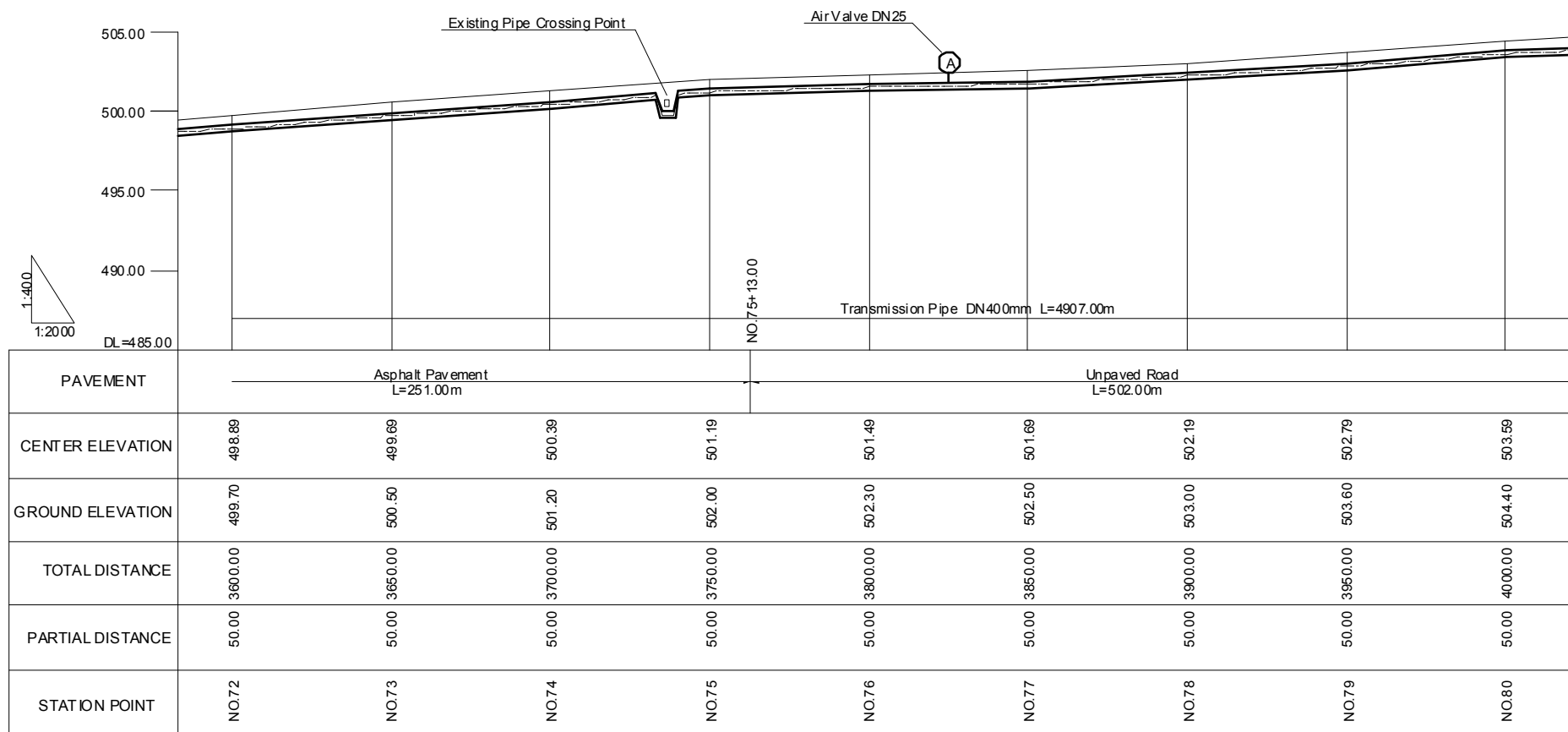
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Drawing No.: TRP-008
 Date: Sept. 2010
 Revision: Rev. 0

Plan And Profile Transmission Pipeline (8/10)



PROFILE



The Project for the Improvement of Water Supply System of Juba in Southern Sudan

Ministry of Water Resources and Irrigation
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Southern Sudan Urban Water Corporation

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Facility: Transmission Pipeline

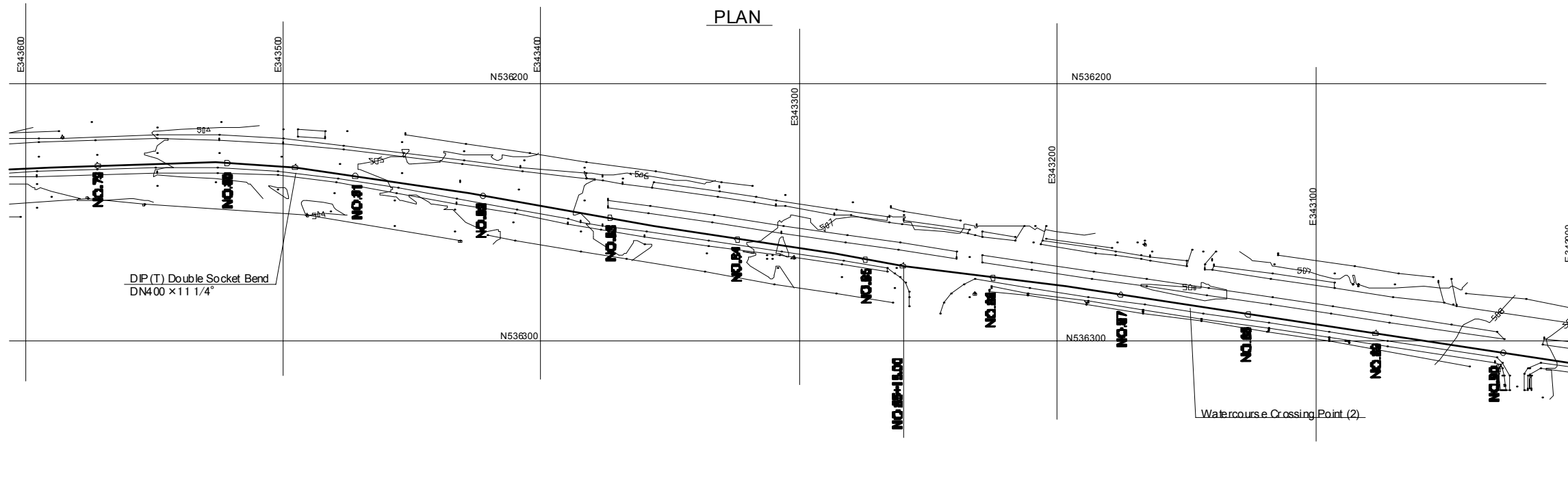
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Scale: 1/2000
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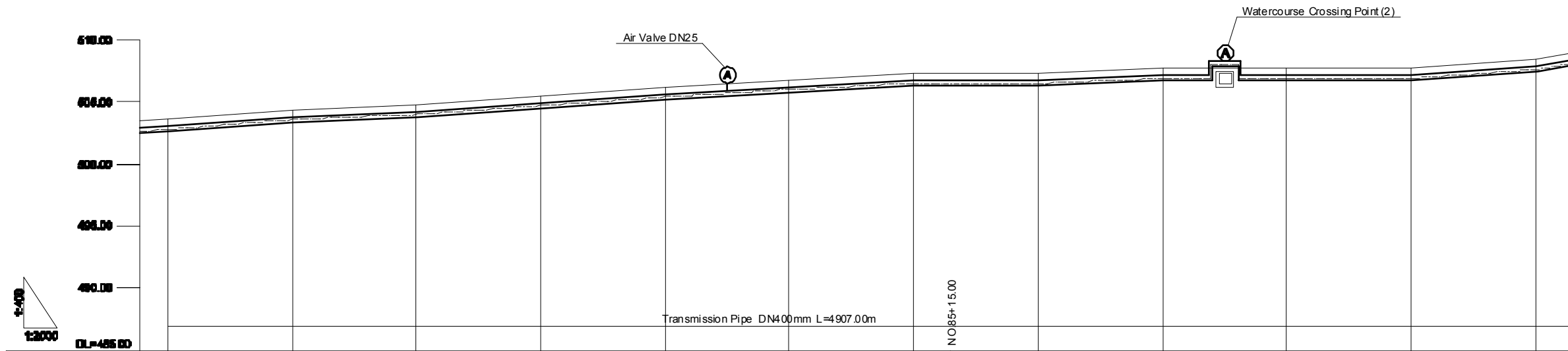
Drawing No.: TRP-009
Date: Sept. 2010
Revision: Rev. 0

Plan And Profile Transmission Pipeline (9/10)

PLAN



PROFILE



PAVEMENT	Unpaved Road L=502.00m							Asphalt Pavement L=642.00m				
CENTER ELEVATION	502.79	503.89	503.89	504.89	505.59	505.89	506.49	506.49	506.89	506.89	507.89	507.89
GROUND ELEVATION	503.89	504.49	504.89	505.89	506.39	505.89	507.29	507.39	507.79	507.79	507.79	508.49
TOTAL DISTANCE	380.00	400.00	420.00	410.00	410.00	420.00	420.00	430.00	450.00	460.00	480.00	490.00
PARTIAL DISTANCE	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
STATION POINT	NO.79	NO.80	NO.81	NO.82	NO.83	NO.84	NO.85	NO.86	NO.87	NO.88	NO.89	NO.89

The Project for the Improvement of Water Supply System of Juba in Southern Sudan

Ministry of Water Resources and Irrigation
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Japan International Cooperation Agency (JICA)
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Facility: Transmission Pipeline

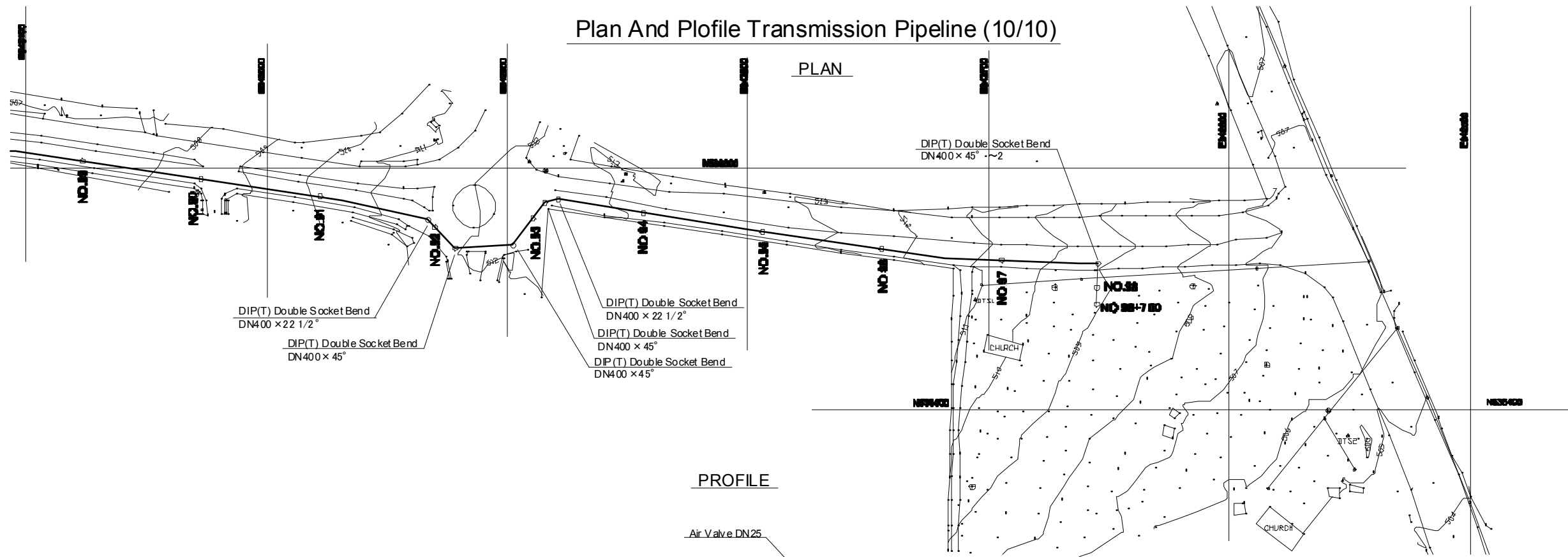
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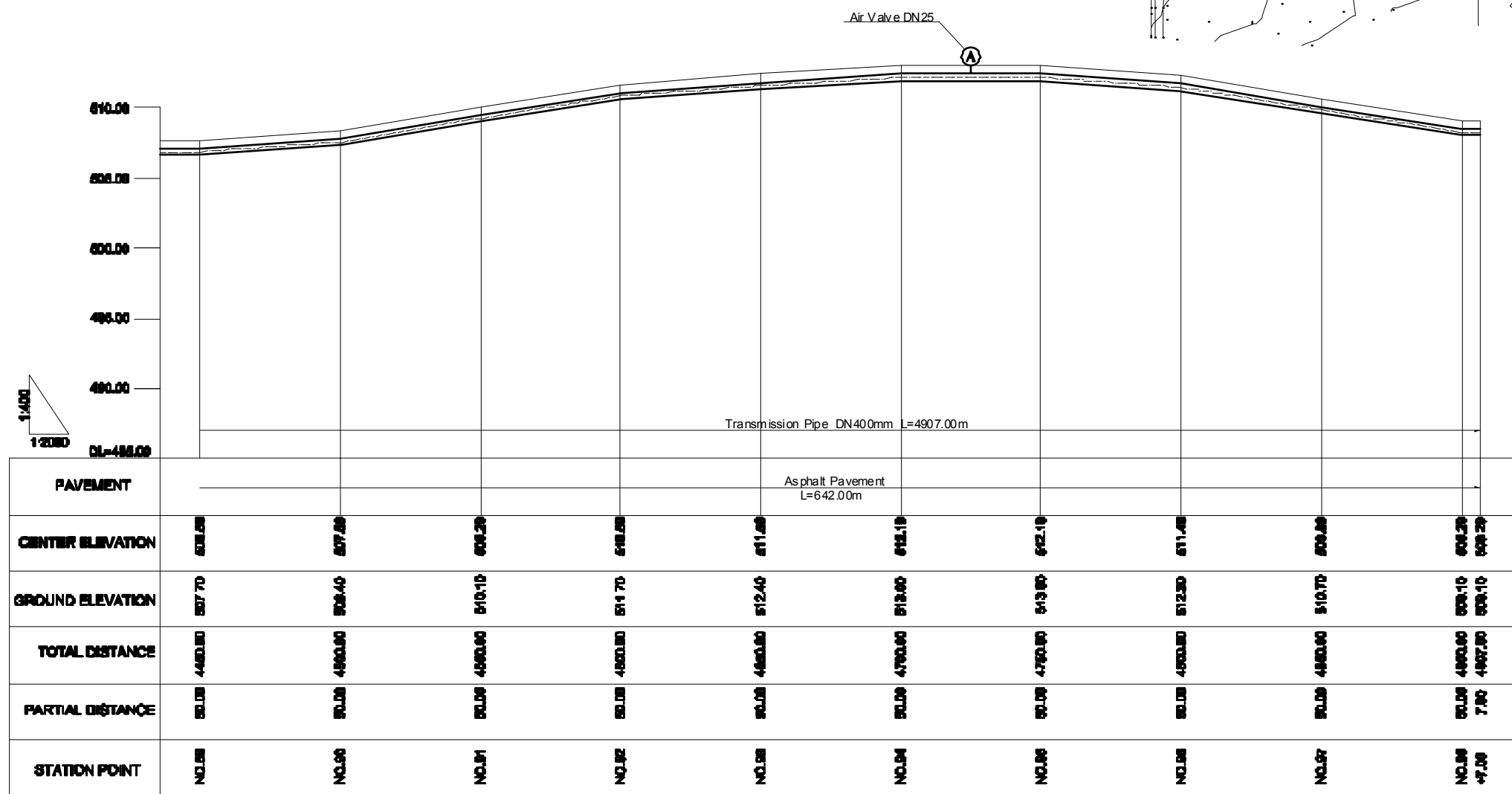
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Date: Sept. 2010
Revision: Rev. 0

Plan And Plofile Transmission Pipeline (10/10)

PLAN



PROFILE



The Project for the Improvement of Water Supply System of Juba in Southern Sudan

Ministry of Water Resources and Irrigation
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Southern Sudan Urban Water Corporation

Japan International Cooperation Agency (JICA)
Tokyo Engineering Consultants, Co., Ltd.

Facility: Transmission Pipeline

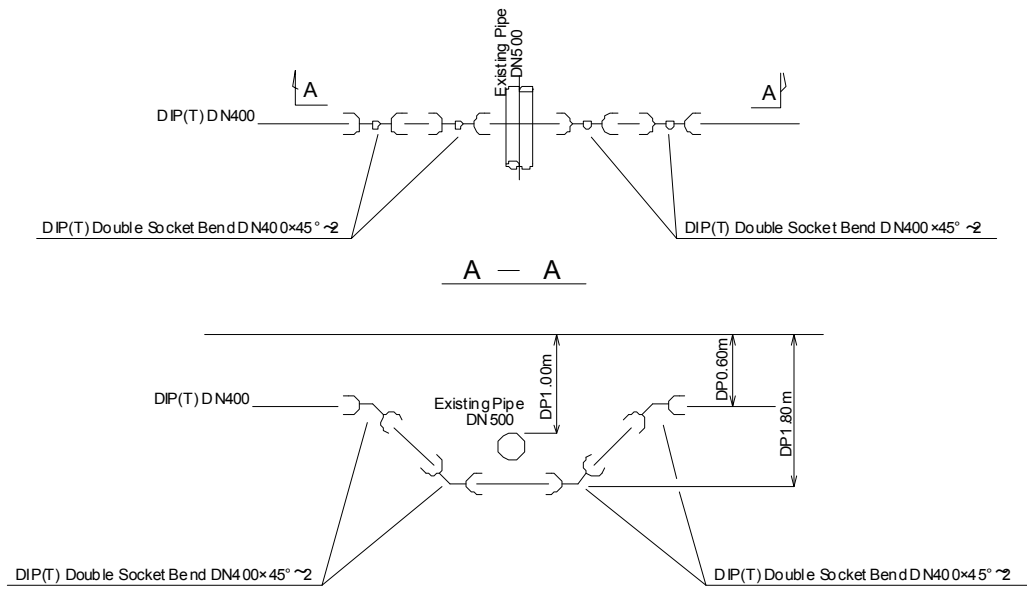
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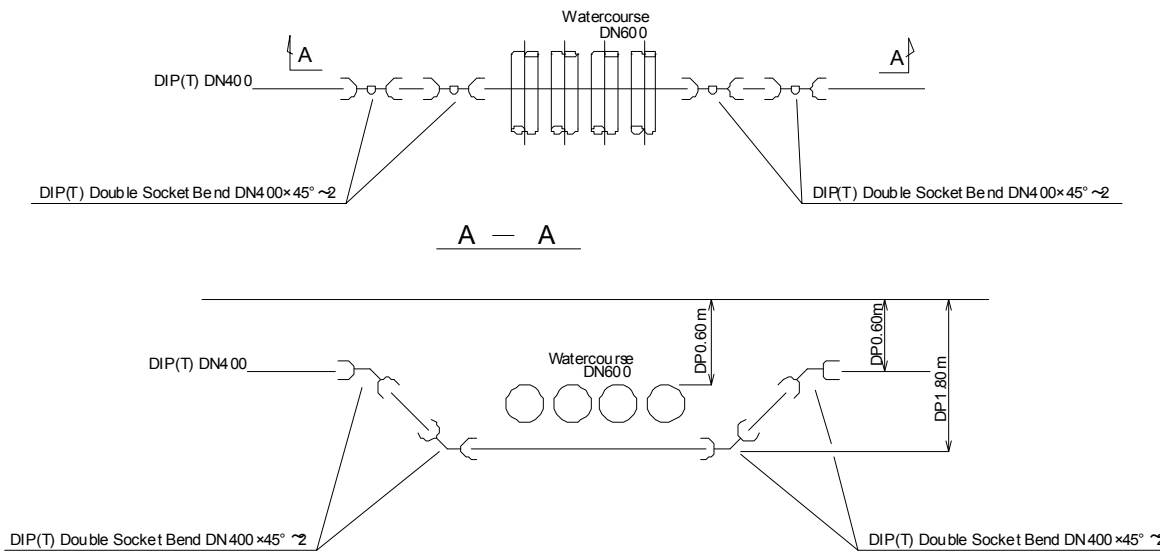
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Date: Sept. 2010
Revision: Rev. 0

Detail OF Transmission Pipe

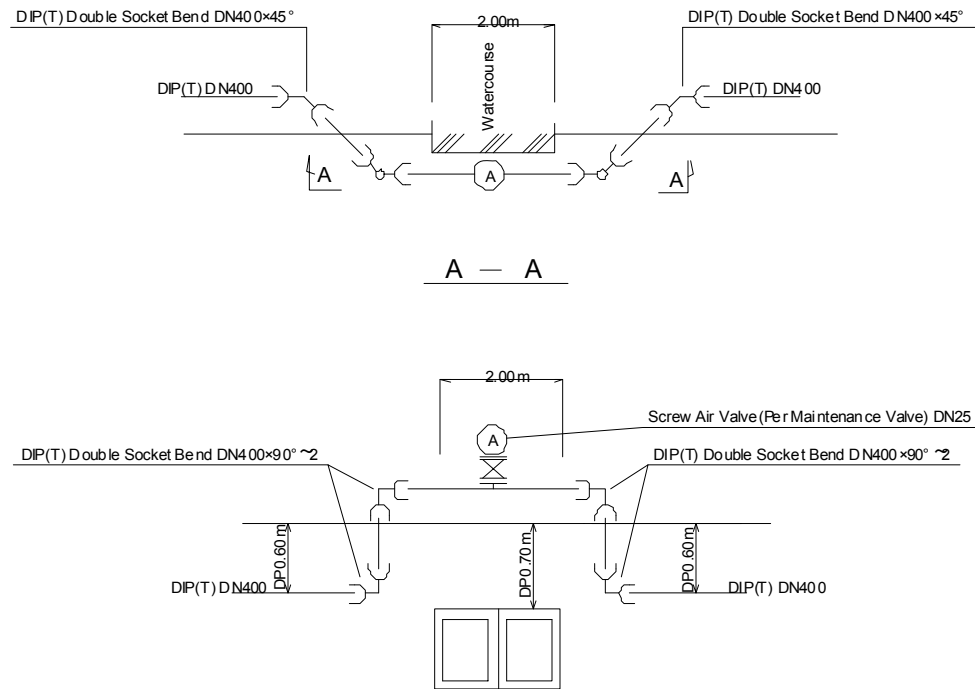
Existing Pipe Crossing Point



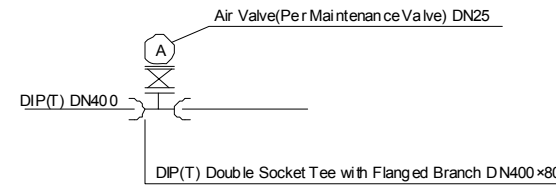
Watercourse Crossing Point (1)



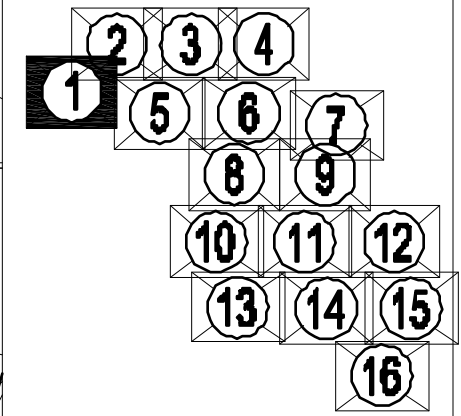
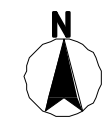
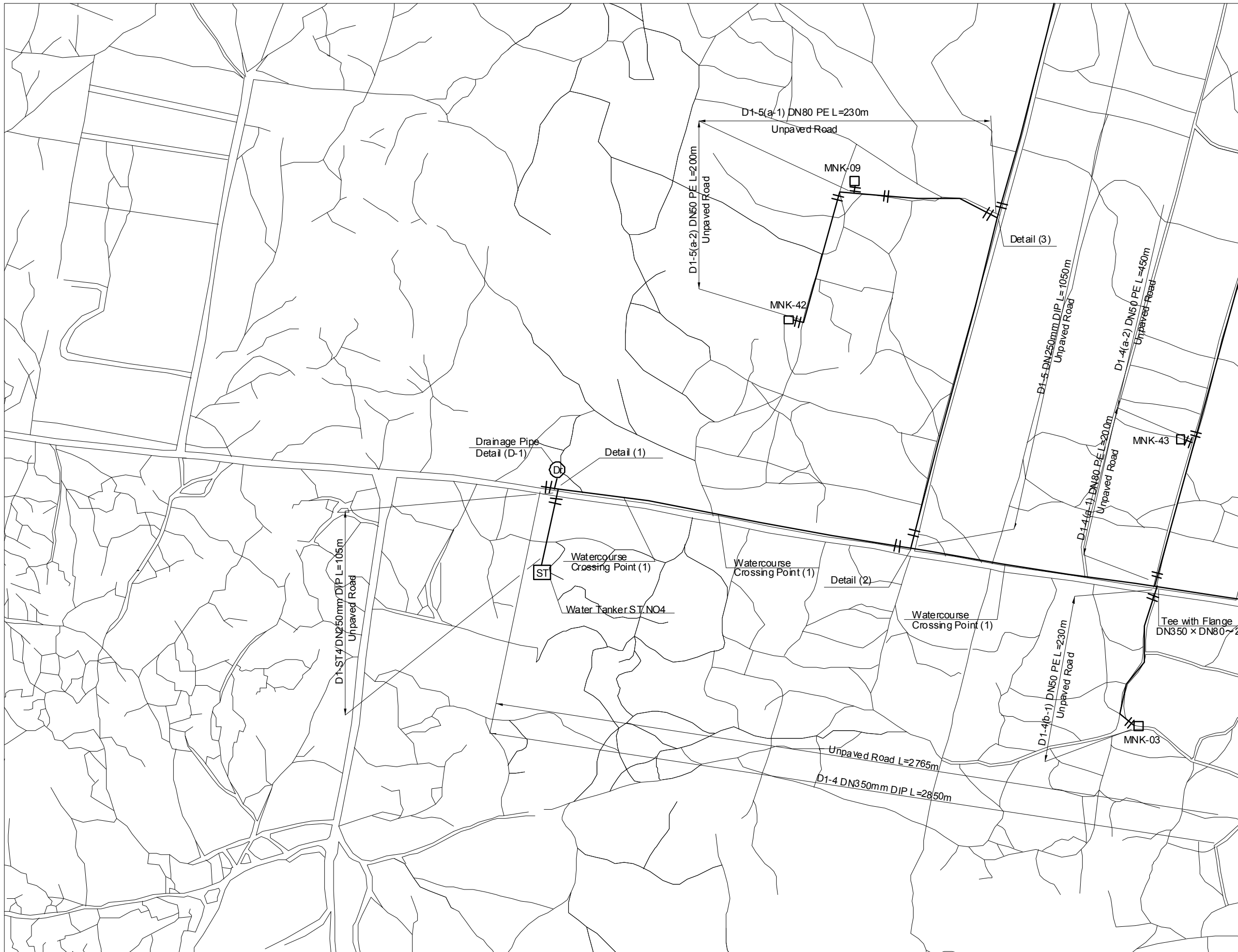
Watercourse Crossing Point (2)



Air Valve Point



The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Transmission Pipeline	Details of Transmission Pipe	Scale: NON	Drawing No.: TRP-012
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.			Original Paper Size: A3	Date: Nov. 2010

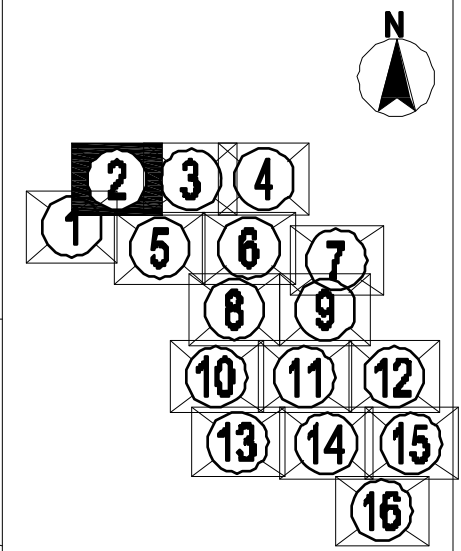


KEY PLAN

LEGEND

- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Project:	Title:	Scale:	Drawing No.:
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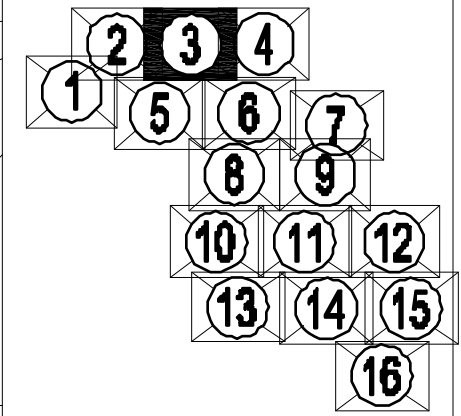
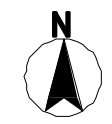
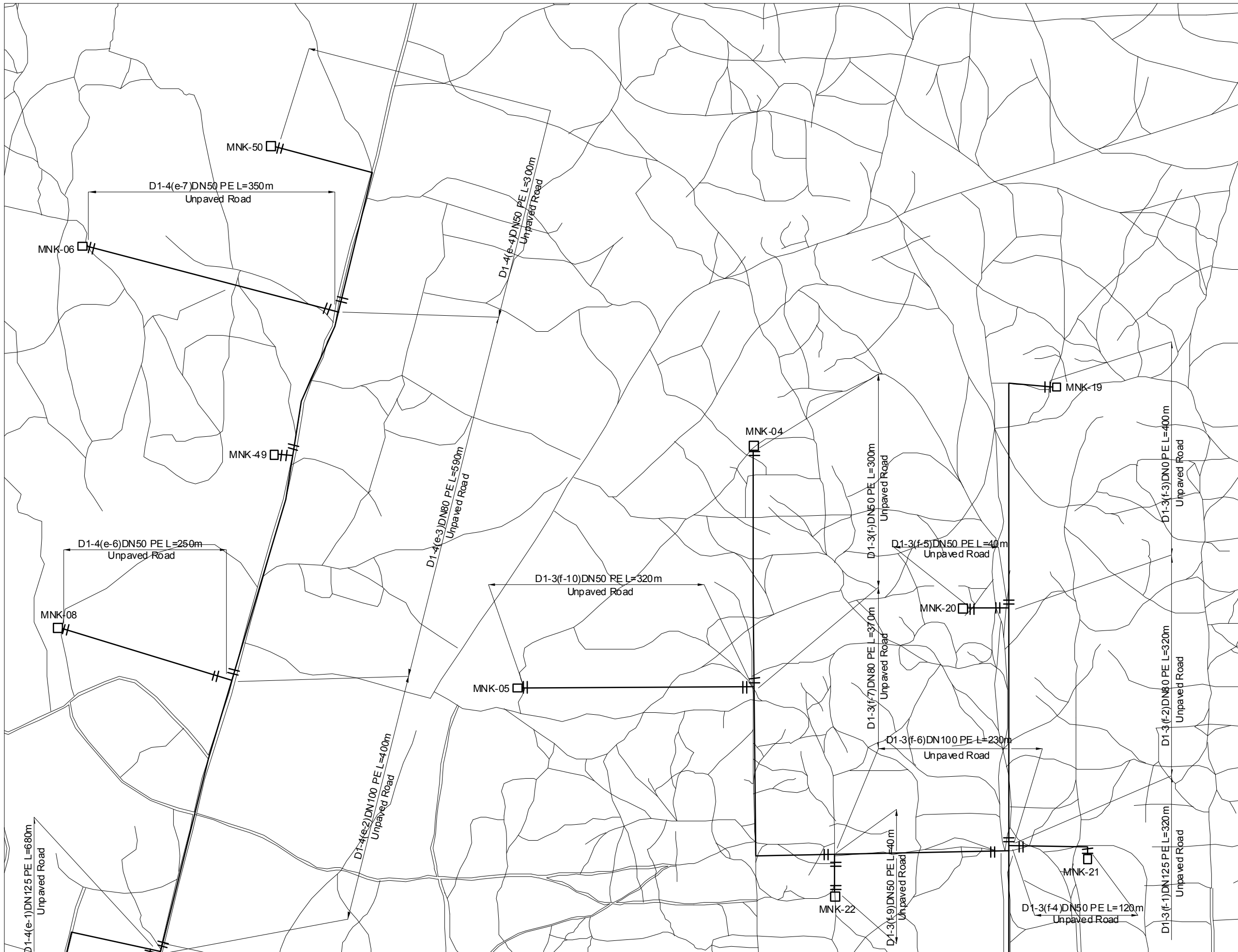
KEY PLAN

LEGEND

- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve








The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Title: Distribution Pipe	Title: Distribution Main and Secondary Pipelines- 2	Scale: 1/5000	Drawing No.: DSP-002
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.			Original Paper Size: A3	Date: Mar. 2011
						Revision: Rev. 2.0

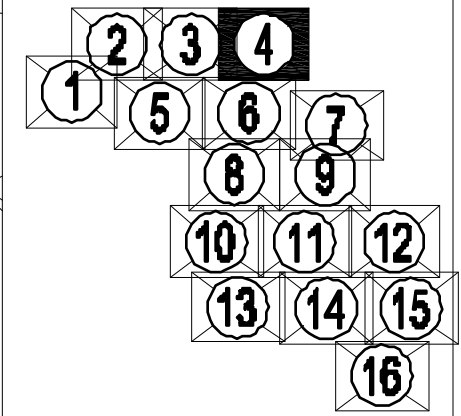
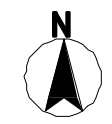


KEY PLAN

LEGEND






-  Proposed Pipeline Route
-  Stop Valve
-  Water Tanker Filling Station
-  Public Tap Stands
-  Washout valve

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Title:	Scale:	Drawing No.:
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.	Distribution Pipe	1/5000	DSP-003
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					Revision:
					Rev. 1.0

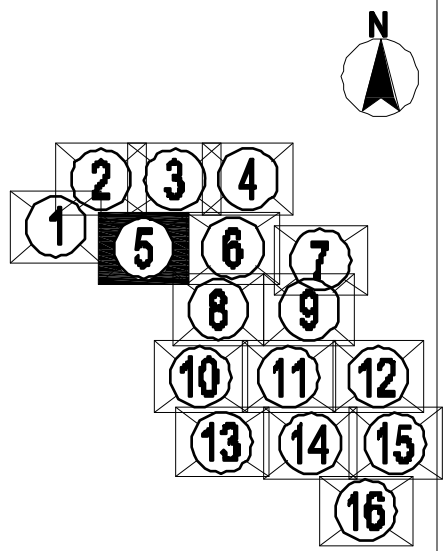


KEY PLAN

LEGEND






-  Proposed Pipeline Route
-  Stop Valve
-  Water Tanker Filling Station
-  Public Tap Stand
-  Washout valve

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Public:	Title:	Scale:	Drawing No.:
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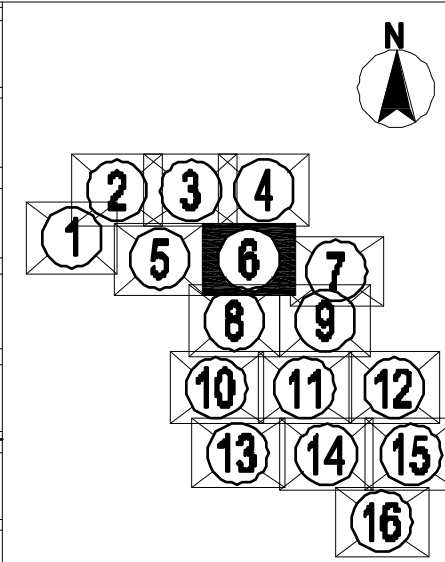
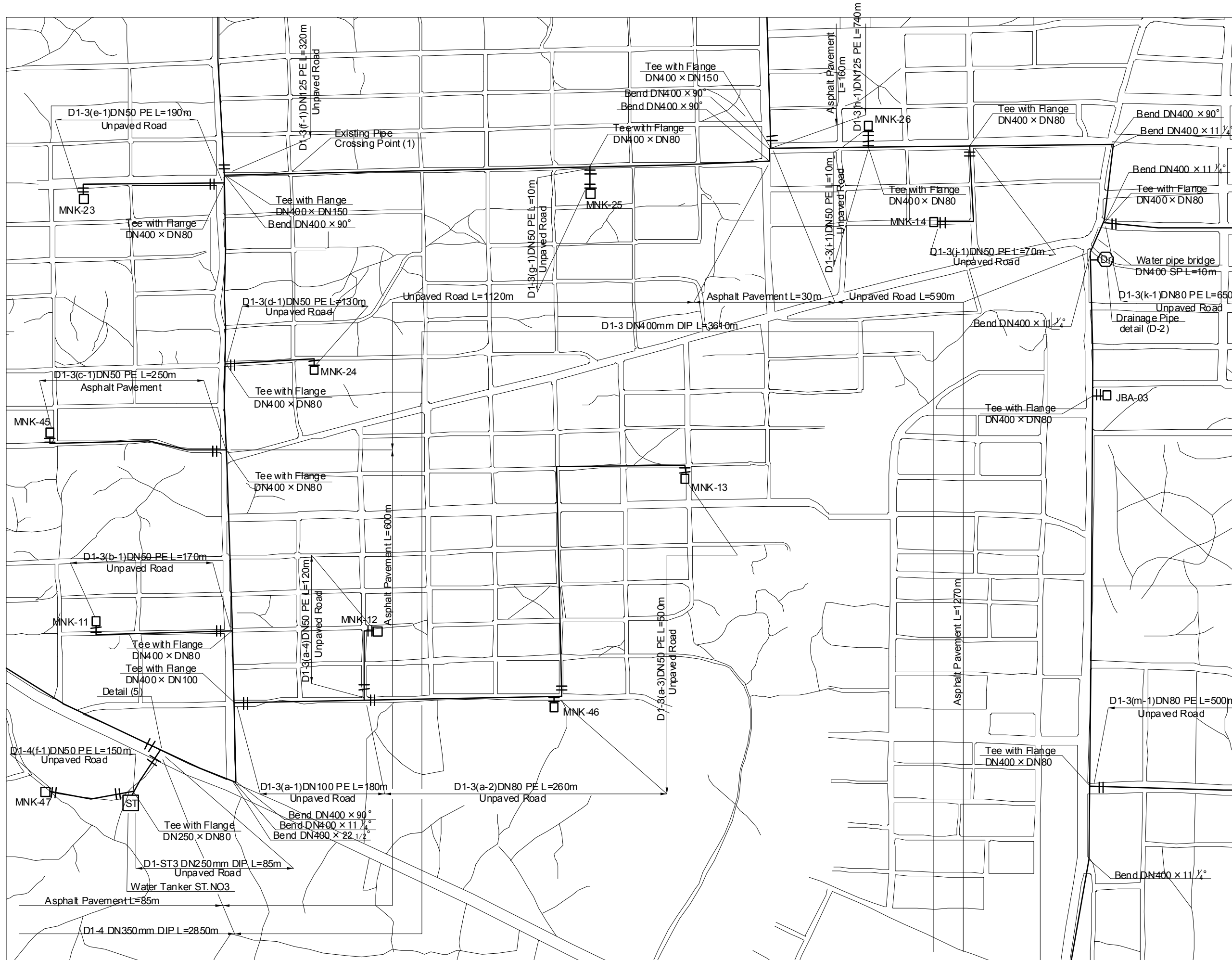


KEY PLAN

LEGEND

-  Proposed Pipeline Route
-  Stop Valve
-  Water Tanker Filling Station
-  Public Tap Stands
-  Washout valve

<p>The Project for the Improvement of Water Supply System of Juba in Southern Sudan</p>	<p>Ministry of Water Resources and Irrigation Government of Southern Sudan</p>	<p>Japan International Cooperation Agency (JICA)</p>	<p>Scale: 1/5000</p>	<p>Drawing No.: DSP-005</p>
	<p>Southern Sudan Urban Water Corporation</p>	<p>Tokyo Engineering Consultants, Co., Ltd.</p>	<p>Title: Distribution Main and Secondary Pipelines- 5</p>	<p>Date: Nov. 2010</p>
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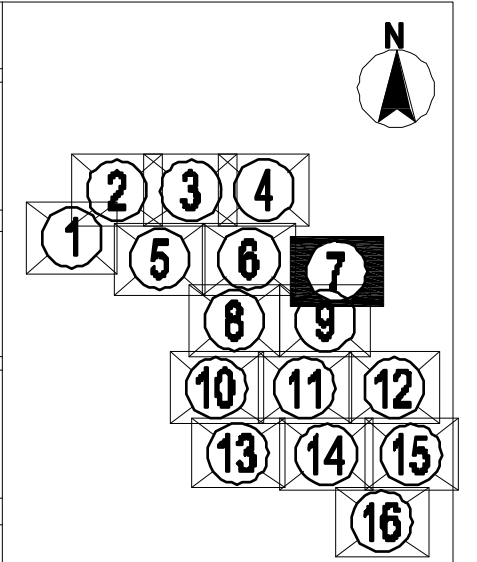
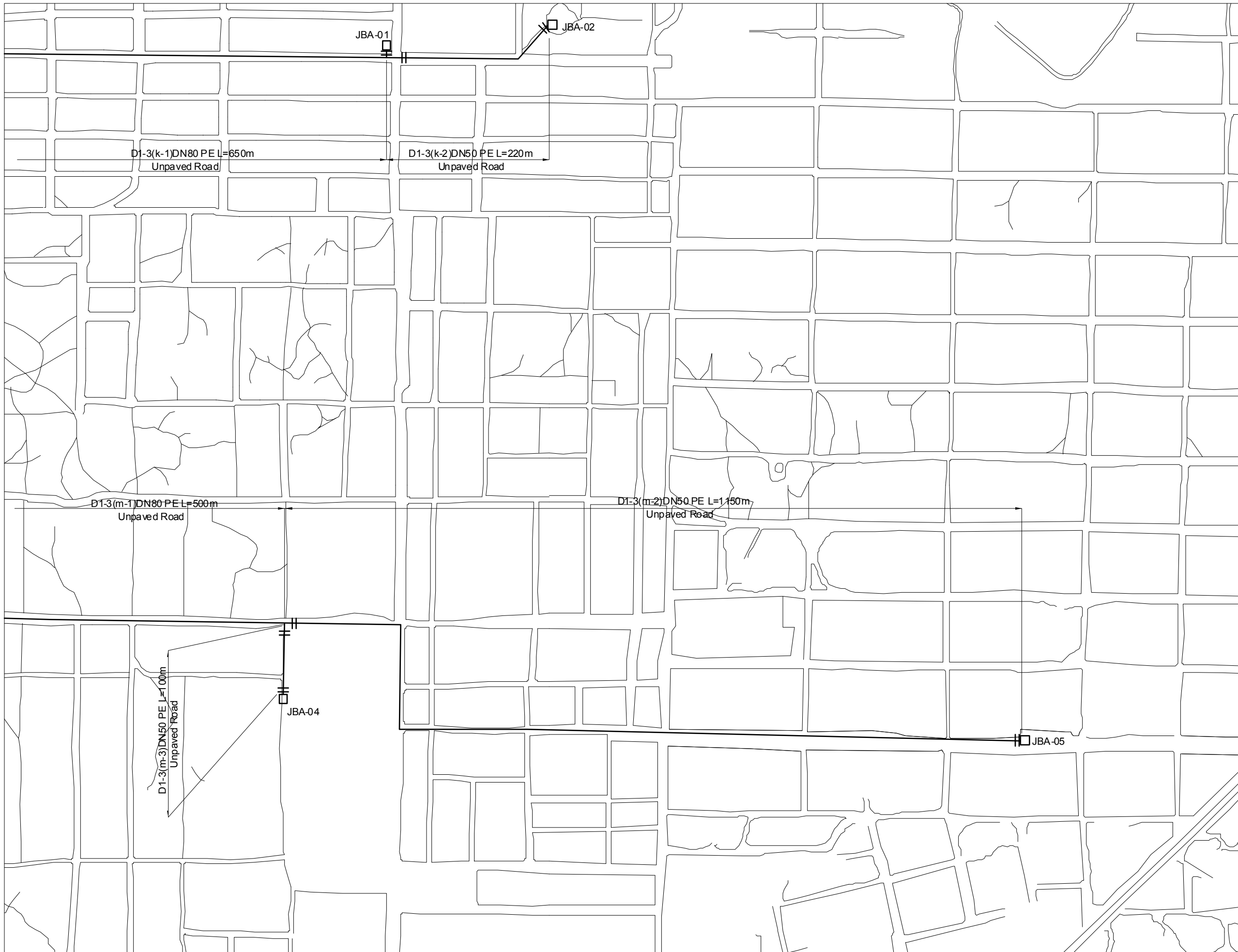


KEY PLAN

LEGEND

- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Title: Distribution Pipe	Title: Distribution Main and Secondary Pipelines- 6	Scale: 1/5000	Drawing No.: DSP-006
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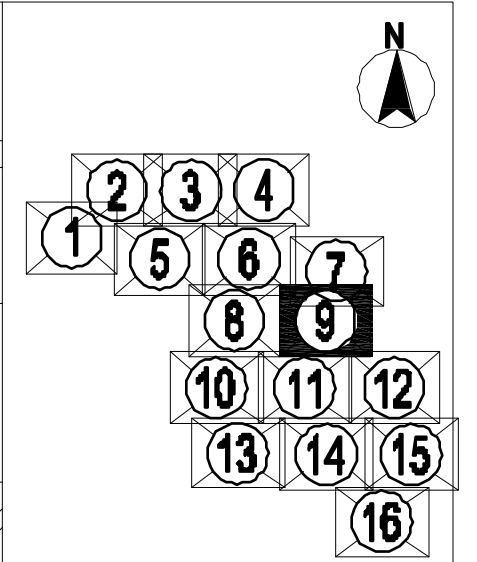


KEY PLAN

LEGEND

- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve

<p>The Project for the Improvement of Water Supply System of Juba in Southern Sudan</p>	<p>Ministry of Water Resources and Irrigation Government of Southern Sudan</p>	<p>Japan International Cooperation Agency (JICA)</p>	<p>Scale: 1/5000</p>	<p>Drawing No.: DSP-007</p>
	<p>Southern Sudan Urban Water Corporation</p>	<p>Tokyo Engineering Consultants, Co., Ltd.</p>	<p>Title: Distribution Pipe</p>	<p>Date: Nov. 2010</p>
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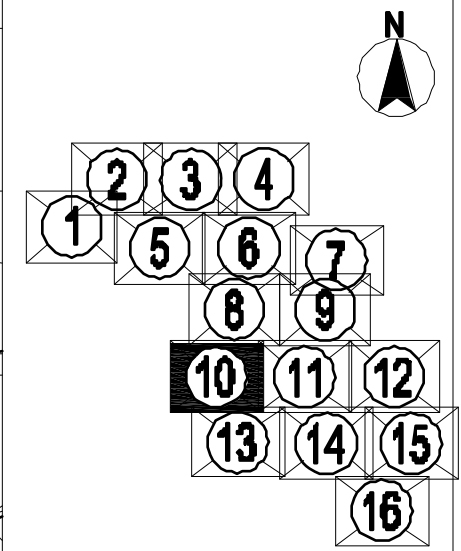


KEY PLAN

LEGEND






- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve

<p>The Project for the Improvement of Water Supply System of Juba in Southern Sudan</p>	<p>Ministry of Water Resources and Irrigation Government of Southern Sudan</p>	<p>Japan International Cooperation Agency (JICA)</p>	<p>Scale: 1/5000</p>	<p>Drawing No.: DSP-009</p>
	<p>Southern Sudan Urban Water Corporation</p>	<p>Tokyo Engineering Consultants, Co., Ltd.</p>	<p>Project: Distribution Pipe</p>	<p>Title: Distribution Main and Secondary Pipelines- B</p>
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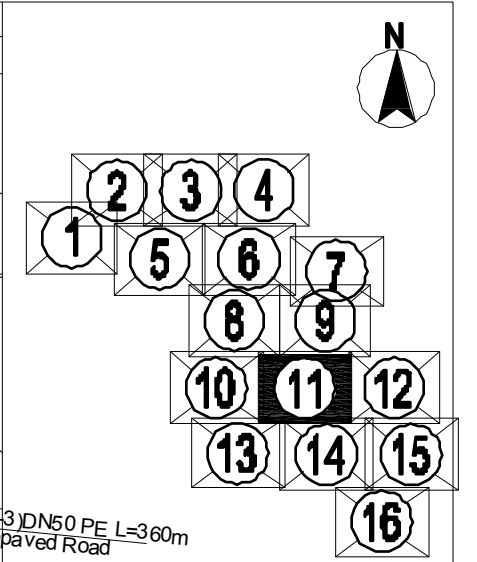
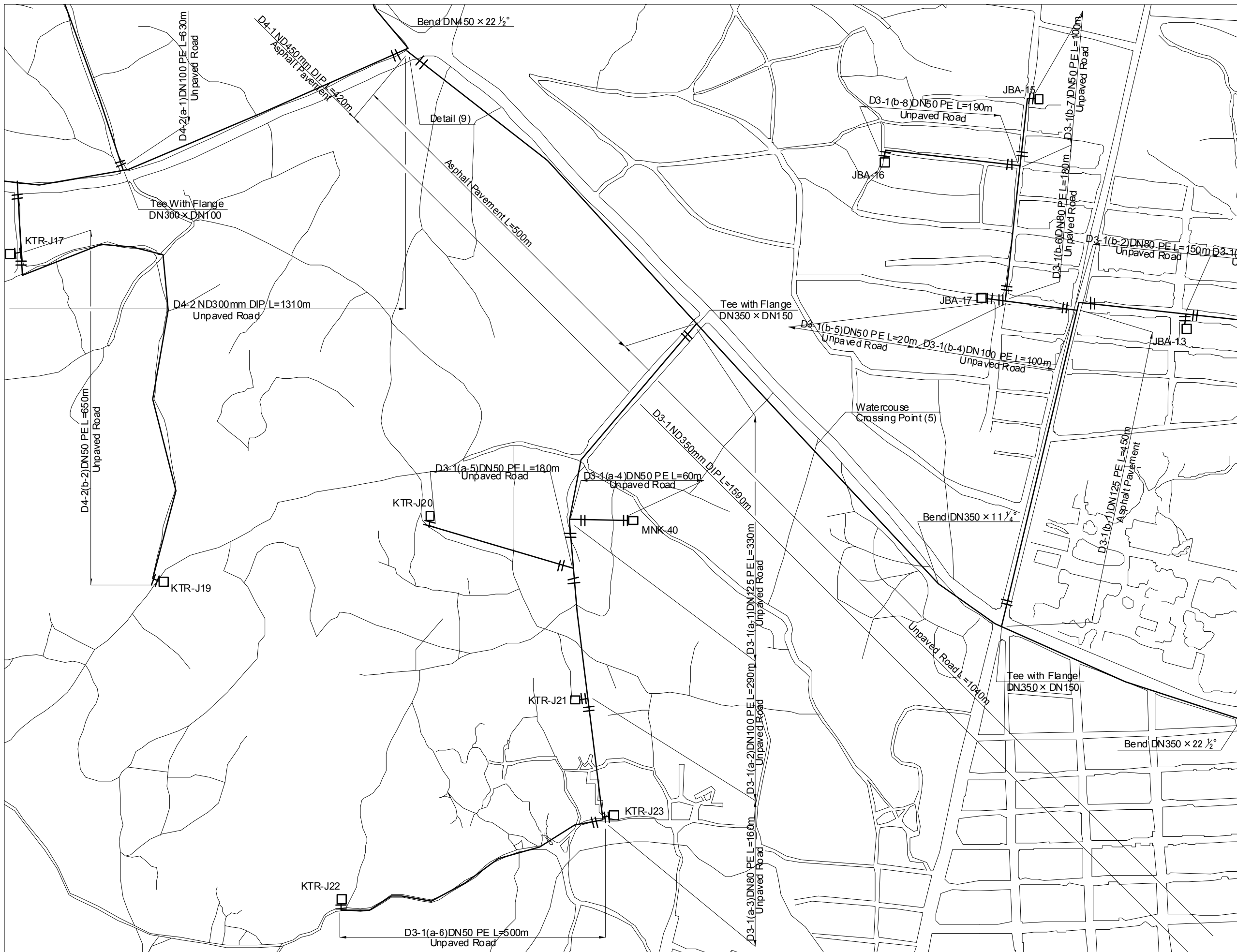


KEY PLAN

LEGEND

-  Proposed Pipeline Route
-  Stop Valve
-  Water Tanker Filling Station
-  Public Tap Stands
-  Washout valve

The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan	Japan International Cooperation Agency (JICA)	Public: Distribution Pipe	Title: Distribution Main and Secondary Pipelines- 10	Scale: 1/5000	Drawing No.: DSP-010
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.			Original Paper Size: A3	Date: Nov. 2010
						Revision: Rev. 1.0



KEY PLAN

LEGEND

- Proposed Pipeline Route
- Stop Valve
- Water Tanker Filling Station
- Public Tap Stands
- Washout valve

<p>The Project for the Improvement of Water Supply System of Juba in Southern Sudan</p>	<p>Ministry of Water Resources and Irrigation Government of Southern Sudan</p>	<p>Japan International Cooperation Agency (JICA)</p>	<p>Scale: Distribution Pipe</p>	<p>Title: Distribution Main and Secondary Pipelines- 11</p>	<p>Scale: 1/5000</p>	<p>Drawing No.: DSP-011</p>
	<p>Southern Sudan Urban Water Corporation</p>	<p>Tokyo Engineering Consultants, Co., Ltd.</p>			<p>Original Paper Size: A3</p>	<p>Date: Nov. 2010</p>

Revision:
Rev. 1.0