

**THE PROJECT FOR THE IMPROVEMENT OF WATER SUPPLY
SYSTEM OF JUBA IN SOUTHERN SUDAN
THE SECOND PREPARATORY SURVEY FOR THE PROJECT FOR
THE IMPROVEMENT OF WATER SUPPLY SYSTEM OF JUBA IN
SOUTHERN SUDAN**

NOTES FROM THE STAKEHOLDERS' MEETING

28TH JULY 2010 JUBA GRAND HOTEL

PROGRAMME

10:00	OPENING ADDRESS	MR. CHANJOK GENERAL MANAGER, SSUWC
10:30	EXPLANATION OF PROJECT OUTLINE AND OBJECTIVES	MR. NAOTO TOHDA CHIEF CONSULTANT, JICA STUDY TEAM
11:30	EXPLANATION OF EXPECTED PROJECT IMPACTS AND MITIGATION	DR. ALOK KUMAR ENV. & SOCIAL CONSIDERATION, JICA S/T
12:15	COFFEE BREAK	
12:30	EXCHANGE OF OPINION AMONG STAKEHOLDERS	
13:30	CLOSING REMARKS	MR. LOUIS GORE GEORGE 1ST DIRECTOR GENERAL, MOPI, CES

OPENING OF THE MEETING

The opening was officiated by the General Manager SSUWC Mr. Chamjok Chung. In his remarks he made the following points.

- For some time now JICA , working together with the UWC have been planning the expansion of the Juba Urban Water Supply System.
- This meeting marks the next step in the move towards the implementation of the project.
- Let us make constructive contributions so as to ensure that the project meets our requirements

REVIEW OF THE PROGRAMME

Steven Mukibi a member of the JICA study team outlined the programme of the morning and then asked the members of the study team to introduce themselves.

EXPLANATION OF PROJECT OUTLINE, OBJECTIVE, PROJECT FACILITIES AND LOCATION.

This was done by Mr Naoto Tohda. In the presentation he outlined the essentials of the project. Below are some of the key points in his presentation.

- The project will expand the treatment capacity from 7,300 cubic meters per day to 18,000 cubic meters per day.
- As part of the project a section of the existing pipeline will be replaced.
- 120 public stands will be set up in Juba, Munuki and Kator Payams.
- Other aspects of the infrastructure to be set up include a reservoir and pumping station near the parliament and six tanker filling stations.
- There are no provisions in this project for house water connections. The concept behind the design is the provision of safe water to the largest number of people in the community and the chosen strategy to this end is the use of public water taps.

Following Mr. Tohda's presentation, clarification was sought on a number of issue in the presentation and it was given.

EXPLANATION OF EXPECTED PROJECT BENEFITS, ADVERSE IMPACTS, AND MITIGATION MEASURES

This presentation was made by Mr. Alok Kumar. Some of the main points in the presentation were as follows.

- The project will have both positive and negative impacts on the environment but overall the positive impact far outweigh the negative ones.
- These impacts will be seen in the process of the construction of the facilities and then some later after the commissioning of the project.
- Impacts in the process of the construction are temporary and they include, noise, vibration, dust and the possible loss of some trees in some areas where the pipeline is to be laid.
- The longer term negative impacts will include increased effluent (sewerage and grey water) since people will have more water to use and possible loss of employment for the people that operate the pumps for filling tankers with river water at the moment.
- Mitigation for the interim (during construction) impacts will include construction management measures that minimise noise, vibration and dust. For the increased black and grey water, the construction of a larger sewerage treatment plant is part of the master plan for Juba water supply that has also been developed with aid from JICA.

Time was allowed for people to seek clarification on various points and then a 15 minute tea break was announced.

EXCHANGE OF OPINION AMONG STAKEHOLDERS AND CONSENSUS

In the discussion, a number of issue pertaining to the project were brought up and the JICA team had the opportunity to respond to them. The table below shows the main issues that come up and the responses given.

No	Issue/Question	Reaction/Comment
1	<p>Chamjok Chung (SSUWC) Are we increasing the capacity by only 3000 cubic meters?</p> <p>Is the site selected for the new treatment plant sufficient. Isn't the new plant going to make the current site congested?</p>	<p>Capacity is being increased by 10,700 cubic meters</p> <p>The team has surveyed all aspects of the site and the site is suitable and big enough.</p>
2	<p>Louis Gore (CE State) JICA has made a master plan for Juba water supply to the year 2025. This project is only one phase of the plan but the town is growing fast. Cant JICA invite another partner to support so that even the next phase can be implemented fast?</p>	<p>If funds are available JICA will implement various projects in the master plan in phases. It is the role of the GOSS to solicit for support from other donors.</p>
3	<p>Lwrence Naludyang (MWRI) Is the storage capacity planned in this project sufficient.</p>	<p>Careful thought was given to all aspects of the project before this capacity was decided upon. There is also the issue of costs. The reservoir's capacity corresponds to the added capacity at the treatment plant. Fortunately, with reservoirs it is easier to expand later.</p>
4	<p>Alison Samuel (Munuki Payam) What about the capacity of the transmission pipeline. If the treatment plant's capacity is further improved, is it able to take larger volumes or will it require the laying of a new pipeline.</p>	<p>The design of the pipeline is not yet complete but the designer are basing on a 12 hour a day supply assumption. The proposed material of the pipe – polyeutherine for the smaller diameter pipes and ductile iron for the bigger ones is considered quite durable should be able to last a long time.</p>
5	<p>Samuel Taban - UWC The new pipeline will pass near the airport and there is no water at the airport. Can this project provide a diversion so that water can be taken to the airport as well</p>	<p>The focus of this project is community. There will be no provision for extending water to the airport in this project as the goal is to maximise access for the ordinary Juba residents</p>
6	<p>Tereniko Wani (Northern Bari Payam) What was the criteria for the allocation of the public stand pipes and the tanker filling stations. Some of the Payams like Northern Bari are not catered for.</p>	<p>This was based on assessment of need. Some places are have already got some facilities. The exact location of the taps was selected by the Payams again on the basis of need.</p>
7	<p>Peter Paul (MWRI) The information that has come out of</p>	<p>A complete report of the studies done in the</p>

	this study will be useful for the future planning and even other projects. What arrangements are in place to enable access to this information.	preparation of the project will be available with the counterpart SSUWC and also with the MWRI
8	Simon Awijak (MWRI) What is the plan for the management of the public water taps and the tanker filling stations.	This project has provisions for capacity building for the management of the taps and the tanker filling stations.
9	Moris Lomodong (MHPP) Can the project consider building a larger treatment plant since the population of Juba is growing very fast and this one with a capacity of 10,800 cubic meters may not be enough	In the master plan, another treatment plant is planned but this current project cannot change the capacity of the planned treatment plant. Therefore other plants will be built in the future to cope with the higher demand for water.
10	Alex Taban (SSUWC) What mechanisms have been planned in the event of a fault or failure in the new facilities. In other words if there is a fault is there an alternative mechanism for providing water even as the repairs take place.	We hope to minimise failure and break downs through continuous maintenance and monitoring and to this end there are arrangements in this project for building the capacity of the UWC to enable them do this well.
11	Dominic Eryo (Hi Malakal Area) Where there is an old pipeline alongside a new pipeline, will the old one also be rehabilitated?	No this is not in the plan but the maintenance of the old line is the function of the UWC

There were several other contributions all giving information, encouraging the study team and appreciating the contribution of JICA to the welfare of the people of Juba.

CLOSING OF THE MEETING

The closing was officiated by Mr. Louis Gore from the Central Equatoria State. In his remarks he expressed appreciation for the input of everyone in the discussions and consultations . He also thanked JICA and the study team for the contribution they are adding to the welfare of the people of Juba and Southern Sudan in General. He added that where JICA faces challenges in the project especially is it has to do with land and sites they should also approach his office at CES so that solutions can be found. With those remarks he declared the consultative stakeholders' meeting closed.

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

Notes from the Stakeholders' Meeting 28th July 2010 Juba Grand Hotel

List of Participants

S. No.	Name	Organisation/Designation	Tel.
1	Chamjok Chung	SSUWC	0477193152
2	Emanuel Samson Kirajo	Kator Payam	0918131776
3	Tereniko Wani Lores	Northern Bari Payam	0121019503
4	Simon Tombe	Chief Jebel Lada	012152642
5	Peter Paul	MWRI	0121827149
6	Helen Bando	SSB	0128857322
7	Edward Tombe	Juba Payam Eng.	0910386615
8	Lewis Gore George	MOPI	0122204739
9	Chief Ladu Lubang Banguele	Munuki Payam	0920378685
10	Swokirini Sabe	Juba Town Payam	0919790834
11	Khor Guang Loa	SSUWC	0955000529
12	Daniel Ali	Kator Payam	0905033398
13	Norbert Hagen	GTZ/DUWSSS	0900920304
14	Philip Ayur Mayer	MHPP	0477153588
15	Kiyotaka Tanari	JICA	091 4636201
16	Stella Jimmy	SSR	
17	Moris Lomo Dong	MHPP	1256477139938
18	Atem Nathan	MOH/Goss	0907710546
19	Zacharia Joseph Pitia	MWRI	0915158177
20	Dominic Iro	Hi Malakal Area	0907697751
21	Isaac Kenyi Scopas	Northern Bari payam	0911240538
22	Peter Jalyath Saver	MWRI	0918103249
23	Simon Otowny Awijak	MWRI	0918282085
24	Martin Andrew	DRWSS	0912871854
25	Hassan Agony	SSUWC CES/D/A/ Manager	0912898917
26	Alison Samuel	Munuki Payam	0904186505
27	John Thiyang Mhuirl	SSUWC	0955065437
28	Santrino Tongum	SSUWC	192893841
29	Gisma Jogot	MIT/ Reporter	0918107026
30	Joseph Ebere Amosa	SSUWC	0955414865
31	Laurence Nuludyang	MWRI	0905358171
32	Anthony Badha	Joint Donor Team	0907630074
33	Elisama Wani	DRWD/CES D/D	0955399162
34	Samuel Taban	SSUWC/ A Manager	047716444
35	Adam Taban	Swedish Free Univ.	0121418884
36	Nyasigin Deng Bar	MWRI - Goss	0913607635
37	Julia Sophia	MGC &S INP	0128834080
38	Taban Charles	Juba County	0126434935

JICA STUDY TEAM

1	Naoto Tohda	JICA Study Team Chief Consultant	
2	Akira Takechi	JICA Study Team. Water Supply Planning	
3	Alok Kumar	JICA Study Team Envi. And Social Specialist	0955473866
4	Steven Nkumbi Mukiibi	JICA Study Team Envi. And Social Specialist	
5	John Manyok	JICA Study Team Office Manager	0126501587

SECOND PREPARATORY SURVEY FOR THE PROJECT FOR THE IMPROVEMENT OF WATER SUPPLY SYSTEM OF JUBA IN THE SOUTHERN SUDAN

Stakeholders Meeting

28th July 2010

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF WATER RESOURCES AND IRRIGATION (MWRI)
MINISTRY OF PHYSICAL INFRASTRUCTURE (MOPI/CES)
SOUTHERN SUDAN URBAN WATER COOPERATION (SSUWC)

Please Register Your Name at Reception

AGENDA		
09:30	Registration	
10:00	Opening Address	Mr. Chanjok General Manager, SSUWC
10:30	Explanation of Project Outline and Objectives	Mr. Naoto Tohda Chief Consultant, JICA study Team
11:30	Explanation of Expected Project Impacts and Mitigation	Dr. Alok Kumar Env. & Social Consideration, JICA S/T
12:15	Coffee Break	
12:30	Exchange of Opinion among Stakeholders	
13:30	Closing Remarks	Mr. Louis Gore George 1 st Director General, MOPI, CES
13:45	Business Lunch	At restaurant and bar

Background

THE PROJECT FOR THE IMPROVEMENT OF WATER SUPPLY SYSTEM OF JUBA IN SOUTHERN SUDAN

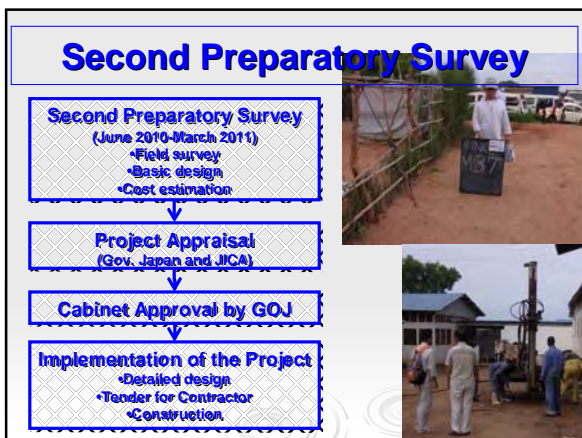
Grant Aid by JICA

> **JICA (Japan International Cooperation Agency):**

- Official agency of Japanese Gov.
- JICA provides:
 - Technical Cooperation
 - ODA Loan
 - Grant Aid
- Promotion of economic development and welfare in developing countries

> **JICA's Water Supply Projects in Juba**

- 2006 Emergency Study (Road, Water, River port)
- 2008-2009 Water Master Plan and Feasibility Study
- 2010- Preparatory Survey for the Grant Aid Project

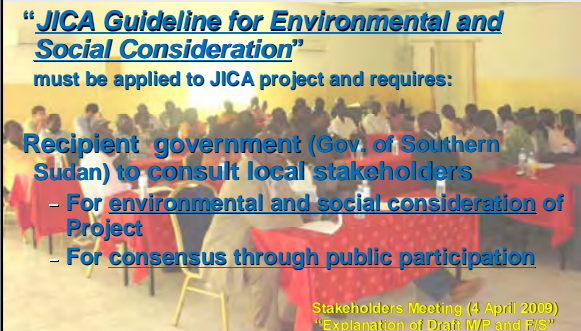
Why Stakeholders Meeting ?

"JICA Guideline for Environmental and Social Consideration"
must be applied to JICA project and requires:

Recipient government (Gov. of Southern Sudan) to consult local stakeholders

- For environmental and social consideration of Project
- For consensus through public participation

Stakeholders Meeting (4 April 2009)
"Explanation of Draft W/P and P/S"



Today's Meeting

- Explanation about JICA Project
- **Environmental and social consideration:**
 - Major positive / adverse impacts by the Project
 - Mitigation measures to be taken by the Project
- **Exchange of opinions**
 - To take opinions into consideration in project implementation
- Formulate **basic consensus** among the stakeholders

Green Signal to the Next Step

JICA PROJECT

THE PROJECT FOR IMPROVEMENT OF WATER SUPPLY SYSTEM OF JUBA

Objective of the Project

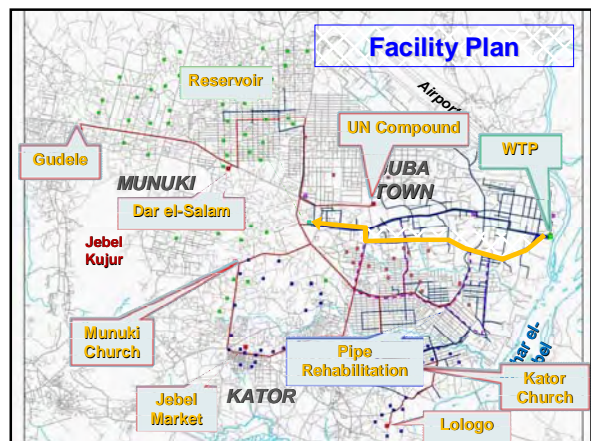
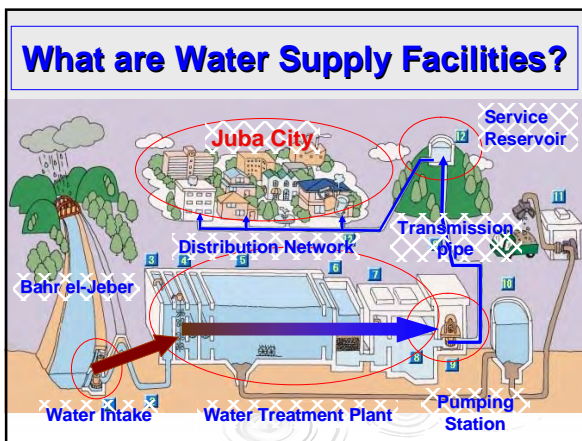
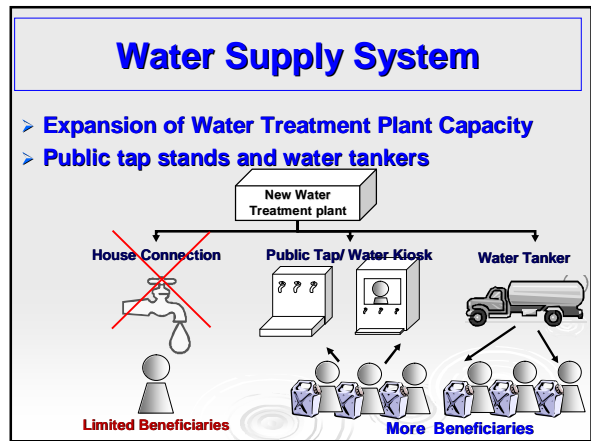
- ✓ To improve the water supply conditions in Juba
- ✓ By maximizing population getting access to clean water

Current

Approx.90 % of Juba citizen has no access to treated

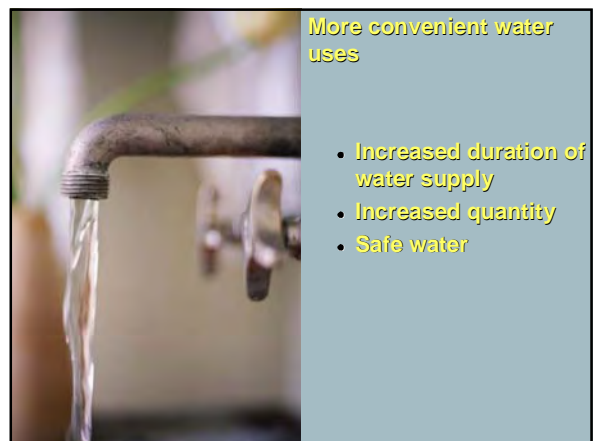
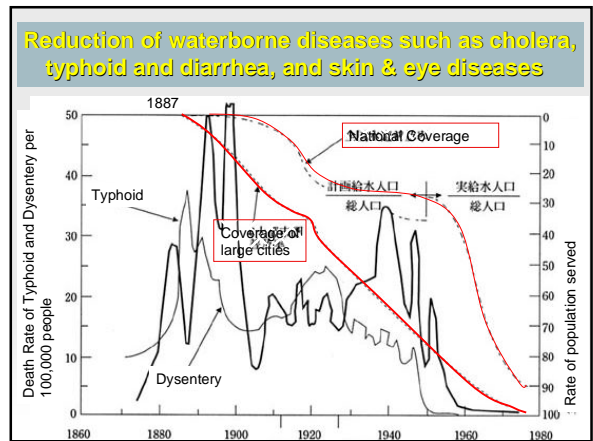
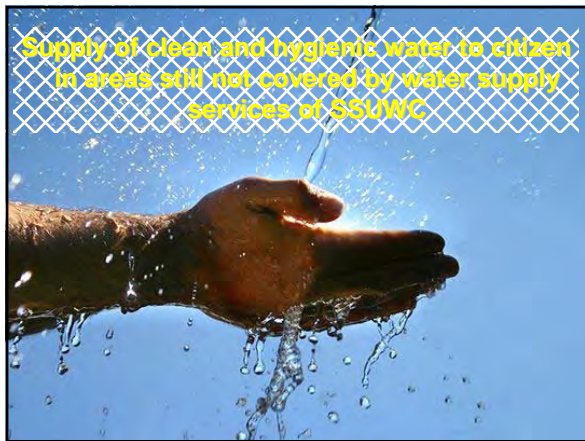
Year 2015

Additional 356,000 people (52% of Juba population) will be able to access to treated



Outlook of Water Supply Facility





Explanation of Negative Environmental Impact

Predicted Major Negative impacts (1)

(During construction)

1. **Dust Noise & Vibration**
2. **Loss of trees**
(Construction will be carried out in Govt. Land or Right of way along Roads)
3. **Run-off Turbid water** by earth work near river

Predicted Major Negative impacts (2)

(Post construction)

Discharged Water without adequate drainage system may provide habitat of malaria-carrying mosquito

Water logging

Water Supply

Organic pollution

Water pollution (not so significant because uses will not increase much) by discharged Water from domestic, commercial and industrial area (without sewerage system)

Required sewerage system

Predicted Major Negative impacts (3)

(Post construction)

Water-logging near Water Tanker Filling Station and Public Tap Stands:
if not operated properly, poor drainage might cause water logging (proper drainage should be considered for these facilities)

Water Pumping Personnel:
Operation of new water tanker filling stations and public tap stands might result into loss of job of private pump operators along river banks.

Level of Negative impacts

Foreseeable Adverse Impacts	Grade of Adverse Impacts
Construction Stage	
Air pollution, noise and vibration by construction works	B
Flora and fauna	B+
Landscape	B
Traffic/public facilities, Public health condition, Air pollution, Noise and vibration by carrying in and out of materials/construction waste	B-
Solid waste	B
Operation Stage	
Air pollution, Noise and vibration	B-
Water pollution due to increased wastewater	B
Sludge disposal from WTP	B
Loss of job in case of private pump operators	B+
Water logging near WTFS and public tap stands	B

A: Serious impact expected; B: Certain impact expected
+: the strength of impact is bigger, -: the strength of the impact is smaller

Mitigation Measures (1) ~ Construction Stage ~

Items	Impacts	Mitigation Measures
<Landscape>	No significant impact expected	•Installation of information desk to collect complaints from residents and neighborhoods.
<Air Pollution>	Generation of particulates and exhaust gases	•Dust control through water sprinkling at construction site •Preventive maintenance of construction machineries and vehicles •Attentive operation and speed restrictions of construction vehicles and equipment
<Noise and Vibration>	Generation of noise and vibration from heavy vehicles and equipments	•Announcement of construction schedule and contents at site •Attentive operation and speed restrictions of construction vehicles and equipment
<Flora and Fauna>	Few trees might be required to cut in the proposed location of the WTP or along the alignment of the pipes	•Cutting of trees should be avoided as much as possible •In unavoidable cases, new trees should be planted after construction completes.

Mitigation Measures (2) ~ Construction Stage ~

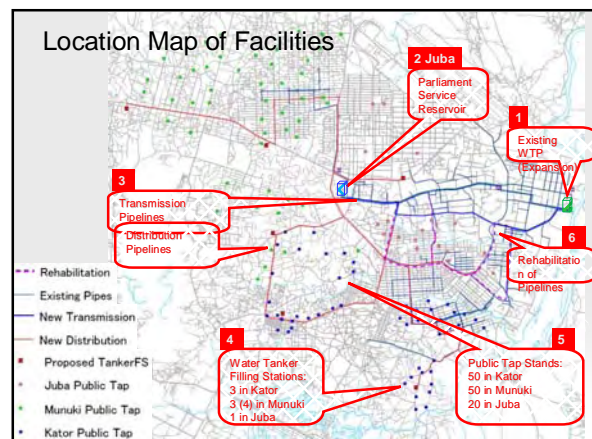
Items	Impacts	Mitigation Measures
<Traffic/ Public Facilities> <Public Health Condition> <Air Pollution> <Noise and Vibration>	Carrying in and out of materials/construction waste can result into possible adverse impacts on health, air pollution level, and noise and vibration along access road	<ul style="list-style-type: none"> •Announcement and public notification concerning construction contents and its schedule •Assigning of watchman or traffic control staff •Water sprinkling •Covering the loading platform •Arrangement of information desk and deployment of responsible person •Attentive operation and speed restrictions of vehicles •Preventive maintenance of construction machineries and vehicles
<Solid Waste>	Disposal of construction waste and soil	<ul style="list-style-type: none"> •Promotion of reuse •Disposal at appropriate location such as landfill site, etc.

Mitigation Measures (3) ~ Operation Stage ~

Items	Impacts	Mitigation Measures
<Noise and Vibration>	Noise from blower, pumps, and generators is expected	<ul style="list-style-type: none"> •Facilities shall be installed inside buildings to reduce noise level significantly
<Water Pollution> <Public Health Condition>	Water uses pattern being same, very little increase in wastewater discharge is expected within few years.	<ul style="list-style-type: none"> •In long run, planning is required towards appropriate handling and disposal of wastewater.
<Sludge Disposal>	Generated sludge will be from sedimentation tanks and not hazardous in nature	<ul style="list-style-type: none"> •Sludge removed from sedimentation tank shall be thickened using existing sludge tanks at WTP. •Thick sludge can be removed through vacuum switch pump to sewage truck and should be disposed off at appropriate landfill site.

Mitigation Measures (4) ~ Operation Stage ~

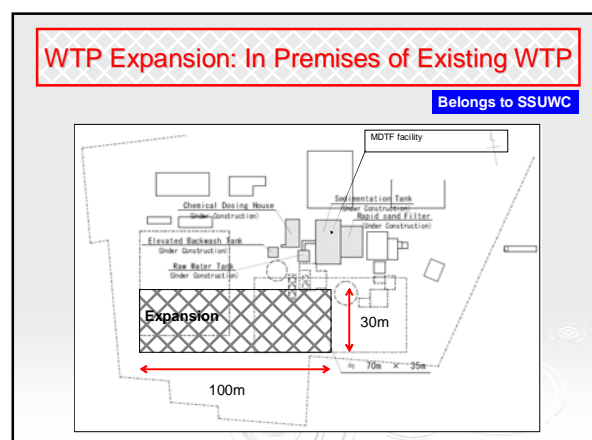
Items	Impacts	Mitigation Measures
<Loss of jobs in case of pump operators>	Due to operation of WTFS, several pump operators might lose present job.	<ul style="list-style-type: none"> •Affected pump operators should be informed of project activities during implementation. •When bidding is announced for O&M of these WTFS, pump operators should be informed as well.
<Water logging near WTFS and Public tapstands>	Operation of WTFS and public tap stands might result into water logging in its surroundings.	<ul style="list-style-type: none"> •Appropriate drainage facilities should be considered during design •Operation should be carried out appropriately to avoid water logging in its neighbourhoods.

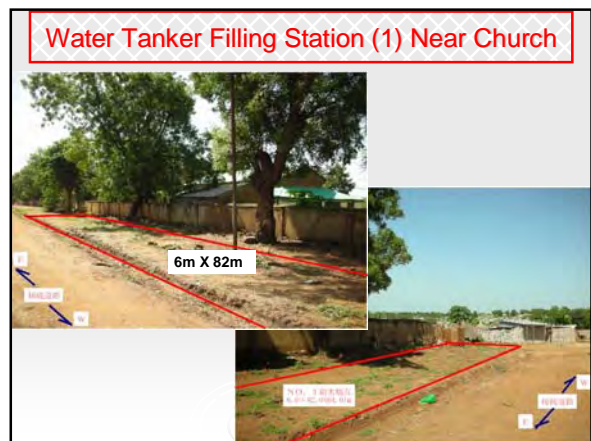
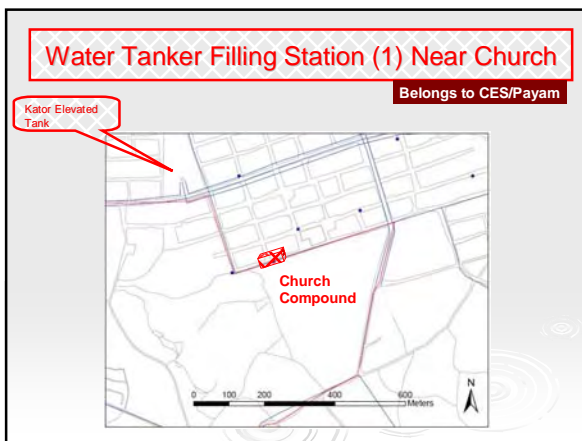
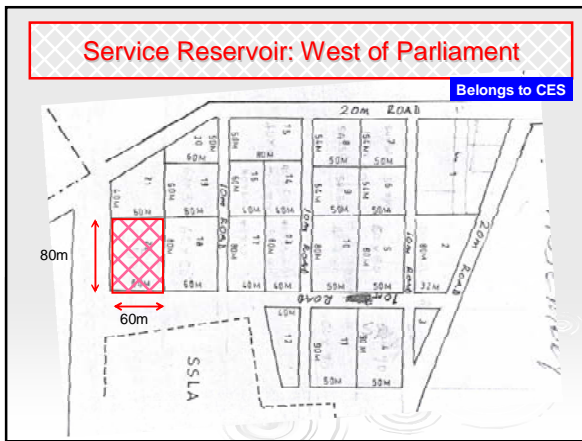
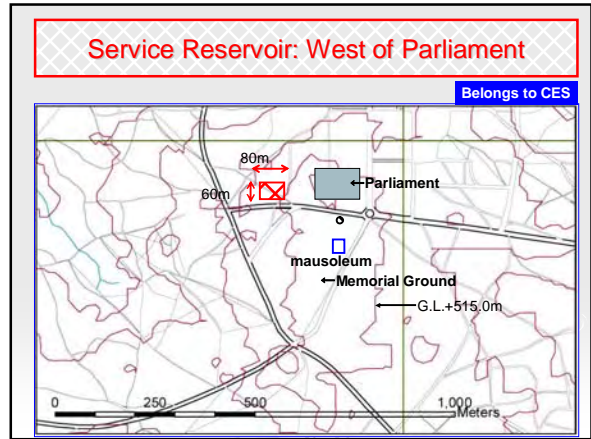


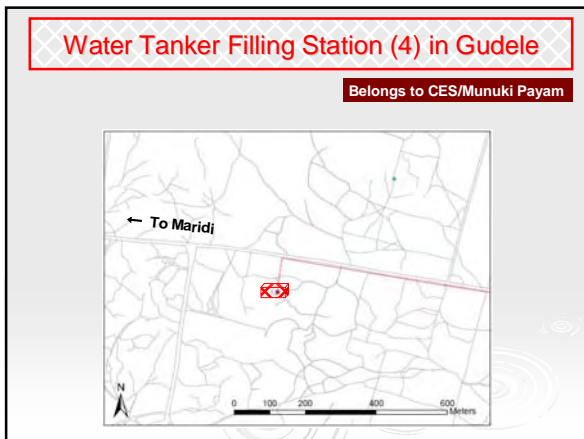
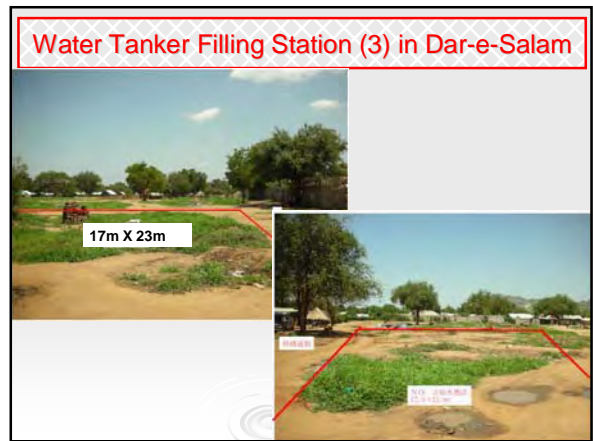
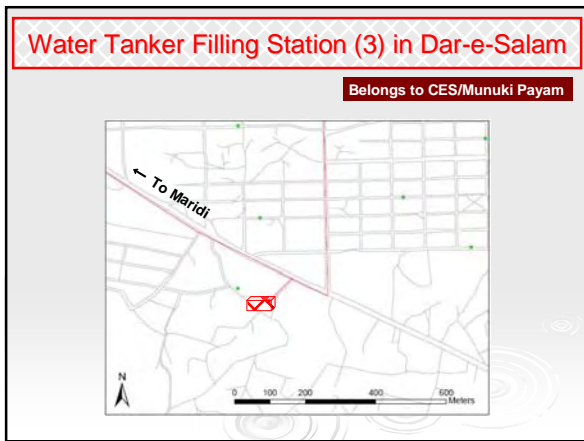
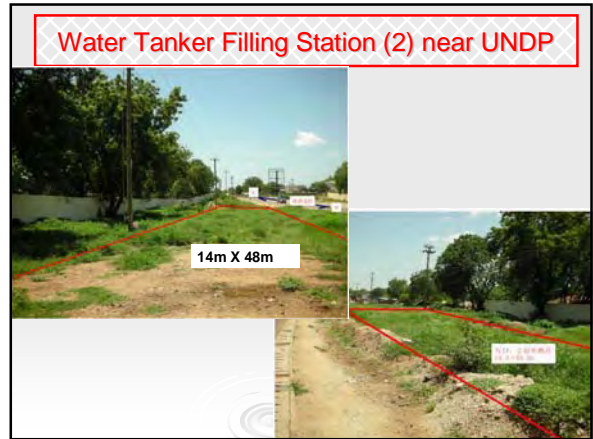
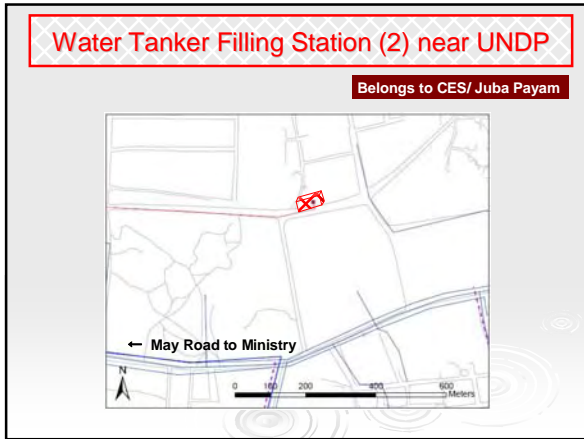
Confirmed Landowner by preliminary survey

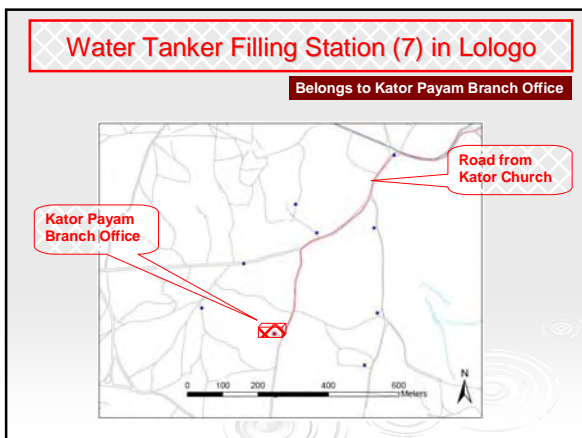
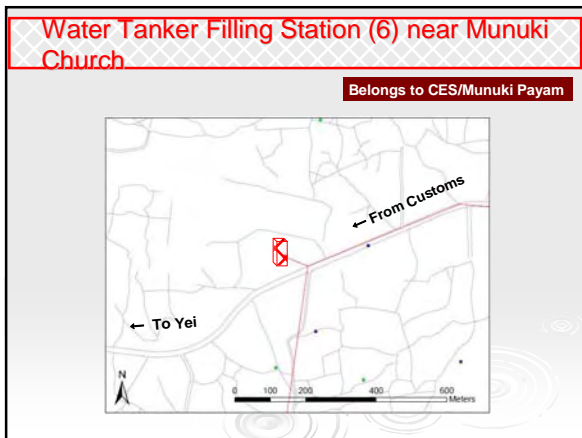
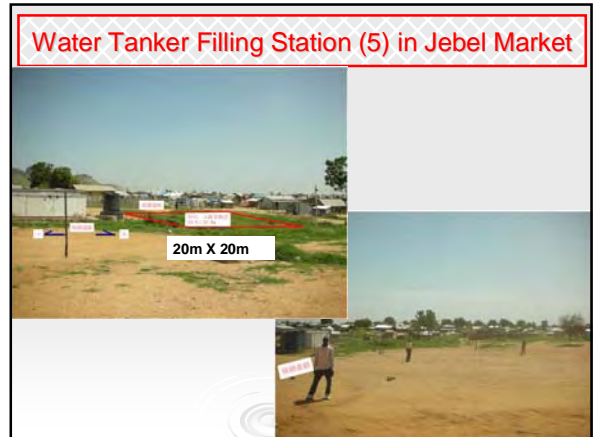
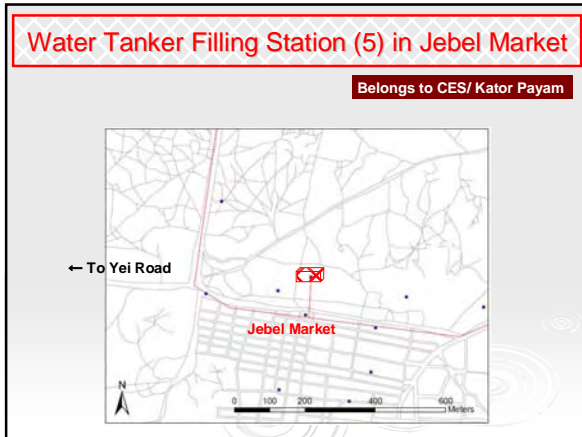
S. No.	Location	Facilities					Landowner	
		WTP	GLSR	ET	Pump	Pipes	Govt.	Community
1	UWC Premises	●	●		●		SSUWC	
2	Open ground on the west of the Parliament Building		●	●	●		CES	
3	Along main roads in the right of way					●	GOSS/CES/ Payams	
4	Near Kator Church, Jebel Market, Lologo Payam Branch Office, UNDP, Dar-e-Salam, Munuki, Munuki Church					●	CES/ Payams	
5	50 locations in Munuki, 50 locations in Kator, and 20 locations in Juba Payams along roads in right of way					●	CES/ Payams	
6	Rehabilitation of old pipelines					●	CES/ Payams	

Source : Payam Engineers

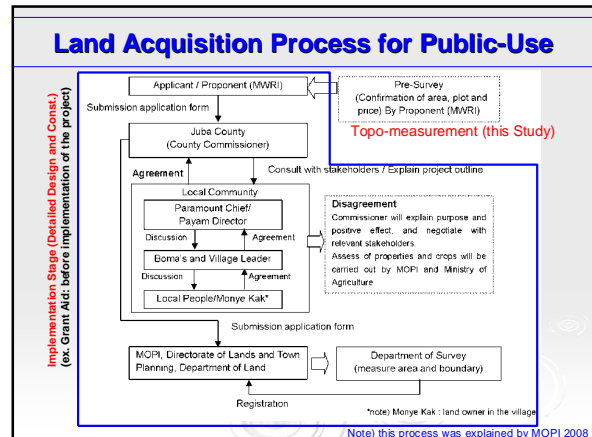








Most Concerned Issue : Getting Land Use Permissions	
Basic Design (2010-)	Detailed locations are identified under agreement with stakeholders
Before Implementation Stage (by the end of 2010)	Government should get land use permission (and if needed land acquisition) for identified locations for this Project.



EXCHANGE OPINIONS

- ### CONCLUSIONS
1. **Planning side (MWR/GOSS, SSUWC and JICA study team) informed about Project Components to the Stakeholders**
 2. **The Stakeholders understood**
 - > Water supply system
 - > Outline of the Project
 - > Benefits and Negative Impacts of implementation of the Project
 3. **Both sides exchanged opinions and the planning side will consider opinions in Project Implementation**
 - > A
 - > B
 - > C
 - > D
 - > E

- ### CONCLUSIONS
1. **Both sides build basic consensus on the JUBA Water Supply Improvement Project**
 2. **Go to next steps (preparation for smooth implementation of project)**

Safe Water for All

Thank you for Attention

2



**GOVERNMENT OF SOUTHERN SUDAN
MINISTRY OF ENVIRONMENT**



Office of the Undersecretary

Our Ref:

Your Ref:

Eng. Issac Liabwel
Under secretary
Ministry of water Resources and Irrigation
GOSS/Juba.



Date: 2nd February, 2011

Subject:- APPROVAL OF AN ENVIRONMENTAL IMPACT ASSESSMENT REPORT.

Reference to your letter dated 30th December, 2010 in regards to the submission of your Environmental Impact Statement (EIS) for the improvement of water supply system project in Juba. We regret to inform you that we could not get the attachment as mentioned in your letter. Until we received an explanation from one of your officials, we could not be able to give this delayed reply. However, JICA had already been given an approval and as this was meant for the same project, we would like to forward to you the same terms.

Hence, in the absence of your EIS, basing ourselves on JICA'S Environmental Report for the same project and given the fact that JICA will be the implementer of the Project in question in accordance with the EIA and SIA requirements, we therefore certify that the Initial Environmental Examination Report submitted by JICA Sudan Office has been reviewed and an Authorization is hereby granted for the implementation of the project, subject to the following conditions:-

1. You the project proponent and the implementer must comply with all mitigation measures detailed within the EMP as in tables 1.8 and 12.9, section (1.3); pages (1.4 and 1.15) in the report.
2. The proponent shall avoid destruction of any sites with high amenity values such as the Archaeological/historical remains, recreational sites etc.
3. The proponent must take measures to closely monitor and repair damages causing leakages and contamination from cracked structures, damage pipes, faulty valves etc.
4. The proponent shall provide fencing to protect the water supply points.
5. The proponent shall compensate the affected population according to the international/JICA'S social safeguards guidelines and shall ensure adherence to the occupational health and safeguards requirements during the different construction phases.
6. The proponent and the implementer shall throughout the project construction period, manage and mitigate all potential environmental impacts, keep high engineering and construction standards and practices.

Amb. (Rtd.) *[Signature]* Alor Kuar
Under Secretary
Ministry of Environment
GOSS/Juba



STATE MINISTRY OF PHYSICAL INFRASTRUCTURE
DIRECTORATE OF SURVEY
CENTRAL EQUATORIA STATE
JUBA.

SKETCH MAP.

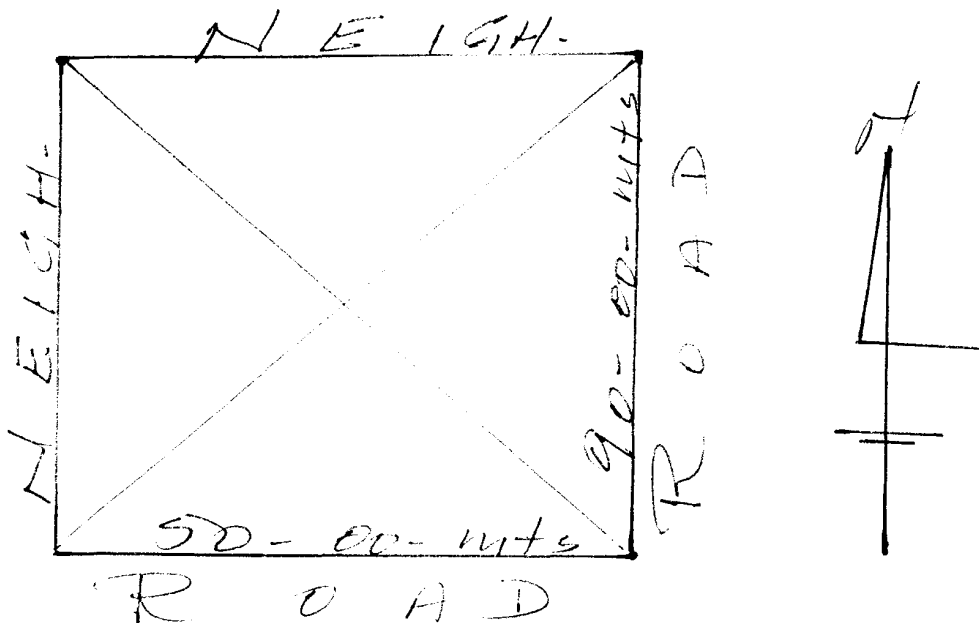
Town: Juba.

Plot No: 23

Area 4,500 Sq. Mts.

Block No: Hai Buskaman.

Property of Mr./ Mrs. Souther Sudan Habem Water



This is to certify that, the dimensions shown on the above drawing are for the above quoted Plot, not to scale. The Sum of SDG. 2,002= have been collected

as croquets fees vide R.O. NO. 480696 Date: 17-12-2010

[Signature]
 Director General,
 Directorate of Survey
 State Ministry of Physical Infrastructure,
 Central Equatoria State
Juba.

3. FORMS:

(1) Application for allotment under Para I (3), of the Town Lands Scheme 1947.

Town : **Juba**
Plot No. **23**
Block No. **Hai Barlaman** Area **4,500m²**
S.T.F.B. Minute Number:

If Relevant.

S.T.F.B. Plan Number: **Southern Sudan Urban Water Corporation (GOSS)**

Proposed Allottee: **Water Tank**

Purpose of Allotments

Whether Allotment is to Final: **Final**

Conditions of Allotment (if any) **To be Constructed in permanent materials**

EMMANUEL MATAYO WANI

CHAIRMAN

16.12.2010.

DATE :

(a) An allotment shall be in the following form:-

FINAL/ALLOTMENT

~~STRIKE OUT~~

~~WHICH IS NOT~~

~~REQUIRED.~~

Town **Juba** Block No. **Hai Barlaman**
Plot No. **23**
Area: **4,500m²** Square metres approximately.
S.T.F.B. Minute No.
S.T.F.B. Plan No.

Final Allotment of the above mention plot is

~~STRIKE OUT~~

~~WHICH IS NOT~~

~~REQUIRED.~~

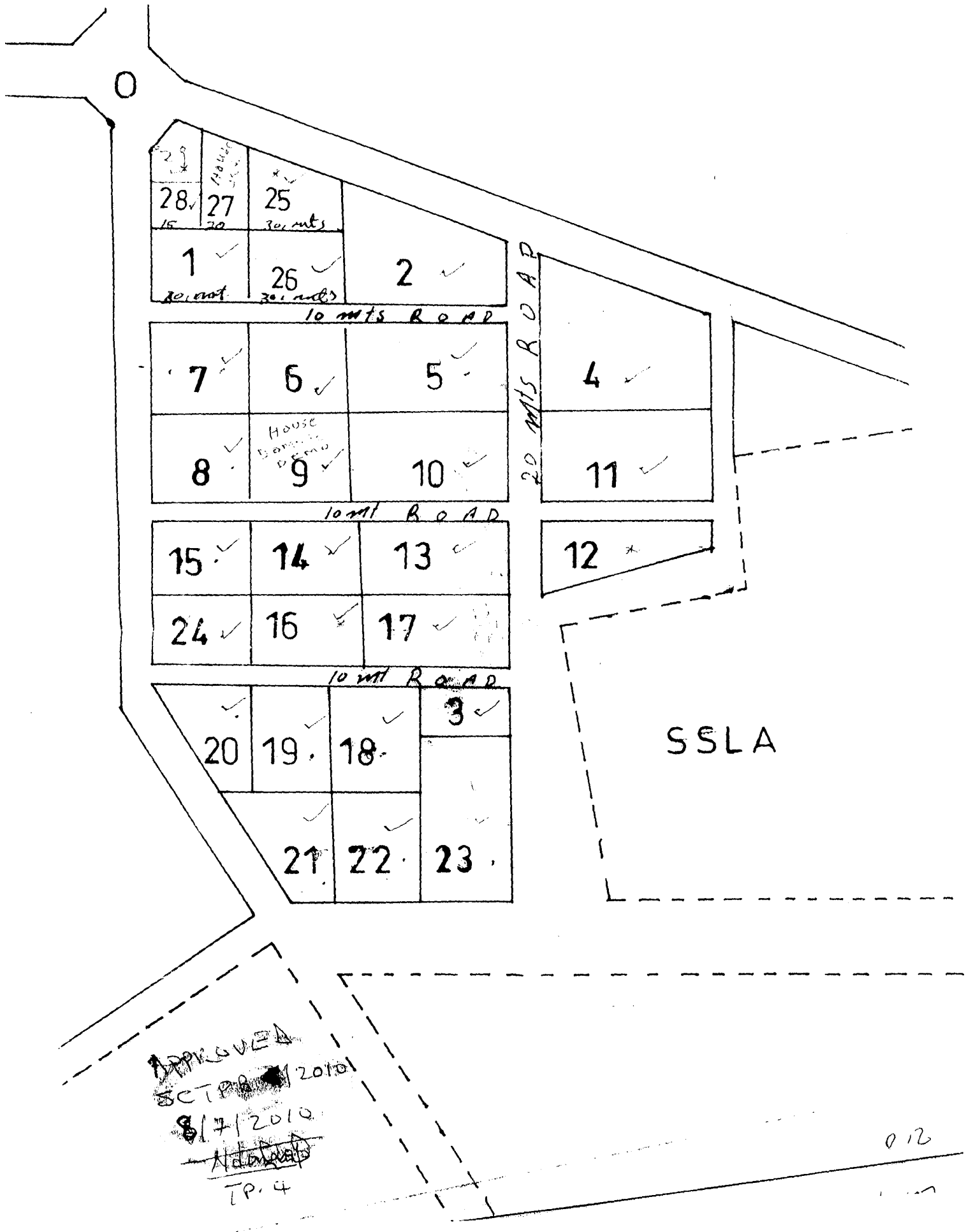
Hereby made under Para I (3) The Town Land Sche, 1947 to
Unit.

For the purposed of **Water Tank**

To be built in **CONDITION (IF ANY) permanent Material.**

KALISTO LADU SAVERIO

DIRECTOR



(Letter Head of MOPI/CES)

Date: 15th December, 2010

To: JICA Preparatory Survey Team

Subject: Land for Water Tanker Filling Stations

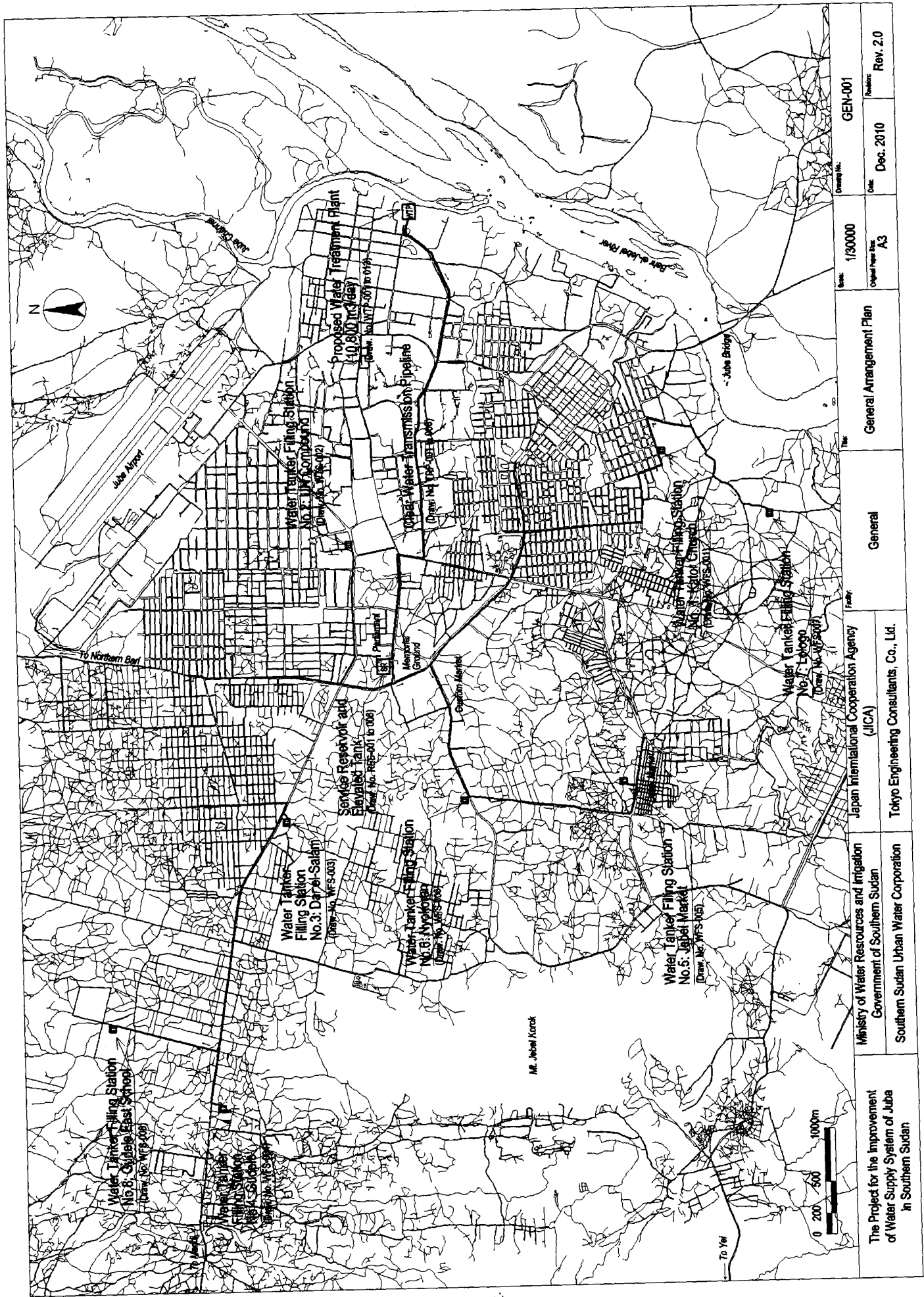
Re: The Project for the Improvement of Water Supply System of Juba in Southern Sudan

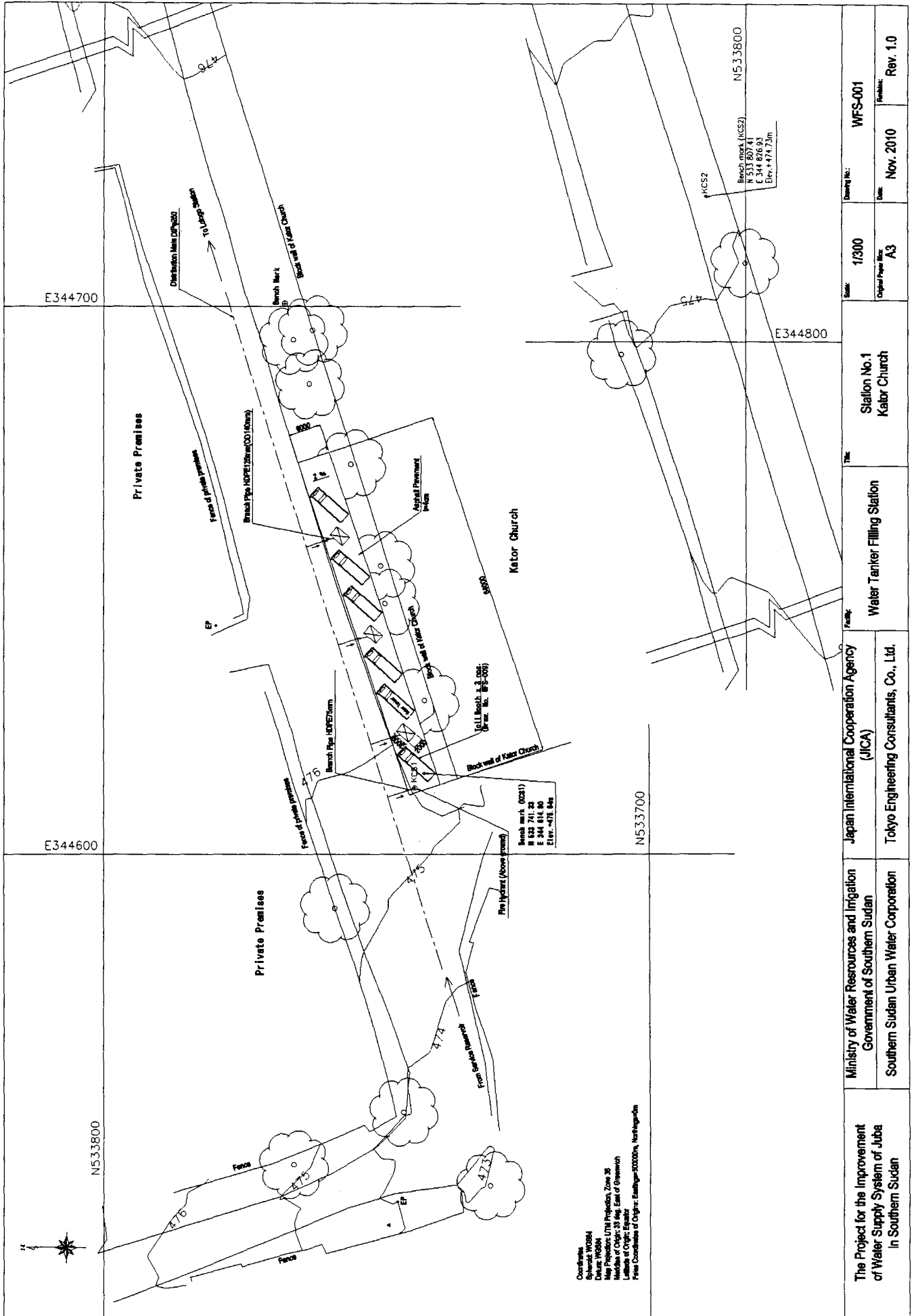
With regard to the sites for water tanker filling stations, of which the layout plans were presented by the Team as the Attachments, the Payam representatives and JICA Survey Team identified these locations in July 2010. We, hereby, confirm that the sites are the public lands under management of the Payam, the sites shall be properly secured by responsibility of the Payam, the sites shall be used and accessible only for the JICA Project and the sites shall not be occupied by any other entities of private nor public, whatsoever legally or illegally.

Sincerely,



1st Director General,
Ministry of Physical Infrastructure,
Central Equatoria State

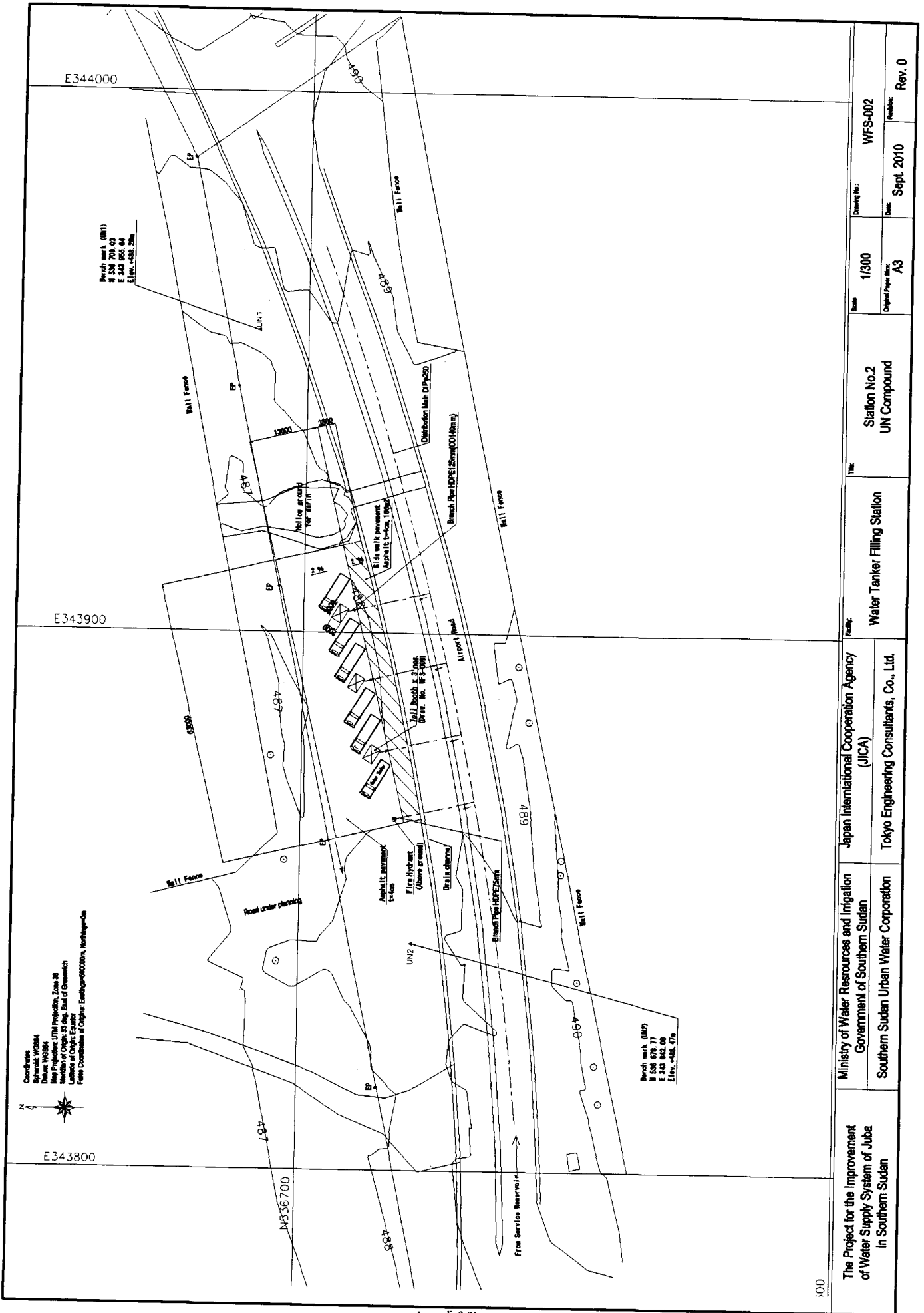




Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Location of Origin: 38 deg. East of Greenwich
 False Coordinate of Origin: Easting=500000m, Northing=0m

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)		Drawing No.: WFS-001 Date: Nov. 2010 Revision: Rev. 1.0
	Southern Sudan Urban Water Corporation		Tokyo Engineering Consultants, Co., Ltd.		
Station No. 1 Kator Church	Scale: 1/300 Original Paper Size: A3				
Water Tanker Filling Station					

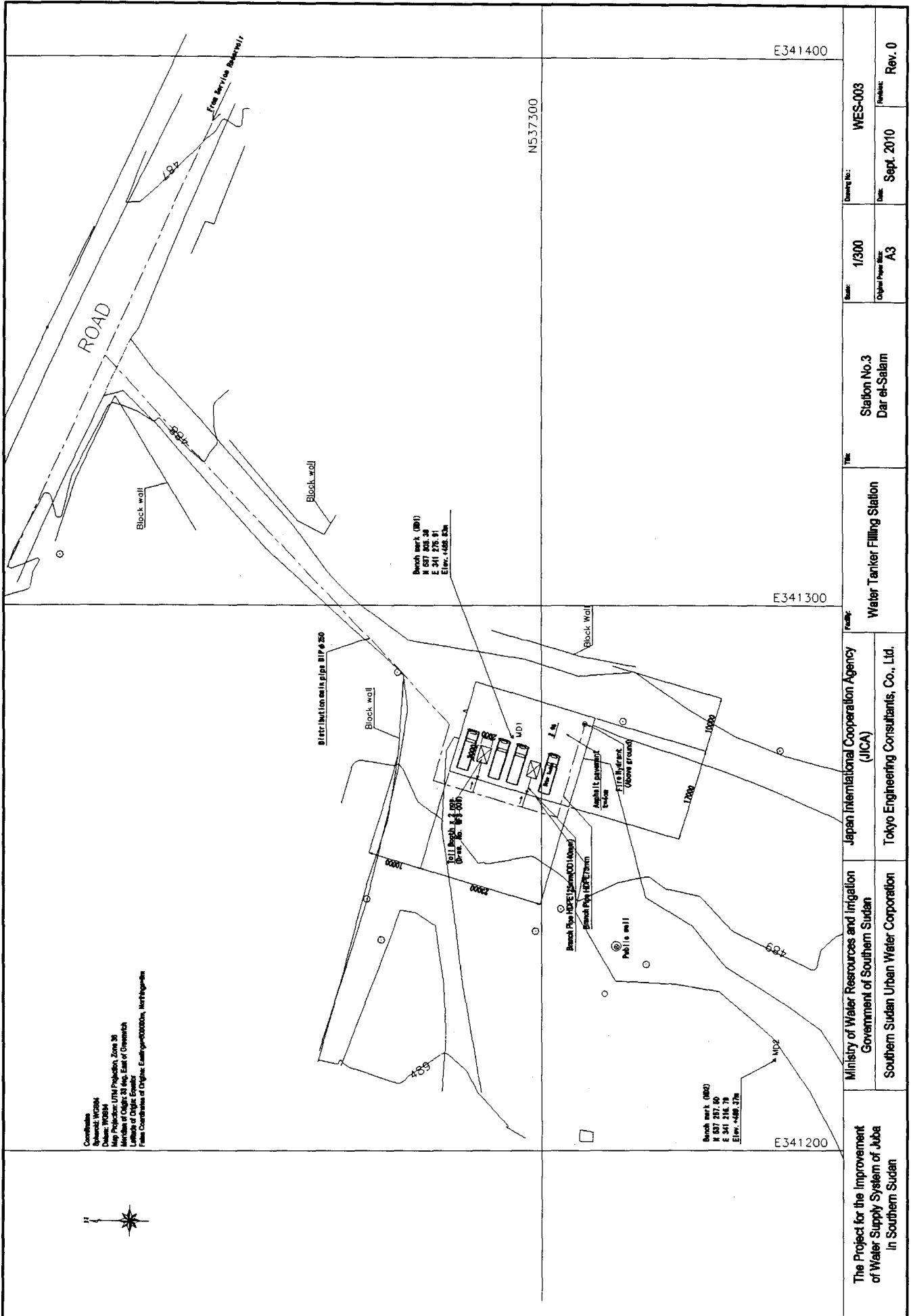
Appendix 2-20



3:00

Appendix 2-21

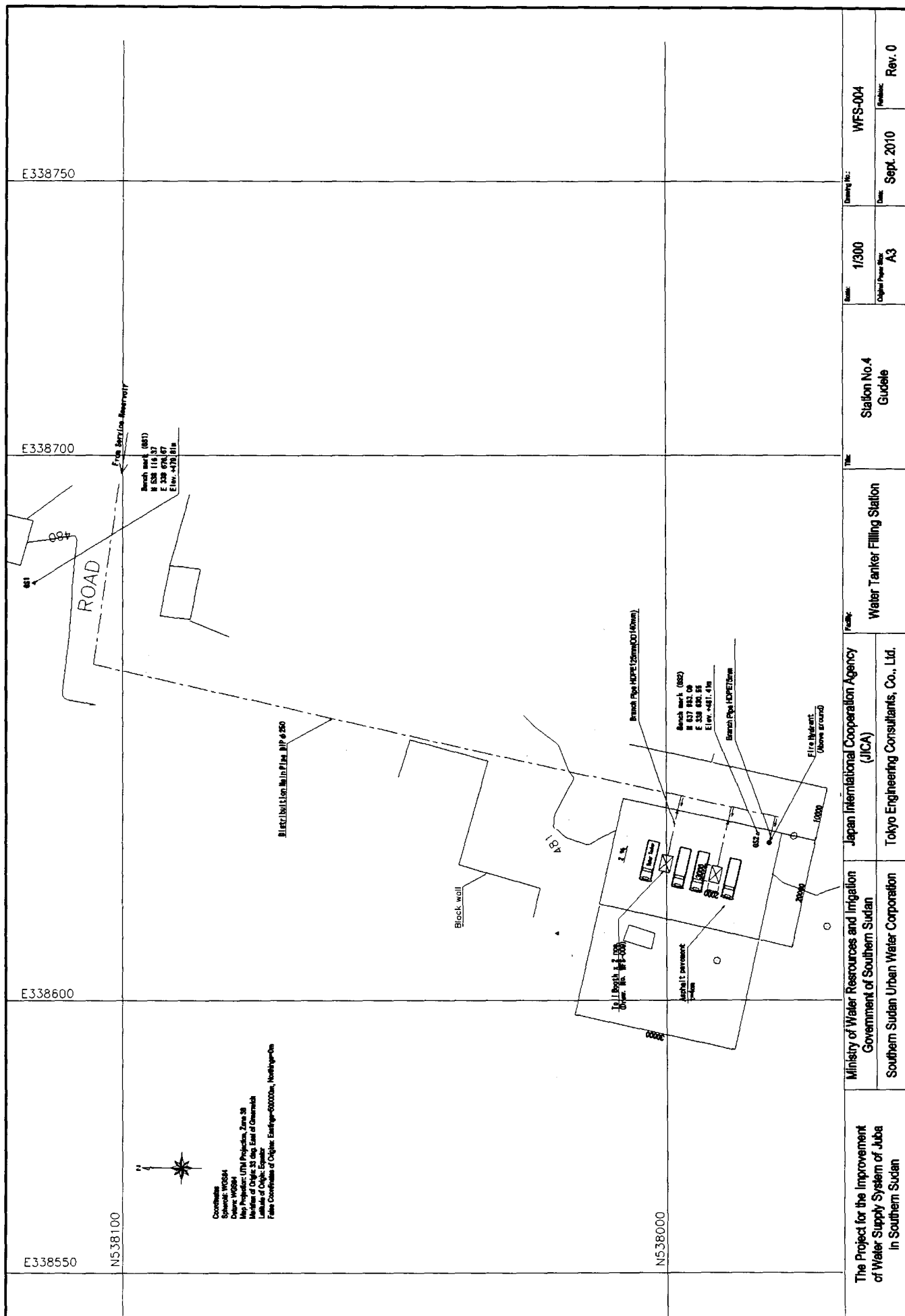
The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan Southern Sudan Urban Water Corporation		Japan International Cooperation Agency (JICA)		Tokyo Engineering Consultants, Co., Ltd.	
	Water Tanker Filling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



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Zone: UTM
 Projection: UTM
 Meridian: 33 (400, East of Greenwich)
 Units: Meter
 False Coordinates of Origin: Easting=500000, Northing=0

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	Station No.3 Dar el-Salam		Sheet No. 1/300	Drawing No. WES-003
		Water Tanker Filling Station		Original Paper Size: A3	Date: Sept. 2010
Japan International Cooperation Agency (JICA)		Tokyo Engineering Consultants, Co., Ltd.		Revision: Rev. 0	

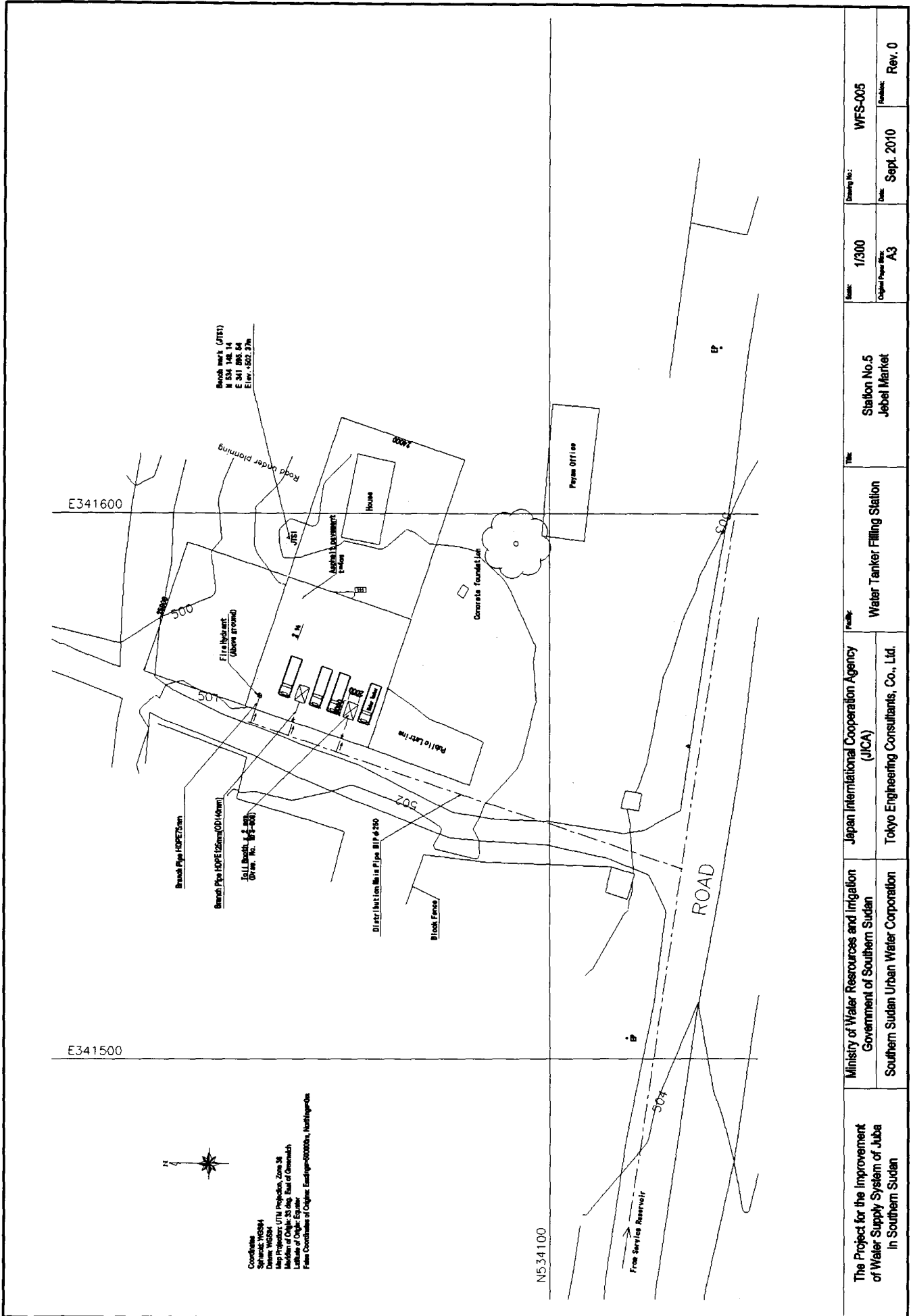
Appendix 2-22



Coordinates
 Spheroid: WGS84
 Datum: WGS84
 Map Projection: UTM Projection, Zone 38
 Unit of Measure: Meter
 Location of Origin: 25 Deg. East of Greenwich
 False Coordinates of Origin: Easting=600000m, Northing=0m

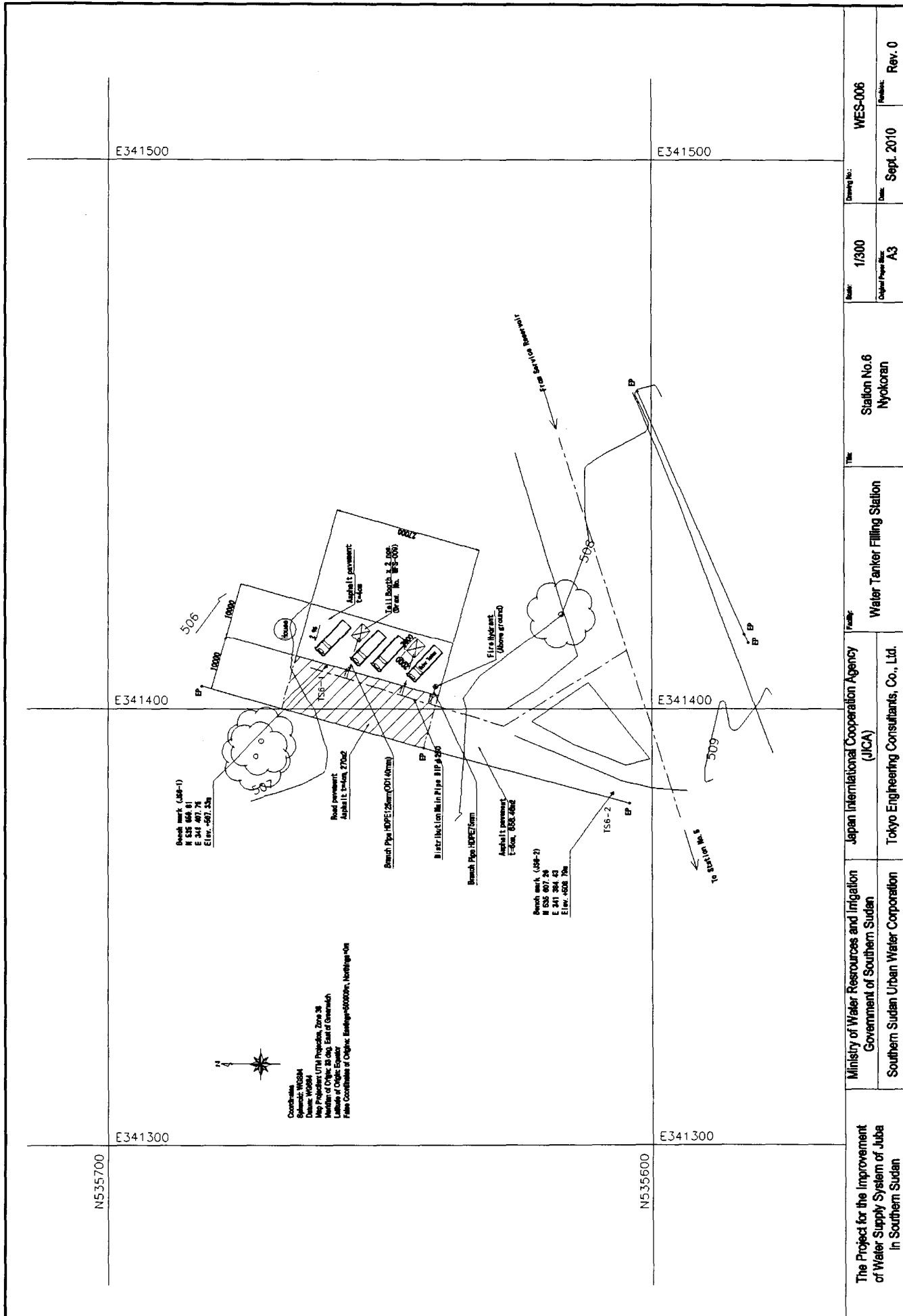
The Project for the Improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan Southern Sudan Urban Water Corporation	Japan International Cooperation Agency (JICA)		Station No.4 Guddele	Scale: 1/300 Original Paper Size: A3	Drawing No.: WFS-004
		Tokyo Engineering Consultants, Co., Ltd.				

Appendix 2-23

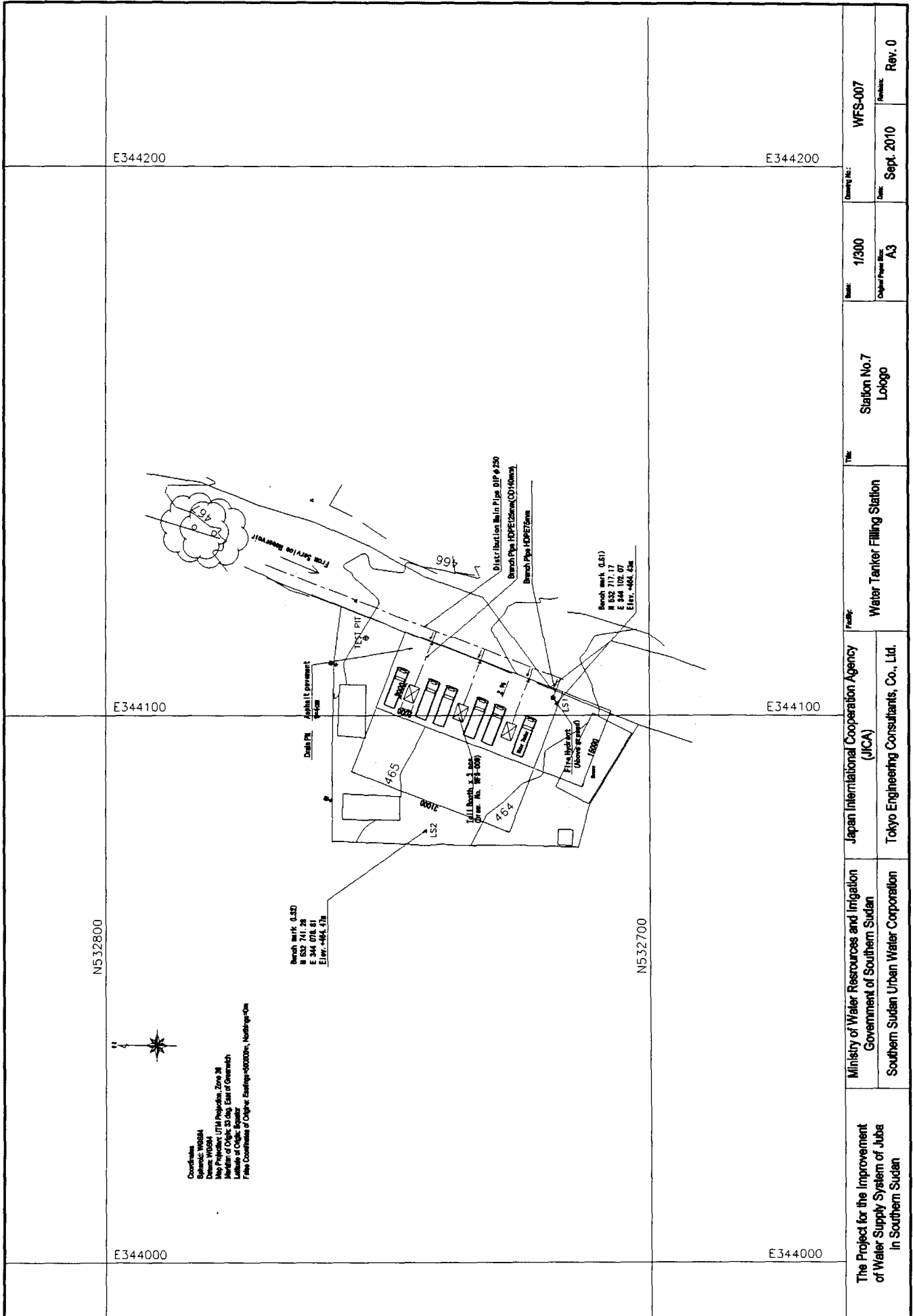


The Project for the improvement of Water Supply System of Juba in Southern Sudan	Ministry of Water Resources and Irrigation Government of Southern Sudan Southern Sudan Urban Water Corporation	Japan International Cooperation Agency (JICA) Tokyo Engineering Consultants, Co., Ltd.	Station No. 5 Jebel Market	Scale: 1/300 Original Paper Size: A3	Drawing No.: WFS-005 Date: Sept. 2010 Revision: Rev. 0
	Water Tanker Filling Station				

Appendix2-24



Appendix2-25



N532800

N532700

E344200

E344200

E344100

E344100

E344000

E344000

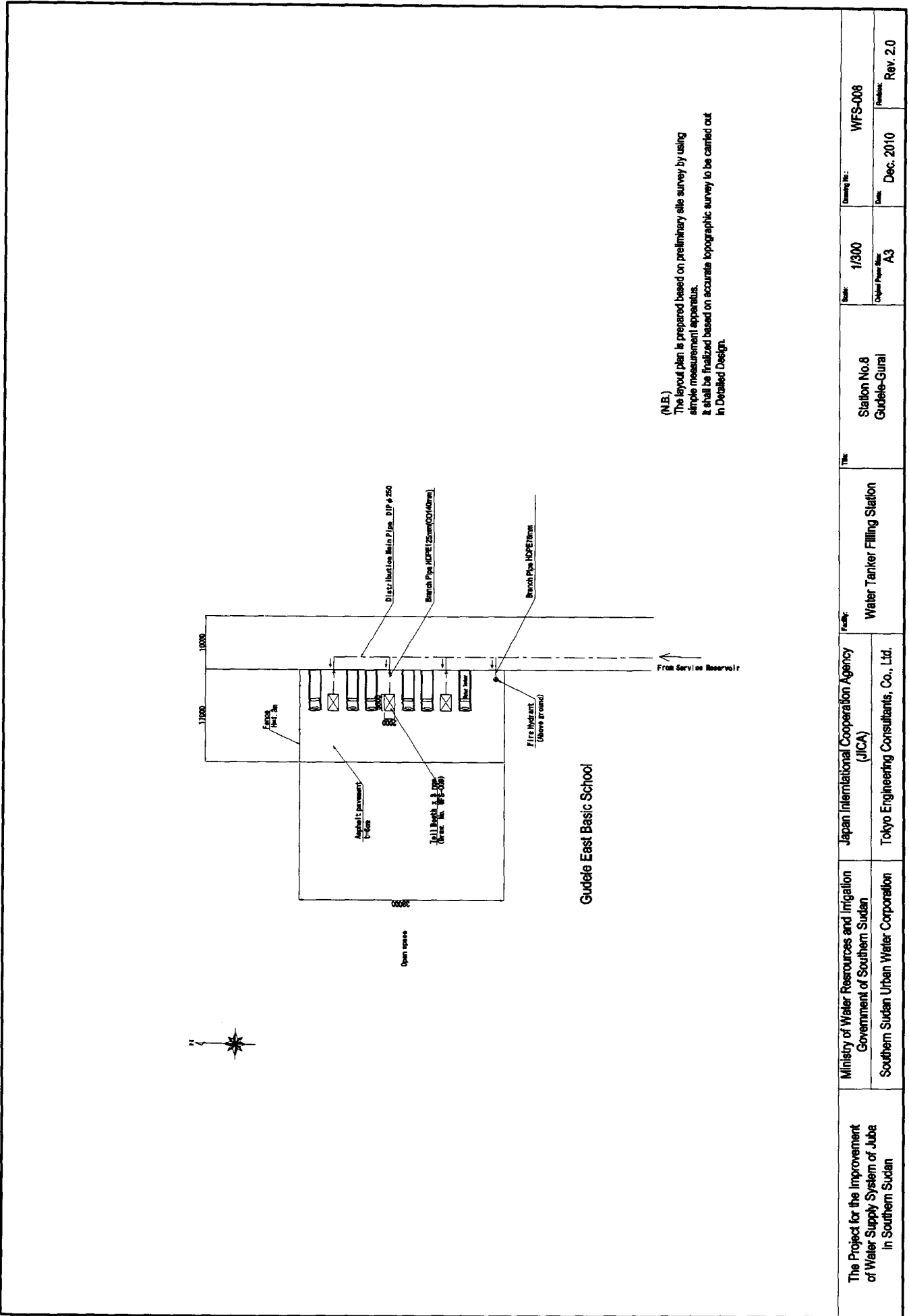
Coordinates
 Datum: WGS84
 Zone: 38N
 New Projection: UTM Projection, Zone 38
 Meridian of Origin: 33 000 East of Greenwich
 Latitude of Origin: Equator
 False Coordinate of Origin: Easting=490000m, Northing=0m

Bench mark 4320
 N 532 711.28
 E 344 078.81
 Elev. +464.47m

Bench mark 0.61
 N 532 717.17
 E 344 102.07
 Elev. +464.54m

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:	Station No.7 Logo	Scale:	1/300 Original Paper Size: A3	Drawing No.:	WFS-007
				Date:	Sept. 2010	Revision:	Rev. 0				

Appendix2-26



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)	Water Tanker Filling Station	Station No.8 Gudale-Gurai	Scale: 1/300	Drawing No.: WFS-008
	Southern Sudan Urban Water Corporation	Tokyo Engineering Consultants, Co., Ltd.			Original Paper Size: A3	Date: Dec. 2010

Handwritten signature or mark

