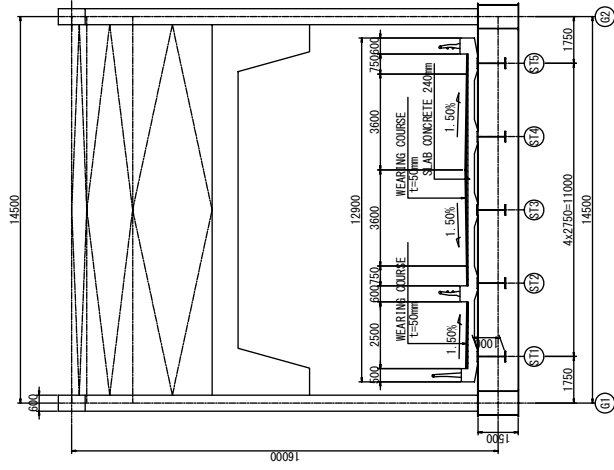
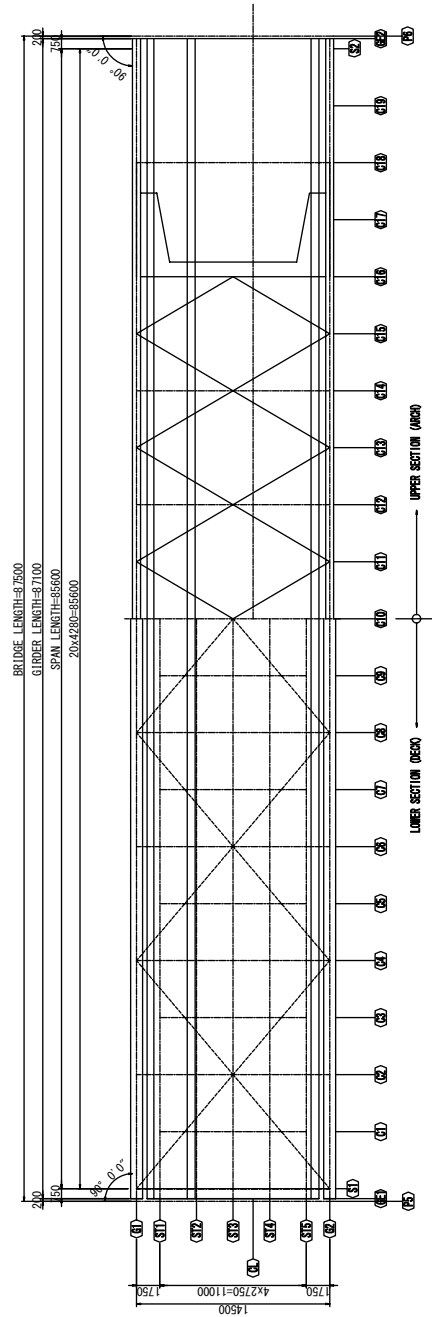
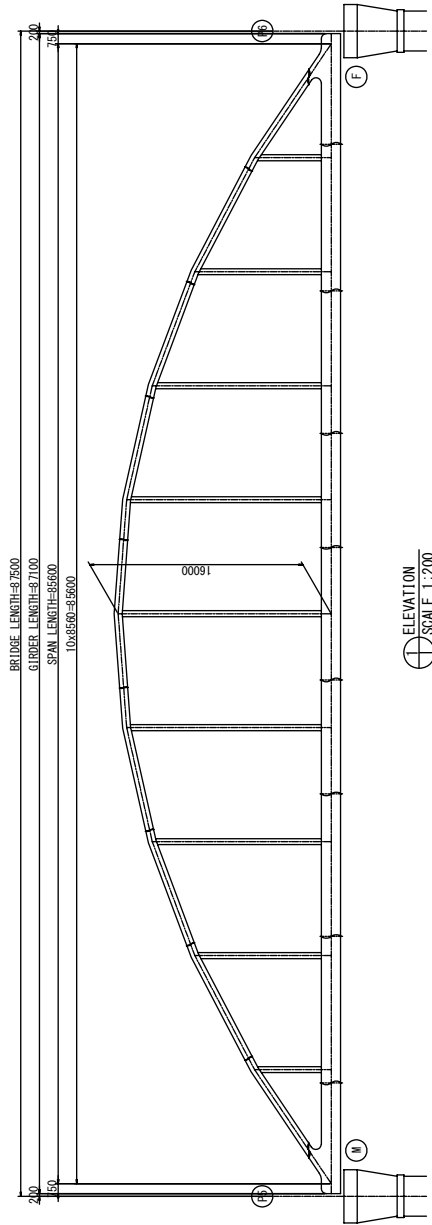


MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:  SUPERSTRUCTURE LAYOUT AND TYPICAL SECTIONS (A1-P5)	SCALE	SHEET NO.
				1:100 1:300 DATE	NB-16 OCT 2011

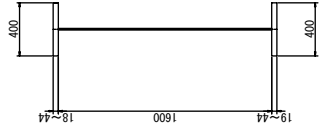
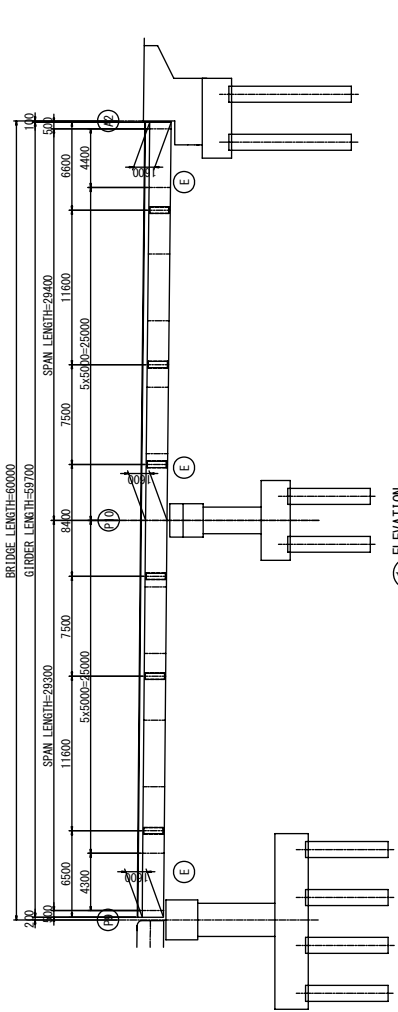
# P5-P6 DETAIL OF SUPER STRUCTURE

S = 1 : 200



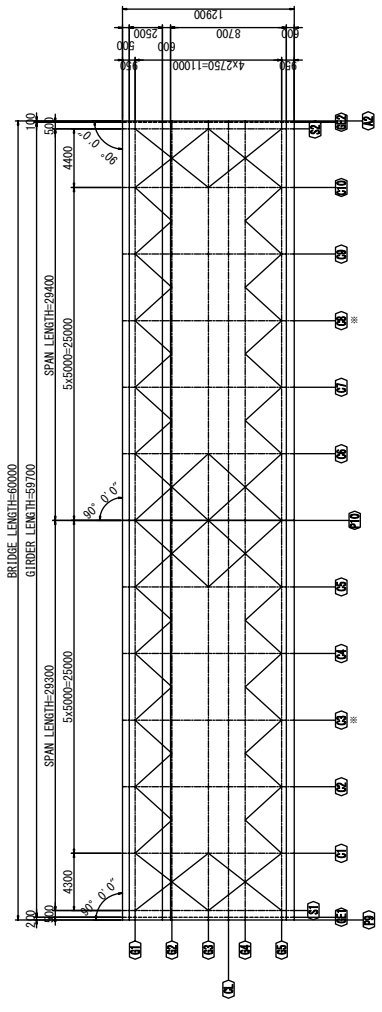
MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE: SUPERSTRUCTURE LAYOUT AND TYPICAL SECTIONS (P5-P9 LANGHER ARCH)	
			SCALE	SHEET NO.
			DATE	NB-17
			DATE	OCT 2011





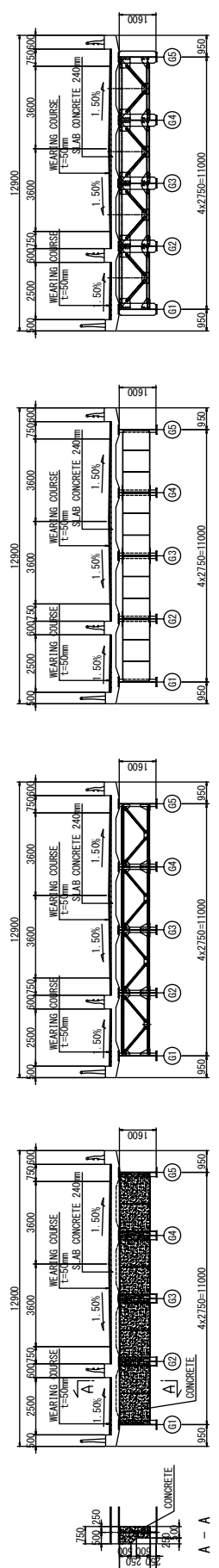
MAIN GIRDER

ELEVATION  
SCALE 1:200



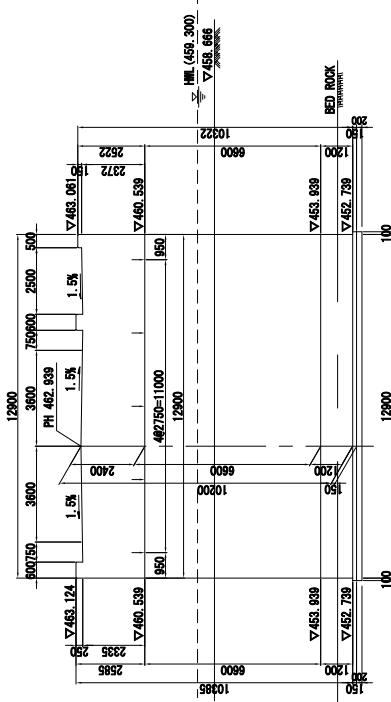
※ is INTERMEDIATE CROSS BEAM.

PLAN  
SCALE 1:200

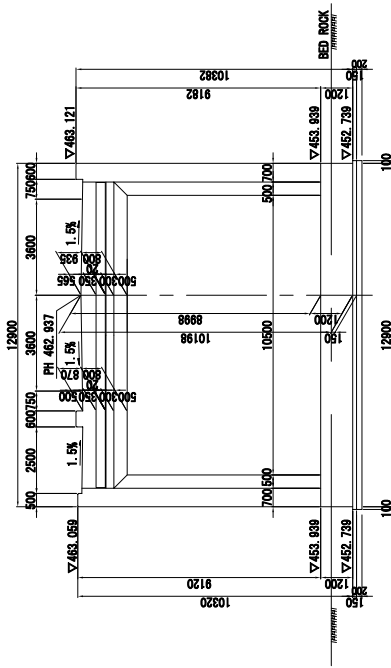


TYPICAL CROSS SECTIONS  
SCALE 1:100

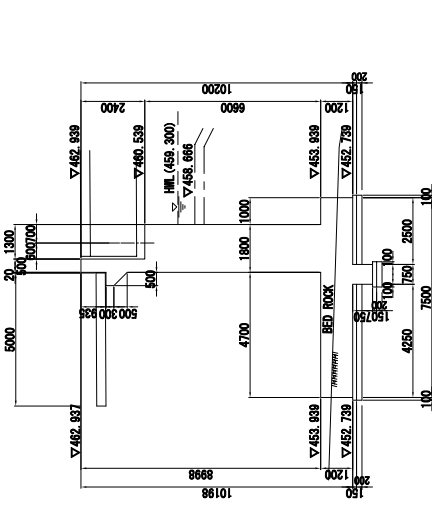
MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:	
			SUPERSTRUCTURE LAYOUT AND TYPICAL SECTIONS (P9-A2)	
			SCALE	SHEET NO.
			1:100	1:200
			1:200	DATE
				oct 2011
				NB-19

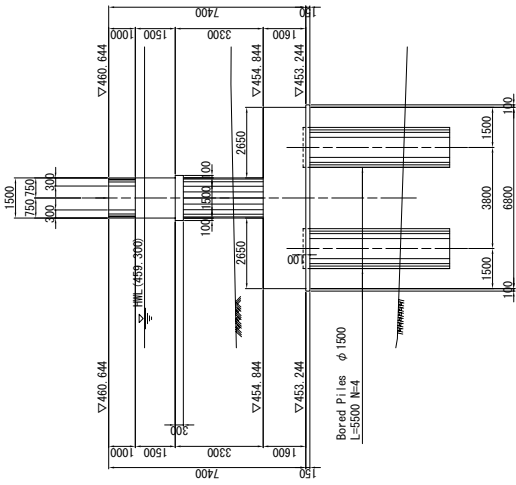


FRONT VIEW  
SCALE 1:100

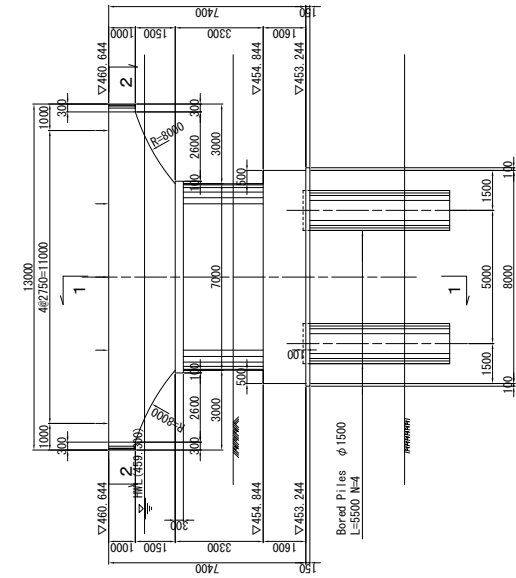


REAR VIEW  
SCALE 1:100

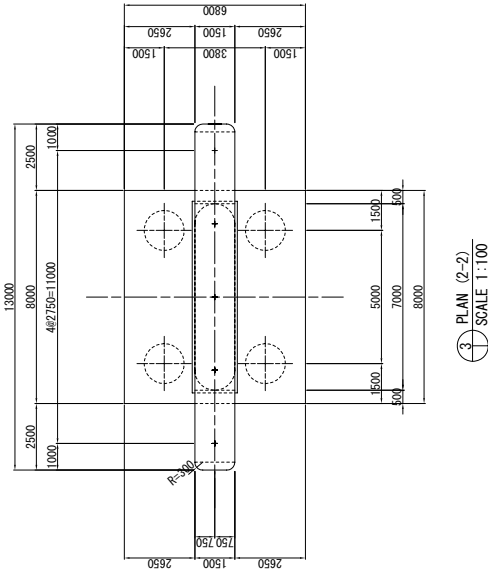




⊕ FRONT VIEW (1-1)  
SCALE 1:100



⊕ SIDE VIEW (2-2)  
SCALE 1:100



⊕ PLAN (2-2)  
SCALE 1:100

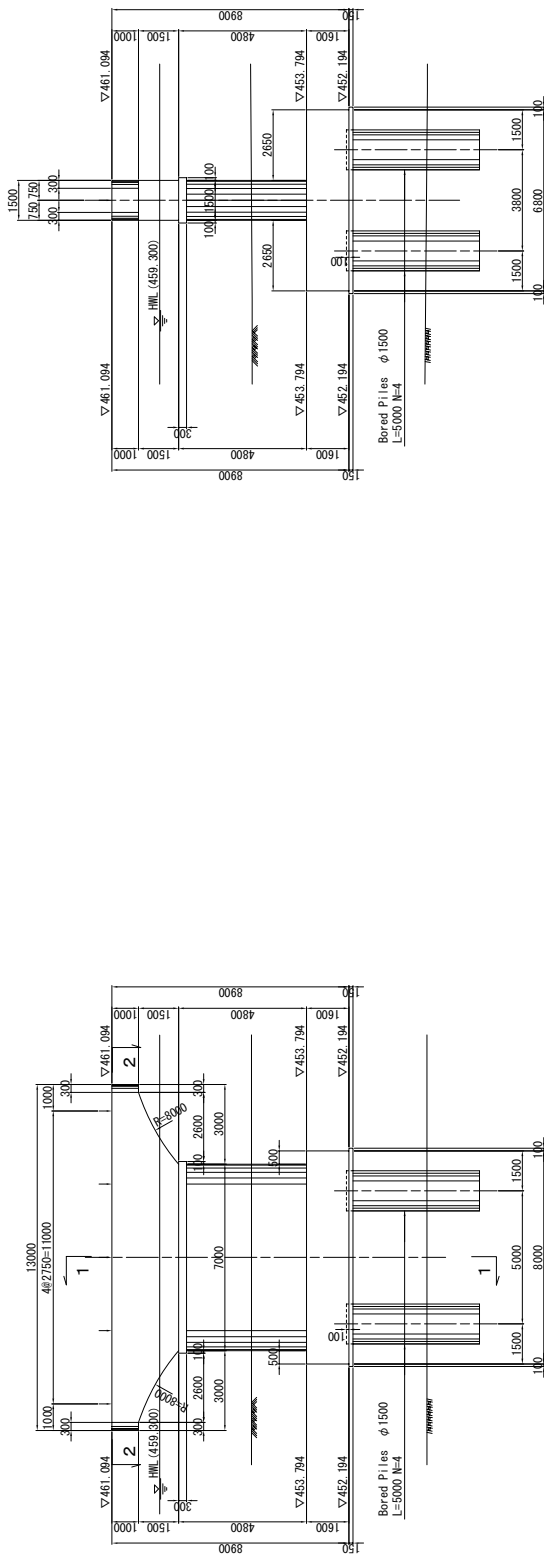
⊕ PIER P1 LAYOUT AND DIMENSIONS  
SCALE 1:100

MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:  DIMENSIONS DETAILS FOR PIER-1	SCALE	SHEET NO.
				1:100	NS-21
				DATE	
				OCT 2011	



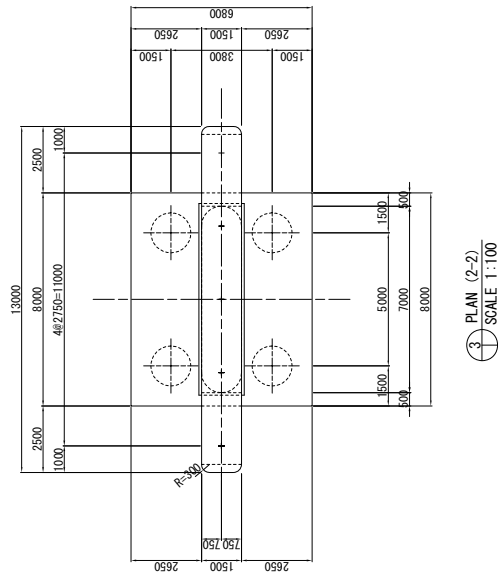






⊕ FRONT VIEW  
SCALE 1 : 100

⊕ SIDE VIEW (1-1)  
SCALE 1 : 100



⊕ PLAN (2-2)  
SCALE 1 : 100

⊕ PIER P4 LAYOUT AND DIMENSIONS  
SCALE 1 : 100

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
IN SOUTHERN SUDAN

JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

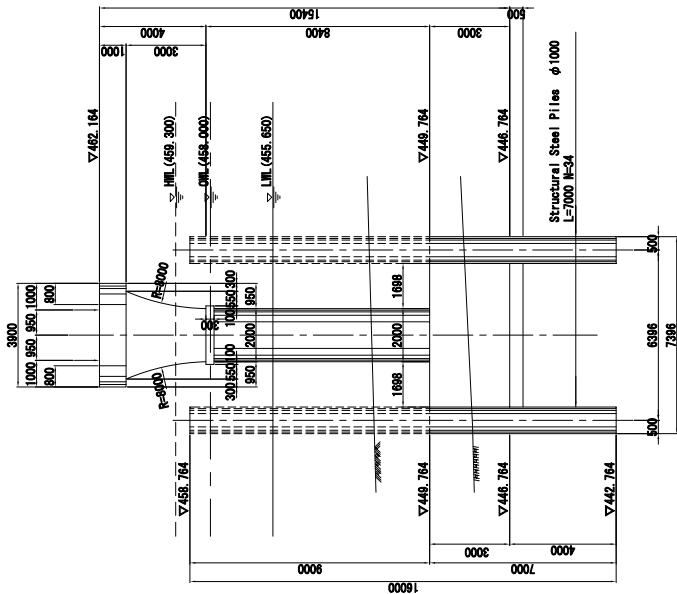
TITLE:

DIMENSIONS DETAILS FOR PIER-4

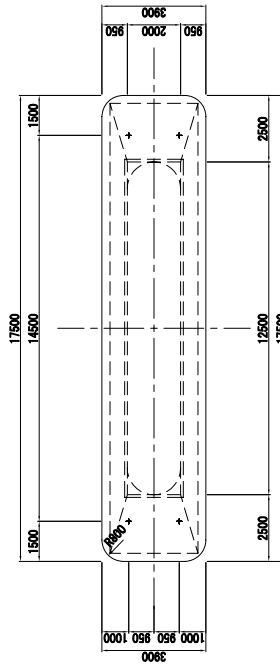
SCALE	SHEET NO.
1:100	
DATE	NO.24
OCT 2011	



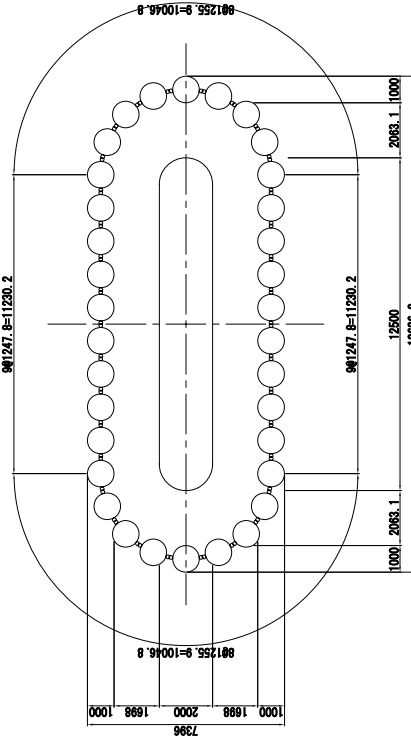




FRONT VIEW (1-1)  
SCALE 1:100



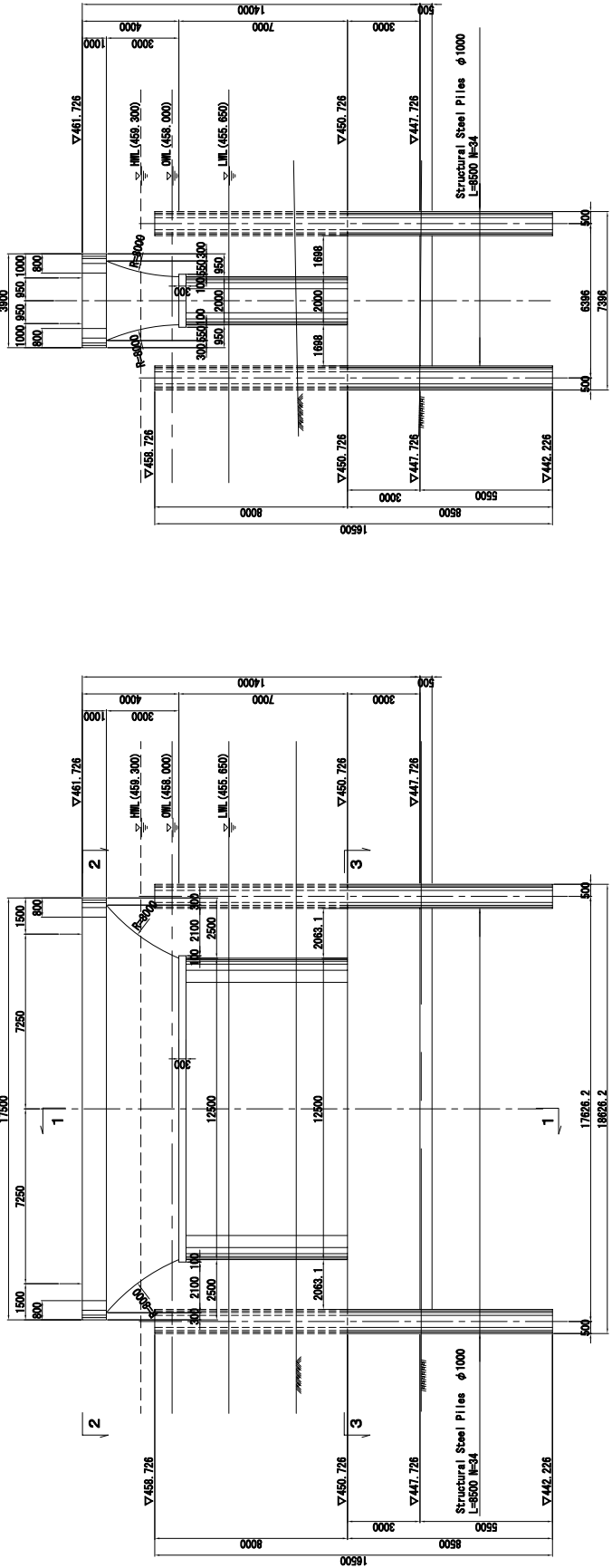
PLAN (2-2)  
SCALE 1:100



PLAN (3-3)  
SCALE 1:100

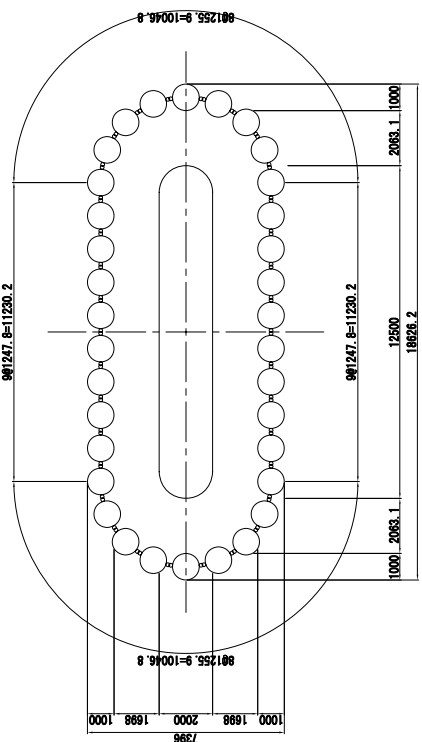
PIER P7 LAYOUT AND DIMENSIONS  
SCALE 1:100

MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:	DIMENSION DETAILS FOR PIER7		
				SCALE	SHEET NO.	
				1:1.0		NS-27
				DATE		
						OCT 2011



FRONT VIEW (1-1)  
SCALE 1:100

SIDE VIEW (2-2)  
SCALE 1:100



PLAN (3-3)  
SCALE 1:100

PIER P8 LAYOUT AND DIMENSIONS  
SCALE 1:100

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
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JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

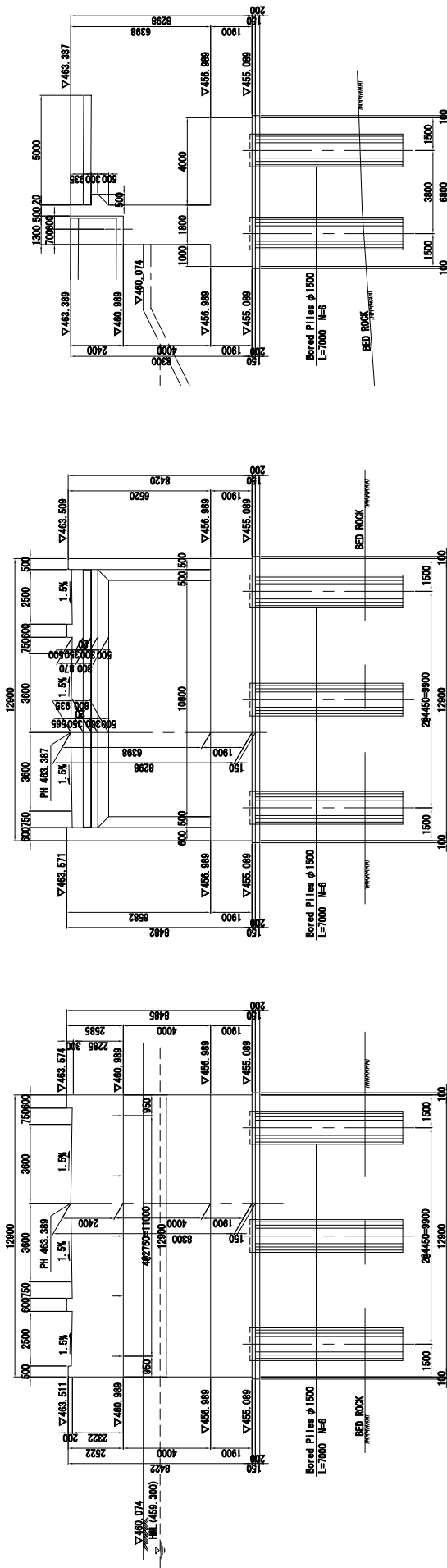
TITLE:

DIMENSION DETAILS FOR PIER8

SHEET NO.	NS-28
SCALE	1:10
DATE	OCT 2011





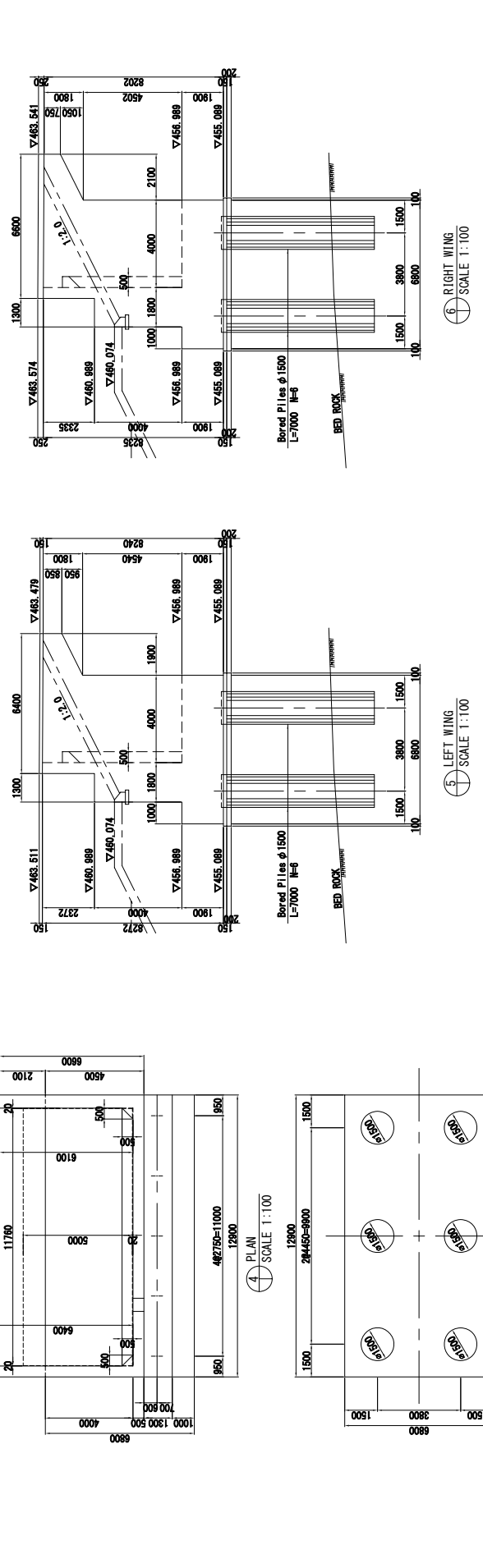


1 FRONT VIEW SCALE 1:100

2 REAR VIEW SCALE 1:100

3 CROSS SECTION SCALE 1:100

4 PLAN SCALE 1:100



5 LEFT WING SCALE 1:100

6 RIGHT WING SCALE 1:100

MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:	ABUTMENT A2 LAYOUT AND DIMENSIONS
			SCALE	1:100
			DATE	OCT 2011
			SHEET NO.	NS-31

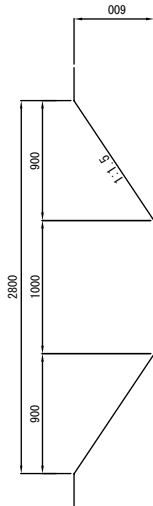


# Drainage Details (1)

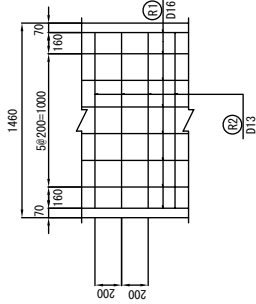
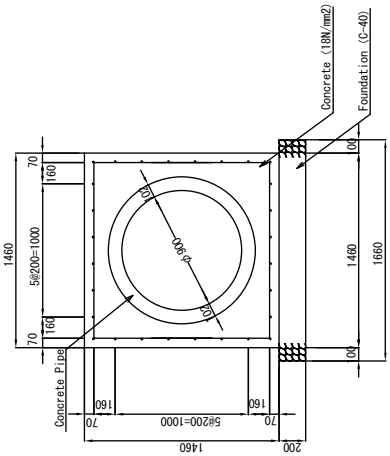
SCALE 1/20

## Pipe Culvert D900

## Earth Ditch



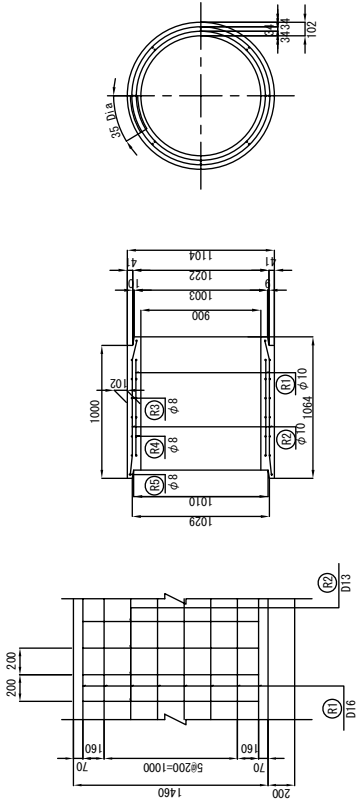
MATERIAL LIST		PER m	
TYPE	STANDARD	UNIT	QUANTITY
Excavation	Sand	cu.m	1.140
			REMARKS



(Concrete Pipe D900)

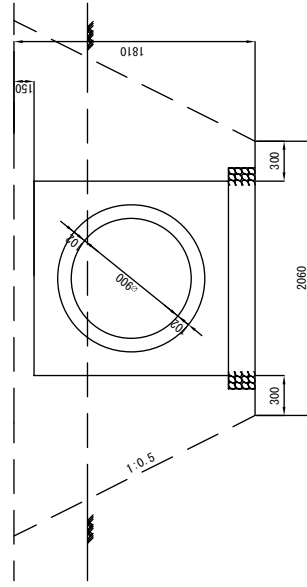
## LONGITUDINAL SECTION

## TWO LINES OF CIRCULAR REINFORCEMENT



## METHODS OF PIPE INSTALLATION

▽ FINISH GRADE LINE



STEP1 CONSTRUCT COMPACTED EMBANKMENT TO AN ELEVATION 150mm ABOVE TOP OF PROPOSED PIPE

STEP2 TRENCH THROUGH THIS COMPACTED EMBANKMENT AND INSTALL PIPE OVER GRANULAR BEDDING BACK FILL WITH COMPACTED GRANULAR MATERIAL

MATERIAL LIST		PER m	
TYPE	STANDARD	UNIT	QUANTITY
Concrete	18N/mm <sup>2</sup>	cu.m	1.174
	24N/mm <sup>2</sup>	cu.m	0.321
Form		sq.m	5.269
		sq.m	7.341
		sq.m	12.610
Reinforced	D13	kg	30.845
	D16	kg	43.680
	φ8	kg	19.804
	φ10	kg	8.638
Foundation	C-40	cu.m	0.332
			REMARKS
			(Concrete Pipe D900)
			(Concrete Pipe D900)
			(Concrete Pipe D900)
			(Concrete Pipe D900)
			(Concrete Pipe D900)

TITLE:

JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
IN SOUTHERN SUDAN

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

DRAINAGE DETAILS OF APPROACH ROAD (1)

SHEET NO.

SCALE

1/20

DATE

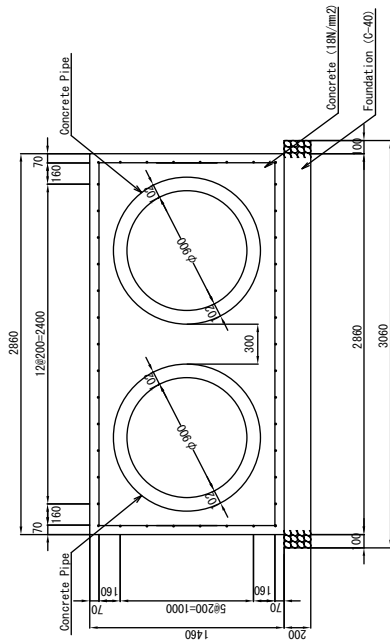
OCT 2011

NB-32

# Drainage Details (2)

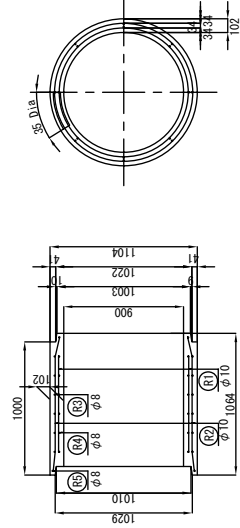
SCALE 1/20

## Pipe Culvert D900 (2@D900)

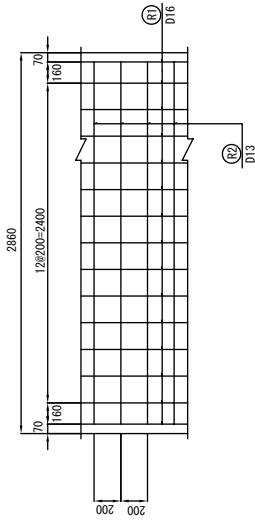


(Concrete Pipe D900)

## LONGITUDINAL SECTION

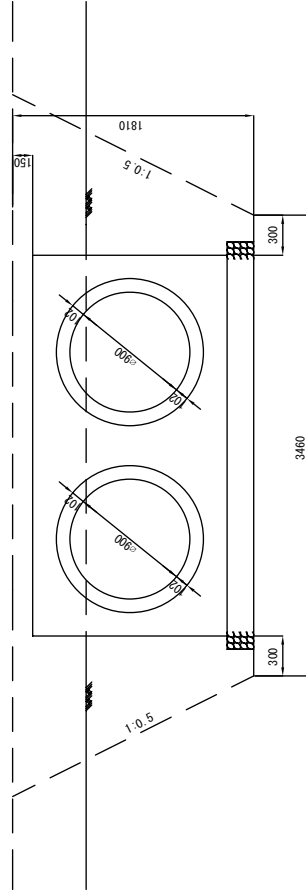


TWO LINES OF CIRCULAR REINFORCEMENT



## METHODS OF PIPE INSTALLATION

▽ FINISH GRADE LINE



STEP1 CONSTRUCT COMPACTED EMBANKMENT TO AN ELEVATION 150mm ABOVE TOP OF PROPOSED PIPE

STEP2 TRENCH THROUGH THIS COMPACTED EMBANKMENT AND INSTALL PIPE OVER GRANULAR BEDDING BACK FILL WITH COMPACTED GRANULAR MATERIAL

MATERIAL LIST			PER m	
TYPE	STANDARD	UNIT	QUANTITY	REMARKS
Concrete	180/mm <sup>2</sup>	cu.m	2.261	(Concrete Pipe D900)
	240/mm <sup>2</sup>	cu.m	0.642	(Concrete Pipe D900)
Form		sq.m	7.442	(Concrete Pipe D900)
		sq.m	14.662	(Concrete Pipe D900)
		sq.m	22.124	
		kg	44.775	
Reinforced		kg	65.520	(Concrete Pipe D900)
		kg	38.008	(Concrete Pipe D900)
		kg	17.276	(Concrete Pipe D900)
Foundation	C-40	cu.m	0.612	

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
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JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

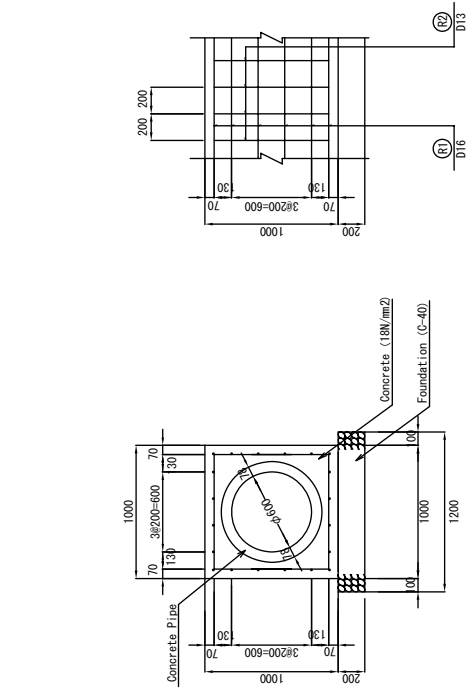
TITLE:

DRAINAGE DETAILS OF APPROACH ROAD (2)

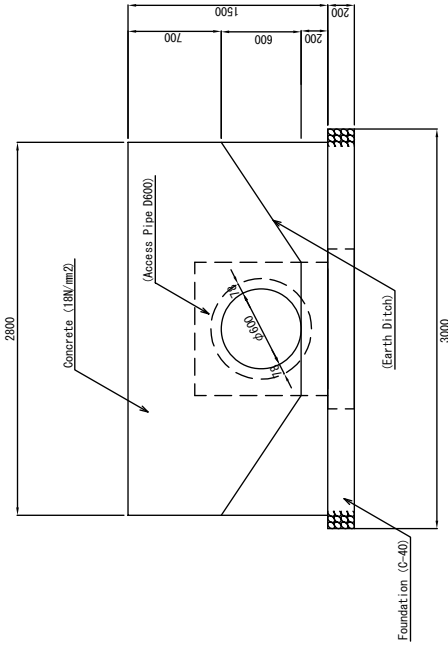
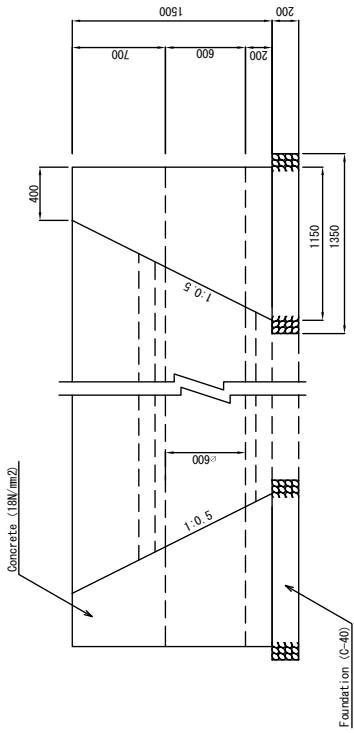
SCALE 1/20  
DATE  
OCT 2011  
SHEET NO. NB-33

# Drainage Details (3) SCALE 1/20

Access Pipe D600



Head Wall I

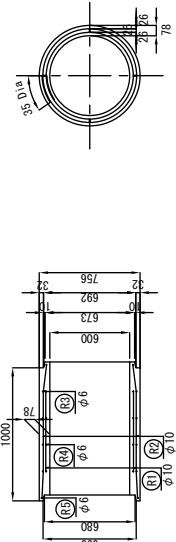


TYPE	STANDARD	UNIT	QUANTITY	PER NOS.
Concrete	18#	cu.m	3.001	REMARKS
Form		sq.m	10.622	
Foundation	C-40	cu.m	0.810	

TYPE	STANDARD	UNIT	QUANTITY	PER m	REMARKS
Concrete	18#	cu.m	0.551		
	24#	cu.m	0.166		(Concrete Pipe D600)
Form		sq.m	3.100		(Concrete Pipe D600)
		sq.m	4.780		(Concrete Pipe D600)
Total		sq.m	7.882		
D13		kg	21.293		
D16		kg	31.200		
Reinforced	φ6	kg	5.464		(Concrete Pipe D600)
	φ10	kg	3.988		(Concrete Pipe D600)
Foundation	C-40	cu.m	0.240		

(Concrete Pipe D600)

TWO LINES OF CIRCULAR REINFORCEMENT



LONGITUDINAL SECTION

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
IN SOUTHERN SUDAN

JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

TITLE:

DRAINAGE DETAILS OF APPROACH ROAD (3)

SHEET NO.

SCALE

1/20

DATE

OCT 2011

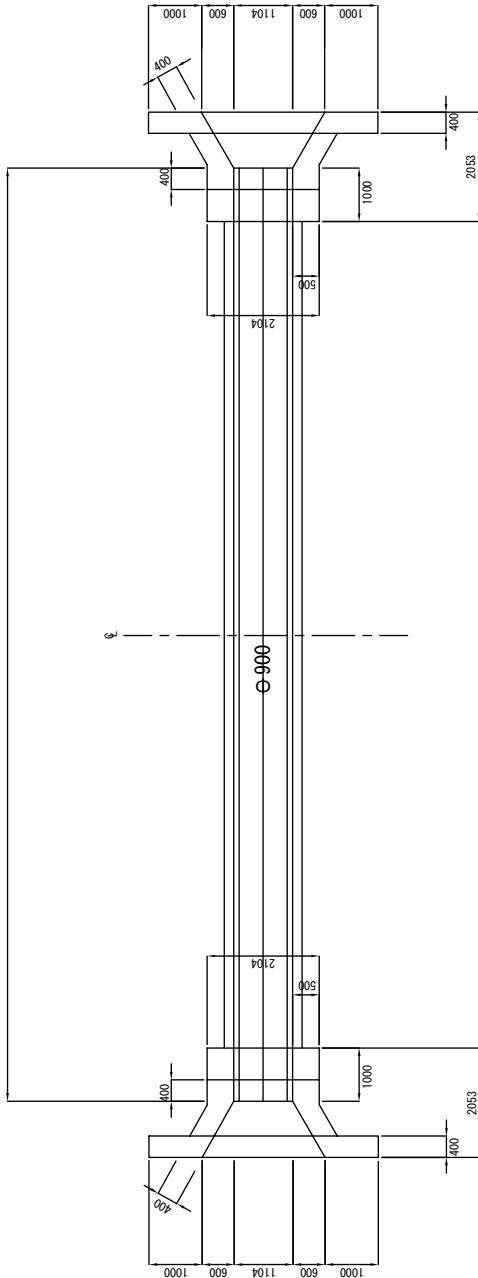
NO.34

# Drainage Details (4)

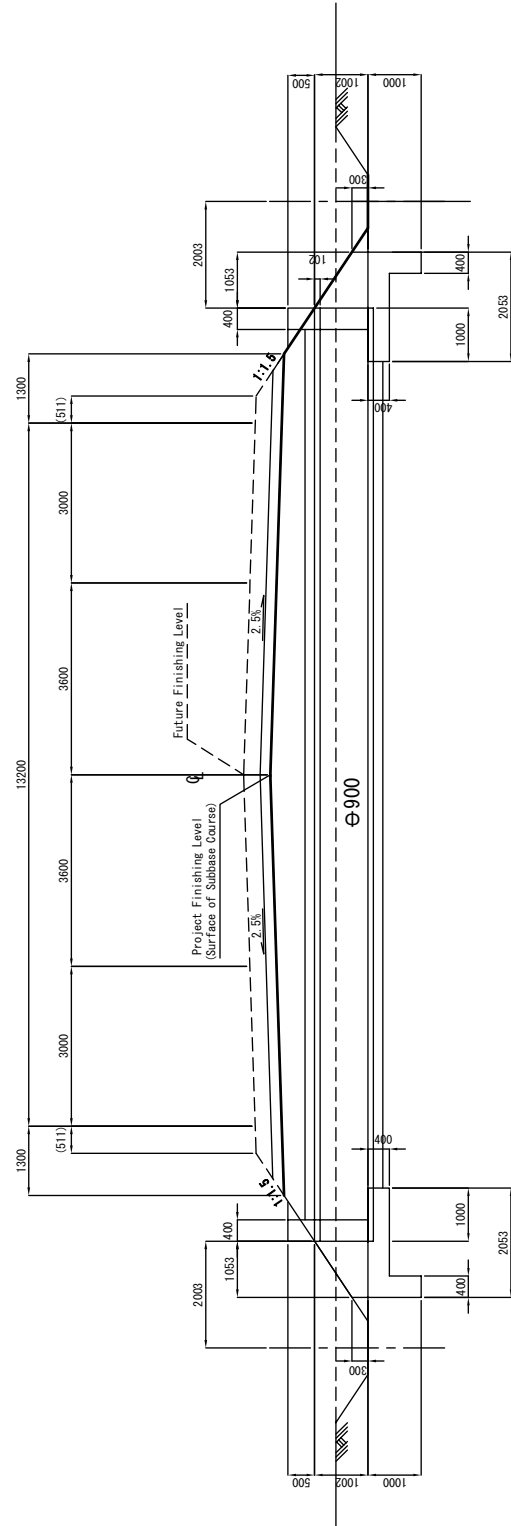
SCALE 1/50

Inlet Outlet  
PLAN

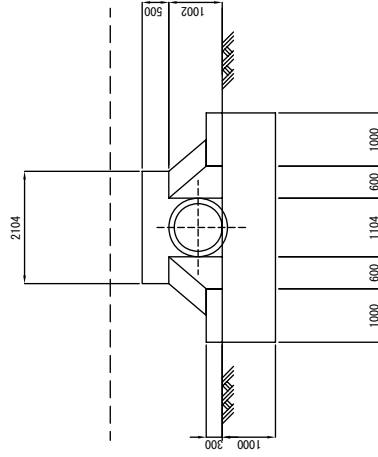
Pipe Culvert Length



SECTION



ELEVATION



MATERIAL LIST				PER NOS.	
TYPE	STANDARD	UNIT	QUANTITY	REMARKS	
Concrete	18W/mm <sup>2</sup>	cu.m	5.377		
Form		sq.m	18.119		

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
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JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

TITLE:

DRAINAGE DETAILS OF APPROACH ROAD (4)

SHEET NO.

1/50

DATE

OCT 2011

SCALE

1/50

REMARKS

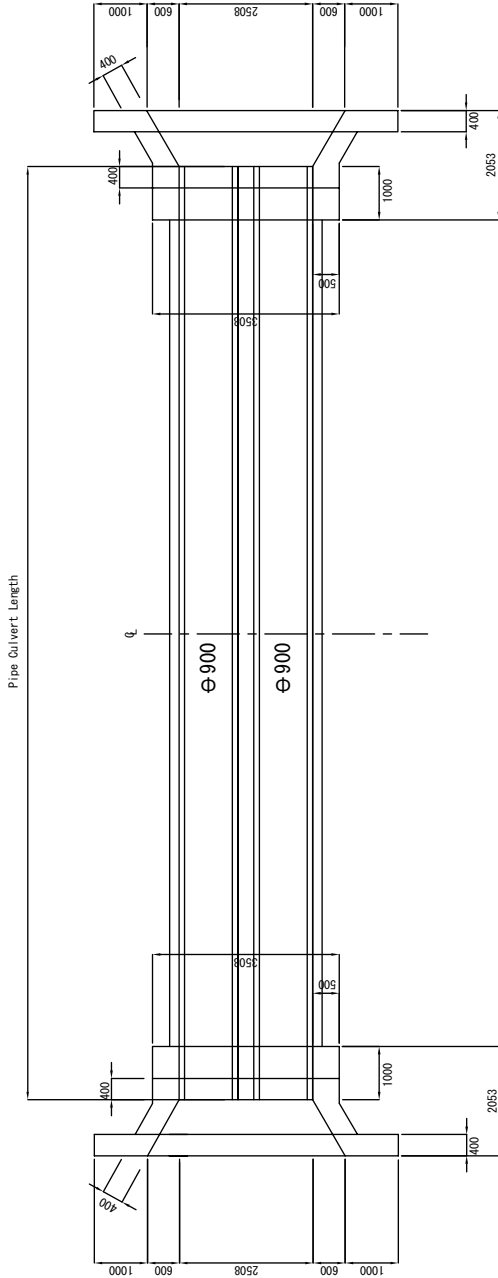
NB-35

# Drainage Details (5)

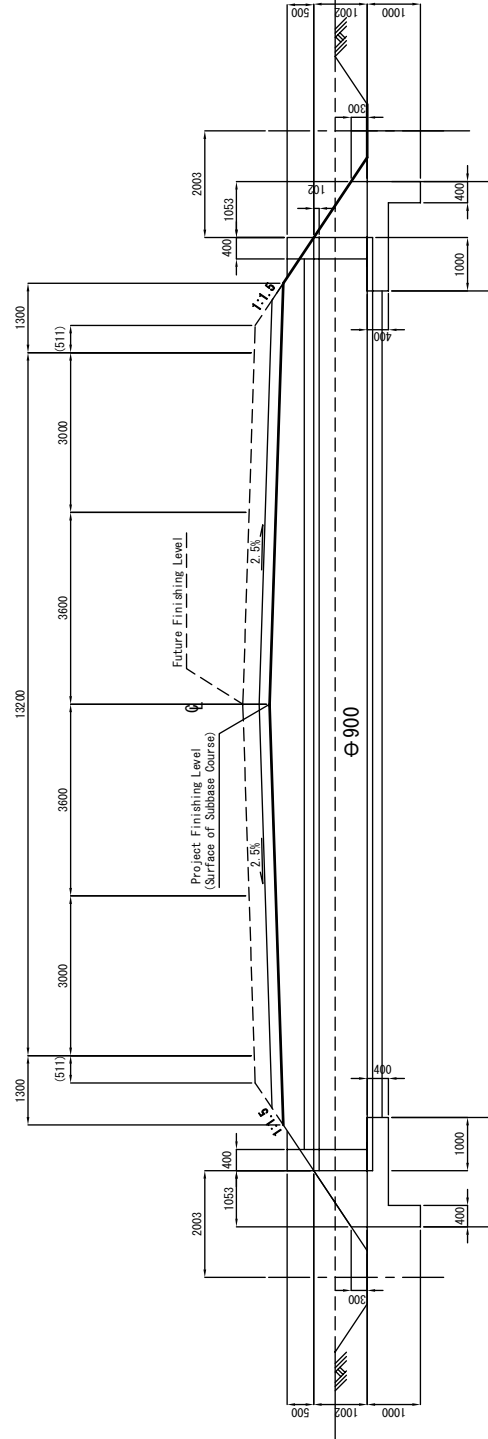
SCALE 1/50

## Inlet Outlet (2@D900)

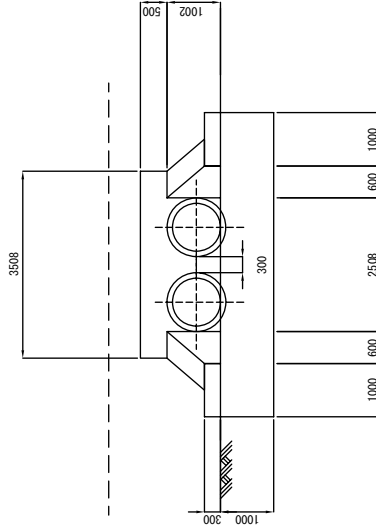
PLAN



SECTION



ELEVATION



MATERIAL LIST				PER MUS.	
TYPE	STANDARD	UNIT	QUANTITY	REMARKS	
Concrete	18N/mm <sup>2</sup>	c.c.m	7.522		
Form		s.c.m	23.230		

MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
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JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

TITLE:

DRAINAGE DETAILS OF APPROACH ROAD (5)

SCALE 1/50

DATE

OCT 2011

SHEET NO.

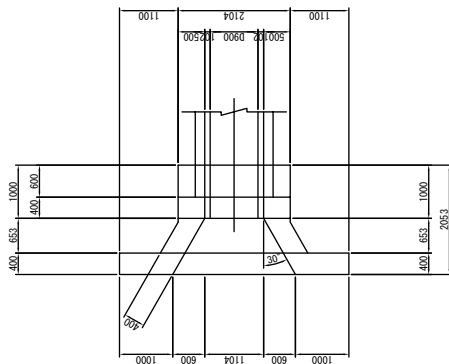
NB-36

# Drainage Details (6)

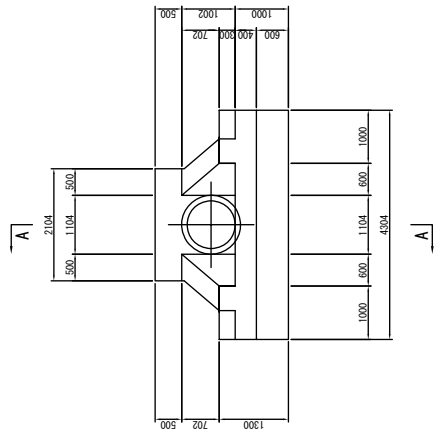
SCALE 1/50

## INLET (OUTLET) STRUCTURE

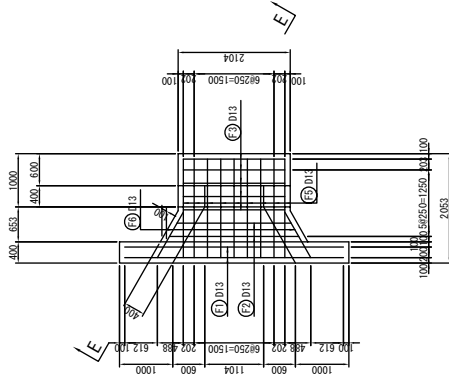
PLAN



ELEVATION



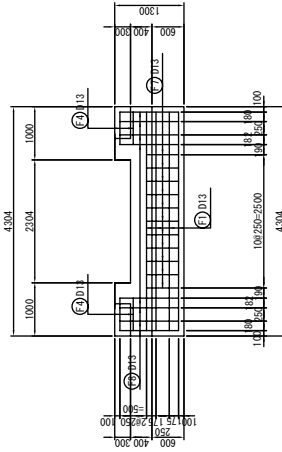
B-B



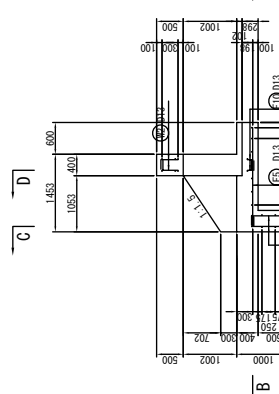
List of Bars

Items	Dia	Length (mm)	Unit	Kg/m	Kg/Unit	Mass (kg)	Remarks
F1	D13	4110	8	0.995	4.089	32.7	—
F2	D13	2290	2	0.995	2.279	4.6	(AVE. L)
F3	D13	1910	9	0.995	1.900	17.1	—
F4	D13	620	8	0.995	0.617	4.9	—
F5	D13	1860	9	0.995	1.851	16.7	—
F6	D13	990	2	0.995	0.995	2.0	—
F7	D13	960	22	0.995	0.955	21.0	—
F8	D13	1460	16	0.995	1.453	23.2	—
F9	D13	2070	8	0.995	2.060	16.5	—
F10	D13	400	10	0.995	0.398	4.0	(AVE. L)
F11	D13	1110	6	0.995	1.104	8.8	(AVE. L)
F12	D13	1450	4	0.995	1.443	5.8	—
W1	D13	460	20	0.995	0.458	9.2	(AVE. L)
W2	D13	600	10	0.995	0.597	6.0	(AVE. L)
W3	D13	910	4	0.995	0.905	3.6	(AVE. L)
W4	D13	1670	2	0.995	1.662	3.3	—
H1	D13	4520	2	0.995	4.497	8.0	—
			D13			188.4	kg
			Total			188.4	kg

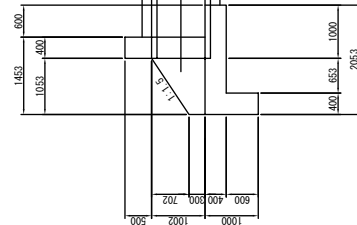
C-C



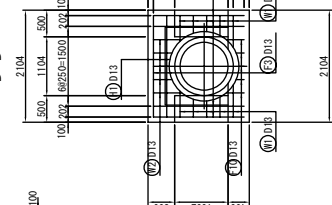
A-A



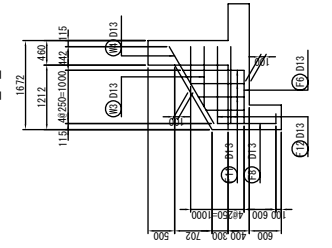
PROFILE



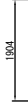
D-D



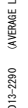
E-E



8-013-410



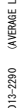
2-013-2290 (AVERAGE LENGTH)



8-013-1910



2-013-990



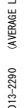
8-013-620



9-013-1860



2-013-960



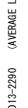
16-013-1460



8-013-2070



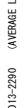
10-013-400 (AVERAGE LENGTH)



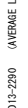
4-013-1450



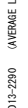
20-013-460 (AVERAGE LENGTH)



10-013-600 (AVERAGE LENGTH)



4-013-910 (AVERAGE LENGTH)



2-013-1670



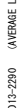
2-013-4620



8-013-1146



8-013-1110 (AVERAGE LENGTH)



1442



4-013-1450



694-1726



1667



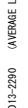
2-013-1670



712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



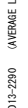
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



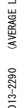
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



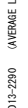
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8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



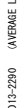
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



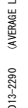
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



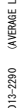
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



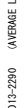
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



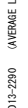
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712-1146



8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



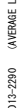
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8-013-400 (AVERAGE LENGTH)



98-332



392-560



694-1726



1667



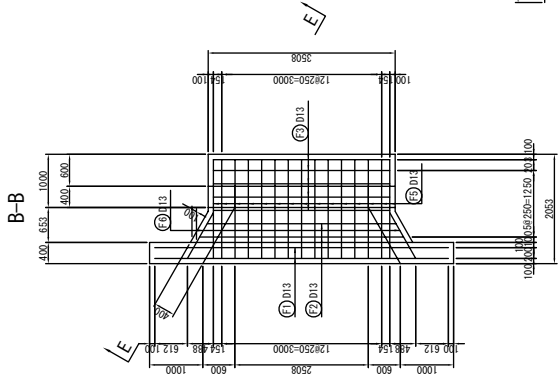
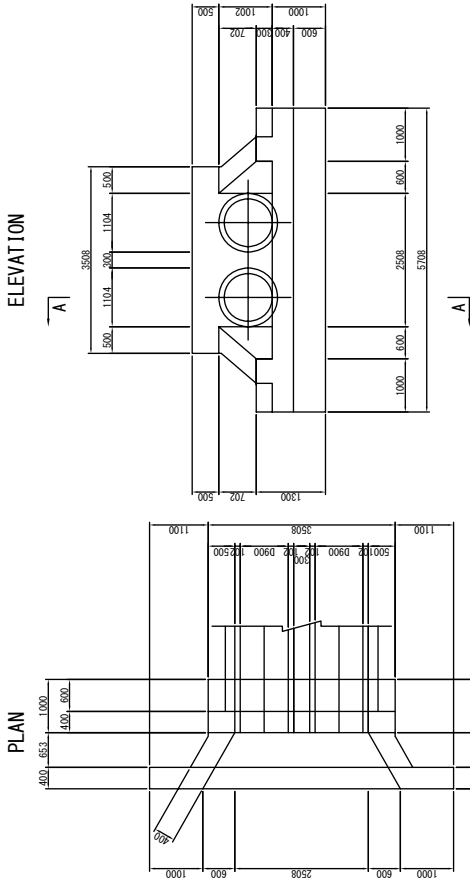
2-013-167

# Drainage Details (7)

SCALE 1/50

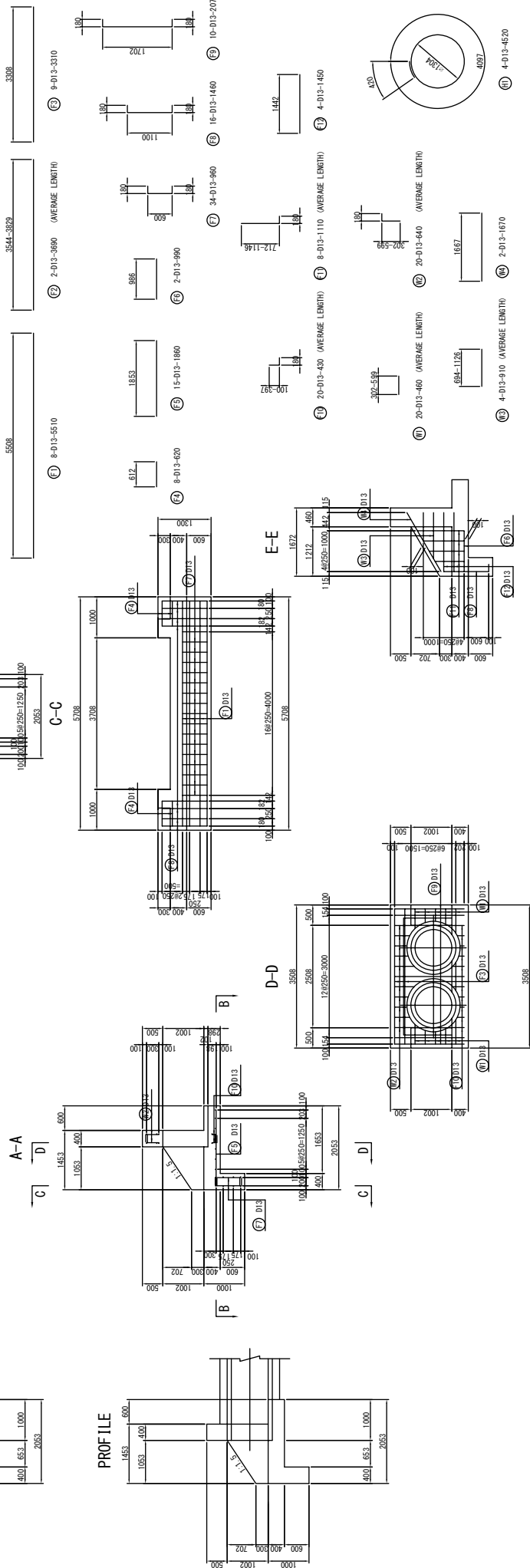
INLET (OUTLET) 2@D900 STRUCTURE

## ELEVATION



## List of Bars

Items	Dia (mm)	Length (mm)	Unit	kg/m	Kg/Unit	Mass (kg)	Remarks
F1	D13	5510	8	0.995	5.482	43.9	—
F2	D13	3690	2	0.995	3.672	7.3	(AVE L)
F3	D13	3310	9	0.995	3.293	29.6	—
F4	D13	620	8	0.995	0.617	4.9	—
F5	D13	1890	15	0.995	1.551	27.8	—
F6	D13	960	2	0.995	0.955	2.0	—
F7	D13	960	34	0.995	0.955	32.5	—
F8	D13	1460	16	0.995	1.453	23.2	—
F9	D13	2070	10	0.995	2.069	20.6	—
F10	D13	460	20	0.995	0.428	8.6	(AVE L)
F11	D13	1170	8	0.995	1.104	8.8	(AVE L)
F12	D13	1450	4	0.995	1.443	5.8	—
F13	D13	460	20	0.995	0.428	8.6	(AVE L)
F14	D13	910	4	0.995	0.905	3.6	(AVE L)
F15	D13	1670	2	0.995	1.662	3.3	—
F16	D13	4520	4	0.995	4.497	18.0	—
Total							261.8 kg



MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:	DRAINAGE DETAILS OF APPROACH ROAD (7)
			SCALE	1/50
			DATE	OCT 2011
			SHEET NO.	№B-38

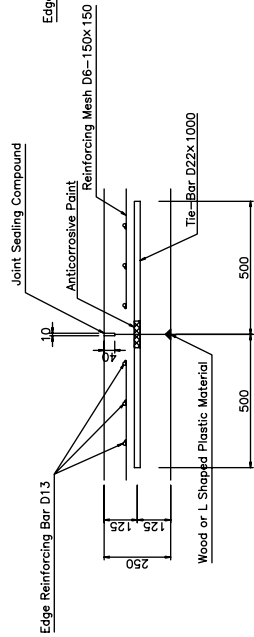




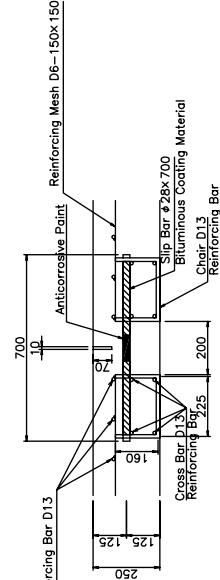
# Detailed Drawings for Concrete Pavement Construction (2)

## Joint Details

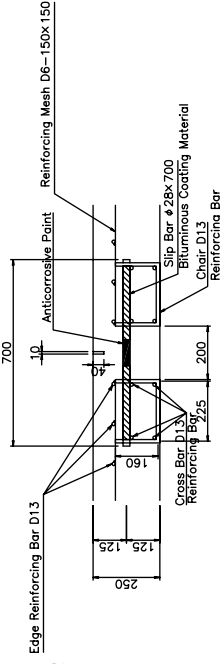
Longitudinal Joint (Dummy Joint) S=1:10



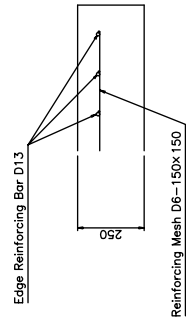
Transverse Contraction Joint (Cutter Joint) S=1:10



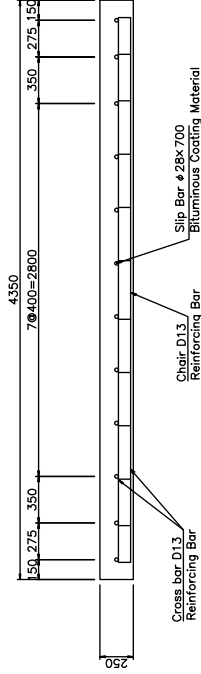
Transverse Contraction Joint (Wet Formed Joint) S=1:10



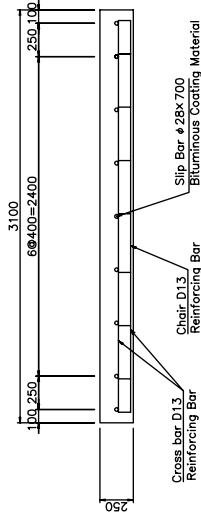
Outer Free Edge S=1:10



W=4.35m



Slip Bar Layout S=1:20

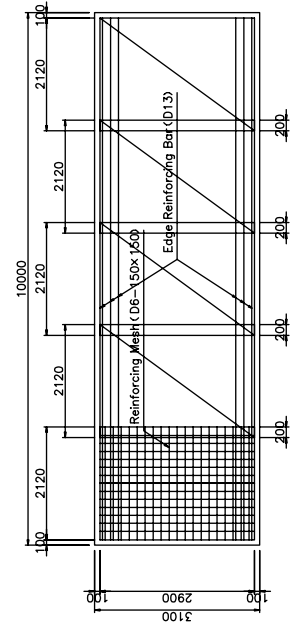
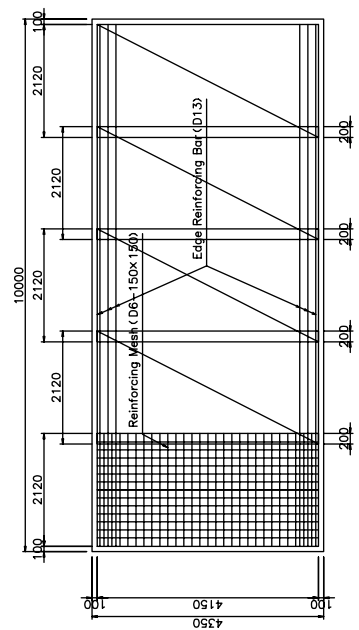


### Material List

Classification	Details	Standard Dimensions	Unit	Quantity For Road Construction	Remarks
Concrete slab	Concrete	t=25cm	sq.m	1180.0	
Base Course		t=25cm	sq.m	1392.5	
Subbase Course		t=30cm	sq.m	1475.0	
Prime Coat			sq.m	1180.0	
Reinforcing Mesh		D6-150x150	t	3.6	3.05kg/m <sup>2</sup>
Reinforcing Bar		D13	t	2.7	0.995kg/m
Tie Bar		φ 28	t	0.9	4.83kg/m
Joint		D22	t	0.6	3.04kg/m
	Longitudinal Joint		m	200.0	
	Transverse Contraction Joint		m	70.8	
	Wet Formed Joint		m	23.6	
	Outer Free Edge		m	247.2	

## Reinforcing Mesh and Edge Reinforcing Bar Layout

S=1:50



MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
IN SOUTHERN SUDAN

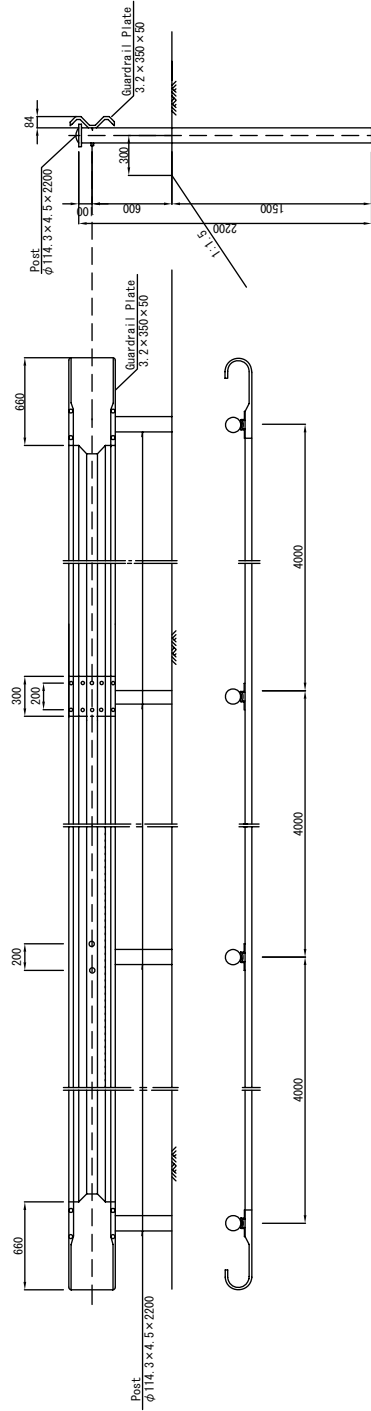
JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

Drawings for Concrete Pavement Construction (2)

SHEET NO.  
SCALE  
DATE  
OCT 2011

Ancillary Structure (1) SCALE 1:20

Guardrail



MATERIAL LIST

TYPE	STANDARD	UNIT	QUANTITY	REMARKS
Guardrail Plate	3.2 x 350 x 50	m	10.0	
Post	$\phi 114$ , 3 x 4.5 x 2200	no.	2.5	

PER 10m

MINISTRY OF TRANSPORT AND ROADS  
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IN SOUTHERN SUDAN

JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

TITLE:

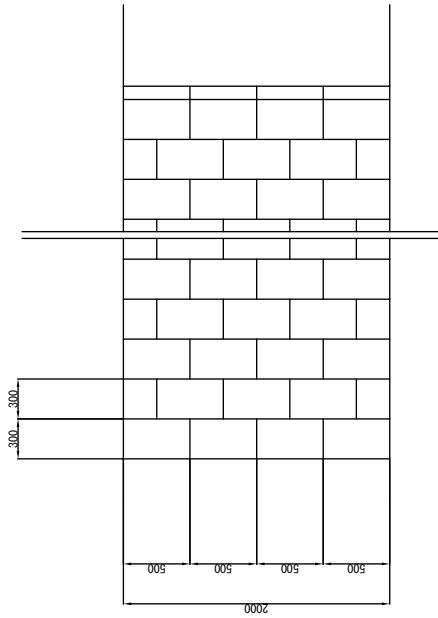
Ancillary Structure (1)

SCALE	SHEET NO.
1/20	
DATE	NB-11
OCT 2011	

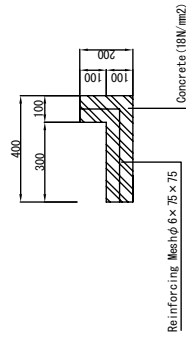
# Ancillary Structure (2)

## Step

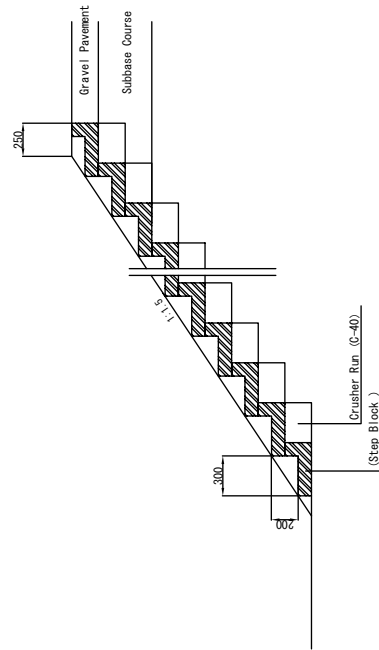
Plan SCALE 1:20



(Step Block )  
SCALE 1:10



Profile SCALE 1:20



MATERIAL LIST			PER Nos.
TYPE	STANDARD	UNIT	QUANTITY
Concrete	18N/mm <sup>2</sup>	cu.m	0.025
Form		Sq.m	0.300
Reinforcing Mesh	φ 6 × 75 × 75	Kg	1.450

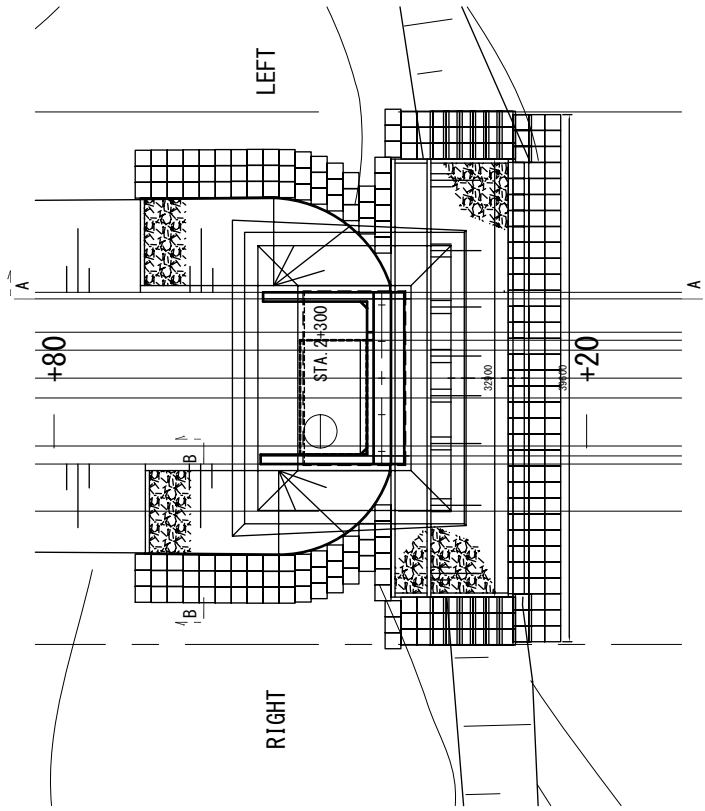
MATERIAL LIST			PER m
TYPE	STANDARD	UNIT	QUANTITY
(Step Block )		Nos.	13.3
Crusher Run	C-40	cu.m	0.24

MINISTRY OF TRANSPORT AND ROADS GOVERNMENT OF SOUTHERN SUDAN	PRELIMINARY SURVEY FOR THE PROJECT FOR CONSTRUCTION OF NILE RIVER BRIDGE IN SOUTHERN SUDAN	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD. EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	TITLE:  Ancillary Structure (2)	SCALE 1:10 1:20	SHEET NO. NB-42
				DATE OCT 2011	

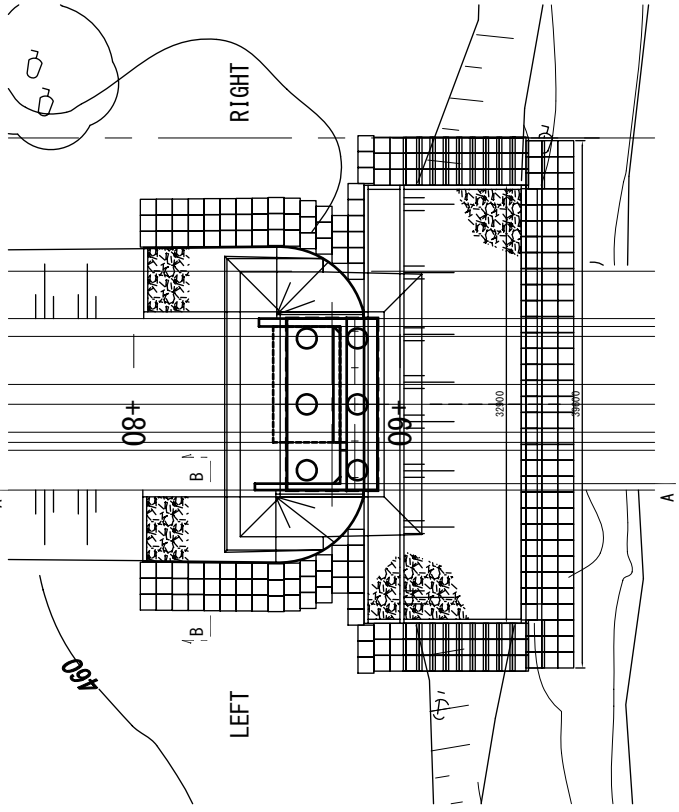
# SLOPE PROTECTION LAYOUT AND DETAILS (1)

PLAN S=1:200

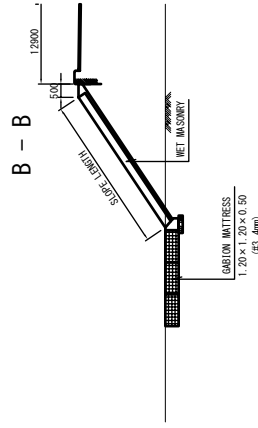
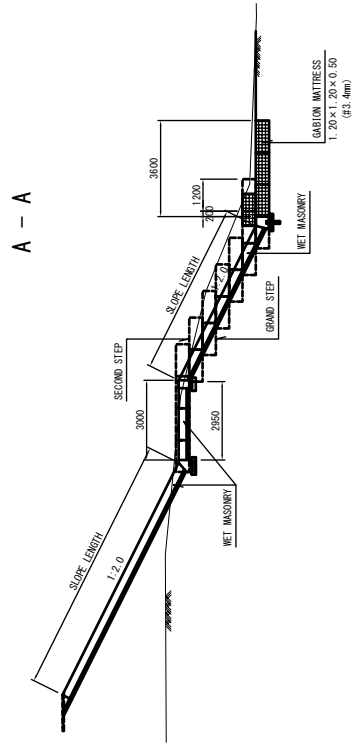
ABUTMENT-1



ABUTMENT-2



CROSS SECTION S=1:100



MINISTRY OF TRANSPORT AND ROADS  
GOVERNMENT OF SOUTHERN SUDAN

PRELIMINARY SURVEY FOR THE PROJECT FOR  
CONSTRUCTION OF NILE RIVER BRIDGE  
IN SOUTHERN SUDAN

JAPAN INTERNATIONAL COOPERATION AGENCY  
CTI ENGINEERING INTERNATIONAL CO., LTD.  
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

TITLE:

SLOPE PROTECTION LAYOUT AND DETAILS (1)

SCALE		SHEET NO.	
1:200	1:100	1:200	1:100
DATE	DATE	DATE	DATE
			OCT 2011

NB-43

