

LIST OF ELEMENTS OF HORIZONTAL ALIGNMENT

INTERSECTION POINT	X-COORDINATE (m)	Y-COORDINATE (m)	GRID AZIMUTH (Degrees)	ANGLE OF INTERSECTION (Degrees)	Parameter A (m)	RADIUS OF CURVATURE (m)
BP	338,912.7652	77,812.5915				
IP-1	339,081.2666	77,832.6938	6-48-11.7	40-08-41.2(R)	150.000	300.000
IP-2	339,450.6574	78,228.0973	46-56-52.9	4-09-16.1(L)	-4500.000	100.000
EP	339,615.9978	78,381.1696	42-47-36.8			

Note: negative numbers indicate clockwise curve.

COORDINATES AND ELEVATION OF BENCH MARKS

SYMBOL	X-COORDINATE (m)	Y-COORDINATE (m)	ELEVATION (Z) (m)
PP23	339,073.580	77,882.769	253.4
PP22	339,201.828	77,919.824	250.596
PP21	339,300.923	77,916.220	248.248
PP20	339,321.458	18,085.888	253.703
C1	339,186.240	77,973.988	249.997
C2	339,249.920	78,025.941	251.355

COORDINATES OF STATIONS

No.	STATIONS	X-COORDINATE (m)	Y-COORDINATE (m)	REMARKS
1	236+748.531	338,912.76520	77,812.59150	
2	236+760.000	338,924.15298	77,813.95007	
3	236+800.000	338,963.84855	77,818.87070	
4	236+900.000	339,060.00011	77,844.93513	
5	236+981.039	339,128.48086	77,887.80548	
6	237+000.000	339,142.69226	77,900.35397	
7	237+050.000	339,177.75775	77,935.98230	START POINT OF PROJECT
8	237+056.039	339,181.88153	77,940.39408	
9	237+061.100	339,185.33648	77,944.09234	ABUTMENT A1
10	237+100.000	339,211.89201	77,972.51792	BRIDGE
11	237+171.450	339,260.66817	78,024.72893	ABUTMENT A2
12	237+182.000	339,181.88153	77,940.39408	END POINT OF PROJECT
13	237+200.000	339,280.15816	78,045.59141	
14	237+286.539	339,339.23492	78,108.82839	
15	237+300.000	339,348.43900	78,118.65113	
16	237+400.000	339,417.72741	78,190.75317	





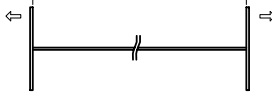
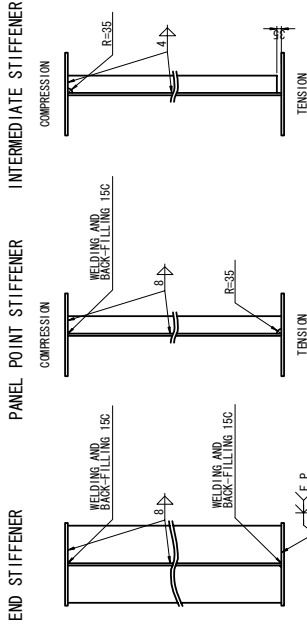




# CAMBER / COMMON DETAILS OF MAIN GIRDER

CHANGING DIRECTION OF FLANGE PLATE

VERTICAL STIFFENER SCALE 1:20



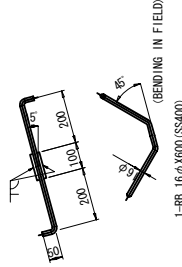
DETAILS OF SUSPENDER

INSTALLING POSITION OF SUSPENDER

SLAB ANCHOR SCALE 1:10

SCALE 1:20

CAMBER		SW-1	SW-2	SW-3	SW-4	CR-5	SW-6	SW-7	SW-8	SW-9
G1	D1	0.0	7.4	13.4	17.2	18.5	17.2	13.4	7.4	0.0
	D2	0.0	15.5	28.0	36.2	39.0	36.2	28.0	15.5	0.0
	D3	0.0	5.2	9.3	11.6	12.3	11.6	9.3	5.2	0.0
	D4	0.0	2.8	5.2	6.7	7.3	6.7	5.2	2.8	0.0
G2	DT	0.0	30.9	55.9	71.7	77.1	71.7	55.9	30.9	0.0
	D1	0.0	14.5	29.2	43.9	56.6	73.3	88.0	102.7	117.3
	D2	0.0	7.3	13.3	17.1	18.5	17.1	13.3	7.3	0.0
	D3	0.0	4.1	7.7	10.2	11.2	10.2	7.7	4.1	0.0
G3	D1	0.0	29.9	54.5	70.4	76.0	70.4	54.5	29.9	0.0
	D2	0.0	14.5	29.2	43.9	56.6	73.3	88.0	102.7	117.3
	D3	0.0	7.3	13.3	17.1	18.5	17.1	13.3	7.3	0.0
	D4	0.0	4.1	7.7	10.2	11.2	10.2	7.7	4.1	0.0
G4	D1	0.0	29.9	54.5	70.4	76.0	70.4	54.5	29.9	0.0
	D2	0.0	14.5	29.2	43.9	56.6	73.3	88.0	102.7	117.3
	D3	0.0	7.3	13.3	17.1	18.5	17.1	13.3	7.3	0.0
	D4	0.0	4.1	7.7	10.2	11.2	10.2	7.7	4.1	0.0

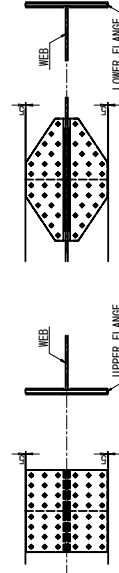


NOTE  
 D1 : DEFLECTION OF STEEL WEIGHT (mm)  
 D2 : DEFLECTION OF RC SLAB AND HANGOFF (mm)  
 D3 : DEFLECTION OF WHEEL LOAD AND ROLLING (mm)  
 D4 : DEFLECTION OF PAVEMENT (mm)  
 DT : DEFLECTION OF ALL DEAD LOAD (mm)  
 DH : DEFLECTION OF LONGITUDINAL SLOPE (mm)

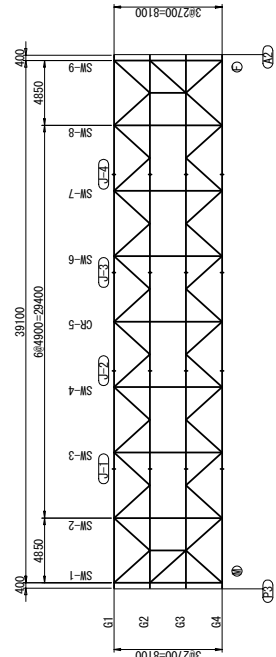
SPLICE SCALE 1:20

LOWER FLANGE

UPPER FLANGE



MARKING DIAGRAM

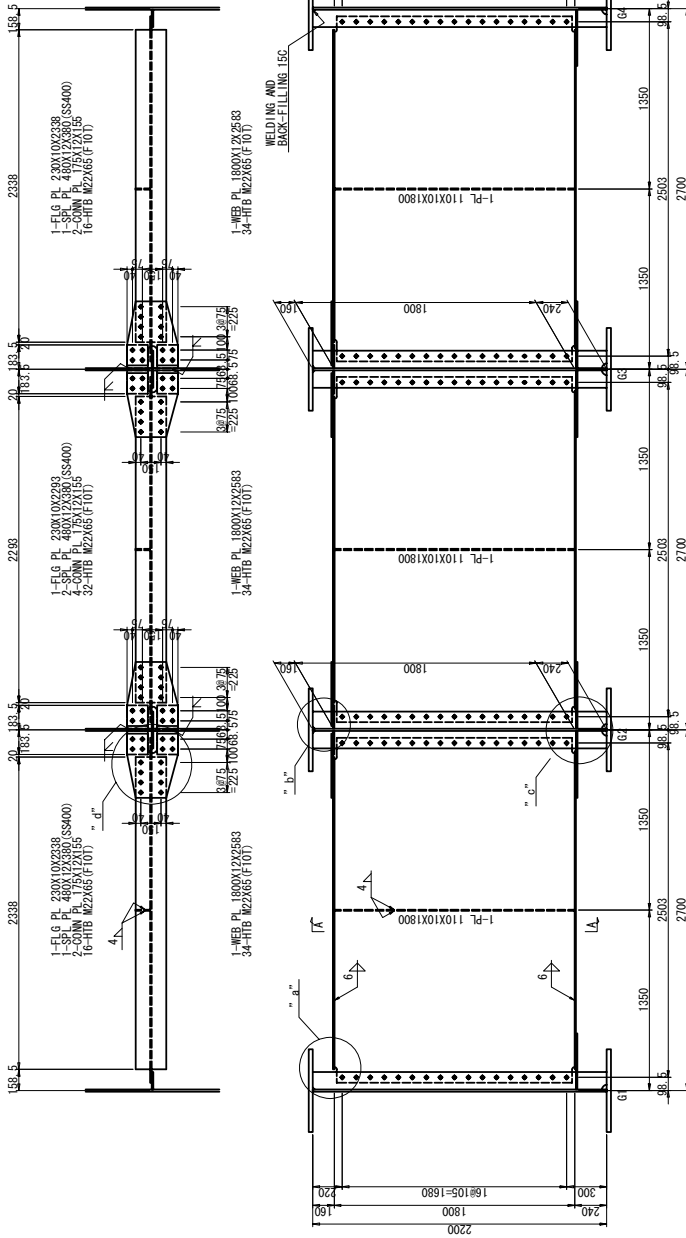


NOTE  
 1. ALL MATERIALS NOT SPECIALLY WRITTEN ARE ASSUMED TO BE SM400A.  
 2. THE MATERIAL OF THE DISPLAY WELD EQUIVALENT GOODS.  
 3. HIGH TENSILE BOLT (M22/F10T) IS SHOWN BY MARK ◊.  
 4. SCALLAP NOT DESCRIBED IS SPECIALLY ASSUMED TO BE ALL 35R.

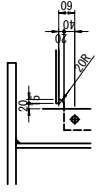
DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI	BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR~BAMAKO SOUTH CORRIDOR	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : BAILE BRIDGE <b>CAMBER / COMMON DETAILS OF MAIN GIRDER</b>	SCALE <b>ILLUSTRATION</b>	Drawing No. BA-6
			/		

CROSS BEAM FOR LOAD DISTRIBUTION SCALE 1:20

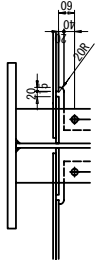
OR-5



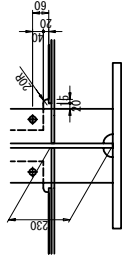
DETAIL "a" SCALE 1:10



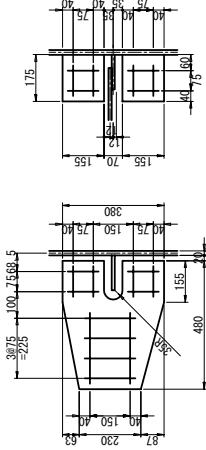
DETAIL "b" SCALE 1:10



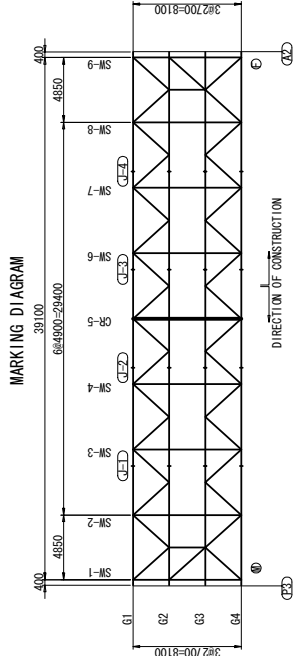
DETAIL "c" SCALE 1:10



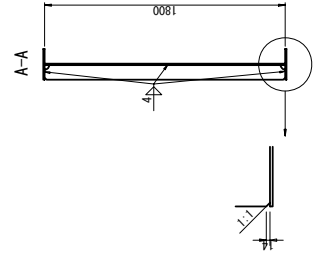
DETAIL "d" SCALE 1:10



MARKING DIAGRAM



- NOTE
1. ALL MATERIALS NOT SPECIALLY WRITTEN ARE ASSUME TO BE SM400A .
  2. THE MATERIAL OF THE DISPLAY WELLS EQUIVALENT GOODS .
  3. HIGH TENSILE BOLT (M22(F10T)) IS SHOWN BY MARK .
  4. SCALLAP NOT DESCRIBED IS SPECIALLY ASSUMED TO BE ALL 35R .

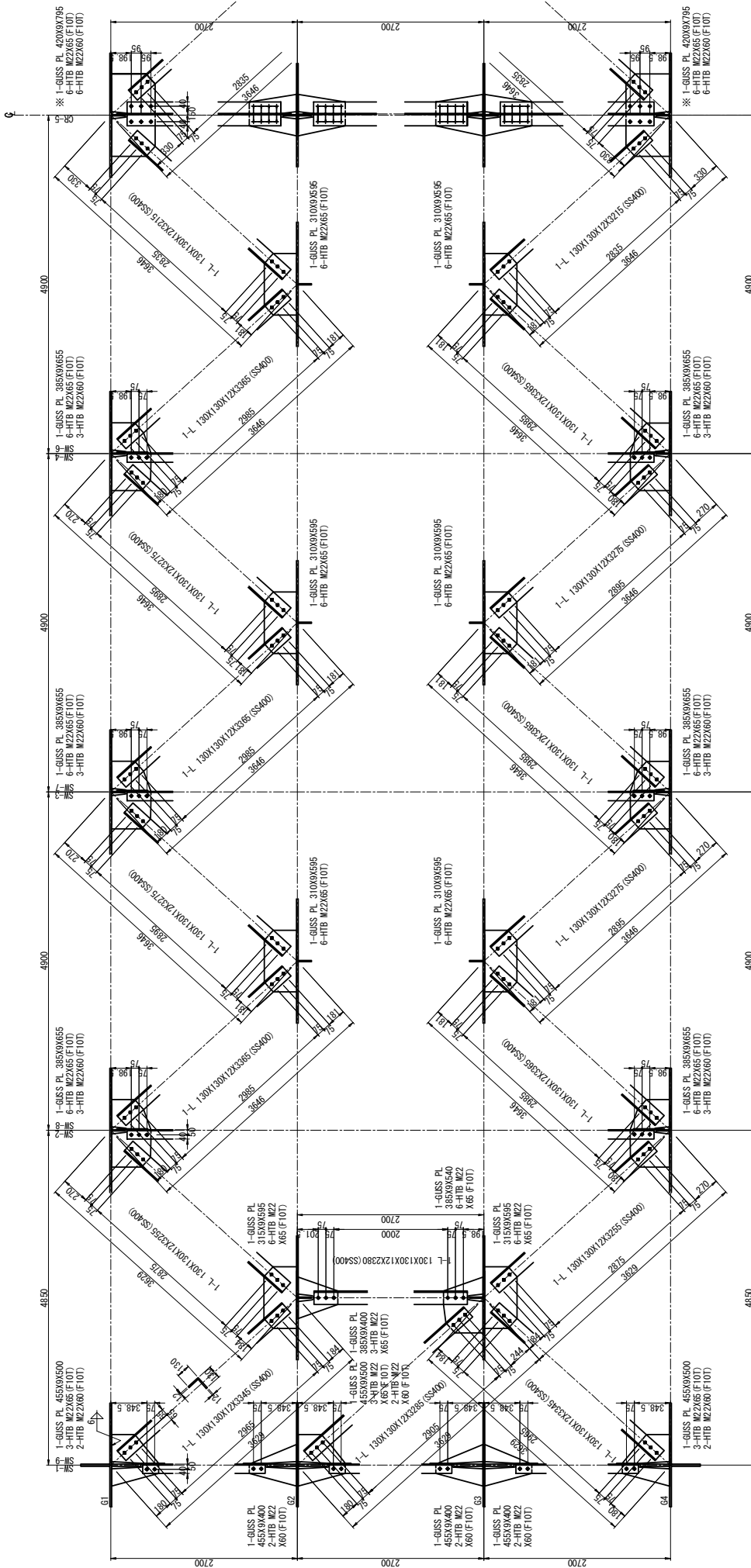


<p>DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI</p>	<p>BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR-BAMAKO SOUTH CORRIDOR</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA &amp; ENGINEERS INTERNATIONAL</p>	<p>TITLE : BAILE BRIDGE CROSS BEAM FOR LOAD DISTRIBUTION</p>	<p>SCALE S=1:20</p>	<p>Drawing No. BA-7</p>
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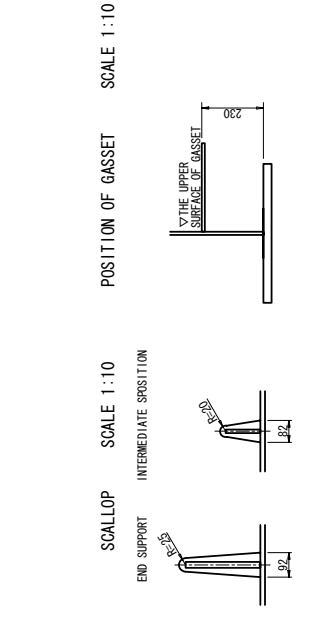
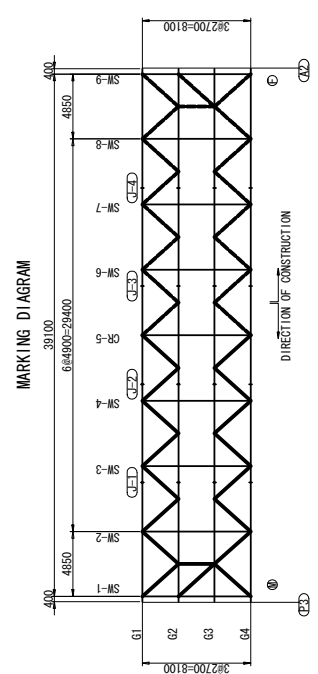




LOWER LATERAL SCALE 1:20, 1:30



NOTE  
 1. ALL MATERIALS NOT SPECIALLY WRITTEN ARE ASSUME TO BE SS400A.  
 2. THE MATERIAL OF THE DISPLAY BESS EQUIVALENT GOODS.  
 3. HIGH TENSILE BOLT M22(F10T) IS SHOWN BY MARK  $\odot$ .  
 4. SCALLAP NOT DESCRIBED IS SPECIALLY ASSUMED TO BE ALL 35R.  
 5. MATERIALS WHICH MARKED  $\otimes$  ARE GUSSET OF CROSS BEAM AND WERE TOTALLED BY SMALL SIZE MATERIAL SPLINTER.



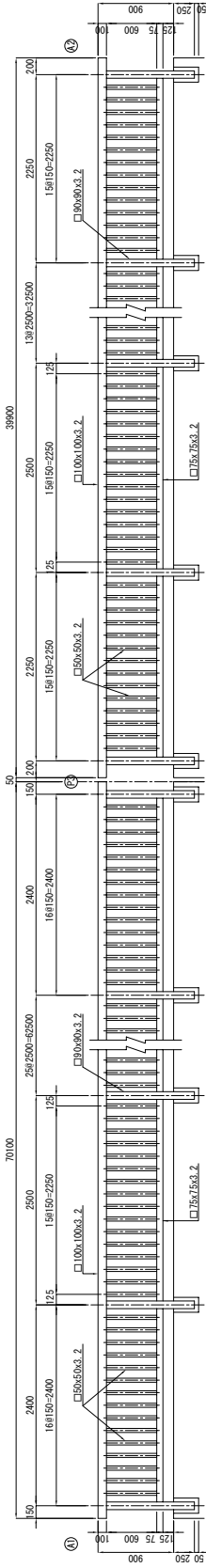
<p>DIRECTEUR NATIONAL ADJOINT DES ROUTES          REPUBLIQUE DU MALI</p>	<p>BASIC DESIGN STUDY          ON THE PROJECT FOR BRIDGE          CONSTRUCTION OF          DAKAR-BAMAKO SOUTH CORRIDOR</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY          KATAHIRA &amp; ENGINEERS INTERNATIONAL</p>	<p>TITLE : BALE BRIDGE          LOWER LATERAL</p>	<p>SCALE          S=1:20, 1:30</p> <p>Drawing No.          BA-9</p>
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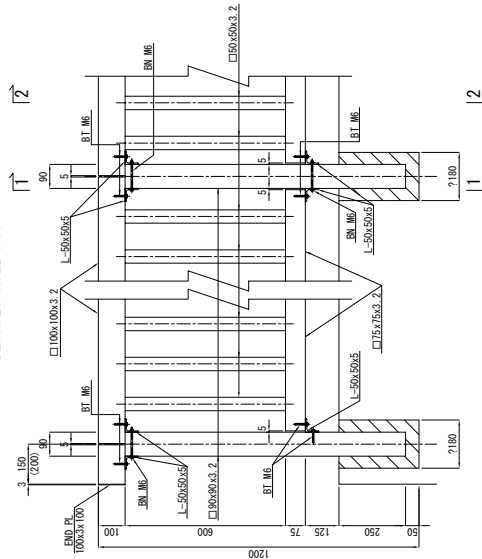


# DETAILS OF RAILING AND DRAINAGE

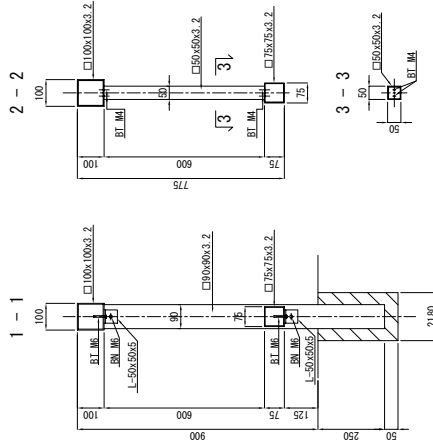
ELEVATION SCALE 1:30



DETAILS SCALE 1:10

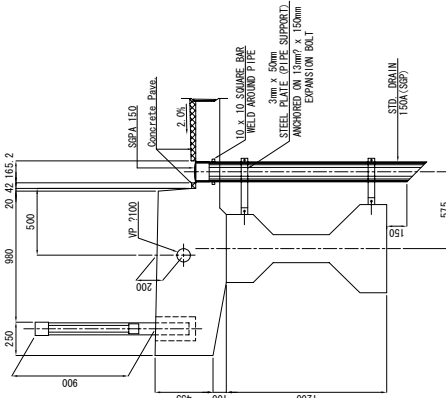


SECTION SCALE 1:10

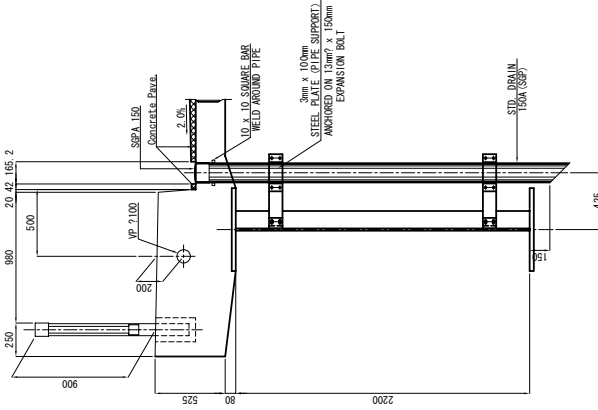


DRAINAGE SCALE 1:20

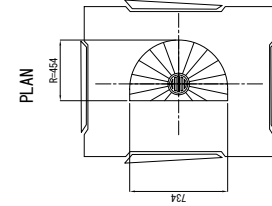
SECTION (A1~P3)



SECTION (P3~A2)



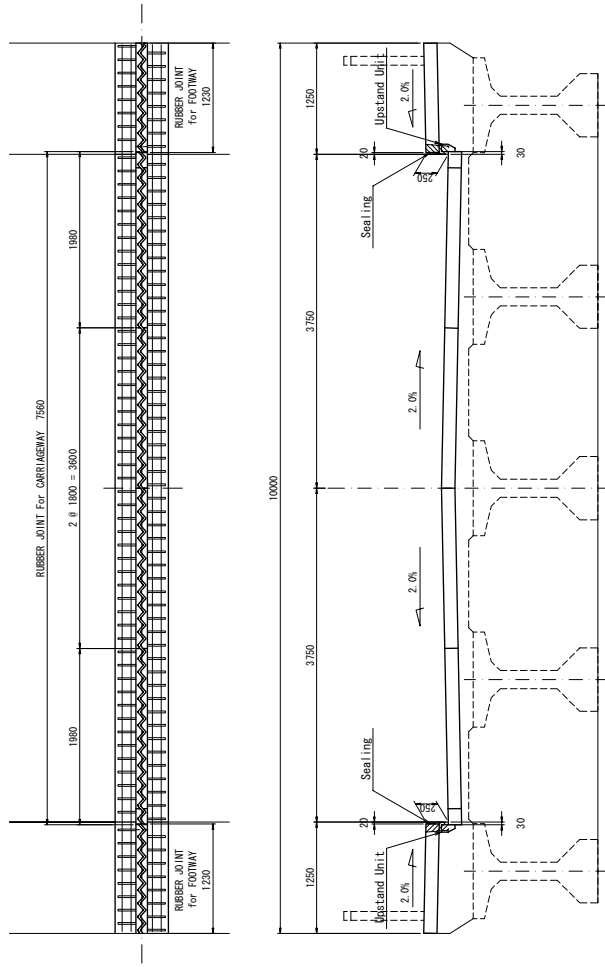
- 4 - □ 100x100x3.2x148
- 4 - □ 100x100x3.2x198
- 4 - □ 100x100x3.2x2385
- 4 - □ 100x100x3.2x2245
- 80 - □ 100x100x3.2x2495
- 4 - □ 75x75x3.2x2300
- 4 - □ 75x75x3.2x2150
- 80 - □ 75x75x3.2x2400
- 92 - □ 90x90x3.2x1050
- 1396 - □ 50x50x3.2x600
- 364 - L-50x50x5x50
- 8 - END PL 100x3x100
- 180 - BN M6
- 368 - BT M6
- 5584 - BT M4



PLAN

<p>DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI</p>	<p>BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR-BAMAKO SOUTH CORRIDOR</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA &amp; ENGINEERS INTERNATIONAL</p>	<p>TITLE : BALE BRIDGE DETAILS OF RAILING AND DRAINAGE</p>	<p>SCALE S=1:10</p>	<p>Drawing No. BA-12</p>
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DETAILS OF EXPANSION JOINT SCALE 1:30

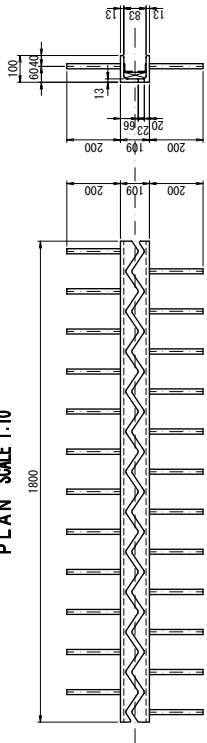


MATERIAL OF EXPANSION JOINT (1 set / 10m)			
No.	Material	Unit	Quantity
1	RUBBER JOINT for CARRIAGEWAY	m	7.56
2	RUBBER JOINT for FOOTWAY	m	2.46
3	UPSTAND UNIT for CARRIAGEWAY	Set	2.00
4	CONCRETE	$\sigma_{ck} = 24 \text{ N/mm}^2$	0.49
5	Through Bar for CARRIAGEWAY	kg	49.92
6	Through Bar for CARRIAGEWAY	kg	14.35
7	Seal line	m	0.50

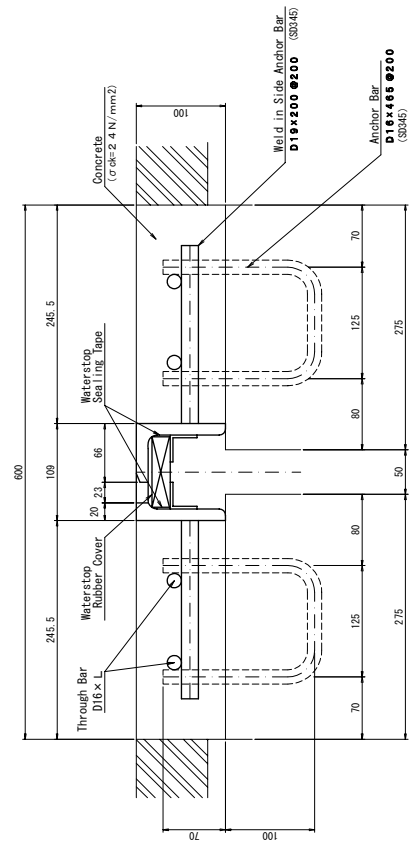
  

8	Anchor Bar	kg	72.54
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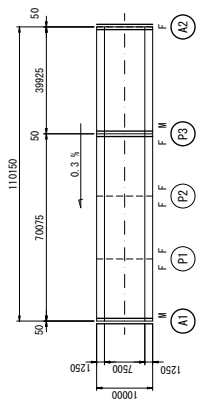
PLAN SCALE 1:10



CROSS SECTION SCALE 1:3



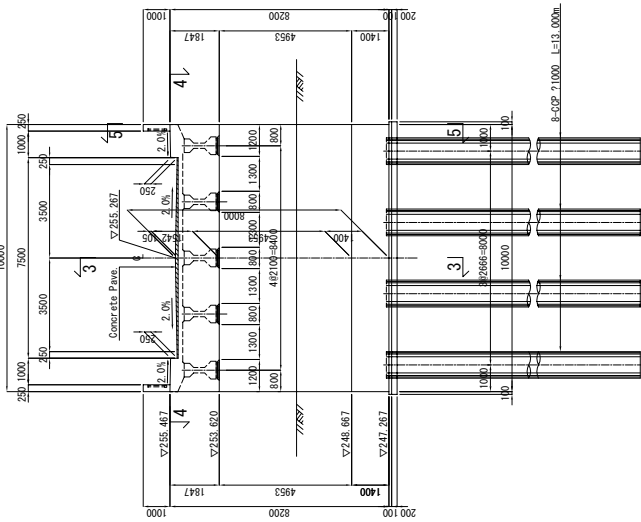
MARKING DIAGRAM



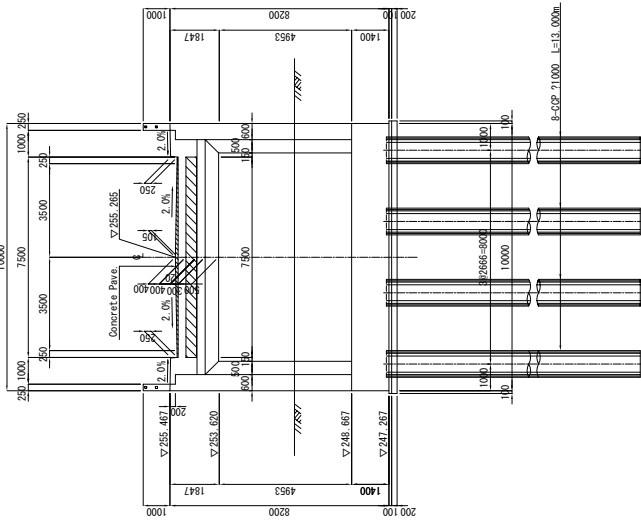
DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI	BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR-BAMAKO SOUTH CORRIDOR	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : BAILE BRIDGE DETAILS OF EXPANSION JOINT	SCALE S=1:30	Drawing No. BA-13

STRUCTURE DRAWING OF A1 ABUTMENT SCALE 1:100

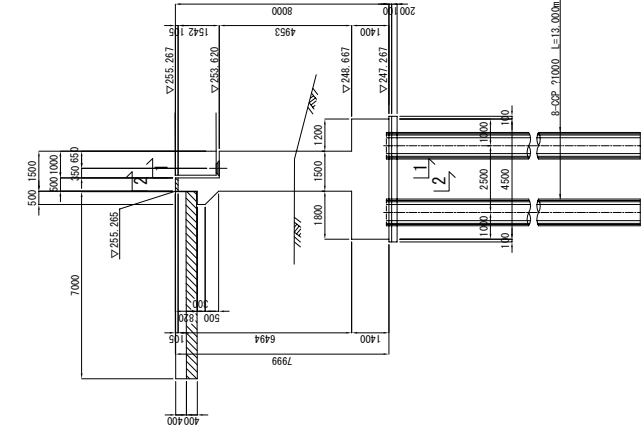
1 - 1



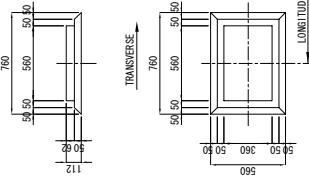
2 - 2



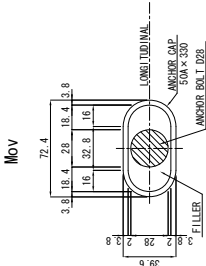
3 - 3



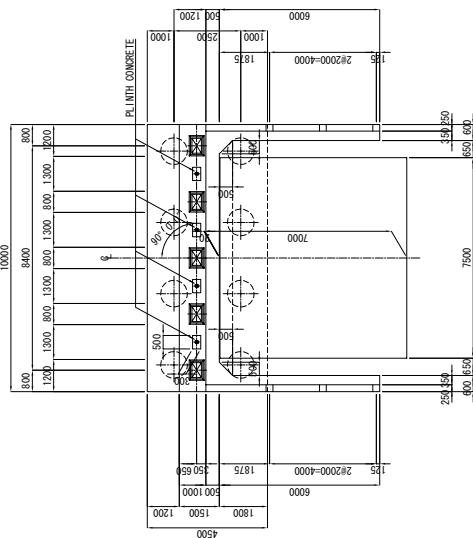
DETAILS SCALE 1:20



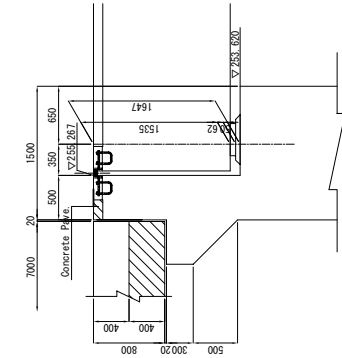
ANCHOR CAP SCALE 1:2



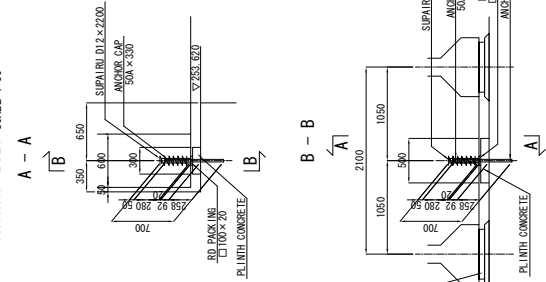
4 - 4



DETAILS SCALE 1:30



ANCHOR BOLT SCALE 1:30



DIRECTEUR NATIONAL ADJOINT DES ROUTES  
REPUBLIQUE DU MALI

BASIC DESIGN STUDY  
ON THE PROJECT FOR BRIDGE  
CONSTRUCTION OF  
DAKAR-BAMAKO SOUTH CORRIDOR

JAPAN INTERNATIONAL COOPERATION AGENCY  
KATAHIRA & ENGINEERS INTERNATIONAL

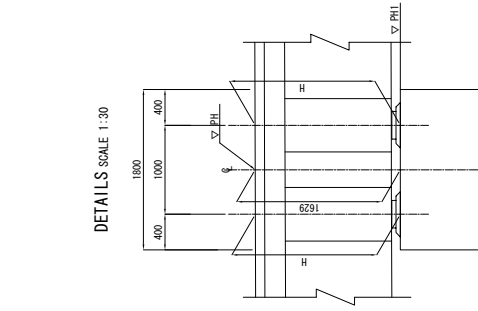
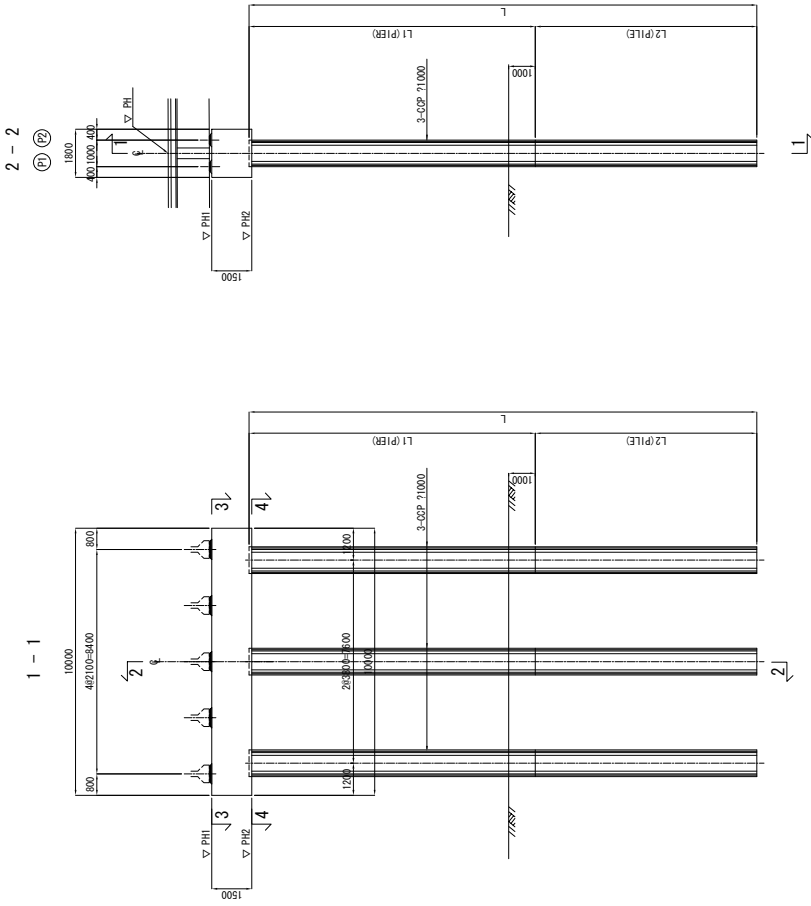
TITLE : BAILE BRIDGE  
STRUCTURE DRAWING OF A1 ABUTMENT

SCALE  
S=1:100

Drawing No.  
BA-14



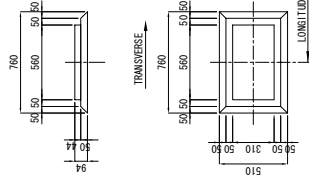
STRUCTURE DRAWING OF P1, P2 PILE BENT PIER SCALE 1:100



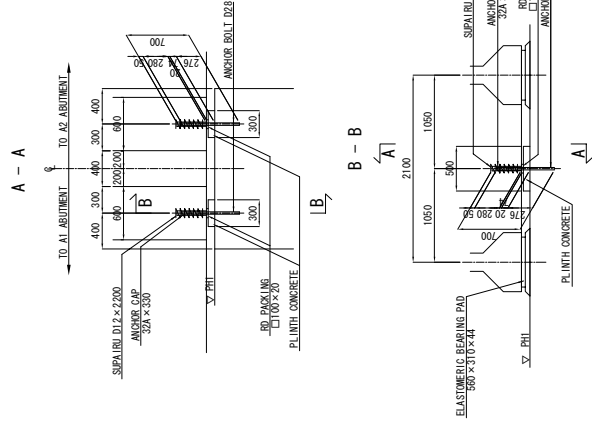
**DIMENSION LIST**

MARK	PH	PH1	PH2	L	L1	L2
(P1)	255.337	253.708	252.208	19000	4000	15800
(P2)	255.407	253.778	252.278	19000	7000	12000

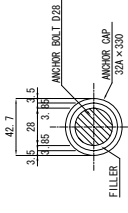
DETAILS SCALE 1:20



ANCHOR BOLT SCALE 1:30



ANCHOR CAP SCALE 1:2



2 - 2

(P1)

(P2)

1 - 1

4 - 4

3 - 3

DIRECTEUR NATIONAL ADJOINT DES ROUTES  
REPUBLIQUE DU MALI

BASIC DESIGN STUDY  
ON THE PROJECT FOR BRIDGE  
CONSTRUCTION OF  
DAKAR-BAMAKO SOUTH CORRIDOR

JAPAN INTERNATIONAL COOPERATION AGENCY  
KATAHIRA & ENGINEERS INTERNATIONAL

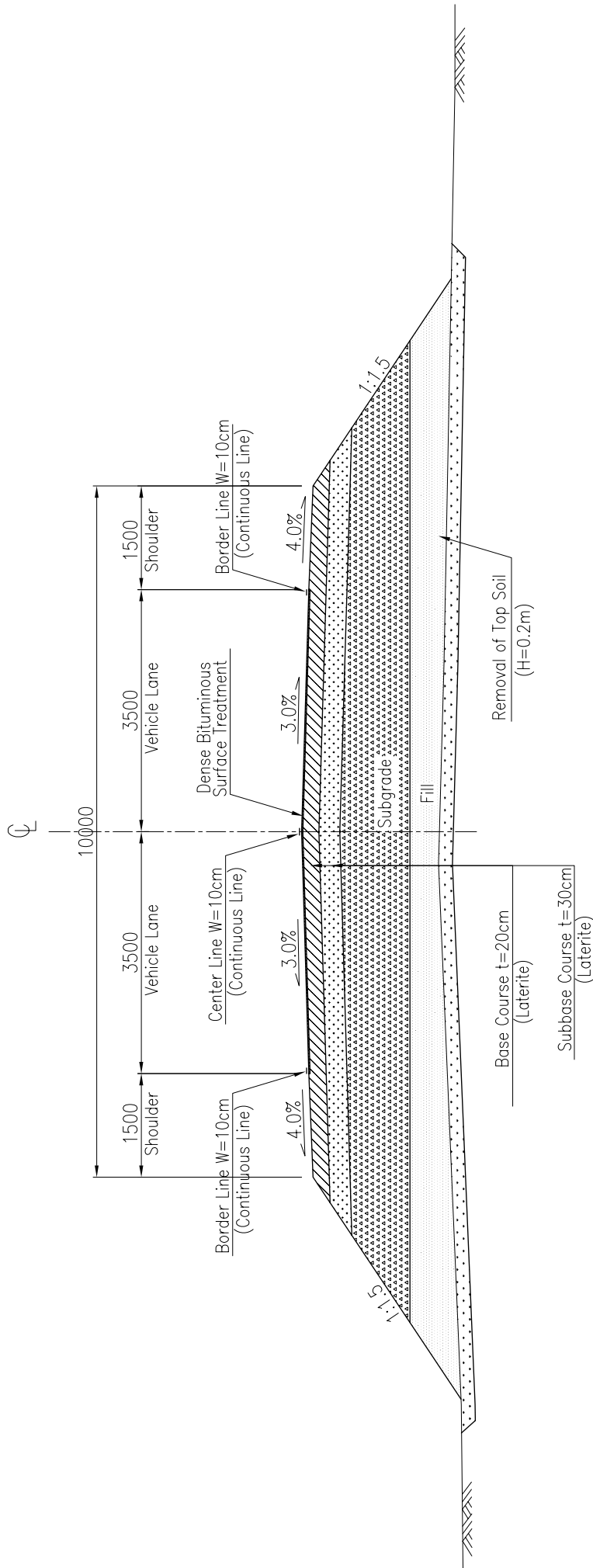
TITLE : BALE BRIDGE  
STRUCTURE DRAWING OF P1,P2 PILE BENT PIER

SCALE  
S=1:100

Drawing No.  
BA-16



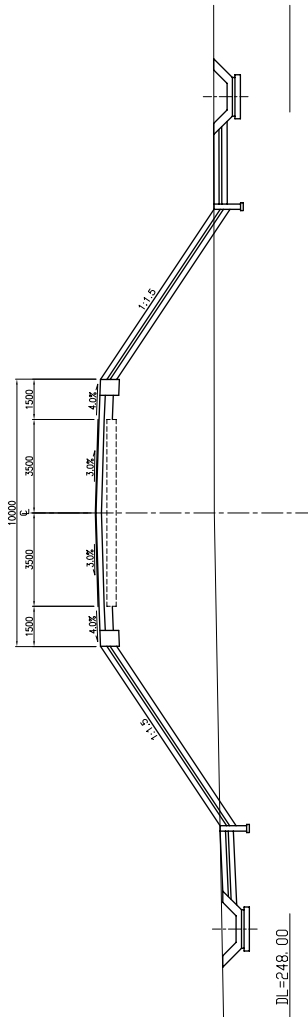




# EARTH SECTION

DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI	BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR-BAMAKO SOUTH CORRIDOR	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : BALE BRIDGE TYPICAL CROSS SECTION OF ROAD	SCALE	Drawing No. BA-18
				S=1:30	

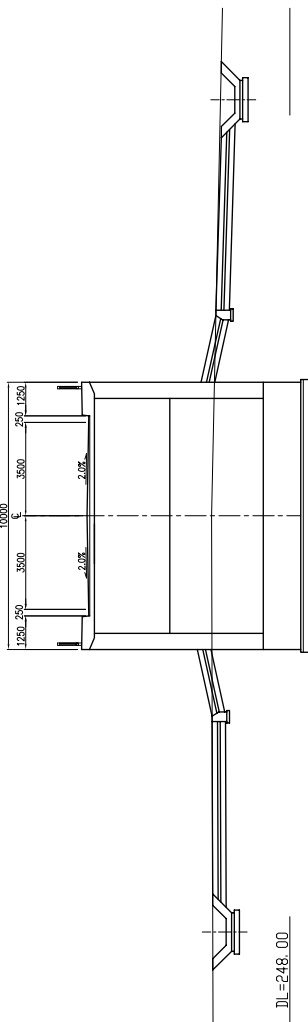
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FH=255. 247  
GH=250. 83



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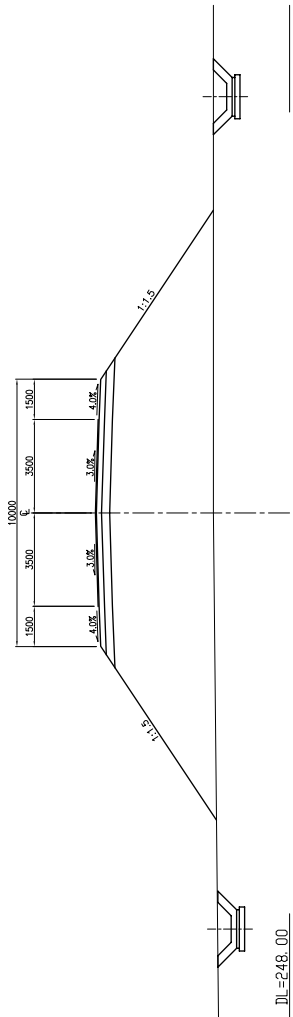
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GH=250. 93

END OF BRIDGE



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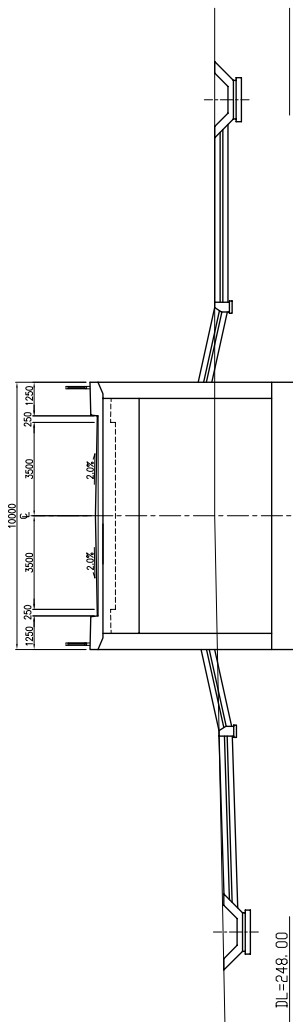
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DL=-248. 00

PK. 237+61. 10  
FH=255. 607  
GH=250. 807

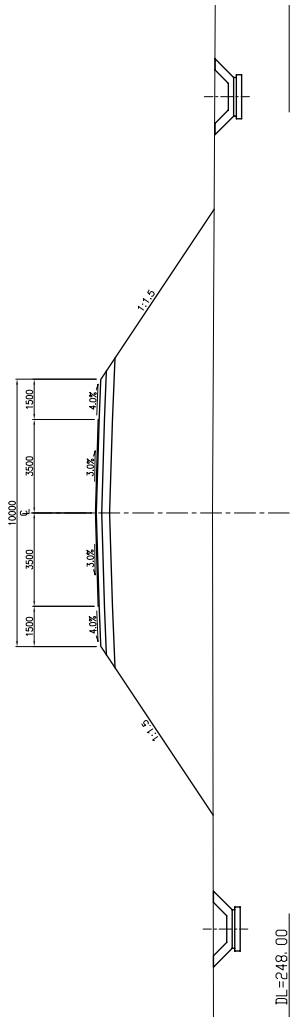
BEGINNING OF BRIDGE



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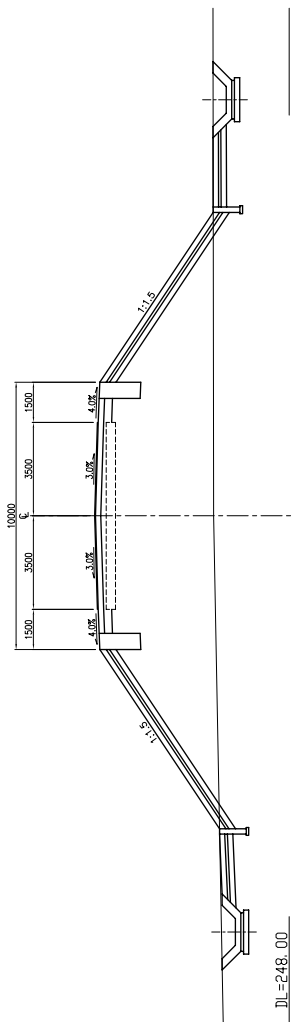
PK. 237+45  
FH=255. 218  
GH=250. 87

BEGINNING POINT OF PROJECT



DL=-248. 00

PK. 237+56. 039( EC)  
FH=255. 251  
GH=250. 83



DL=-248. 00

DIRECTEUR NATIONAL ADJOINT DES ROUTES  
REPUBLIQUE DU MALI

BASIC DESIGN STUDY  
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CONSTRUCTION OF  
DAKAR-BAMAKO SOUTH CORRIDOR

JAPAN INTERNATIONAL COOPERATION AGENCY  
KATAHIRA & ENGINEERS INTERNATIONAL

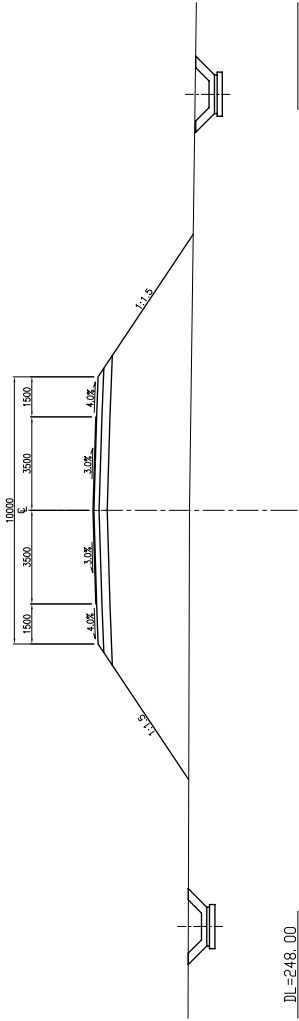
TITLE : BAILE BRIDGE  
CROSS SECTIONS OF ROAD (1)

SCALE  
S=1:100

Drawing No.  
BA-19

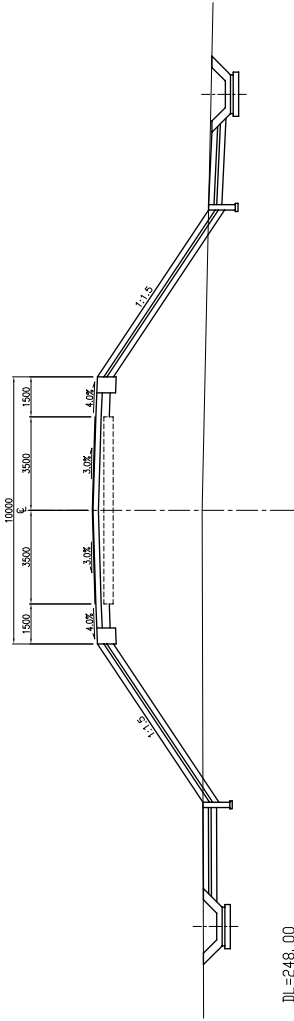
PK. 237+185  
 FH=255.636  
 GH=252.05

END POINT OF PROJECT



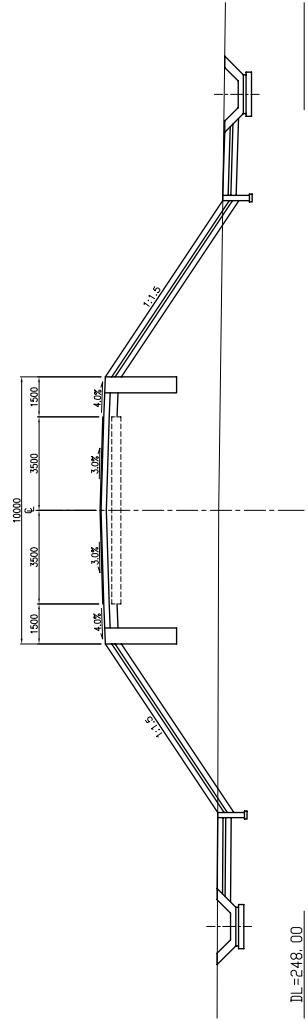
DL=248.00

PK. 237+178.45  
 FH=255.617  
 GH=251.917



DL=248.00

PK. 237+175  
 FH=255.606  
 GH=251.20



DL=248.00

DIRECTEUR NATIONAL ADJOINT DES ROUTES  
 REPUBLIQUE DU MALI

BASIC DESIGN STUDY  
 ON THE PROJECT FOR BRIDGE  
 CONSTRUCTION OF  
 DAKAR-BAMAKO SOUTH CORRIDOR

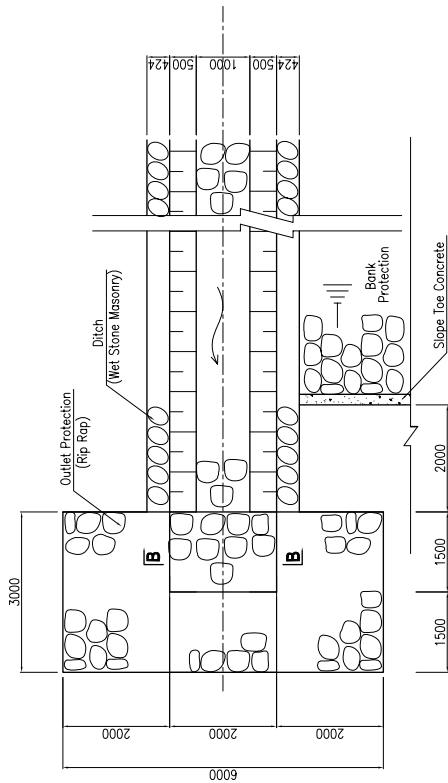
JAPAN INTERNATIONAL COOPERATION AGENCY  
 KATAHIRA & ENGINEERS INTERNATIONAL

TITLE : BAILE BRIDGE  
 CROSS SECTIONS OF ROAD (2)

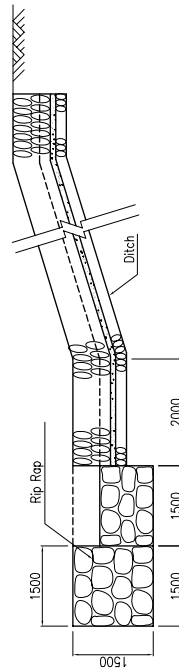
SCALE  
 S=1:100

Drawing No.  
 BA-20

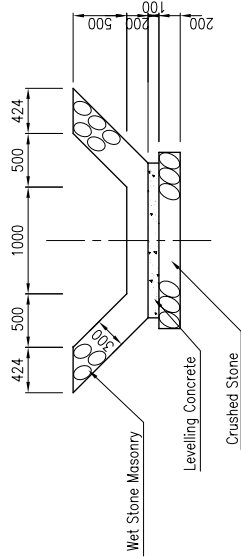




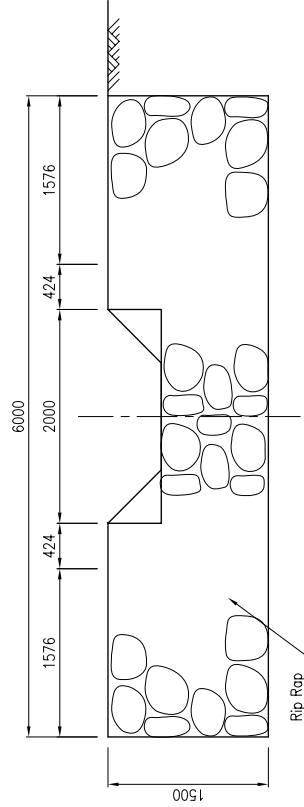
PLAN OF DITCH AND OUTLET PROTECTION S=1:50



SIDE VIEW OF DITCH AND OUTLET PROTECTION S=1:50

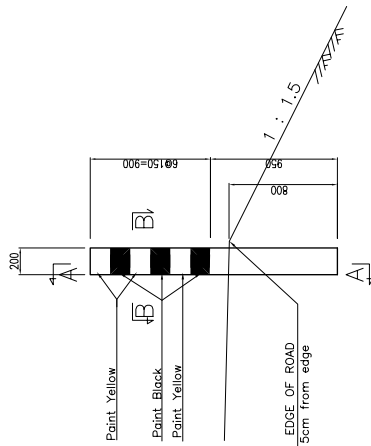


Ditch (Wet Stone Masonry) S=1:25

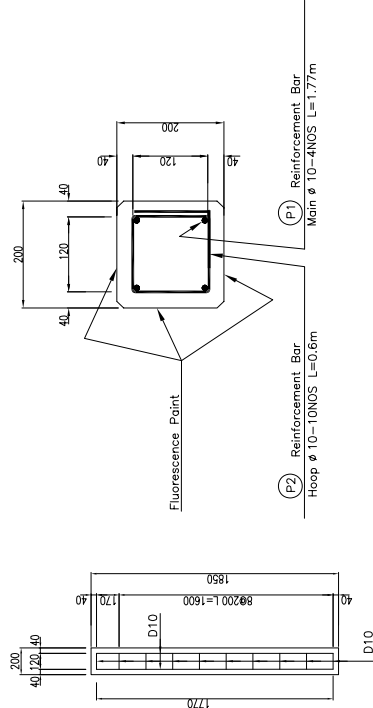


SECTION B - B S=1:25

DIRECTEUR NATIONAL ADJOINT DES ROUTES REPUBLIQUE DU MALI	BASIC DESIGN STUDY ON THE PROJECT FOR BRIDGE CONSTRUCTION OF DAKAR-BAMAKO SOUTH CORRIDOR	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : BALE BRIDGE DETAIL OF DITCH	SCALE As Mentioned	Drawing No. BA-22
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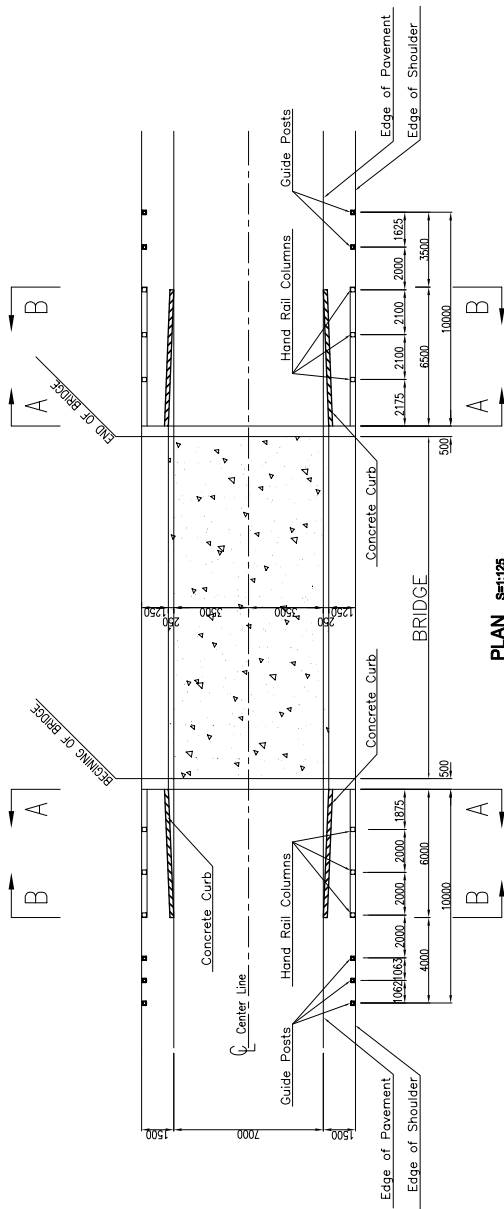
**GUIDE POST Scale 1:20**



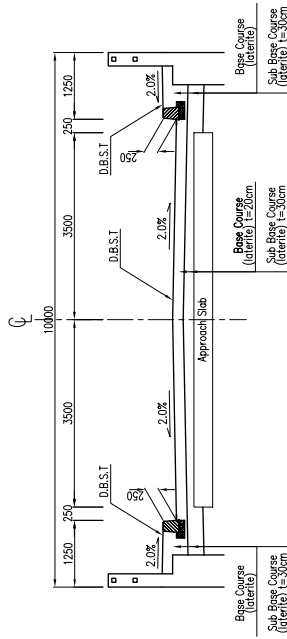
**DETAIL A-A Scale 1:20**

**DETAIL B-B Scale 1:5**

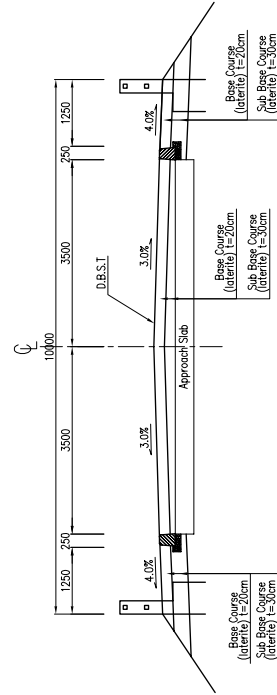
MARK	DIA-METER	LENGTH mm	NO.	WEIGHT/m kg/m	WEIGHT/ONE kg	REMARKS
P1	D10	1770	4	0.616	1.090	4.4
P2	"	600	10	"	0.370	3.7
						8.1 kg



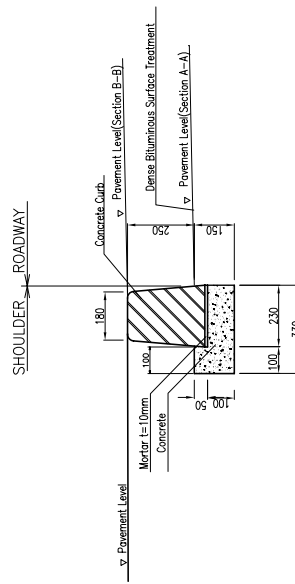
**PLAN S=1:25**



**SECTION A-A S=1:50**



**SECTION B-B S=1:50**



**CROSS SECTION OF CONCRETE CURB S=1:10**