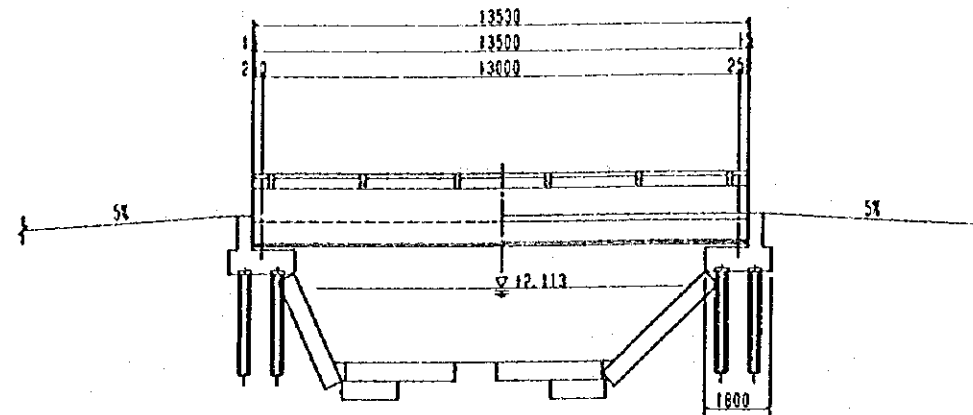
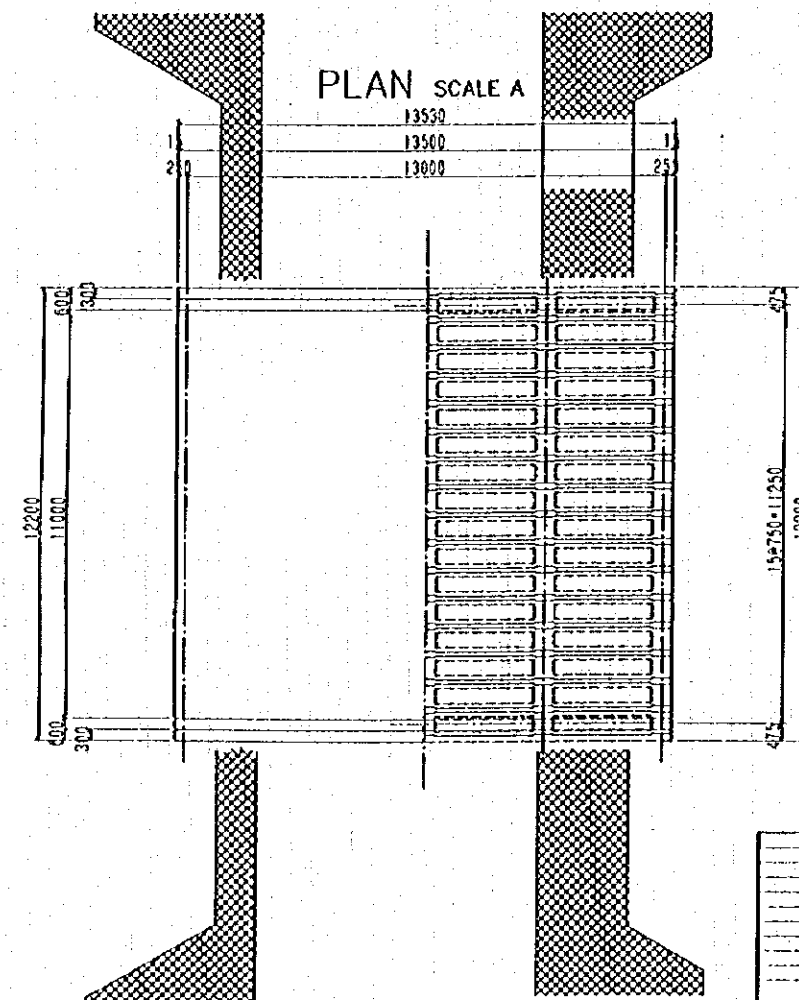


SIDE VIEW SCALE A

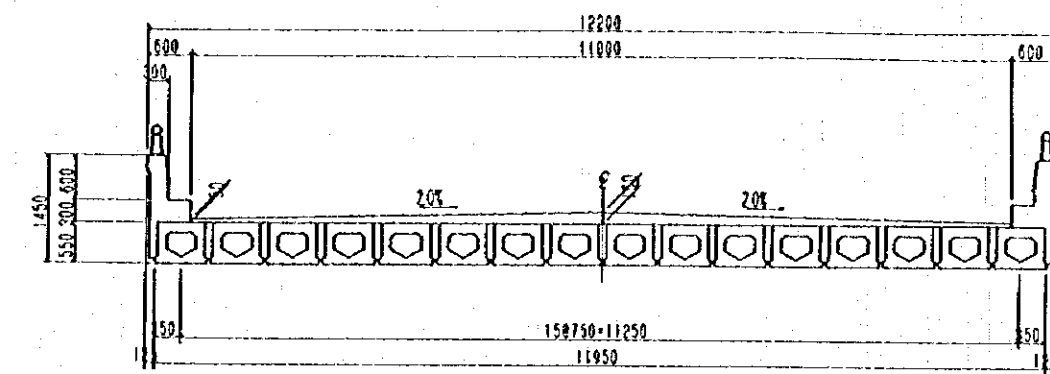


GRADIENT	1.5%	1.5%	1.5%	1.5%	1.5%
PROPOSED HEIGHT	2.003	3.056	4.029	4.033	4.029
GROUND HEIGHT	3.320	3.320	3.320	3.320	3.320
ACCUMULATED DISTANCE	45.670	26.210	6.750	6.500	6.750
SHORT DISTANCE	19.400	19.400	0.250	0.500	0.250
STATION			0.000	0.000	19.400
PLANE CURVE	R=				

PLAN SCALE A



CROSS SECTION SCALE B



DESIGN CONDITION

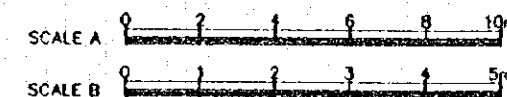
BRIDGE NAME	BCM11(CM18-4)
LIVE LOAD	BM 100
GIRDER LENGTH	13.50 m
SPAN LENGTH	13.00 m
WIDTH	12.20 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT (1)	PIER (1)
DEAD LOAD	115.7	---
LIVE LOAD	76.9	---
TOTAL	193.6	---

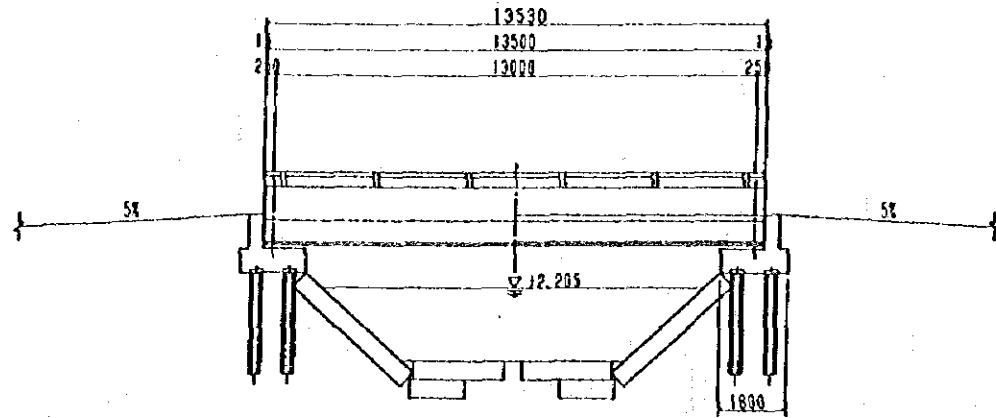
MATERIAL TABLE

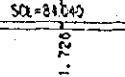
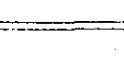
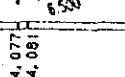

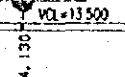
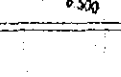
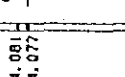

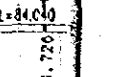


KIND OF MATERIAL	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	15	BM100-03
FORMING	CONCRETE	m <sup>3</sup>	
	FORM	m <sup>2</sup>	
ROADWAY	PAVEMENT	m <sup>2</sup>	
	PAVEMENT	m <sup>2</sup>	
	SUB-CONCRETE	m <sup>3</sup>	
	SIDE BLOCK	m	
	FILLING MORTAR	m <sup>3</sup>	
	CONCRETE	m <sup>3</sup>	
	FORM	m <sup>2</sup>	
	RE-BAR	tf	
	STEEL-RAILING	m	
	NUMBER	4	
	EXPANSION	m	
	NUMBER	26	
	LENGTH	m	
	TOTAL LENGTH	m	
	TOTAL WEIGHT	tf	
	SHEATH	m	
	GROUT	m	



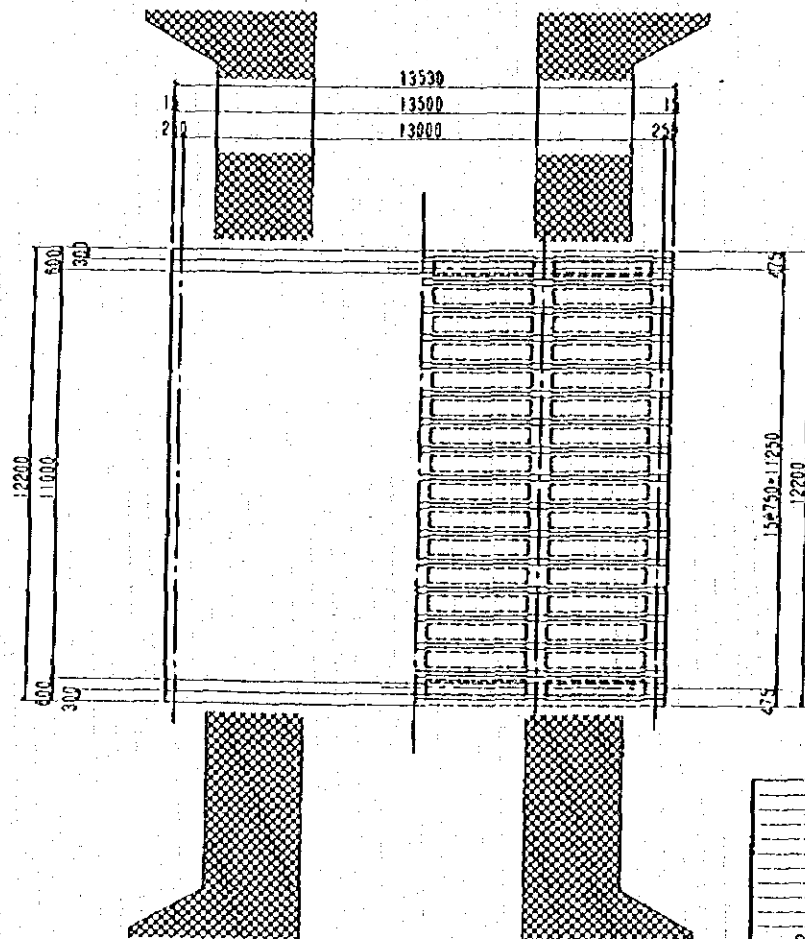
PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BRIDGE BCM11(CM18-4)	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-10-610	
REFERENCE	THE CITY OF JAKARTA		

SIDE VIEW SCALE A

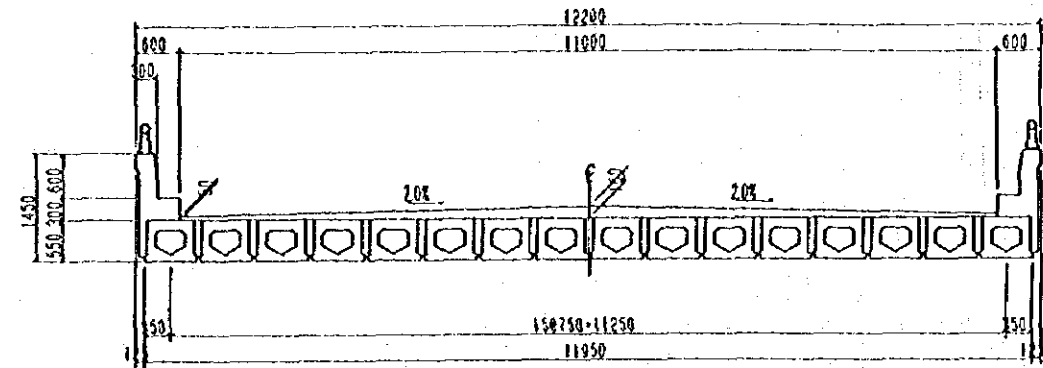


PLANE CURVE	STATION	SHORT DISTANCE	ACCUMULATED DISTANCE	GROUND HEIGHT	PROPOSED HEIGHT	GRADIENT
		47.020	100.760	1.730	2.082	
		47.020	53.770		1.720	
		0.250	6.750		4.077	
		6.500	6.500		4.081	
		4.000		2.710		
		0.000	0.000	+0.209	4.130	
						
		4.500		2.710		
		6.500	6.500		4.081	
		0.250	6.750		4.077	
		47.020	53.770	2.510	1.720	

PLAN SCALE A



CROSS SECTION SCALE B



DESIGN CONDITION	REACTION
1. Dead Load	
2. Live Load	
3. Wind Load	
4. Earthquake Load	
5. Temperature Load	
6. Shrinkage and Creep Load	
7. Impact Load	
8. Seismic Load	
9. Other Load	

BRIDGE NAME	BCM12(CM19-1)
LIVE LOAD	BM 100
GIRDER LENGTH	13.50 m
SPAN LENGTH	13.00 m
WIDTH	12.20 m
BRIDGE ANGLE	90°

	ABUTMENT(1)	PIER(1)
DEAD LOAD	115.7	---
LIVE LOAD	76.9	---
TOTAL	193.6	---

## MATERIAL TABLE

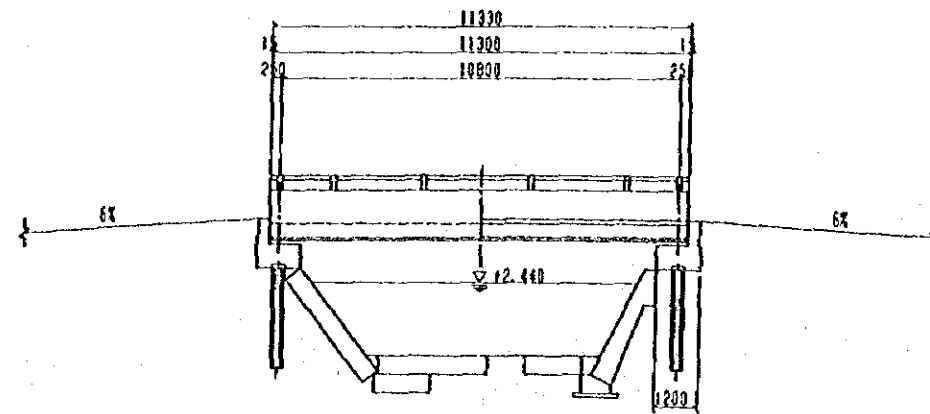
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN ORDER		no	15	BM100-03
FORMING	CONCRETE	m <sup>3</sup>	11.8	
	FORM	m <sup>2</sup>	14.7	
MISCEL- LANEOUS	ROADWAY	m <sup>2</sup>	148.5	
	SIDE WALK	PAVEMENT	m <sup>2</sup>	---
		SUB-CONCRETE	m <sup>3</sup>	---
		SIDE BLOCK	m	---
		FILLING MORTAR	m <sup>3</sup>	---
	GUARD RAIL	CONCRETE	m <sup>3</sup>	9.9
		FORM	m <sup>2</sup>	65.7
		RE-BAR	lf	0.466
		STEEL-RAILING	m	27.0
	DRAINAGE	NUMBER	4	
EXPANSION	m	24.4		
CROSS CORDER	PC-TENDON	NUMBER	26	
		LENGTH	m	11.830
		TOTAL LENGTH	m	307.580
		TOTAL WEIGHT	lf	0.508
	SHEATH	m	78.9	
CROUT	m	307.6		

SCALE A

SCALE B

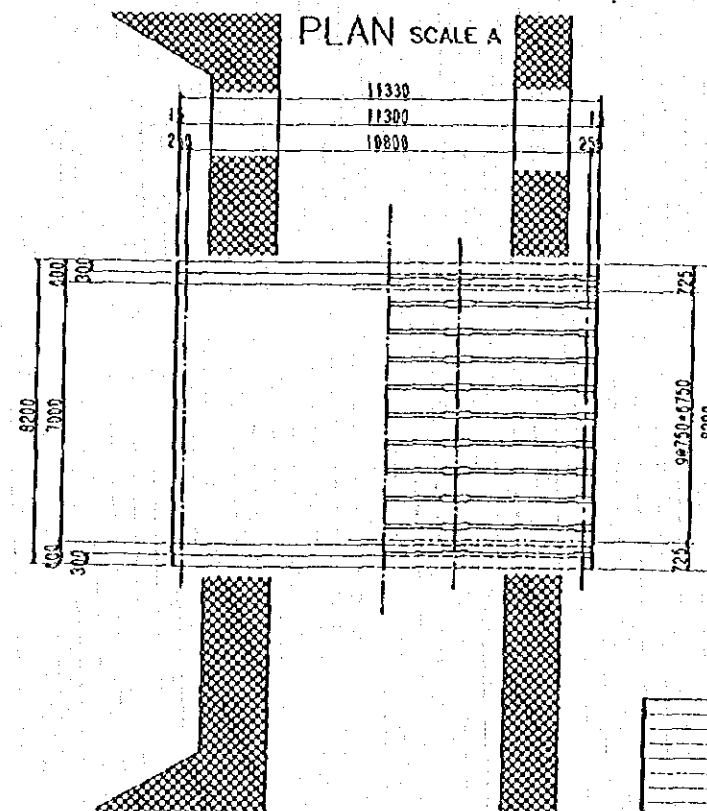
MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING GENERAL PLAN OF BRIDGE BCM12(CM19-1)	APPROVED
JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DAG NO. J-70-10-811	DATE

SIDE VIEW SCALE A

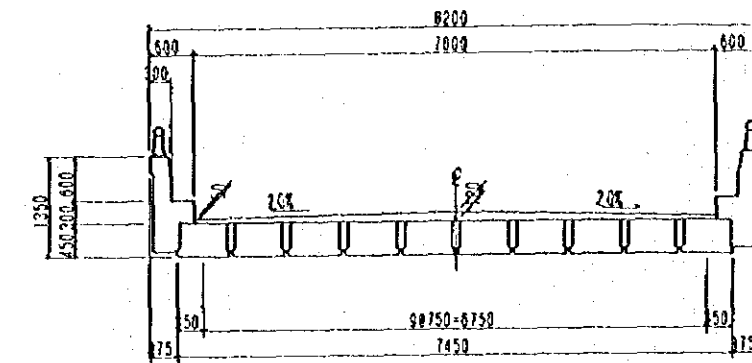


GRADE	PROPOSED HEIGHT	GROUND HEIGHT	ACCOUNTED DISTANCE	SHORT DISTANCE	STATION	PLANE CURVE
SR=28.200	2.320	2.990	35.850	14.100		
1.5%	4.102	3.190	3.450	14.100		
1.5%	4.016	3.190	3.400	0.250		
1.5%	4.051	3.190	0.000	2.400		
1.5%	4.016	3.190	3.400	0.250		
1.5%	4.102	3.190	3.450	14.100		
SR=28.200	2.320	2.990	35.850	14.100		

PLAN SCALE A



CROSS SECTION SCALE B



DESIGN CONDITION

BRIDGE NAME	BCM13(CM20)
LIVE LOAD	BM 70
GIRDER LENGTH	11.30 m
SPAN LENGTH	10.80 m
WIDTH	8.20 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT(I)	PIER(II)
DEAD LOAD	71.3	---
LIVE LOAD	40.0	---
TOTAL	111.3	---

MATERIAL TABLE

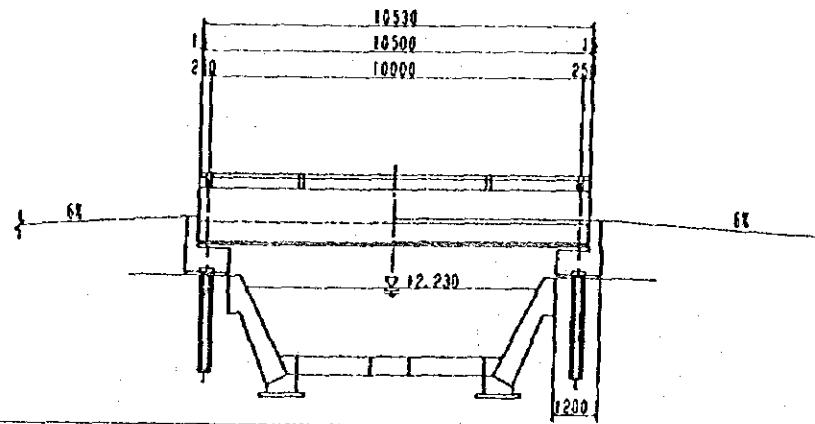
KIND OF MATERIAL	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	10	BM70-04
CONCRETE	m <sup>3</sup>	4.7	
FORM	m <sup>2</sup>	7.7	
ROADWAY	PAVEMENT	79.1	
PAVEMENT	m <sup>2</sup>	---	
SUB-CONCRETE	m <sup>3</sup>	---	
SIDE WALK	SIDE BLOCK	m	
FILLING MORTAR	m <sup>3</sup>	---	
CONCRETE	m <sup>3</sup>	10.2	
FORM	m <sup>2</sup>	59.1	
GUARD RAIL	RE-BAR	0.480	---
STEEL-RAILING	m	22.6	
DRAINAGE	NUMBER	4	
EXPANSION	m	16.4	
NUMBER	12	---	
PC-TENDON	LENGTH	7.330	
TOTAL LENGTH	m	87.980	
TOTAL WEIGHT	lt	0.145	
SHEATH	m	21.6	
CROUT	m	88.0	

SCALE A 0 2 4 6 8 10m

SCALE B 0 1 2 3 4 5m

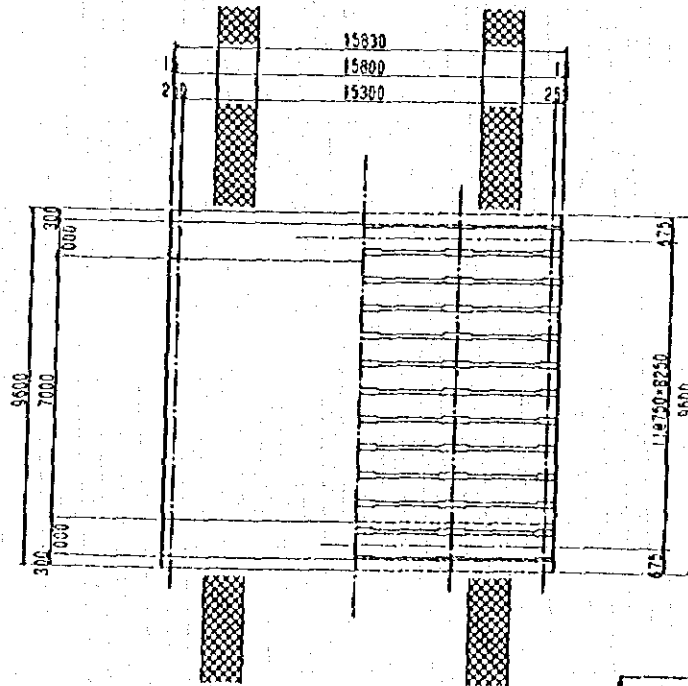
PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BRIDGE BCM13(CM20)	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-10-612	
REFERENCE	THE CITY OF JAKARTA		

SIDE VIEW SCALE A

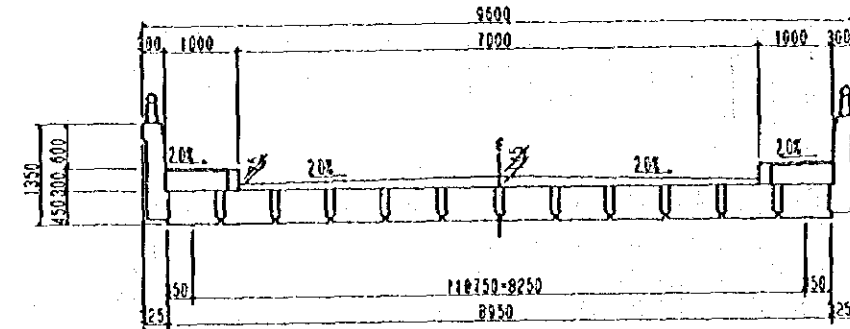


PLANE CURVE	STATION	SHORT DISTANCE	ACCUMULATED DISTANCE	GROUND HEIGHT	PROPOSED HEIGHT	GRADIENT
		13.800	32.850	3.240	2.408	
		13.800	19.050		3.236	
		0.250	3.250	3.176	4.064	
		3.000	3.000	3.170	4.068	
		0.000	0.000	+0.498	+4.106	
		3.000	3.000	3.170	4.068	
		0.250	3.000		4.064	
		0.250	5.250		3.230	
		13.800	19.050		3.230	
				3.080		

PLAN SCALE A



CROSS SECTION SCALE B



## DESIGN CONDITION

BRIDGE NAME	BCM14(CM22)
LIVE LOAD	8M 70
GIRDER LENGTH	15.80 m
SPAN LENGTH	15.30 m
WIDTH	1.3m - 7.0m - 1.3m
BRIDGE ANGLE	90'

REACTION

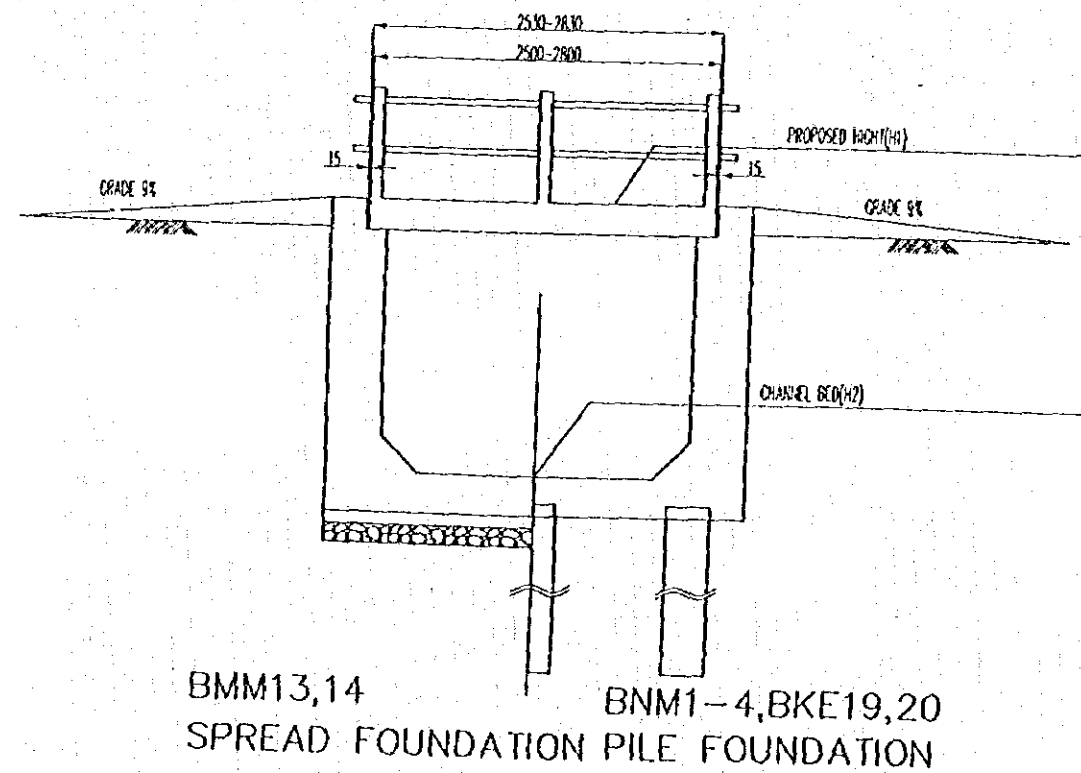
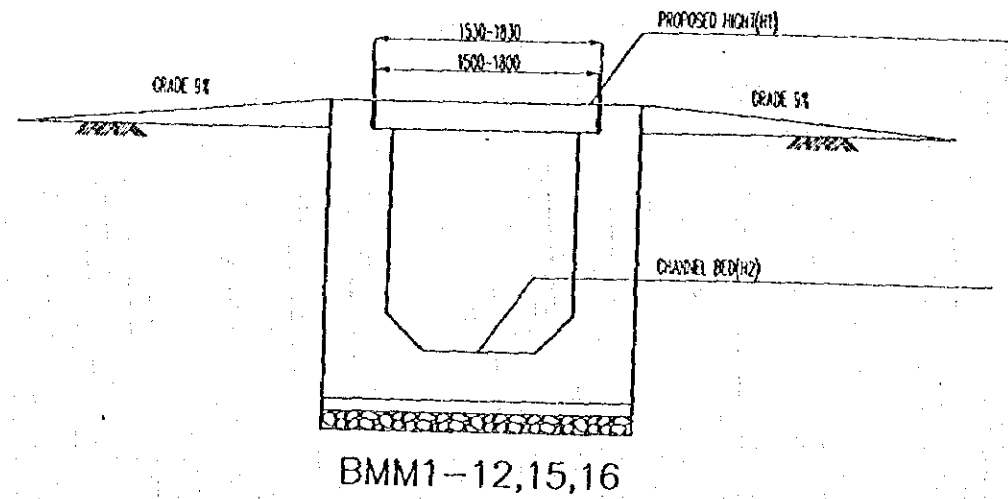
	ABUTMENT(1)	PIER(1)
DEAD LOAD	78.6	
LIVE LOAD	40.0	
TOTAL	118.6	

## MATERIAL TABLE

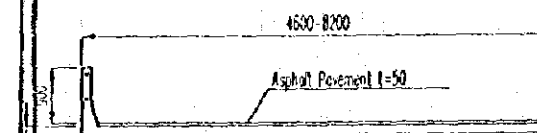
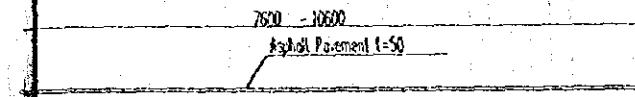
MATERIAL TABLE			UNIT	VOLUME	DESCRIPTION
KIND OF MATERIAL		NUMBER	no	12	BW70-01
MAIN GIRDER					
FORMING	CONCRETE	DESIGN STRENGTH	m <sup>3</sup>	5.6	
	FORM		m <sup>2</sup>	8.8	
MISC. - LANEWAYS	ROADWAY	PAVEMENT	m <sup>3</sup>	73.5	
		PAVEMENT	m <sup>3</sup>	16.6	
	SIDE WALK	SUB-CONCRETE	m <sup>3</sup>	4.5	
		SIDE BLOCK	m	21.0	
		FILLING MORTAR	m <sup>3</sup>	0.220	
	GUARD RAIL	CONCRETE	m <sup>3</sup>	7.2	
		FORM	m <sup>2</sup>	53.4	
		RE-BAR	lt	0.338	
		STEEL-RAILING	m	21.0	
	DRAINAGE	NUMBER		4	
	EXPANSION		m	19.2	
	CROSS GIRDER	PC-TENON	NUMBER		16
LENGTH			m	88.30	
TOTAL LENGTH			m	141.280	
TOTAL WEIGHT			lt	0.233	
SHEATH		m	35.2		
CROUT		m	141.3		

REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED.....		GENERAL PLAN OF BRIDGE BCM14(CM22)	DATE
	SUBMITTED.....		DWG NO.	
	DATE.....		J-70-10-813	

# SIDE VIEW



# CROSS SECTION

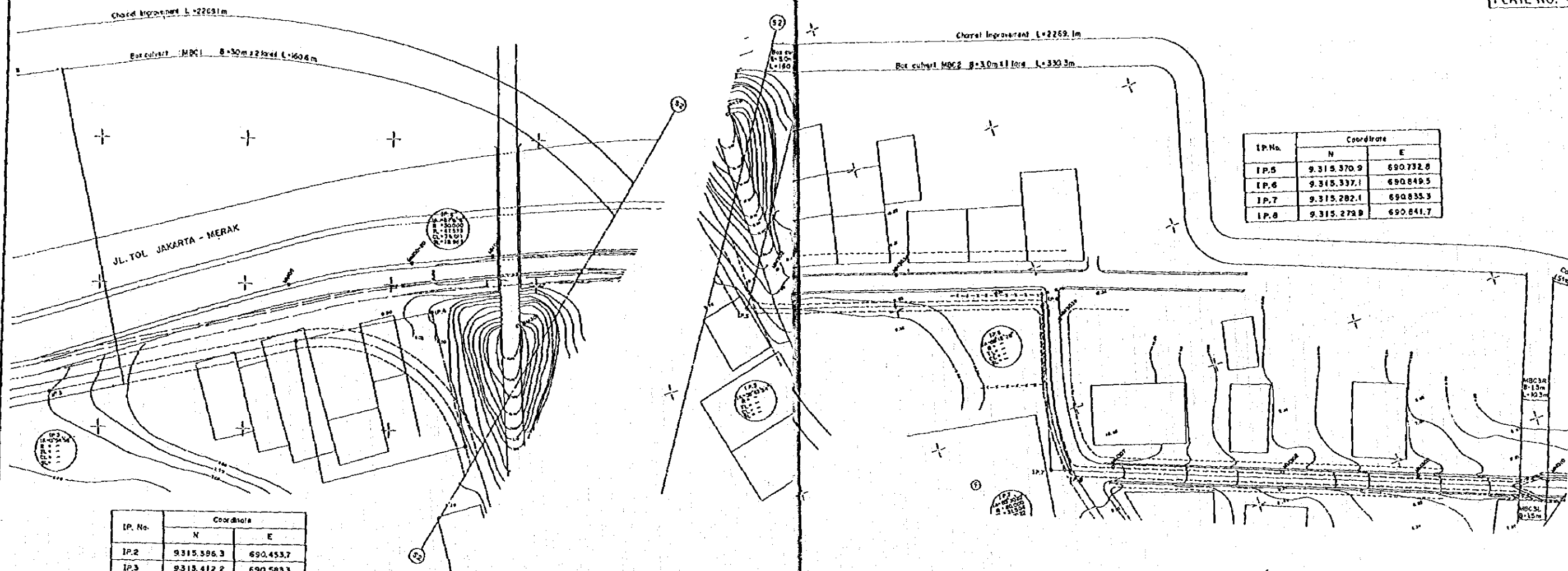


Bridge Name	H1 (TTG.m)	H2 (TTG.m)
BMM1	6.914	4.942
BMM2	6.971	4.975
BMM3	7.050	5.024
BMM4	7.050	5.024
BMM5	7.118	5.065
BMM6	7.118	5.065
BMM7	7.274	5.159
BMM8	7.377	5.221
BMM9	7.377	5.221
BMM10	7.429	5.253
BMM11	7.507	5.616
BMM12	7.507	5.616
BMM13	7.547	5.616
BMM14	7.629	5.994
BMM15	9.135	7.309
BMM16	9.161	7.463
BNM1	2.194	-0.041
BNM2	2.353	0.118
BNM3	2.544	0.308
BNM4	2.544	0.308
BKE19	3.195	1.477
BKE20	3.195	1.634

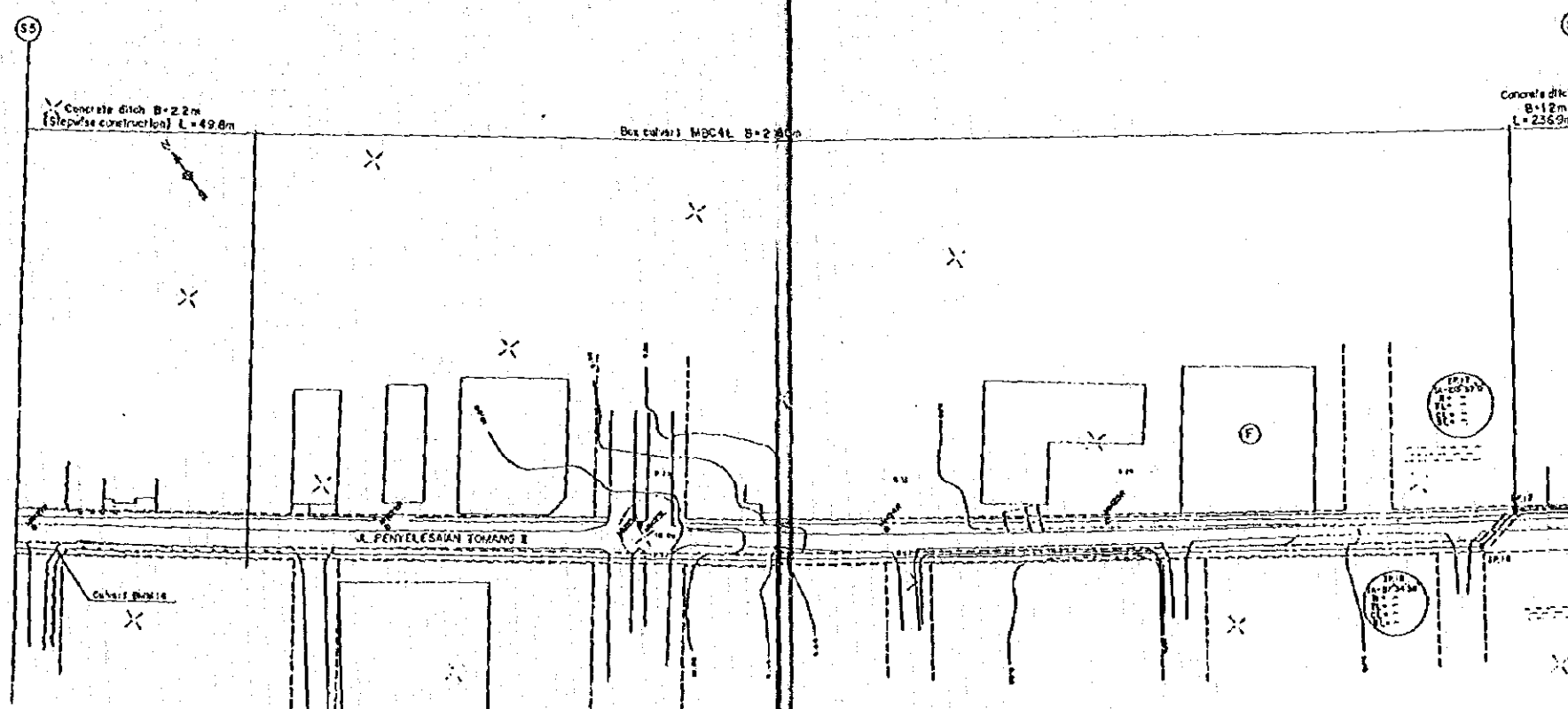
## DESIGN CONDITION

LIVE ROAD	BY 70
CURB	1.5~2.8m
WIDTH	7.6~10.6m
BRIDGE ANGLE	90°, 45°

REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING GENERAL PLAN OF IN-SITU BRIDGE	APPROVED
	CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO J-70-10-701	DATE
	SUBMITTED.....			
	DATE.....			



IP. No.	Coordina	
	N	E
IP.2	9315.596.3	690.453.7
IP.3	9315.412.2	690.583.3
IP.4	9315.440.5	690.714.0

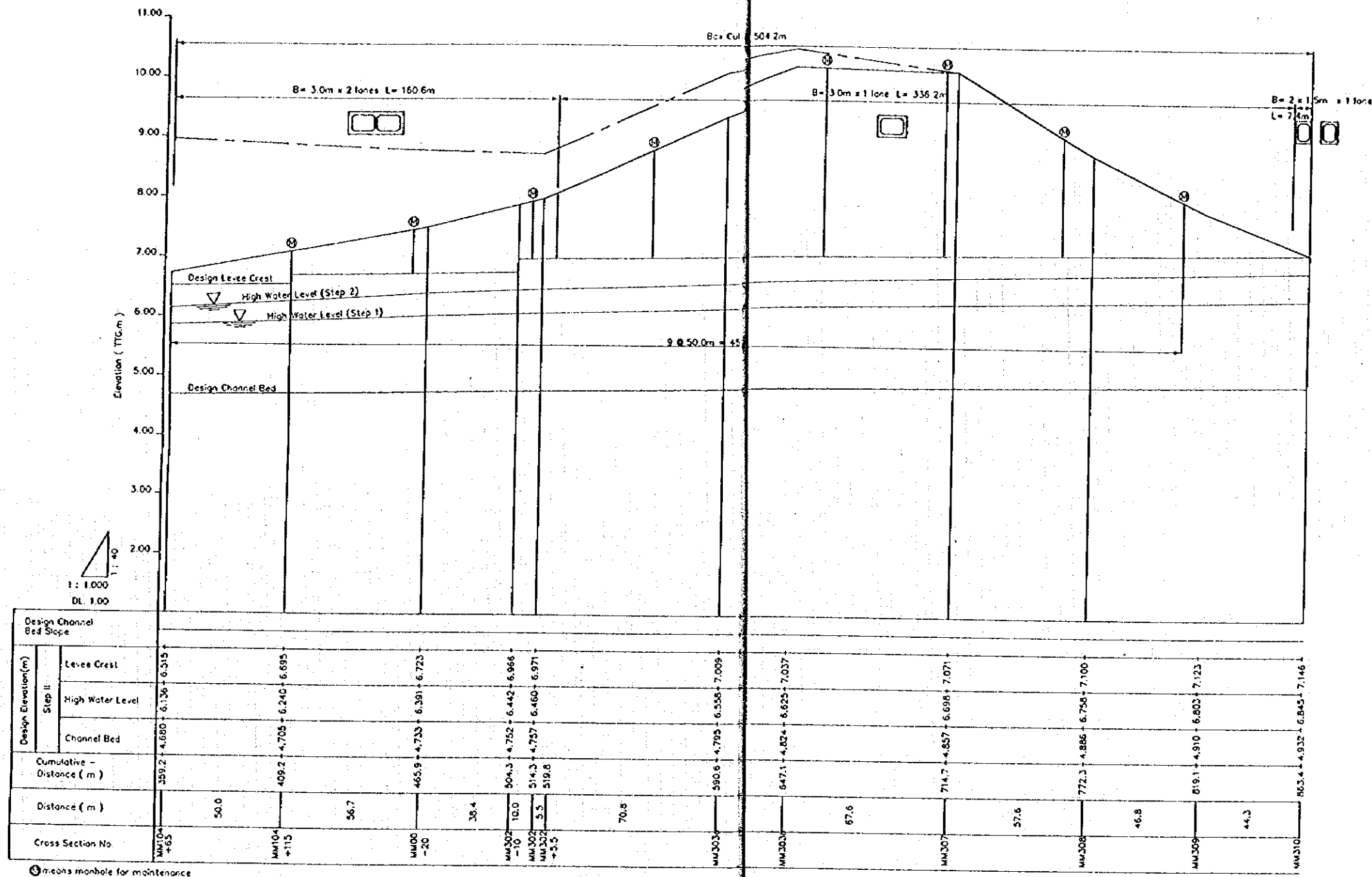


IP.No.	Coordinates	
	N	E
IP.16	9314.4307	691.302.4
IP.17	9.314.4324	691.312.7

REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
	CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BOX CULVERT PLAN	
	SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
	DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	J-70-10-702	

# GENERAL PLAN BOX CULVERT PROFILE

PLATE NO. 141



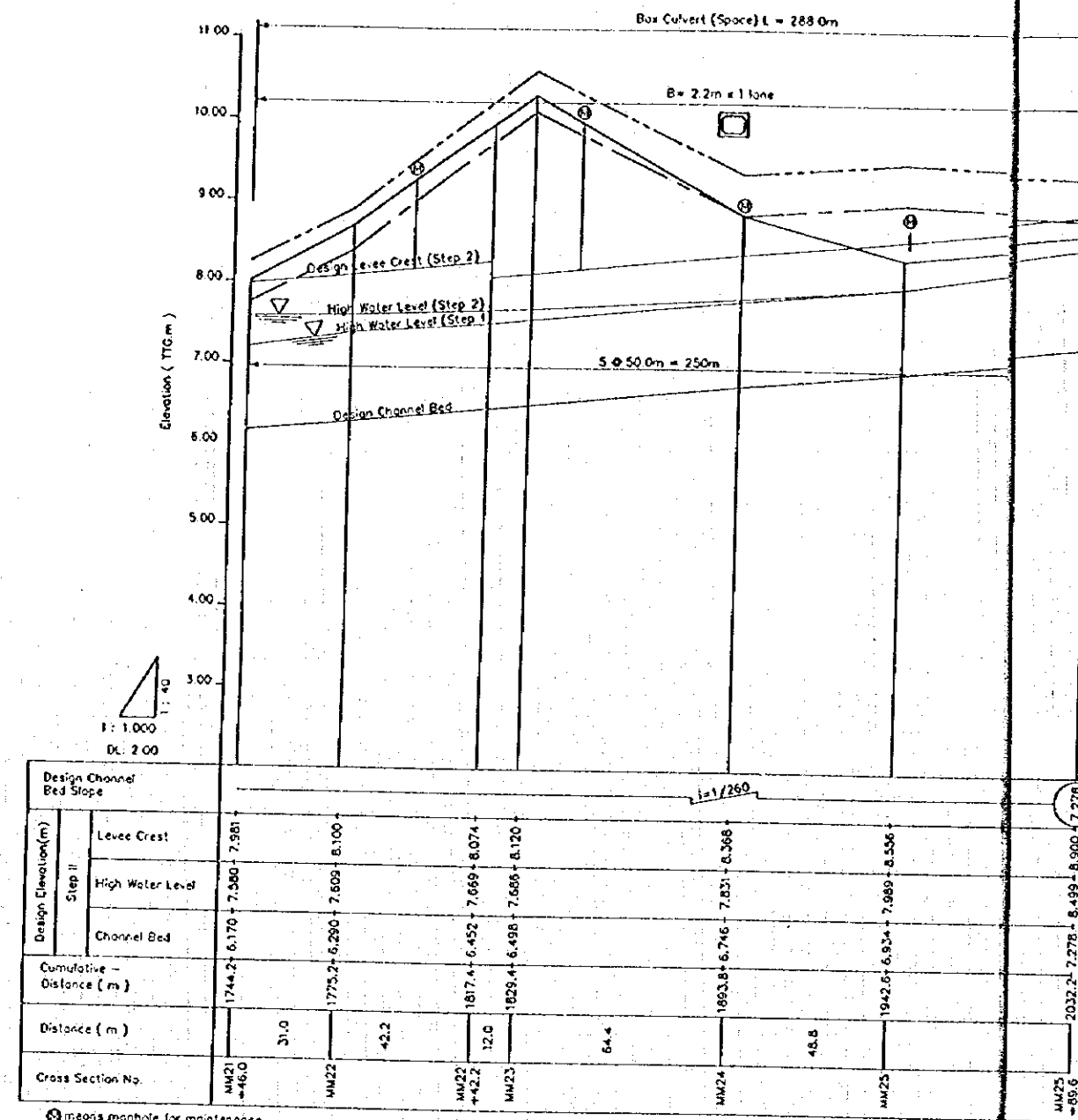
## NOTES:

- (1) Datum Level : Mean Sea Level (TTC)
- (2) Heightened Road
- (3) Existing Road Surface
- (4) Lowest Bottom
- (5) B Channel Width

	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
	CHECKED			GENERAL PLAN OF BOX CULVERT PROFILE-1
	SUBMITTED			
REFERENCE	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.  J-70-10-703	DATE

# GENERAL PLABOX CULVERT PROFILE

PLATE NO. 142



## NOTES:

- (1) Datum Level : Mean Sea Level (TTG)
- (2) Heightened Land : \_\_\_\_\_
- (3) Existing Road Surface : \_\_\_\_\_
- (4) Lowest Bottom : \_\_\_\_\_
- (5) B Channel Width : \_\_\_\_\_

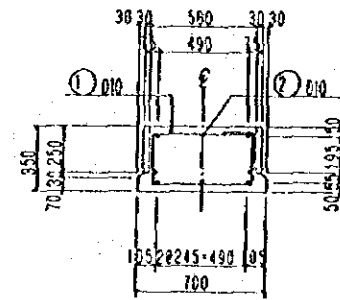
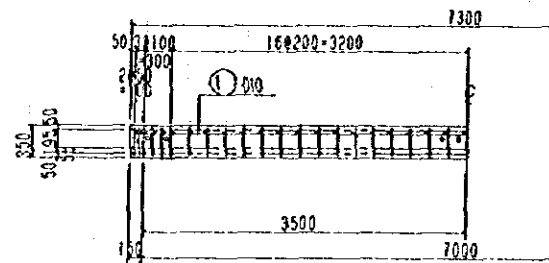
REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING GENERAL PLAN OF BOX CULVERT PROFILE-2	APPROVED
	CHECKED			
	SUBMITTED			
	DATE			
JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA		DWG NO. J-70-10-704	DATE	



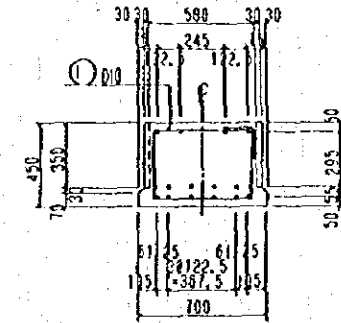
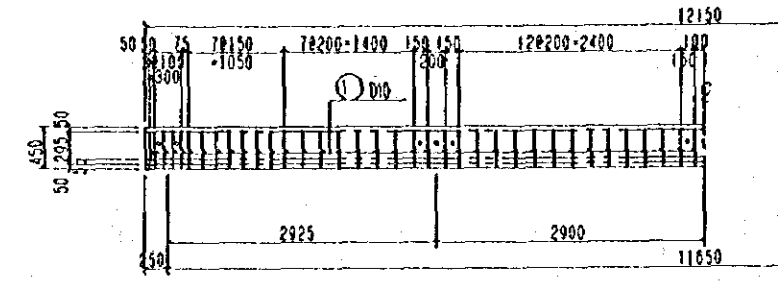




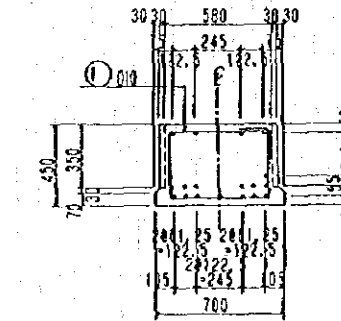
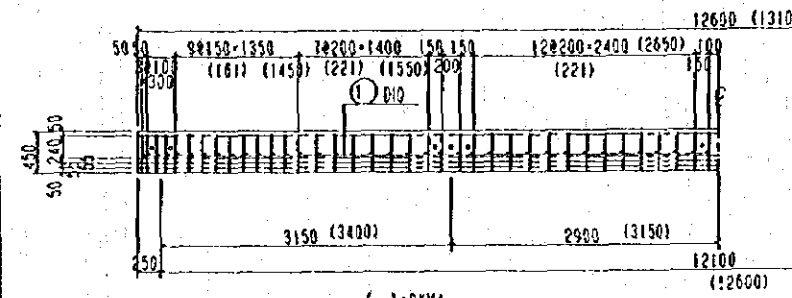
PB-01



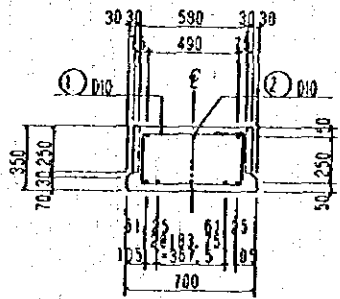
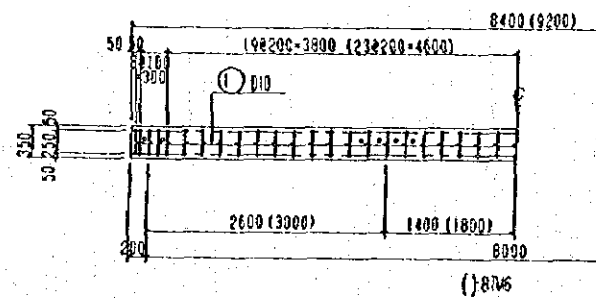
PB-04



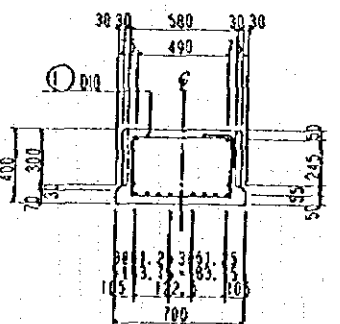
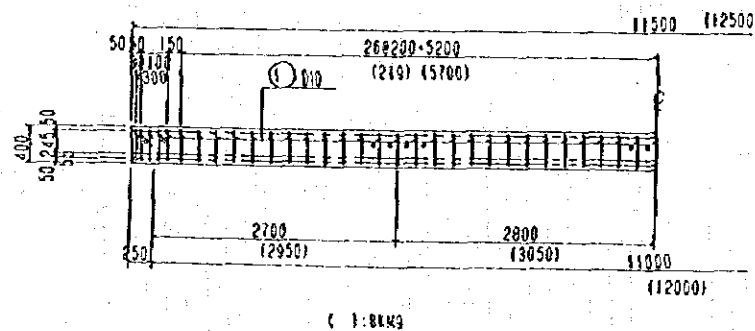
PB-05



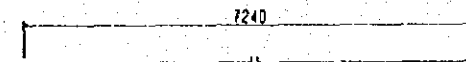
PB-02



PB-03

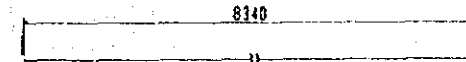


PB-01



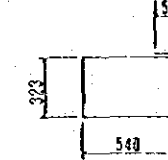
② 1-D10x7240

PB-02



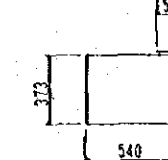
② 1-D10x8140

PB-03



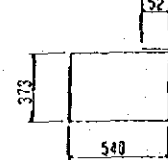
① 63-D10x2030

PB-04



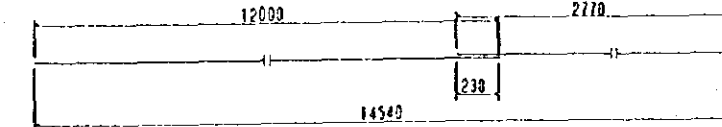
① 72-D10x2130

PB-05



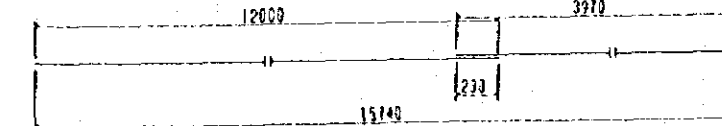
① 76-D10x2130

PB-06



① 3-D10x14770

PB-07



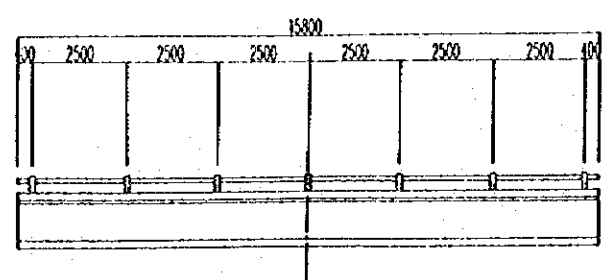
① 5-D10x15370

REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING DETAIL OF MAIN ORDER-3 DWG NO. J-70-20-003	APPROVED DATE
	CHECKED.....			
	SUBMITTED.....			
	DATE.....			

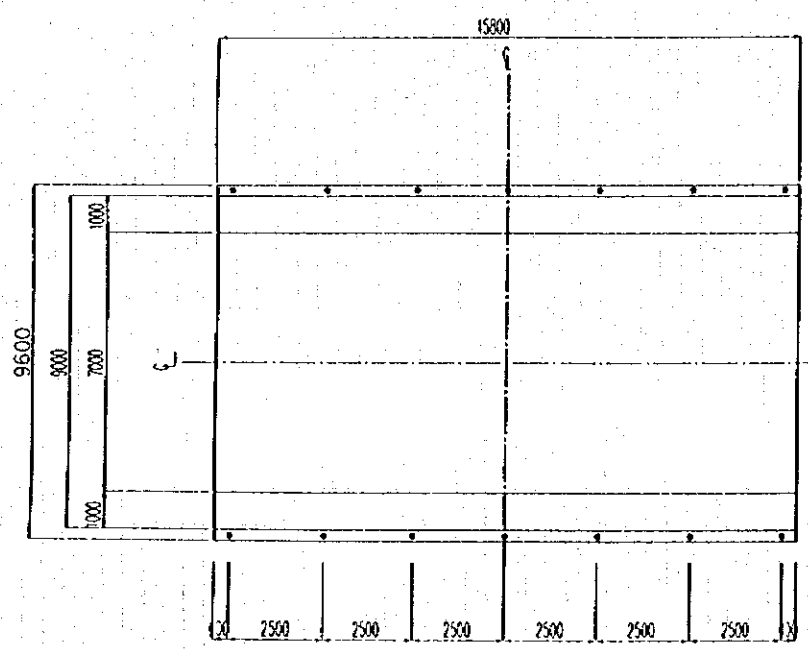


DETAIL OF RD PIPE

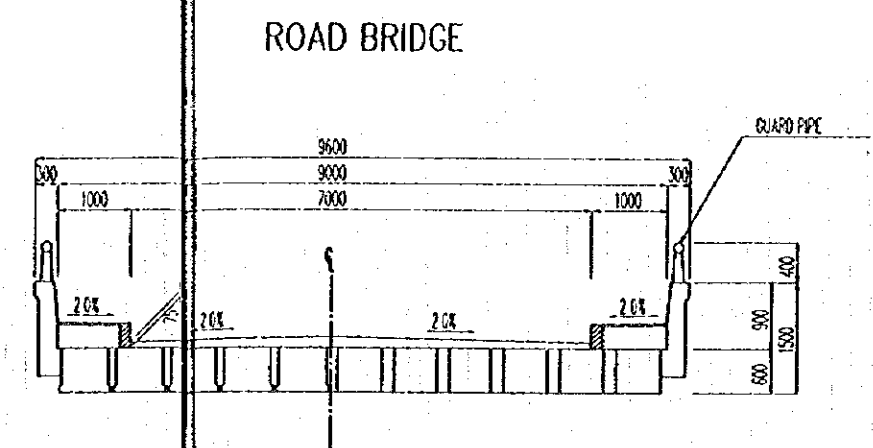
SIDE VIEW SCALE A



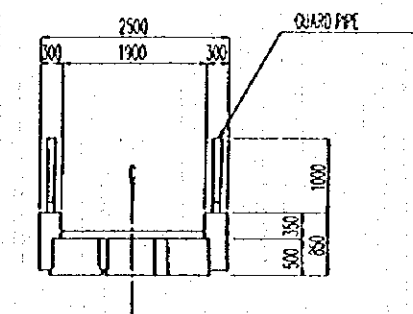
PLAN VIEW SCALE A



CROSS SECTION VIEW SCALE B

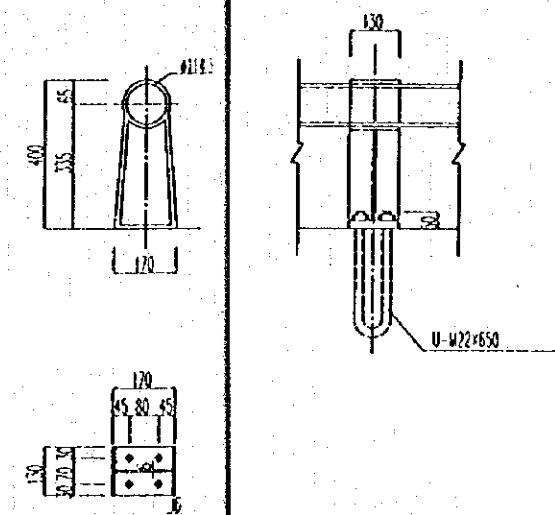


PEDESTRIAN

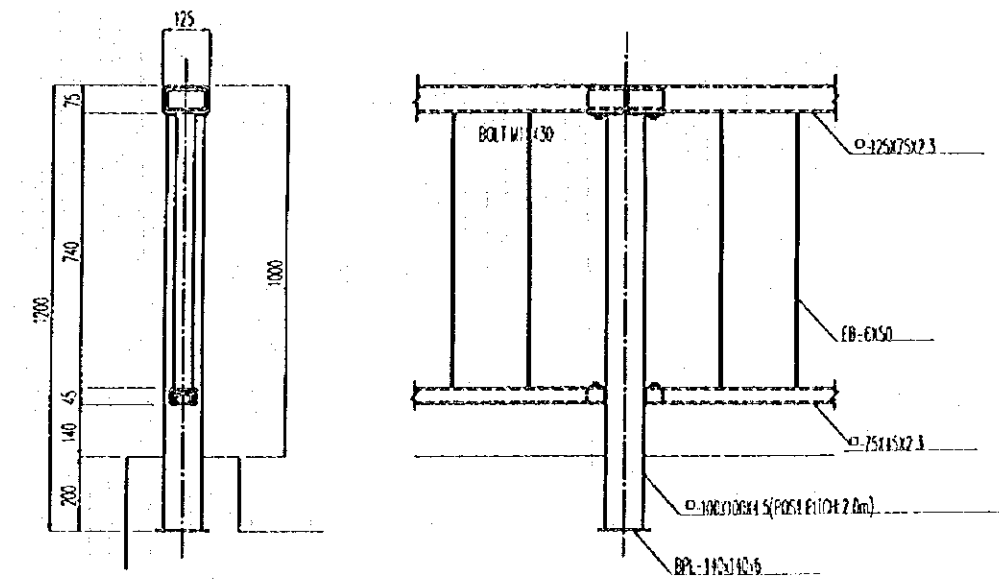


DETAIL OF GUARD PIPE SCALE C

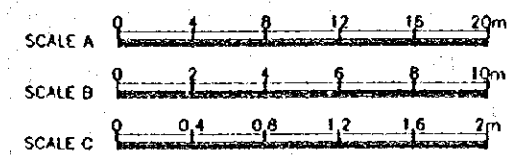
ROADGE TYPE



PEDESTRIAN TYPE



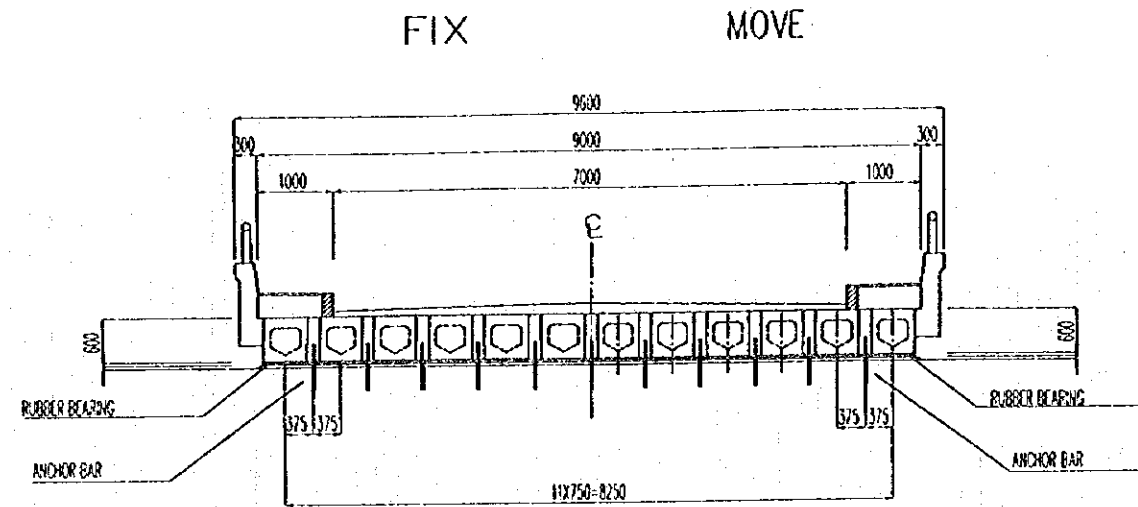
Remarks: Shop drawings made according to these standard shall be submitted for the approval of the Engineer



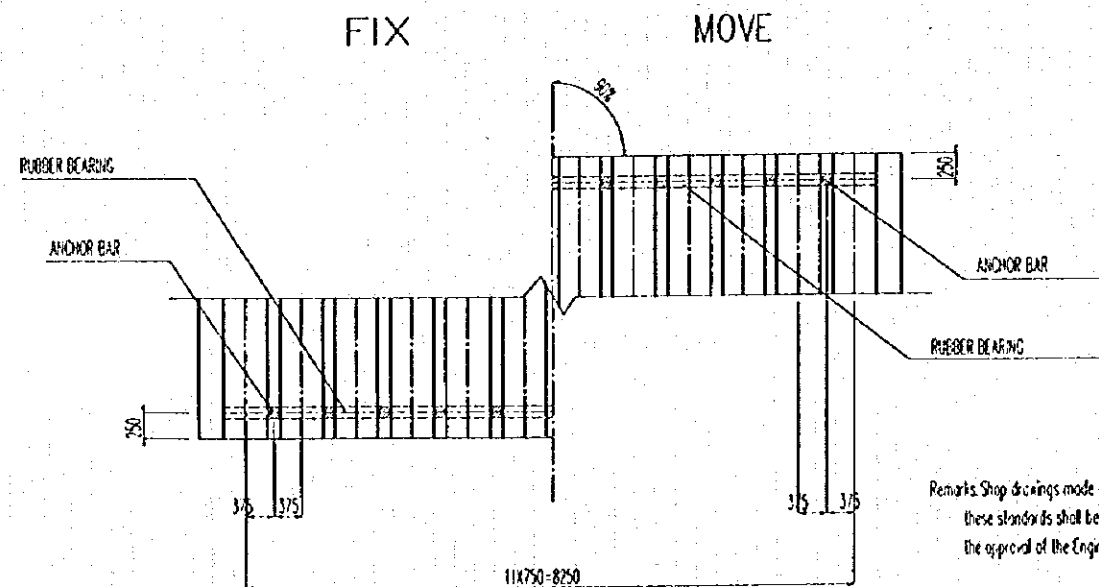
REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING SIDE WALL/RAIL, WALKWAY AND GUARDRAIL DWG NO J-70-30-001	APPROVED DATE
	CHECKED			
	SUBMITTED			
	DATE			

# DETAIL BEARING

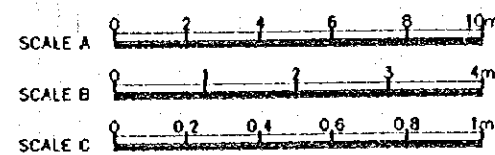
CROSS SECTION VIEW SCALE A



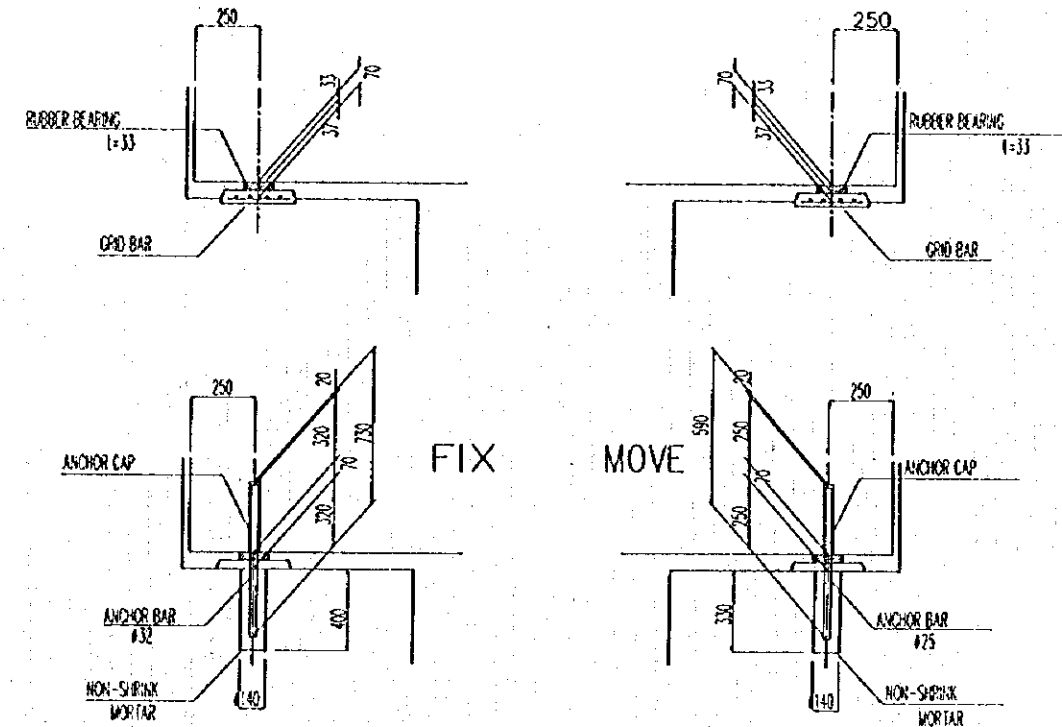
PLAN VIEW SCALE A



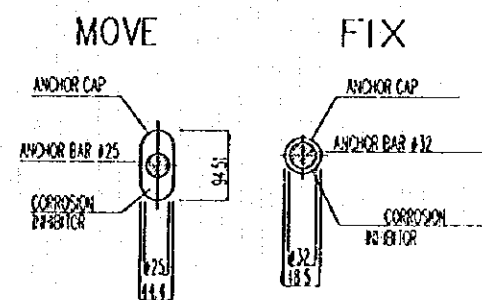
Remarks Shop drawings made according to these standards shall be submitted for the approval of the Engineer



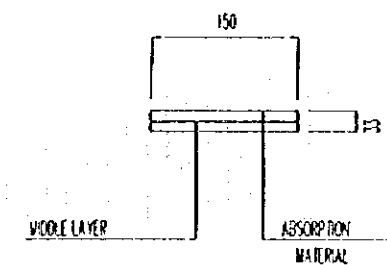
SIDE VIEW SCALE B



ANCHOR CAPS SCALE C



RUBBER BEARING SCALE C

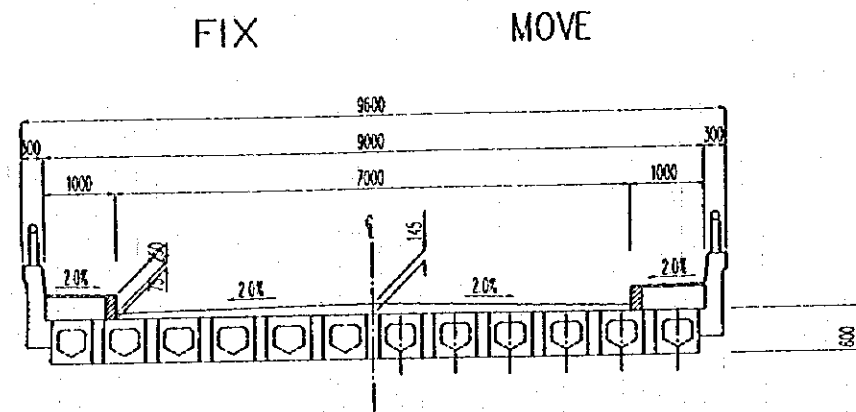


BEARING LENGTH		(PER SPAN)
ROAD CASE	BRIDGE WIDTH (m)	LENGTH (m)
I-2	10.600	20.660
I-3	12.200	23.660
II-3	12.200	23.660
III-1	8.200	14.660
III-2	9.600	17.660
III-3	6.600	11.660
IV-1	4.600	8.880
IV-S	3.000	5.660
IV-S	3.500	5.660
P.B	2.500	4.160

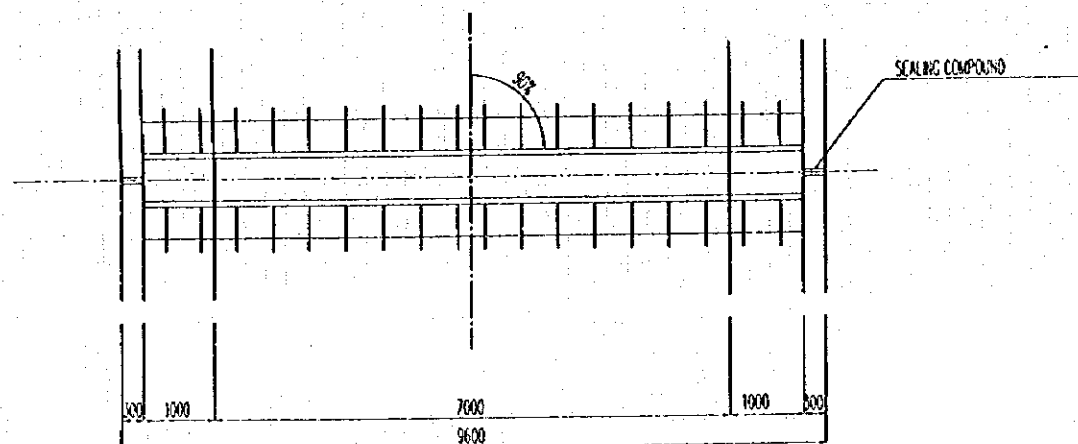
PREPARED	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	BEARING	DATE
SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	
DATE	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-30-002	
REFERENCE	IN THE CITY OF JAKARTA		

# DETAIL OF EXPANSION JOINT

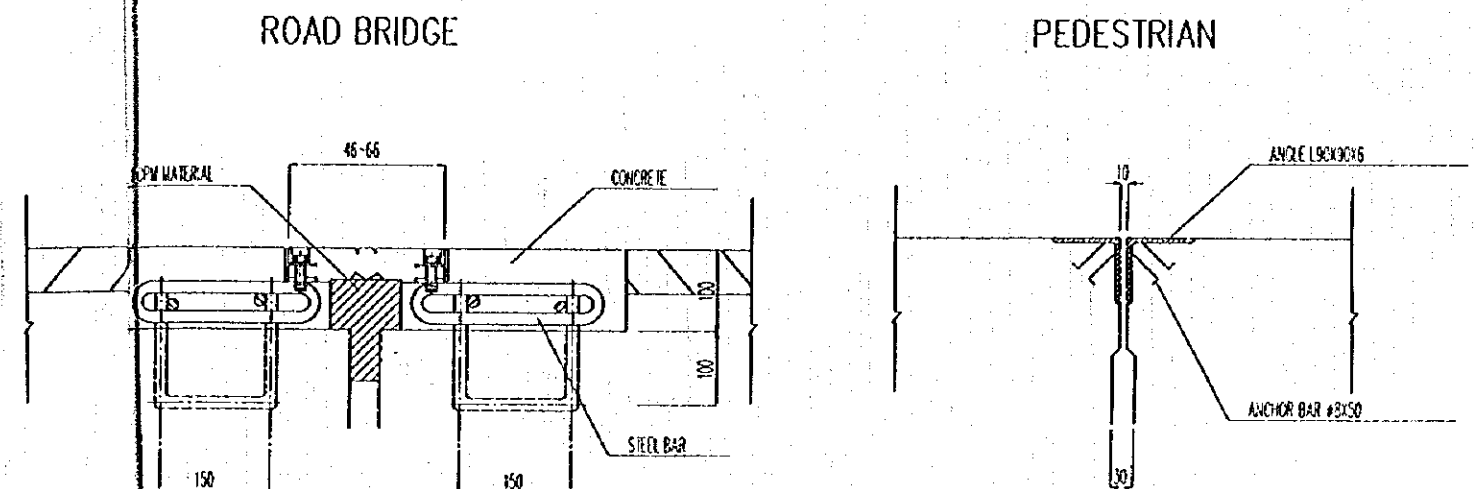
CROSS SECTION VIEW SCALE 1/100



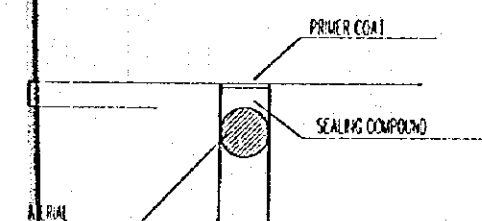
PLAN VIEW SCALE 1/100



SECTION OF EXPANSION JOINT SCALE 1/10



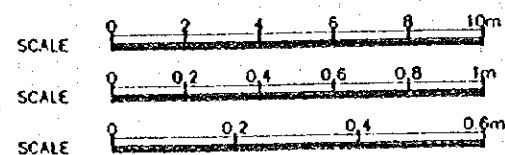
DETAIL OF SEALING COMPOUND SCALE 1/6



EXPANSION LENGTH

ROAD CASE	BRIDGE WIDTH (m)	LENGTH (m)
I-2	10.600	21.200
I-3	12.200	24.400
II-3	12.200	24.400
III-1	8.200	16.400
III-2	9.600	19.200
III-3	6.600	13.200
IV-1	4.600	9.200
IV-S	3.000	6.000
IV-S	3.500	7.000
P.B	2.500	5.000

Remarks Shop drawings made according to these standards shall be submitted for the approval of the Engineer

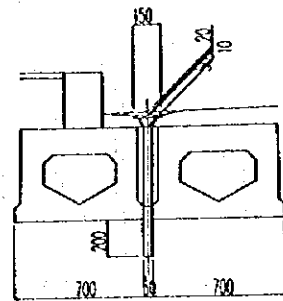


REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
	CHECKED	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	EXPANSION	
	SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
	DATE	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-30-003	
		IN THE CITY OF JAKARTA		

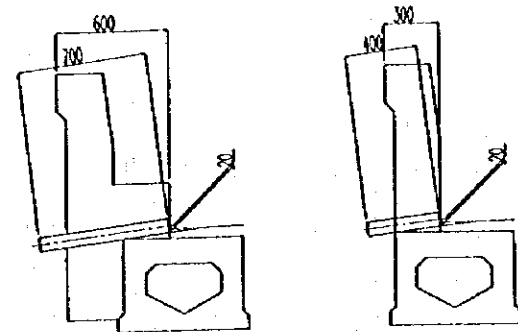
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SECTION OF DRAIN BASIN SCALE 1/40

WITH SIDEWALK

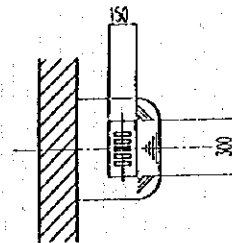


WITHOUT SIDEWALK AND PEDESTRIAN

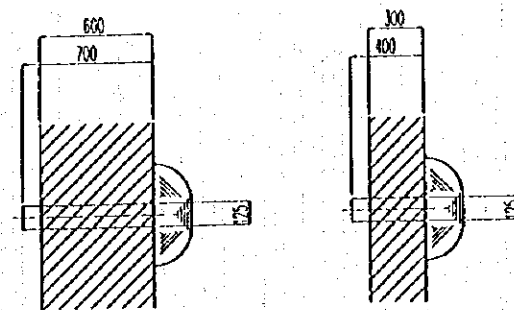


PLAN OF DRAIN BASIN SCALE 1/40

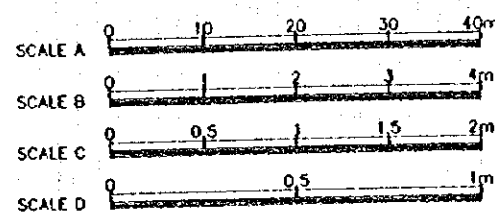
WITH SIDEWALK



WITHOUT SIDEWALK AND PEDESTRIAN



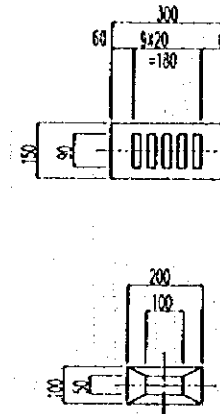
MATERIAL (PER UNIT)				
WITH SIDEWALK				
DESCRIPTION	SIZE	UNIT	WEIGHT	REMARKS
CAP	1-PL 300X150X10	kgf	3.54	
DRAIN BASIN	2-PL 150X56X6	kgf	0.79	
	2-PL 63X70X6	kgf	0.42	
DRAIN PIPE	1-Ø100X50X3.2X840	kgf	5.89	W=7.01kgf/m
TOTAL			10.64	
WITHOUT SIDEWALK AND PEDESTRIAN				
DESCRIPTION	SIZE	UNIT	WEIGHT	REMARKS
DRAIN PIPE	1-Ø125X75X2.3X700	kgf	4.87	W=6.95kgf/m
DRAIN PIPE	1-Ø125X75X2.3X400	kgf	2.78	W=6.95kgf/m



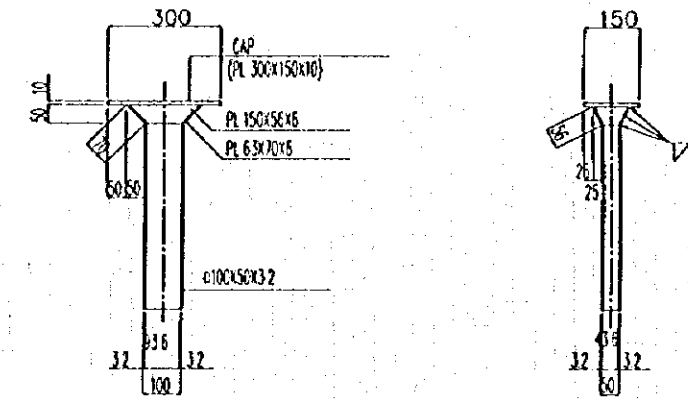
DETAIL OF DRAINAGE SCALE 1/20

WITH SIDEWALK

DETAIL OF CAP

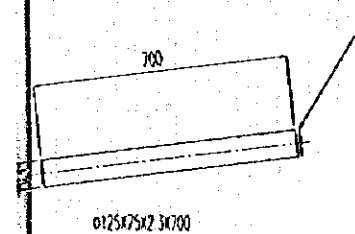


DETAIL OF DRAIN PIPE

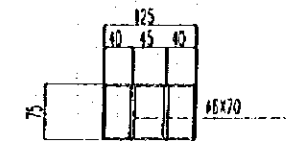
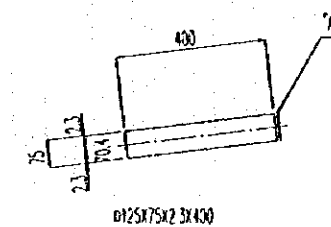


WITHOUT SIDEWALK AND PEDESTRIAN SCALE 1/10

DETAIL OF DRAIN PIPE

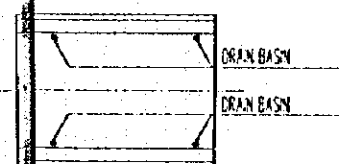


DETAIL OF "A"

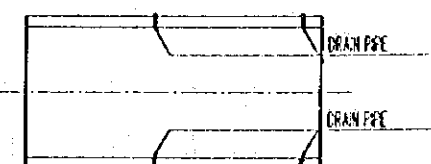


KEY PLAN SCALE 1/400

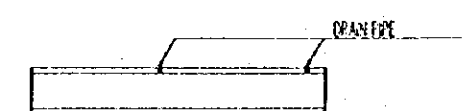
SIDEWALK



WITHOUT SIDEWALK



PEDESTRIAN

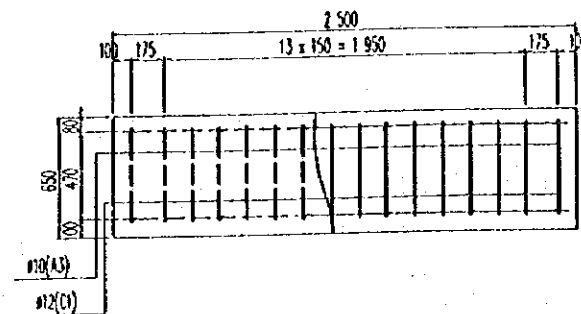


Remarks: Shop drawings made according to these standards shall be submitted for the approval of the Engineer.

REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE DAG NO J-70-30-004	APPROVED
	CHECKED			
	SUBMITTED			
	DATE			



SIDE VIEW



A - A PLAN B - B

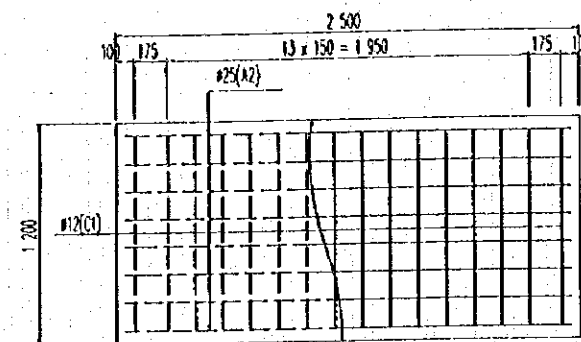
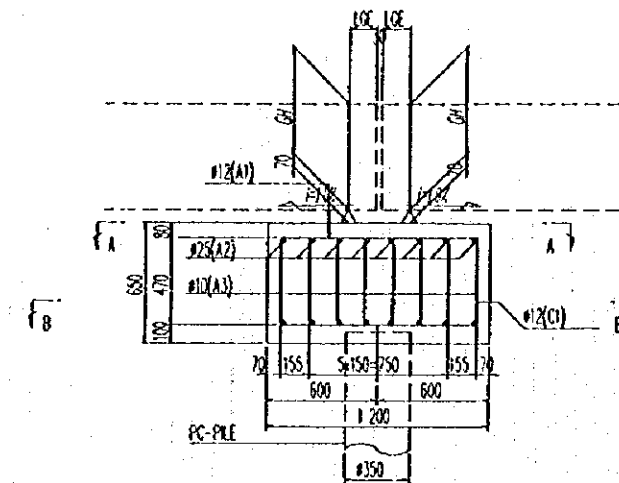


TABLE 1

①	L (mm)		2 500			
	Type		A1	A2	A3	C
a2 { a1	Diameter (mm)		12	25	10	12
	Length (mm)	a1	1060	2400	470	
		a2	85		75	
		a3	85		75	
		c1				1060
②	Length (mm)					565
	Total Length (mm)	c2				565
		c3				565
			1230	2400	620	2190
			1230	2400	620	2190
c2 { c1	Length / Steel frame		1x16	1x16	6x 6	1x16
	Total of steel frame		16	16	36	16
	Total length of whole steel frame (mm)		19.7	38.4	22.3	35.0

CROSS SECTION



Pier with single span pile is placed only for the pedestrian bridges.  
Overhanging length of the girder, "LOE" varies from 150mm to 250mm.  
Order height of the pier bridge, "OH" varies from 350mm to 450mm.

SCALE A 0 0.4 0.8 1.2 1.6 2.0

REFERENCE

PREPARED  
CHECKED  
SUBMITTED  
DATE

MINISTRY OF PUBLIC WORKS  
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS  
JAPAN INTERNATIONAL COOPERATION AGENCY  
THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT  
THE CITY OF JAKARTA

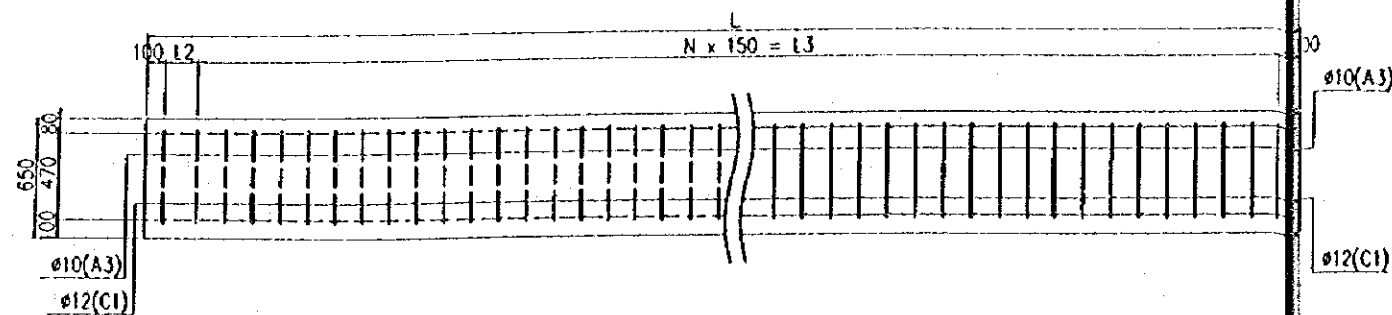
TITLE OF DRAWING  
RE-BAR ARRANGEMENT OF PIER-1

DWG. NO.  
J-70-40-001

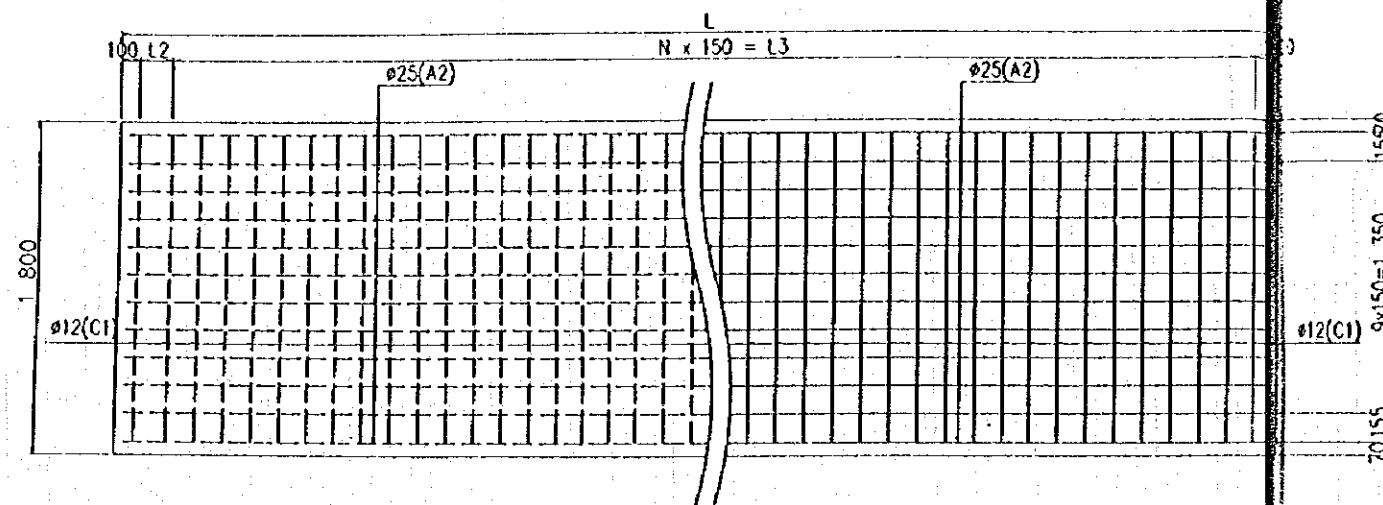
APPROVED

DATE

SIDE VIEW



PLAN



CROSS SECTION

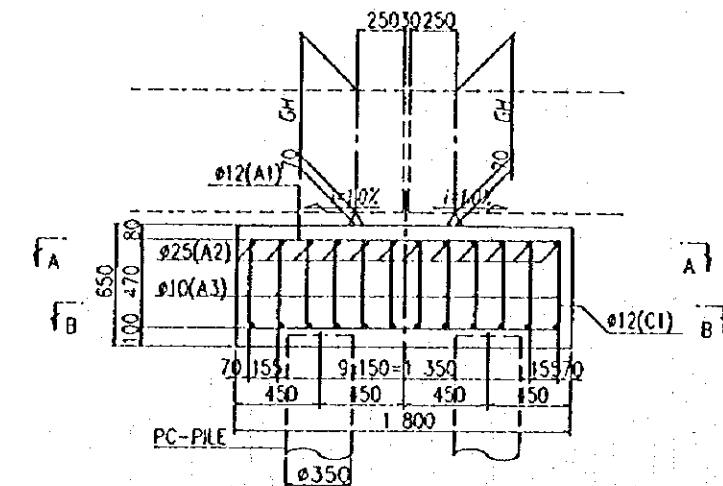


TABLE 2

Total width of new bridge (m)	3.0	4.6	6.6	8.2	9.6	10.6	12.2
L	3000	4500	6600	8200	9600	10600	12200
L2	200	175	200	175	200	175	150
L3	2400	4050	6000	7650	9000	10050	11700
N	16	27	40	51	60	67	78

"L" is equal to the total width of the new bridges (Each width is shown in TABLE 3).  
Girder height of the new bridges, "GH" varies from 400mm to 700mm.

TABLE 1

(A)		L (mm)				3 000				4 600				6 600				8 200				9 600				10 600				12 200			
		Type				A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1				
a2 a1		Diameter (mm)			12	25	10	12	12	25	10	12	12	25	10	12	12	25	10	12	12	25	10	12	12	25	10	12	1				
		Length (mm)		a1	1660	2900	470		1660	4500	470		1660	6500	470		1660	9500	470		1660	10500	470		1660	12100	470						
				a2	85		75		85		75		85		75		85		75		85		75		85		75		85		75		
				a3	85		75		85		75		85		75		85		75		85		75		85		75		85		75		
(C)				c1				1660				1660				1660				1660				1660				1660					
				c2				565				565				565				565				565				565					
				c3				565				565				565				565				565				565					
				Total Length (mm)	1830	2900	620	2790	1830	4500	620	2790	1830	6500	620	2790	1830	9500	620	2790	1830	9500	620	2790	1830	10500	620	2790	1830	12100	620	2790	
c2 c1		Length / Steel frame			1830	2900	620	2790	1830	4500	620	2790	1830	6500	620	2790	1830	9500	620	2790	1830	10500	620	2790	1830	12100	620	2790					
		Total of steel frame		1x19	1x24	10x7	1x19	1x30	1x24	10x11	1x30	1x43	1x24	10x15	1x43	1x24	10x19	1x54	1x63	1x24	10x22	1x63	1x70	1x24	10x24	1x70	1x81	1x24	10x28	1x81			
				19	24	70	19	30	24	110	30	43	24	150	43	24	190	54	63	24	220	63	70	24	240	70	81	24	280	81			
		Total length of whole steel frame (mm)		34.8	69.6	43.4	53.0	54.9	108.0	69.2	83.7	78.7	156.0	93.0	120.0	93.0	117.8	150.7	115.3	228.0	136.4	175.8	128.1	252.0	148.8	195.3	148.2	290.4	173.6	226.0			

SCALE A

REFERENCE

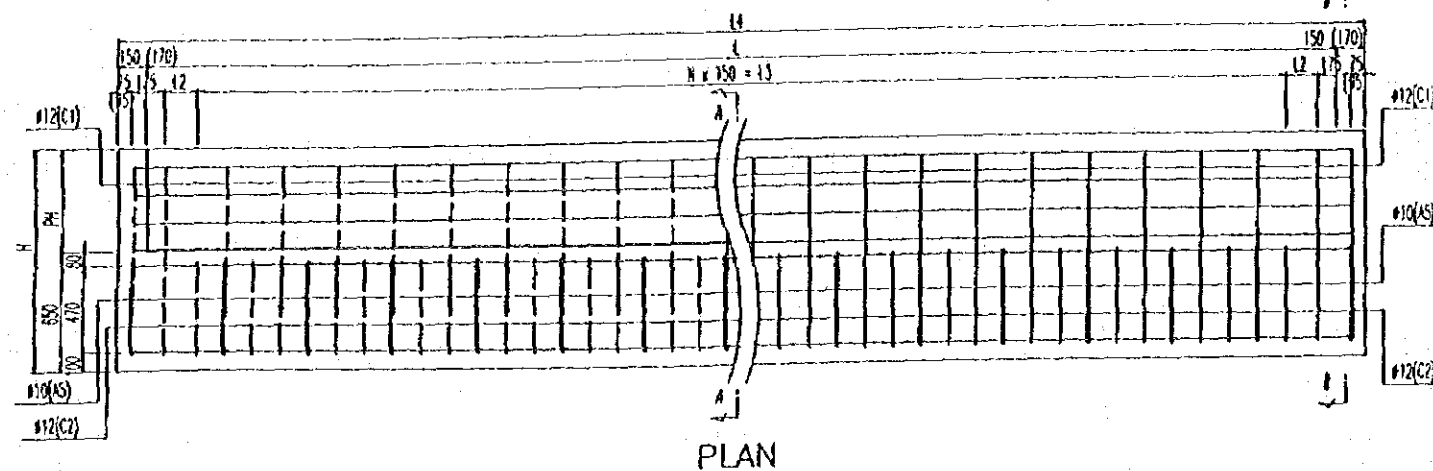
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DIRECTORATE GENERAL OF HUMAN SETTLEMENTS  
JAPAN INTERNATIONAL COOPERATION AGENCY  
THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT  
THE CITY OF JAKARTA

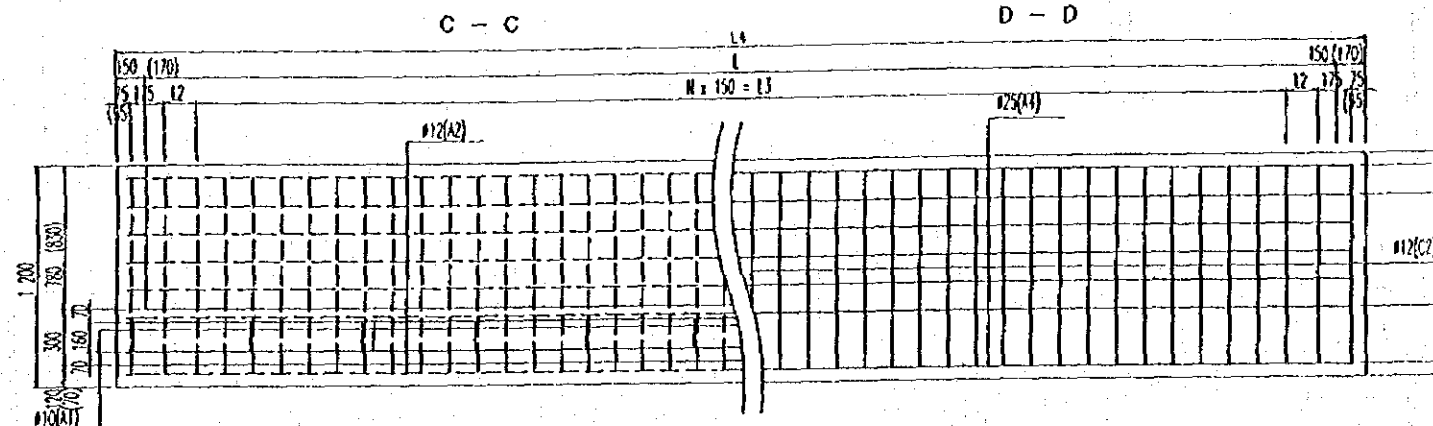
TITLE OF DRAWING  
RE-BAR ARRANGEMENT OF PIER-2  
DAG NO.  
J-70-40-002

APPROVED  
DATE

SIDE VIEW



PLAN



CROSS SECTION

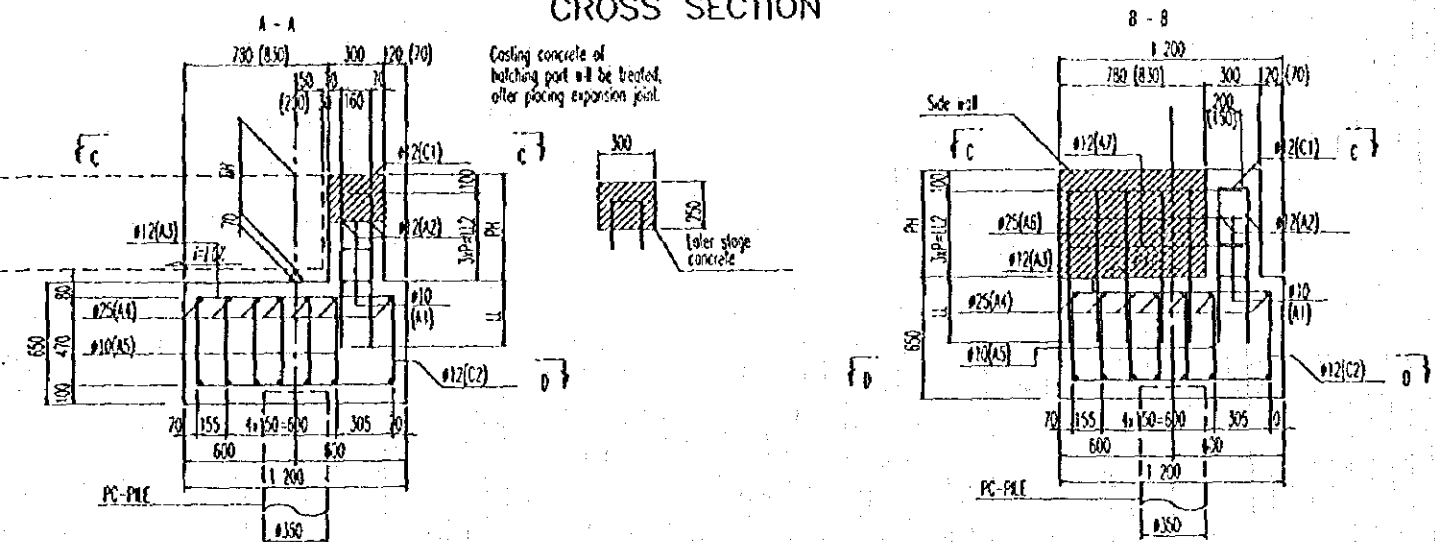


TABLE 2

Total width of new bridge (m)	2.5	3.0	3.5	4.6	6.6	8.2	9.6	12.2
L	2500	3000	3500	4600	6600	8200	9600	12200
L2	175	200	150	175	200	175	200	150
L3	1950	2400	3000	4050	6000	7650	9000	11700
L4	2840	3300	3800	4900	6900	8500	9900	12500
N	13	16	20	27	40	51	60	78

TABLE 3

H	1070	1120	1170	1220
CH	350	400	450	500
PH	420	470	520	570
P	106.7	123.3	140.0	156.7
LL	500	450	400	350
LL2	300	350	400	450

"L" is equal to the total width of the new bridges (Each width is shown in TABLE 2.)

Clear height of the new bridges, "CH" varies from 350mm to 450mm.

Parapet height of the abutment, "PH" is proportional and anchorage length of the steel, "LL" is inversely proportional to "CH".

(Each dimension is shown in TABLE 3.)

TABLE 1-1

(A)		2 500										3 000										3 500										4 000									
		Type		A							C		A							C		A							C		A							C			
		A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2				
a2 c1 o3	Diameter (mm)	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12				
	Length (mm)	a1	160	2650	1060	2650	470	800	910			160	3150	1060	3150	180	85				160	3650	1060	3650	470	800	910			160	4750	1060	4750	470	800	910					
		a2	75		85		75	180	85			75		85							75		85						75		85										
		a3	75		85		75	180	85			75		85							75		85						75		85										
		c1								160	1060																											160	1060		
c2 c1 c3	c2								895	565																												895	565		
	c3								895	565																											895	565			
	Total Length (mm)	310	2650	1230	2650	620	1160	1000	1950	2190	310	3150	1230	3150	1160	1000	1950	2190	310	3650	1230	3650	620	1160	1000	1950	2190	310	4750	1230	4750	620	1160	1000	1950	2190					
	Length / Steel frame	310	2650	1230	2650	620	1160	1000	1950	2190	310	3150	1230	3150	1160	1000	1950	2190	310	3650	1230	3650	620	1160	1000	1950	2190	310	4750	1230	4750	620	1160	1000	1950	2190					
	Total of steel frame	3x 5	1x 8	1x 18	1x 14	5x 7	5x 2	3x 2	1x 10	1x 18	3x 6	1x 8	1x 21	1x 14	5x 9	5x 2	3x 2	1x 11	1x 21	3x 7	1x 8	1x 25	1x 14	5x 9	5x 2	3x 2	1x 13	1x 25	3x 9	1x 8	1x 32	1x 14	5x 11	5x 2	3x 2	1x 17	1x 32				
		15	8	18	14	35	10	6	10	18	18	8	21	14	20	6	11	21	21	7	8	25	14	45	10	6	13	25	27	8	32	14	55	10	6	17	32				
Total length of whole steel frame (mm)		4.7	21.2	22.1	37.1	21.7	11.6	6.5	19.5	39.4	5.6	25.2	25.8	44.1	26.1	11.6	6.5	21.5	46.0	6.5	29.2	30.8	51.1	27.9	11.6	6.5	25.4	54.8	8.4	38.0	39.4	66.5	34.1	11.6	6.5	33.2	70.1				

TABLE 1-2

(A)		6 600										8 200										9 600										12 200									
		C										C										C										C									
Type		A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2				
Diameter (mm)	a1	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12			
		160	6750	1060	6750	470	800	910			160	8350	1060	8350							160	9750	1060	9750						160	12350	1060	12350								
		75		85		75	180	85			75		85								75		85							75		85									
		75		85		75	180	85			75		85								75		85							75		85									
		160	1060								160	1060									160	1060								160	1060										
Length (mm)	a1								895	565										895	565								895	565											
									895	565										895	565								895	565											
									895	565										895	565								895	565											
									895	565										895	565								895	565											
Total Length (mm)		310	6750	1230	6750	620	1160	1000	1950	2190	310	8350	1230	8350					1950	2190	310	9750	1230	9750	620	1160	1000	1950	2190	310	12350	1230	12350	620	1160	1000	1950	2190			
Length / Steel frame		310	6750	1230	6750	620	1160	1000	1950	2190	310	8350	1230	8350					1950	2190	310	9750	1230	9750	620	1160	1000	1950	2190	310	12350	1230	12350	620	1160	1000	1950	2190			
Total of steel frame		3x12	1x 8	1x15	1x14	5x18	5x 2	3x 2	1x23	1x45	3x15	1x 8	1x56	1x14	5x 2	3x 2	1x23	1x45	3x17	1x 8	1x65	1x14	5x22	5x 2	3x 2	1x33	1x65	3x21	1x 8	1x83	1x14	5x28	5x 2	3x 2	1x42	1x83					
Total length of whole steel frame (mm)		36	8	45	14	80	10	6	23	45	45	8	56	14	10	6	29	56	51	8	65	14	110	10	6	33	65	63	8	83	14	140	10	6	42	83					
		11.2	54.0	55.4	94.5	49.6	11.6	6.5	44.9	98.6	14.0	66.8	68.9	116.9	58.1	11.6	6.5	56.6	122.6	15.8	78.0	80.0	136.5	68.2	11.6	6.5	64.4	142.4	19.5	98.8	102.1	172.9	86.8	11.6	6.5	81.9	181.8				

SCALE A



REFERENCE

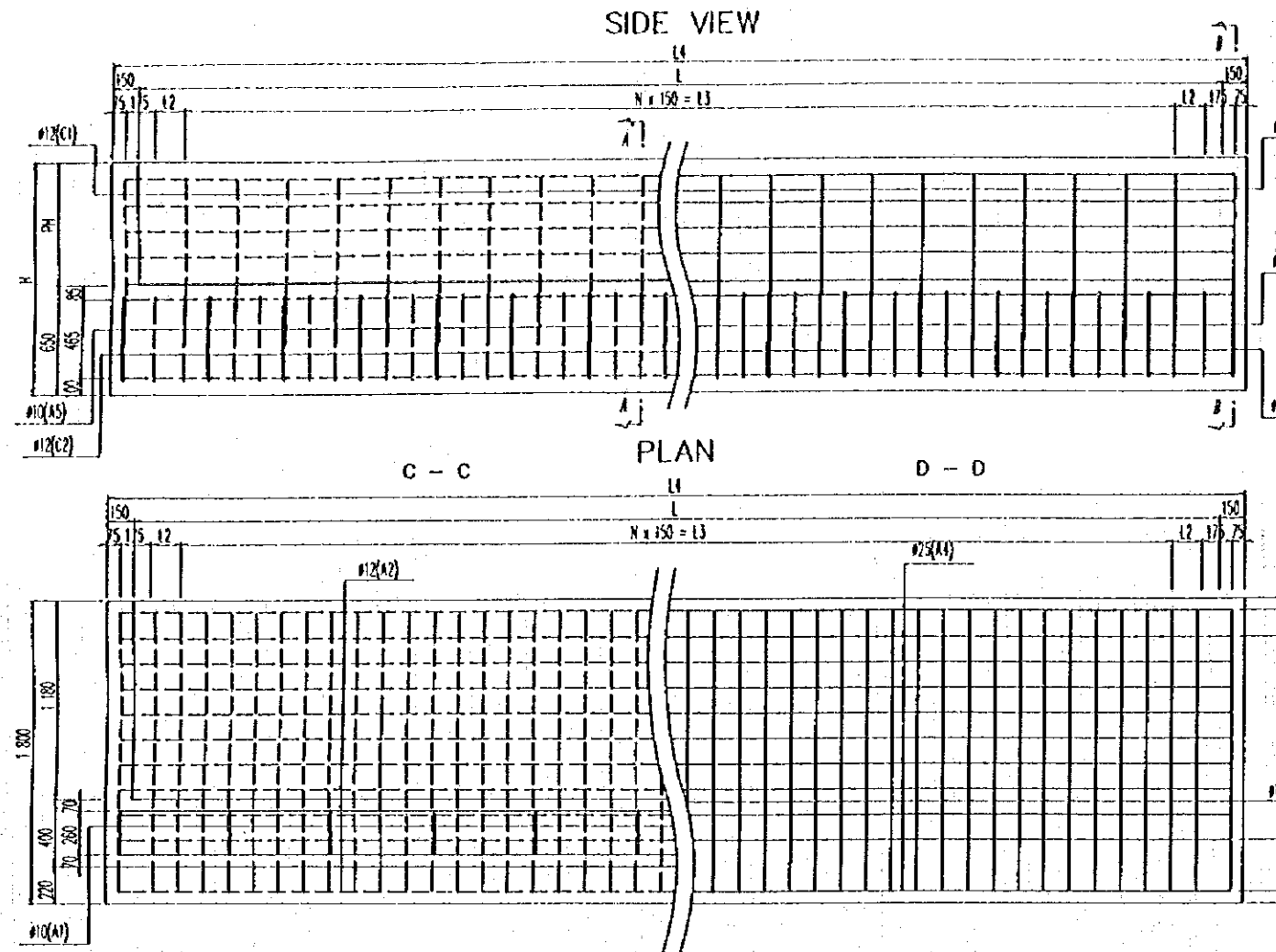
PREPARED  
CHECKED  
SUBMITTED  
DATE

MINISTRY OF PUBLIC WORKS  
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS  
JAPAN INTERNATIONAL COOPERATION AGENCY  
THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT  
THE CITY OF JAKARTA

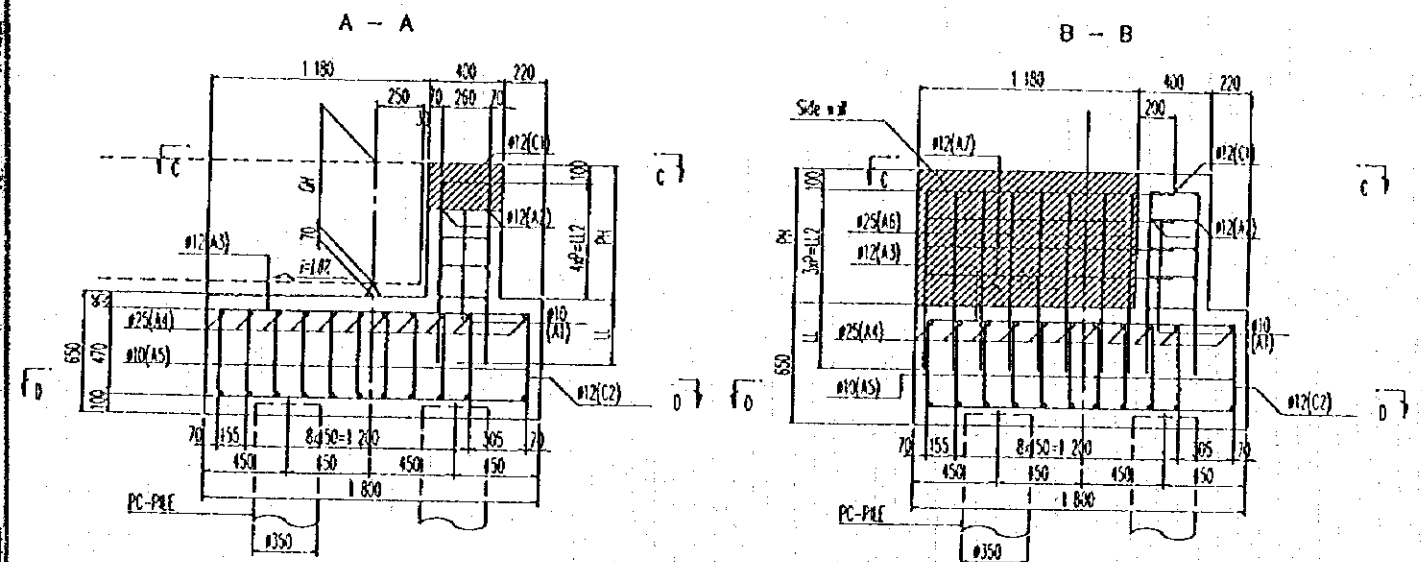
TITLE OF DRAWING  
RE-BAR ARRANGEMENT OF ABUTMENT-1

DWG. NO.  
J-70-40-003

APPROVED  
DATE



## CROSS SECTION



Casting concrete of side wall will be treated, after construction of superstructure.

Casting concrete of hatching part will be treated, after placing expansion joint.

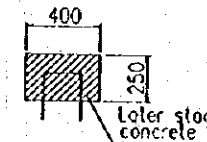


TABLE 2

Total width of new bridge (m)	4.6	6.6	8.2	9.6	10.6	12.2
L	4600	6600	8200	9600	10600	12200
L2	175	200	175	200	175	150
L3	4050	6000	7650	9000	10050	11700
L4	4900	6900	8500	9900	10900	12500
N	27	40	51	60	67	78

TABLE 3

H	1170	1220	1320	1370
GH	450	500	600	650
PH	520	570	670	720
P	105	117.5	142.5	155.0
LL	550	500	400	350
LL2	400	450	550	600

TABLE 1-1

(A)		4 600										6 600										8 200										
		L (mm)										L (mm)										L (mm)										
o2 } o3 o1		Type	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2			
		Diameter (mm)	10	12	12	25	10	25	12		12	12	10	12	12	25	10	25	12		12	12	10	12	12	25	10	25	12		12	12
Length (mm)		a1	260	4750	1660	4750	465	950	1310			260	6750	1660	6750	465	950	1310				260	8350	1660	8350	465	950	1310				
		a2	75		85		75	180	85			75		85		75	180	85				75		85		75	180	85				
		a3	75		85		75	180	85			75		85		75	180	85				75		85		75	180	85				
		c1									260	1660									260	1660								260	1660	
c2 } c3 c1		c2								1045	565									1045	565								1045	565		
		c3									1045	565									1045	565							1045	565		
		Total Length (mm)	410	4750	1830	4750	615	1310	1480	2350	2790	410	6750	1830	6750	615	1310	1480	2350	2790	410	8350	1830	8350	615	1310	1480	2350	2790	410	8350	2790
c2 } c3 c1		Length / Steel frame	410	4750	1830	4750	615	1310	1480	2350	2790	410	6750	1830	6750	615	1310	1480	2350	2790	410	8350	1830	8350	615	1310	1480	2350	2790	410	8350	2790
		Total of steel frame	4x 9	1x10	1x32	1x22	9x11	8x 2	4x 2	1x17	1x32	4x12	1x10	1x45	1x22	9x16	8x 2	4x 2	1x29	1x56			4x15	1x10	1x56	1x22	9x19	8x 2	4x 2	1x29	1x56	
		Total length of whole steel frame (mm)	14.8	47.5	58.6	104.5	60.9	21.0	11.8	40.0	89.3	19.7	67.5	82.4	148.5	88.6	11.8	54.1	125.6	24.6	83.5	102.5	183.7	105.2	21.0	11.8	68.2	156.2	24.6	83.5	102.5	183.7

TABLE 1-2

(A)		9 600										10 600										12 200																	
		A										C										A										C							
Type		A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2											
Diameter (mm)		10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12											
Length (mm)		a1	260	9750	1660	9750	465	950	1310			260	10750	1660	10750	465	950	1310			260	12350	1660	12350	465	950	1310												
		a2	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85												
		a3	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85												
		c1									260	1660								260	1660								260	1660									
Total Length (mm)		c2							1045	565								1045	565								1045	565											
		c3							1045	565								1045	565								1045	565											
			410	9750	1830	9750	615	1310	1480	2350	2790	410	10750	1830	10750	615	1310	1480	2350	2790	410	12350	1830	12350	615	1310	1480	2350	2790										
Length / Steel frame		410	9750	1830	9750	615	1310	1480	2350	2790	410	10750	1830	10750	615	1310	1480	2350	2790	410	12350	1830	12350	615	1310	1480	2350	2790											
Total of steel frame		4x17	1x10	1x65	1x22	9x22	8x 2	4x 2	1x33	1x65	4x19	1x10	1x72	1x22	9x25	8x 2	4x 2	1x42	1x83		4x21	1x10	1x83	1x22	9x28	8x 2	4x 2	1x42	1x83										
Total length of whole steel frame (mm)		68	10	65	22	198	16	8	33	65	76	10	72	22	225	2	37	72	84	10	83	22	252	16	8	42	83												
		27.9	97.5	119.0	214.5	121.8	21.0	11.8	77.6	181.4	31.2	107.5	131.8	236.5	158.4	11.8	87.0	200.9	34.4	123.5	151.9	271.7	155.0	21.0	11.8	98.7	231.6												
(C)																																							
c2 [ c3																																							

"L" is equal to the total width of the new bridges (Each width is shown in TABLE 2.)

Girder height of the new bridges, "GH" varies from 450mm to 700mm.

Parapet height of the abutment, "PH" is proportional to "GH".  
(Each dimension is shown in TABLE 3.)

SCALE A

REFERENCE

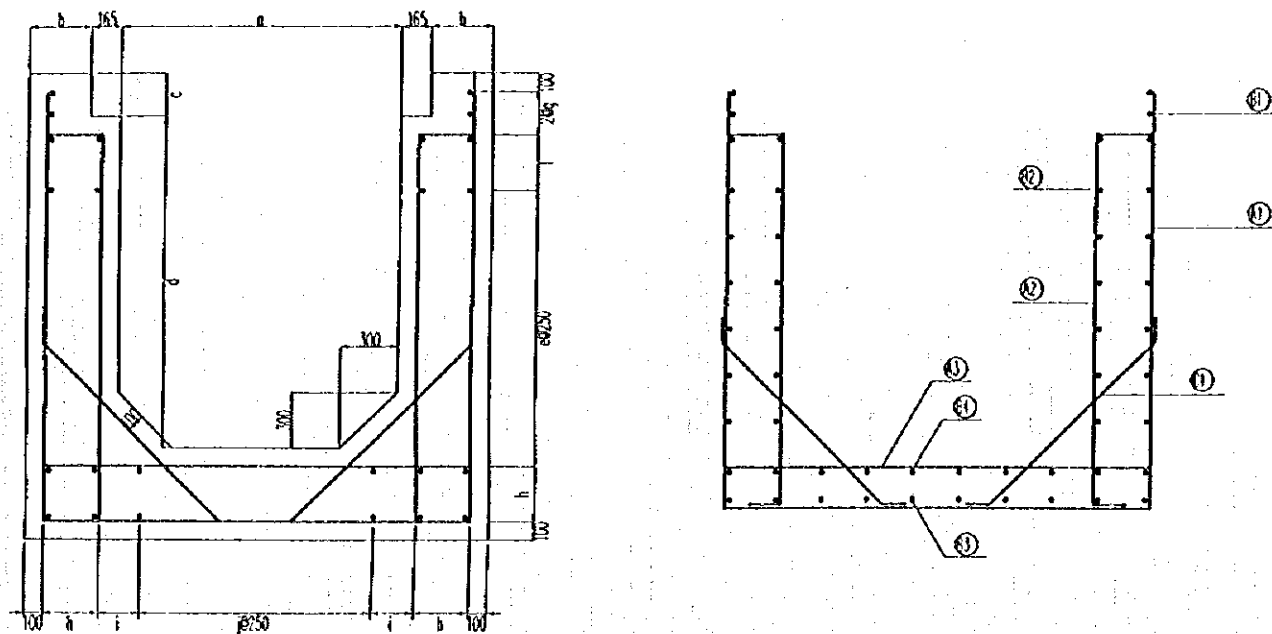
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THE CITY OF JAKARTA

TITLE OF DRAWING  
RE-BAR ARRANGEMENT OF ABUTMENT-2  
DWG. NO.  
J-70-40-004

APPROVED  
DATE

SIDE VIEW SCALE A

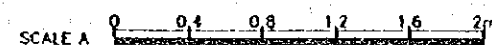


	a	b	c	d	e	f	g	h	i	j
BMM1				1750	7	0				
BMM2				1770	6	270				
BMM3				1800	6	300				
BMM4				1800	6	300				
BMM5	1500	335	230	1830	7	80	115	300	225	5
BMM6				1830	7	80				
BMM7				1890	7	140				
BMM8				1930	7	180				
BMM9				1930	7	180				
BMM10				1950	7	200				
BMM11	1250	385	230	1870	6	170	115	350	225	1
BMM12				1670	6	170				
BMM13				1670	6	170				
BMM14	2200	335	270	1370	5	120	135	300	200	8
BMM15				1600	6	100				
BMM16	1200	235	230	1470	5	220	115	200	200	1
BMM1										
BMM2										
BMM3	2200	285	270	1970	7	220	135	250	200	8
BMM1										
BKI19				1450	5	200				
BKI20	2000	235	270	1300	4	300	135	200	225	7

### PILE ARRANGEMENT

Bridge Name		BNM1	BNM2~4	BKM19,20
Pile Arrangement		<p>TYPE=J350A</p>	<p>TYPE=J350A</p>	<p>TYPE=J350A</p>
Pile	NO.	11	8	8
	Length(m)	8.0	8.0	14.0

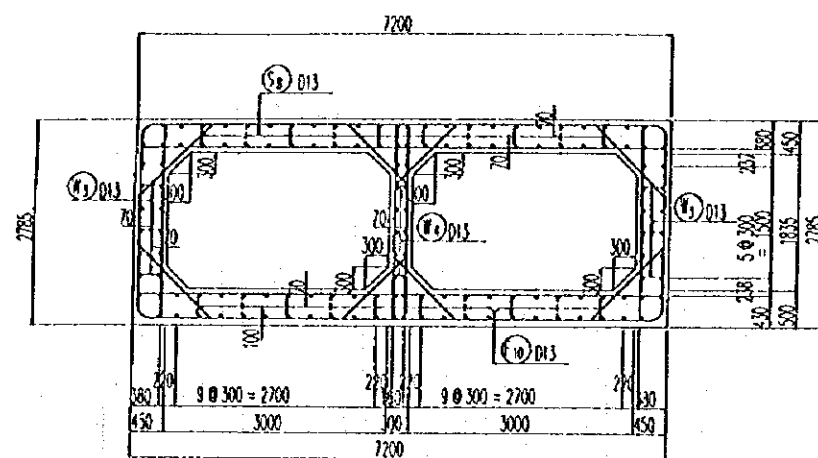
	A1	A2	A3	B1	B2	B3	B4	C1
BMM1	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM2								
BMM3								
BMM4								
BMM5								
BMM6								
BMM7								
BMM8								
BMM9	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM10								
BMM11								
BMM12								
BMM13	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM14								
BMM15	D16 @ 125	D16 @ 250	D13 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D13 @ 250	D16 @ 250
BMM16								
BMM1	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM2								
BMM3								
BMM4								
BKE19	D16 @ 125	D16 @ 250	D13 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D13 @ 250	D16 @ 250
BKE20								



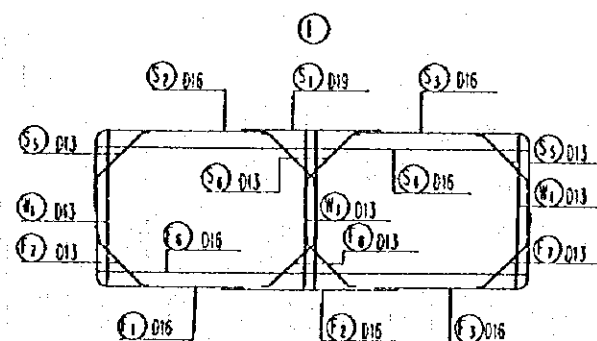
PREPARED CHECKED SUBMITTED DATE REFERENCE	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING RE-BAR ARRANGEMENT OF RC SIDE DITCH	APPROVED
	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO. J-70-40-003	DATE

# RE-BAR ARRANGEMENT OF BOX SECTION-1 SCALE A

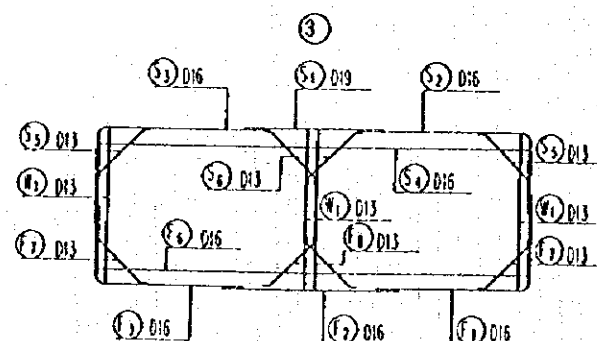
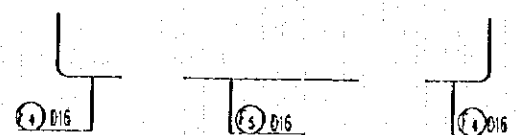
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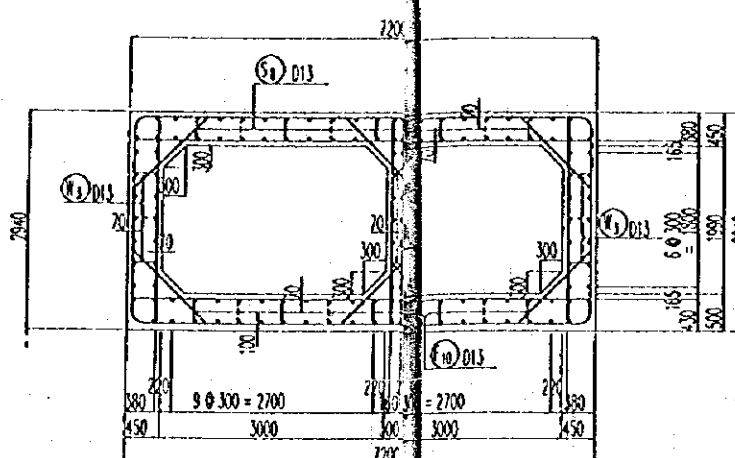
① 125



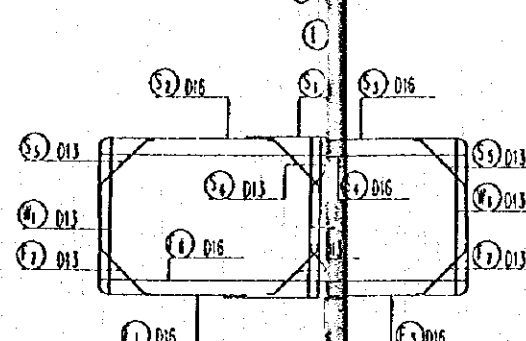
② ④  
S1 D13



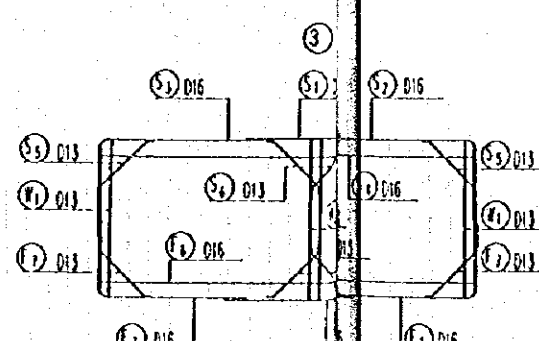
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L=



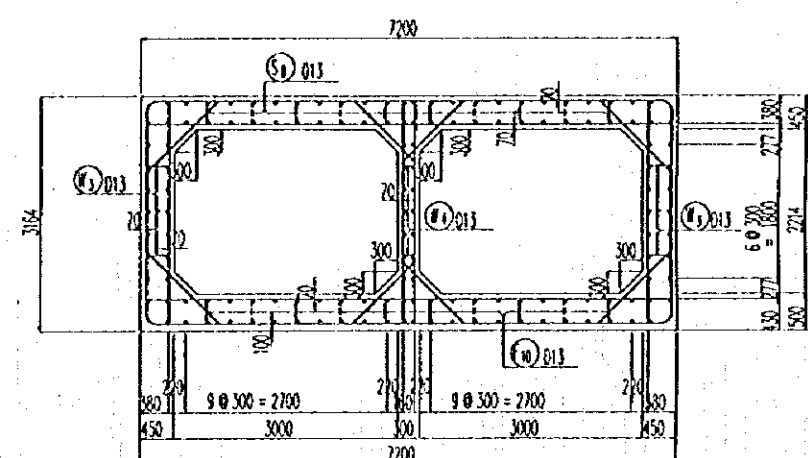
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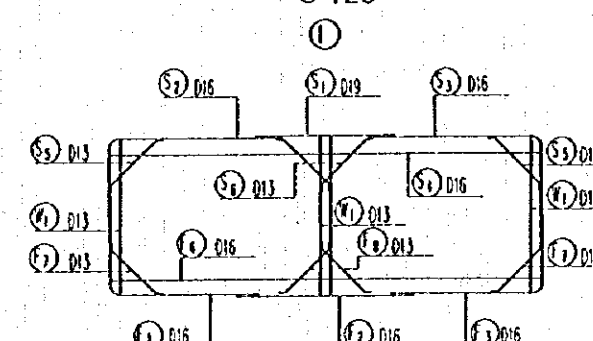
② ④  
S1 D13



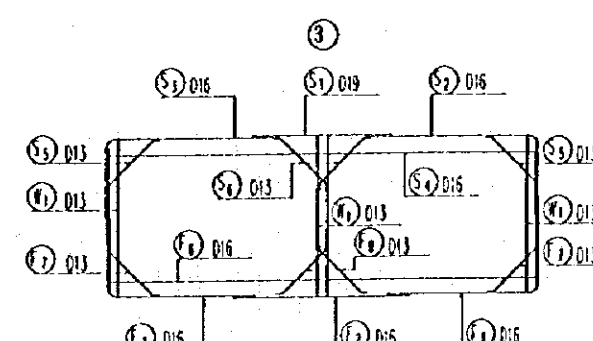
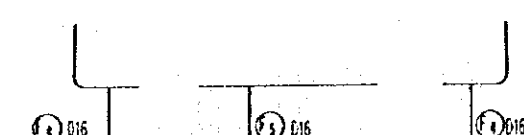
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① 125



② ④  
S1 D13



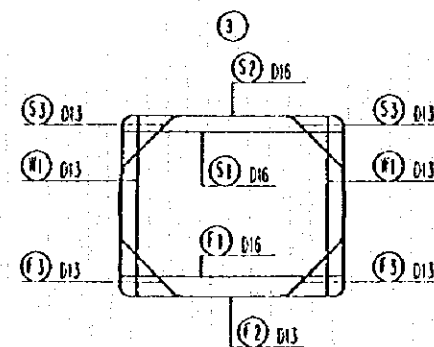
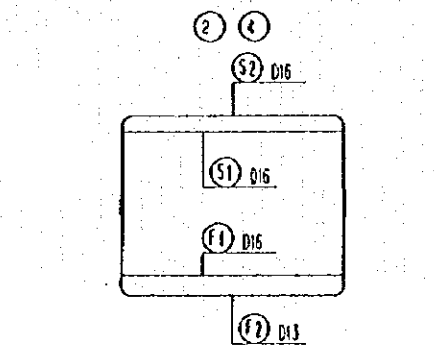
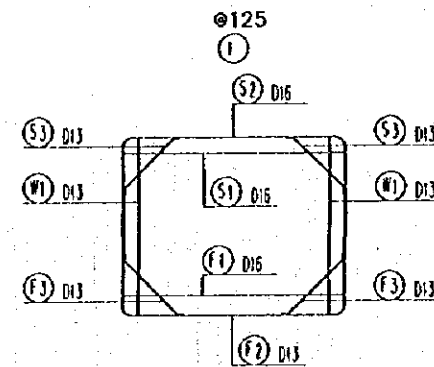
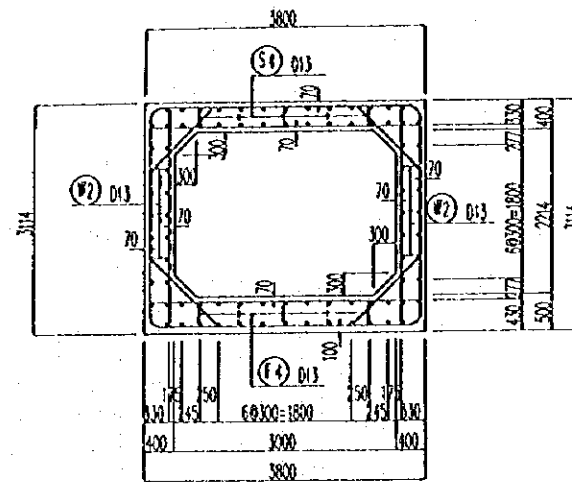
SCALE A 0 1 2 3 4 5m

REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING RE-BAR ARRANGEMENT OF BOX CULVERT-1 DWG NO J-70-40-006	APPROVED DATE
	CHECKED.....			
	SUBMITTED.....			
	DATE.....			

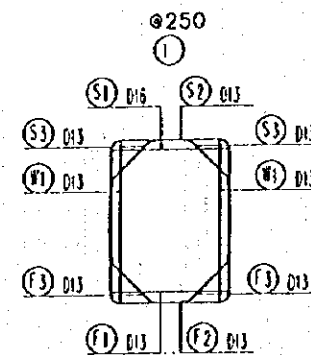
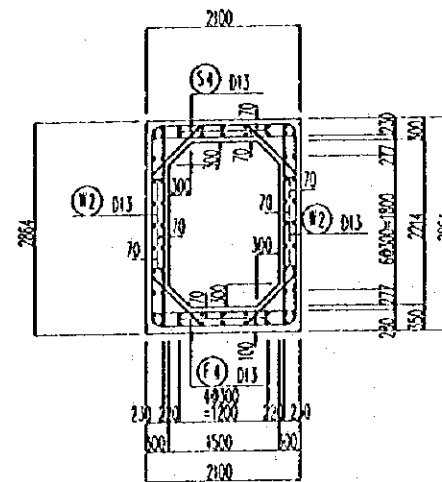
# RE-BAR ARRANGEMENT OF BOX SECTION-2

SCALE A

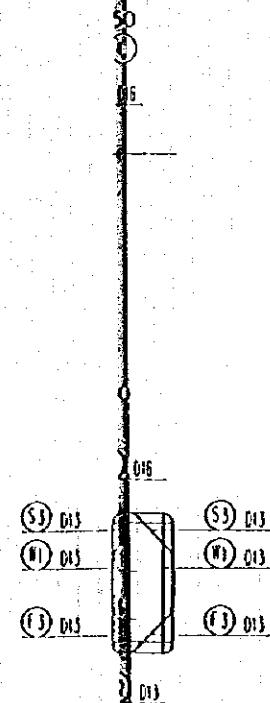
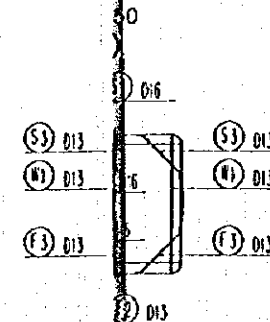
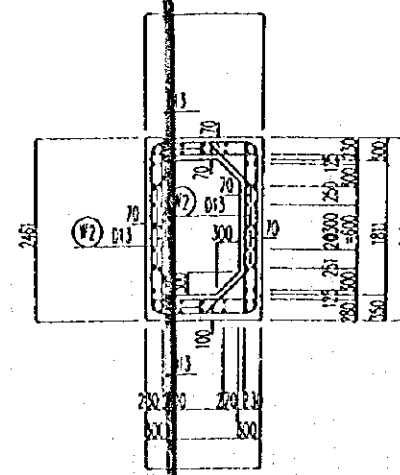
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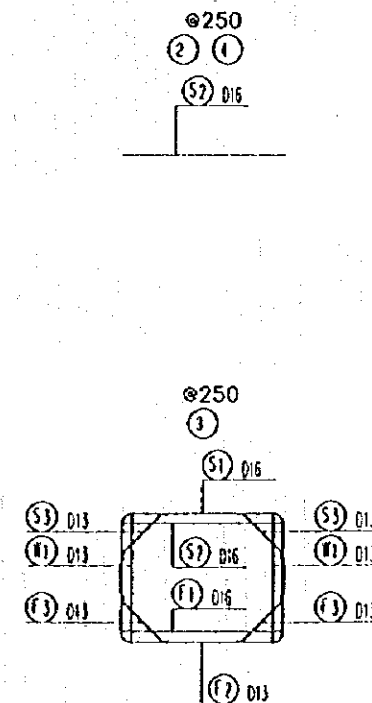
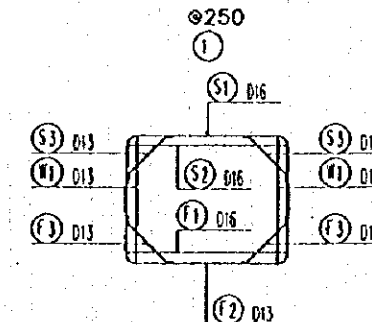
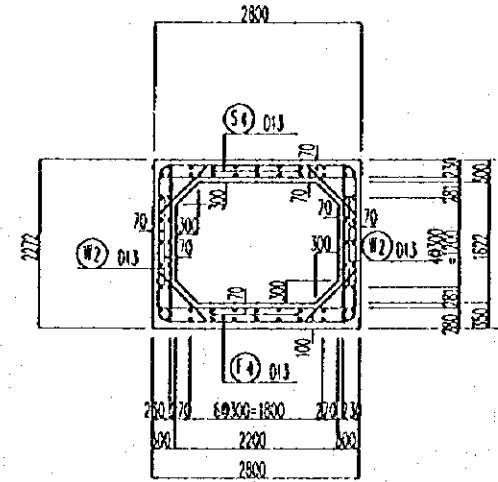
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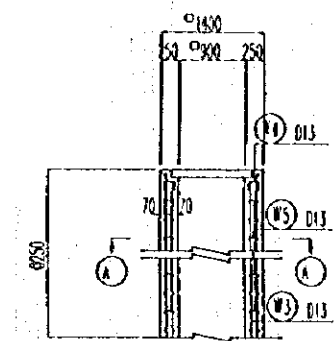
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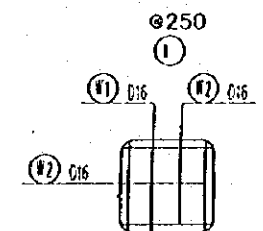
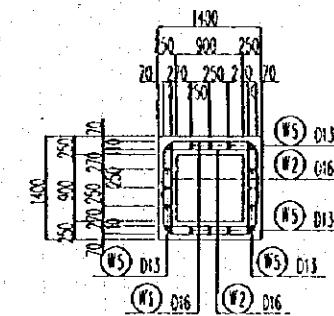
MM22+42.20~MM25+89.60  
L=214800



MANHOLE



SECTION A-A



## NOTES:

- (1) Datum Level : Mean Sea Level (TTC)
- (2) Heightened Land : - - - - -
- (3) Existing Road Surface : - - - - -
- (4) Lowest Bottom : - - - - -
- (5) B. Channel Width : - - - - -

SCALE A 0 1 2 3 4 5m

REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING RE-BAR ARRANGEMENT OF BOX CULVERT-2 DWC NO J-70-40-007	APPROVED DATE
	CHECKED			
	SUBMITTED			
	DATE			



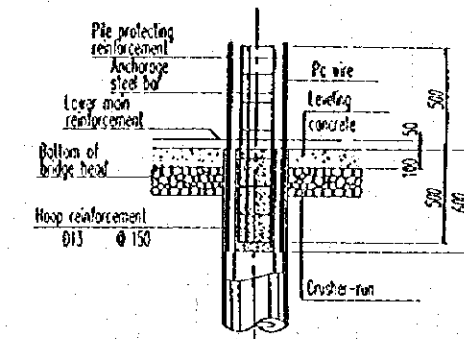
# 7. QUALITY

## Raw Material

Raw Material shall be as follow :

TYPE	CODE/STANDARDS	DESCRIPTION
Cement	SNI 15-2049-1994	Ordinary Portland Cement Type I
Aggregates	JIS A 5308	Aggregates for Ready Mixed Concrete For coarse aggregate, Max size 20mm
Chemical Admixture	ASTM C 494 or JIS A 6204	Standard Specification for Chemical Admixture Type G, Calcium Chloride free, Standard Type Water Reducing Chemical Admixture
Prestressing Steel	JIS G 3536	Uncoated Stress Relieved Steel Wire & Strand For Prestressed Concrete SPW01-7mm, SPW01-9mm
Spiral Wire	JIS G 3532	Low Carbon Steel Wire SWM-B or equivalent
Joint Plate	JIS G 3101	Rolled Steel for General Structure SS-400
Water		Shall not contain any jetriment amount of oils, acids, salts, etc.

## DITAIL OF PILE HEAD



## APPROACH CUSHION SLAB

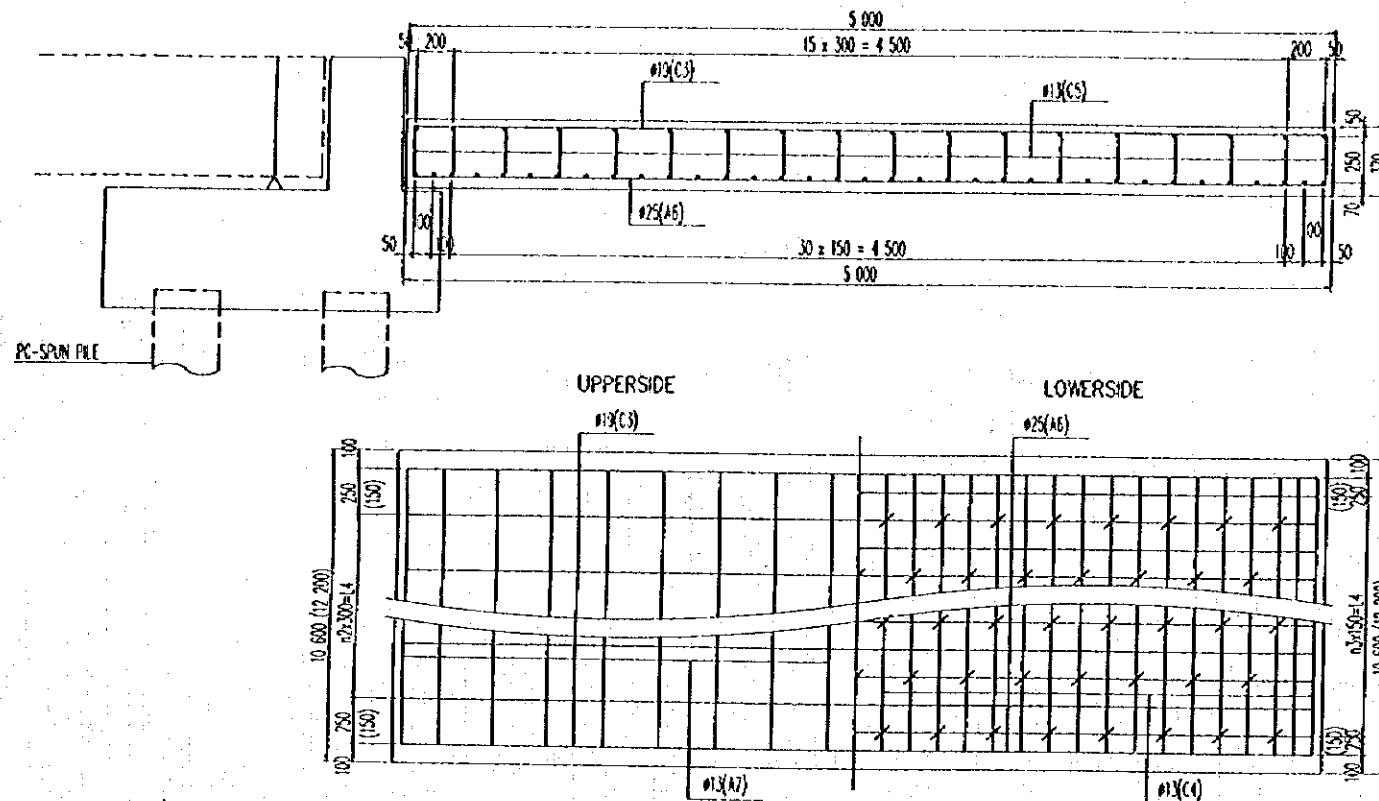


TABLE 2

No of bridge L (mm)		BTM-3 10 600					BNM-4.8CM-11.8CM-12 12 200				
Type		A6	A7	C3	C4	C5	A6	A7	C3	C4	C5
Diameter (mm)		25	13	13	13	13	10	12	12	25	10
Length (mm)	a1	4900	10400				4900	12000			
	a2										
	a3										
	c1			4900	10400	290			4900	12000	290
	c2			250	250	100			250	250	100
Total Length (mm)		4900	10400	5400	10900	490	4900	12000	5400	12500	490
Length / Steel frame		4900	10400	5300	10900	490	4900	12000	5300	12500	490
Total of steel frame		1x29	1x18	1x69	1x35	8x34	1x81	1x18	1x81	1x35	8x40
Total length of whole steel frame (mm)		142.1	187.2	372.6	381.5	133.3	396.9	216.0	437.4	437.5	156.8

## Compressive Strength test of concrete

Compressive Strength test will be done for each daily production work for the age of 1 day (before stress introduction), 7 days and 14 days (delivery period) and 28 days accordingly. Characteristic cube strength in accordance with Indonesian Concrete Code (PB1) 1981 should be 600 kg/cm<sup>2</sup> (k600) or equivalent with minimum cylinder strength (fck') of 500 kg/cm<sup>2</sup>.

## Pile Bending Test

Pile bending test of mainbody shall be made in accordance to clause 8 Bending Strength Test of JIS A 5335-1987. Unless specified otherwise, one pile of ever 500 piles the same diameter and type produced will be proof tested by Bending Strength Test. The Test will be considered as satisfactory

## Appearance and dimension check

Appearance and dimension check are done for each finished product with the following criterions :  
(no visual crack occured at the load corresponding to its M crack.

Description	Tolerance
Crack	No Visual Crack
Outside	+5mm -2mm
Wall thickness	-0mm
Length	+ not specified
Angle between joint plate and pile axis	0.3% of PC Pile Length 90° ±20°

SCALE A 0 0.4 0.8 1.2 1.6 2m

REFERENCE

PREPARED  
CHECKED  
SUBMITTED  
DATE

MINISTRY OF PUBLIC WORKS  
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS  
JAPAN INTERNATIONAL COOPERATION AGENCY  
THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT  
THE CITY OF JAKARTA

TITLE OF DRAWING  
APPROACH CUSHION SLAB AND PC-PILE  
DAG NO  
J-70-50-001

APPROVED  
DATE