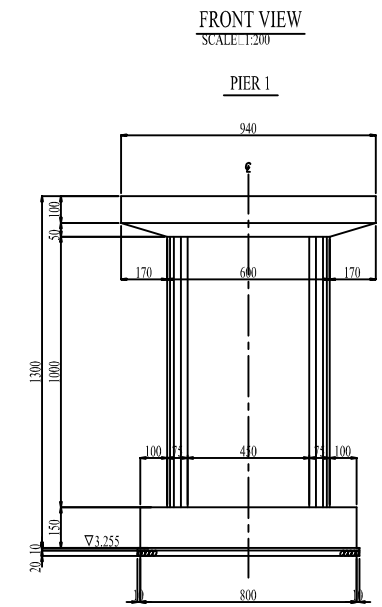
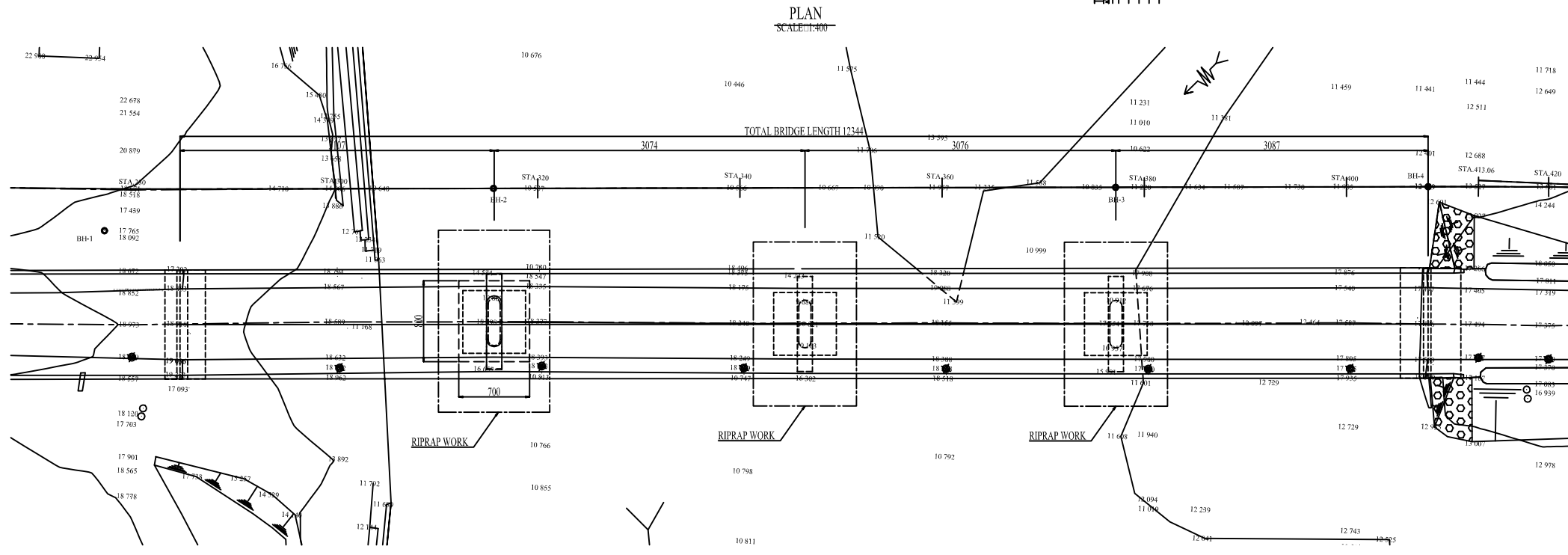
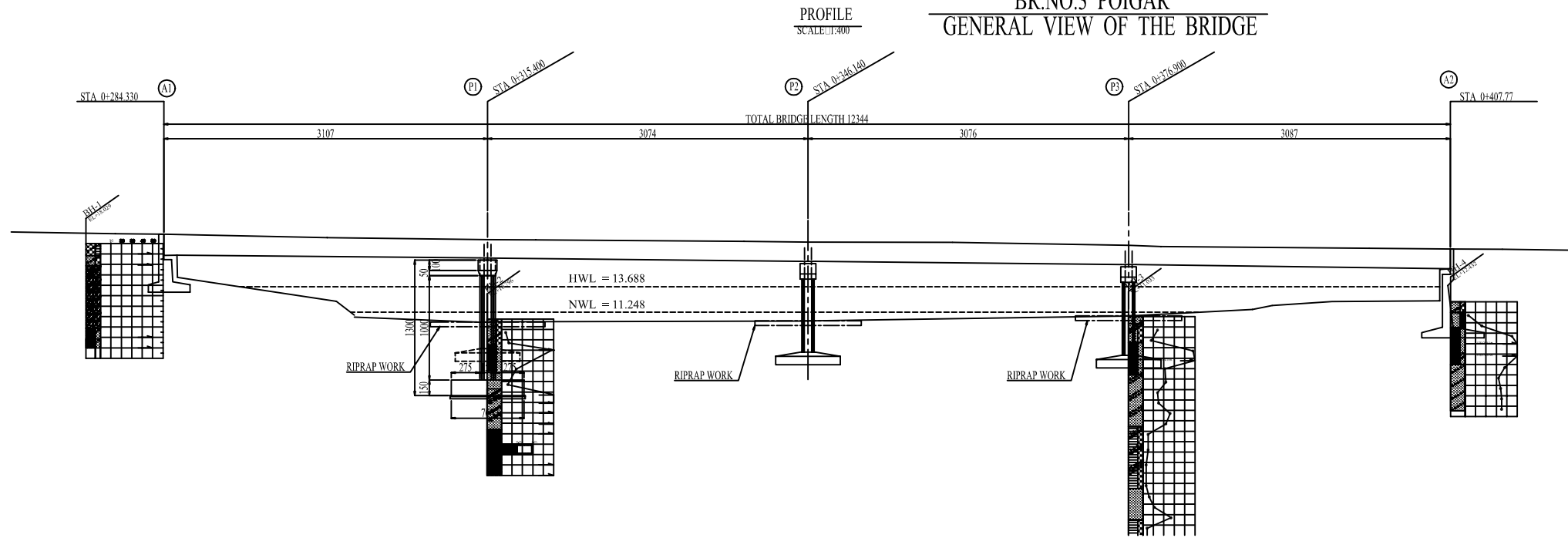


**BR.NO.3 POIGAR**  
**GENERAL VIEW OF THE BRIDGE**

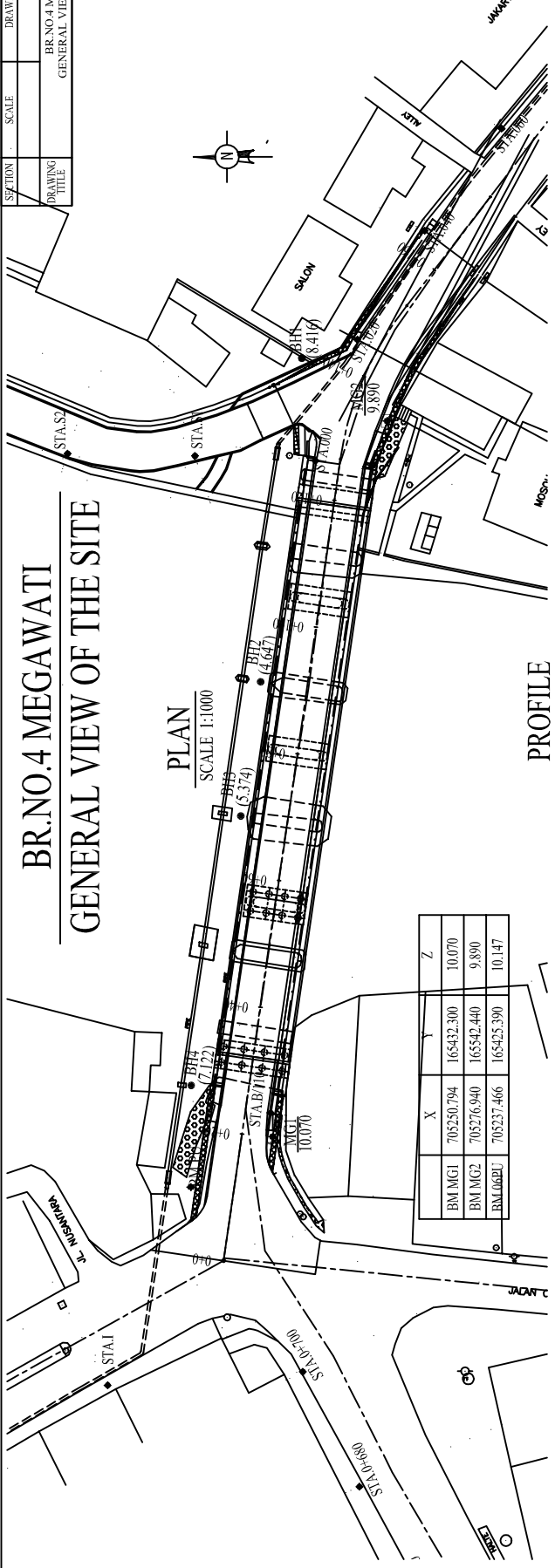
SECTION	SCALE	DRAWING NO.	SHEET NO.
DRAWING TITLE	1:200, 1:400	BR.NO.3 POIGAR	21 OF 29
GENERAL VIEW OF THE BRIDGE			



**DESIGN CRITERIA**

General Condition		
Design Live Load	"D" Lane Load	
Design Speed	---	
Bridge Length (Span Length)	---	
Longitudinal Gradient	---	
Cross-fall of Carriage way	---	
Sub Structure Type	Pier	Reinforced Concrete
Foundation Type	Pier	Direct Foundation
Material Strength		
Sub Structure Type	$\sigma_{28} = 21 \text{ N/mm}^2$	
Reinforcing Steel	SD235 ( $\sigma_{ys} = 235 \text{ N/mm}^2$ )	

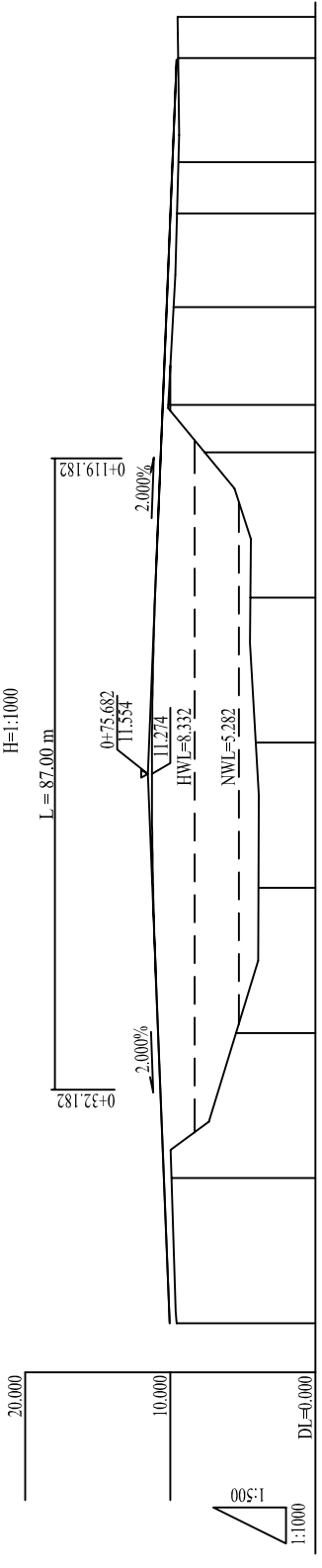
SECTION	SCALE	DRAWING NO.	SHEET NO.
DRAWING TITLE			20.07.29
BR. NO. 4 MEGAWATI GENERAL VIEW OF THE SITE			



**PLAN**  
SCALE 1:1000

**PROFILE**  
SCALE V=1:500  
H=1:1000

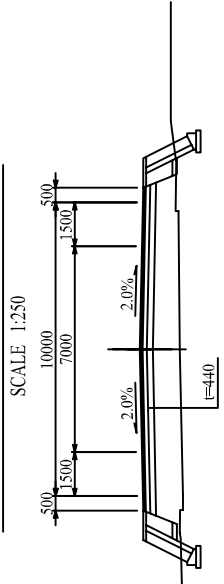
	X	Z
BM MG1	705250.794	165432.300
BM MG2	705276.940	165542.440
BM MG3	705237.466	165425.390
		10.070
		9.890
		10.147



DI=0.000  
1:1000

GROUND HEIGHT	STATION
9.561	NO. 0
9.924	-020.000
5.463	-040.000
3.921	-060.000
3.983	-075.682
4.110	-080.000
4.489	-100.000
7.645	-120.000
10.148	-126.519
9.780	-140.000
9.542	-152.941
9.445	-160.000
9.462	-174.324
9.500	-180.000

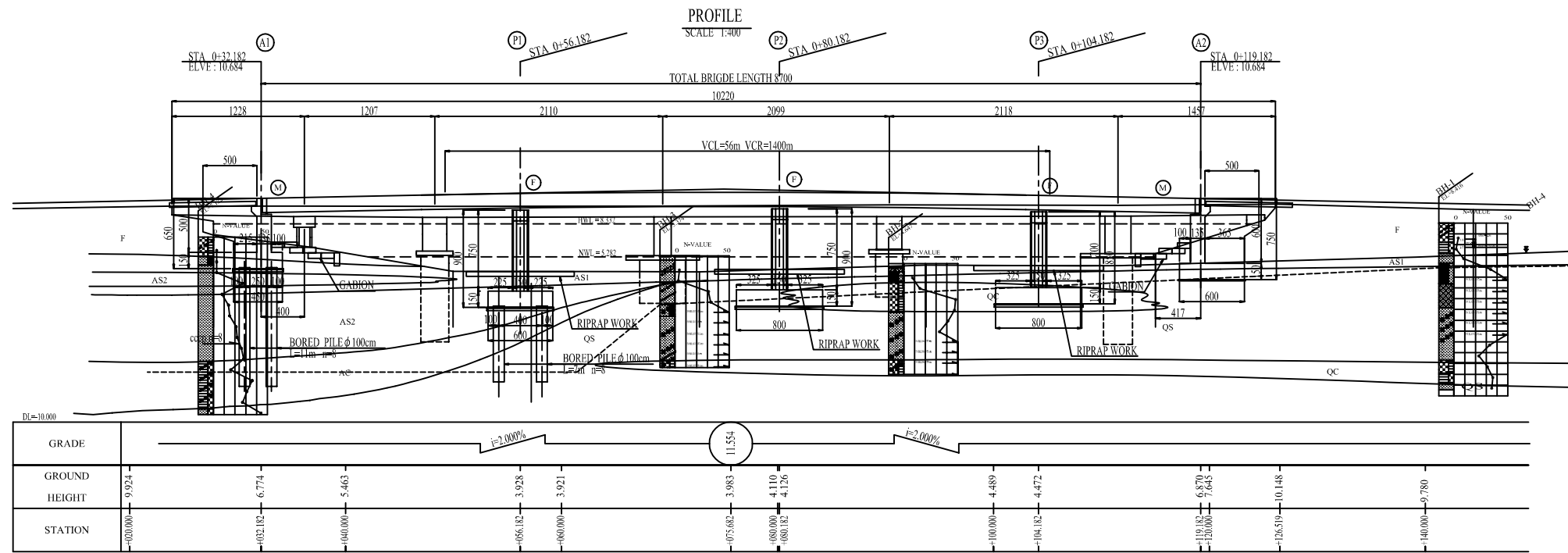
**TYPICAL CROSS SECTION**



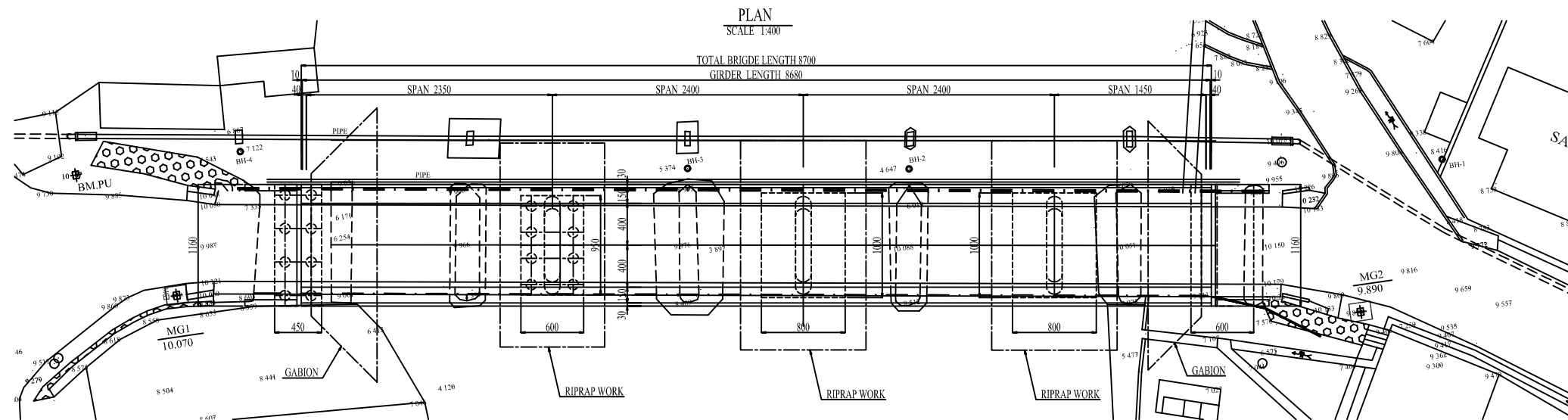
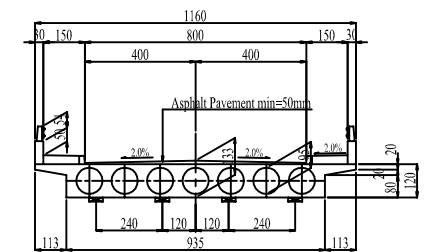
SCALE 1:250

SECTION	SCALE	DRAWING NO.	SHEET NO.
	1:100 & 1:400		24 OF 24
DRAWING TITLE	BR.NO.4 MEGAWATI GENERAL VIEW OF THE BRIDGE		

## BR.NO.4 MEGAWATI GENERAL VIEW OF THE BRIDGE



**CROSS SECTION FOR PC HOLLOW SLAB**  
SCALE 1:200



### DESIGN CRITERIA

General Condition		
Design Live Load	"D" Lane Load	
Design Speed	V=60km/h	
Bridge Length(Span Length)	87.00m(23.50m+2@24.00m+14.50m)	
Longitudinal Gradient	2.0%, -2.0%	
Cross-fall of Carriage way	2.00 %	
Super Structure Type	Prestressed Concrete	
Sub Structure Type	Reinforced Concrete	
Foundation Type	Bored Pile $\phi$ 100cm, Direct Foundation	
Material Strength		
Super Structure Type	Girder	$\sigma_{28}=34.6\text{N/mm}^2$
Surface	Curb, Handrail	$\sigma_{28}=21\text{N/mm}^2$
Sub Structure Type		$\sigma_{28}=21\text{N/mm}^2$
Reinforcing Steel		SD235( $p_y=235\text{N/mm}^2$ )

# 資 料

資料 1. 調査団員・氏名

中央及び北スラウェシ州橋梁改修計画基本設計調査

調査団員名簿

第一次現地調査

担当	氏名	所属
総括（団長）	林 宏之	国際協力事業団無償資金協力調査部
業務主任 / 道路交通計画	長瀬 和博	(株)パシフィックコンサルタンツインタ - ナショナル
橋梁設計	飯塚 力也	(株)パシフィックコンサルタンツインタ - ナショナル
橋梁設計	入澤 徹	(株)パシフィックコンサルタンツインタ - ナショナル
自然条件調査（測量・地質）	槇 明	(株)パシフィックコンサルタンツインタ - ナショナル
自然条件調査（河道特性・水文）	山田 清蔵	(株)パシフィックコンサルタンツインタ - ナショナル
施工計画 / 積算	高野 洋行	(株)パシフィックコンサルタンツインタ - ナショナル

第二次現地調査

担当	氏名	所属
総括（団長）	秋山 純一	国際協力事業団インドネシア事務所
業務調整	坂部 英孝	国際協力事業団無償資金協力調査部
業務主任 / 道路交通計画	長瀬 和博	(株)パシフィックコンサルタンツインタ - ナショナル
橋梁設計	飯塚 力也	(株)パシフィックコンサルタンツインタ - ナショナル
橋梁設計	入澤 徹	(株)パシフィックコンサルタンツインタ - ナショナル
自然条件調査（測量・地質）	槇 明	(株)パシフィックコンサルタンツインタ - ナショナル
自然条件調査（河道特性・水文）	山田 清蔵	(株)パシフィックコンサルタンツインタ - ナショナル
施工計画 / 積算	高野 洋行	(株)パシフィックコンサルタンツインタ - ナショナル

基本設計概要書説明

担当	氏名	所属
総括（団長）	林 宏之	国際協力事業団無償資金協力調査部
業務調整	坂部 英孝	国際協力事業団無償資金協力調査部
業務主任 / 道路交通計画	長瀬 和博	(株)パシフィックコンサルタンツインタ - ナショナル
橋梁設計	飯塚 力也	(株)パシフィックコンサルタンツインタ - ナショナル

資料 2. 調査日程

第一次現地調査日程表

No	Date	Day	Team Leader Mr. H. Hayashi JICA	Chief Consultant /Road Planning Mr. K. Nagase PCI	Br. Design Mr. R. Iizuka PCI	Br. Design Mr. T. Irisawa PCI	Survey/ Geology Mr. A. Maki PCI	River/Water Mr. S. Yamada PCI	Const. Plan./ Estimation Mr. H. Takano PCI	
1	17Feb	Sun	Narita ~ Jakarta (by air)							
2	18Feb	Mon	C/C and Explanation of the Inception Report to Embassy of Japan, JICA Office, MOS&RI.				Data collection			
3	19Feb	Tue	Meeting with MOS&RI							
4	20Feb	Wed	Jakarta ~ Manado (by air)							
5	21Feb	Thu	Meeting with Provincial office (Explanation of the I/C Report and Questionnaire, Confirmation of candidate bridges, transportation condition, and accommodations etc)							
6	22Feb	Fri	Site survey (3 candidate bridges site) (by car)							
7	23Feb	Sat	Meeting with Provincial office regarding improvement policy of 3 bridges							
8	24Feb	Sun	Manado ~ Luwuk ~ Palu (by air)				To Banggai			
9	25Feb	Mon	Meeting with Provincial office (Explanation of the I/C Report and Questionnaire, Confirmation of candidate bridges, transportation condition, and accommodations etc)				Site survey in Banggai area			
10	26Feb	Tue	Palu ~ Jakarta (by air)		To Buol	To Banggai	To Salakan			To Jakarta
11	27Feb	Wed	Meeting with MOS&RI		No.1~3	No.25~27	Site survey in Salakan area			Meeting
12	28Feb	Thu	Meeting & Signing of M/D		No.4,5	To Salakan				EOJ,JICA
13	1Mar	Fri	Report to EOJ, JICA To Narita		No.11,12	No.8~11				Data collection
14	2Mar	Sat	Arr. Narita	To Palu	No.10	No.12~15				To Palu
15	3Mar	Sun	To Buol		Data classification			To Buol		
16	4Mar	Mon	Site survey in Buol		No.9	No.16~18	Site survey in Salakan area		Site survey in Buol	
17	5Mar	Tue			No.8	No.19~21				
18	6Mar	Wed	To Palu		No.7	No.22~24	Salakan ~ Luwuk		To Palu	
19	7Mar	Thu	To Salakan		No.6	No.5~7	Luwuk ~ Palu		To Salakan	
20	8Mar	Fri	Site survey in Salakan		No.13~15	No.3,4	Palu ~ Buol (by car)		Site survey in Salakan	
21	9Mar	Sat			No.16~18	No. 1,2	Site survey in Buol area			
22	10Mar	Sun	Data classification							
23	11Mar	Mon	To Luwuk	No.19~21	To Luwuk		Site survey in Buol area		To Luwuk	
24	12Mar	Tue	To Palu	To Palu	To Palu				To Palu	
25	13Mar	Wed	Data classification						Data classification	
26	14Mar	Thu	Meeting with Provincial office							Meeting
27	15Mar	Fri	Palu ~ Jakarta (by air)							To Jakarta
28	16Mar	Sat	Data classification and analysis							D. analysis
29	7Mar	Sun	Data classification							
30	18Mar	Mon	Data classification and analysis				Site survey in Buol area		D. analysis	
31	19Mar	Tue	Data analysis and evaluation				Buol ~ Palu (by car)		Data evaluation	
32	20Mar	Wed					Palu ~ Jakarta (by air)			
33	21Mar	Thu	Meeting with MOS&RI				Data collection		Meeting	
34	22Mar	Fri	Report to EOJ and JICA. Data collection. Jakarta ~ Narita							
35	23Mar	Sat	Arr. Narita							

EOJ : Embassy of Japan to Indonesia

JICA : Japan International Cooperation Agency

MOS&RI : Ministry of Settlement and Regional Infrastructure

I/C : Inception Report

M/D : Minute of Discussion

D : Data

## 第二次現地調査日程表

No	Date	Day	Team Leader Mr. Akiyama JICA	Project Coordinator Mr. Sakabe JICA	C.C/Road Planning Mr. Nagase PCI	Br. Design Mr. Iizuka PCI	Br. Design Mr. Irisawa PCI	Construction Planning/Estimation Mr. Takano PCI	Survey/Geology Mr. Maki PCI	River/Water Mr. Yamada PCI
1	21-Apr	Sun							Narita-Jakarta	
2	22-Apr	Mon							Tenderer List Up	
3	23-Apr	Tue							Tender Call	
4	24-Apr	Wed							Explanation of Contract Condition	
5	25-Apr	Thu							Tender	
6	26-Apr	Fri							Tender Evaluation	
7	27-Apr	Sat							Preparation of Tender Report	
8	28-Apr	Sun							Data Classification	
9	29-Apr	Mon							Contract of Topo Survey, Geological Survey	
10	30-Apr	Tue							Meeting with River Agency (JKT)	
11	1-May	Wed							Meeting with Tenderer	
12	2-May	Thu							Jakarta ~ Manado	
13	3-May	Fri							Supervision of Topo Survey & Geological Survey	
14	4-May	Sat							Site Survey	
15	5-May	Sun							Data Classification	
16	6-May	Mon							Manado ~ Palu	
17	7-May	Tue							Palu ~ Tolitoli	
18	8-May	Wed							Tolitoli ~ Buol	
19	9-May	Thu							Supervision of Topo Survey & Geological Survey	
20	10-May	Fri							Site Survey	
21	11-May	Sat							Data Classification	
22	12-May	Sun							Data Classification	
23	13-May	Mon							Supervision of Topo Survey & Geological Survey	
24	14-May	Tue							Site Survey	
25	15-May	Wed							Boulu ~ Tolitoli	
26	16-May	Thu							Tolitoli ~ Palu	
27	17-May	Fri							Data Classification	
28	18-May	Sat							Data Classification	
29	19-May	Sun							Palu ~ Luwuk ~ Salakan	
30	20-May	Mon							Supervision of Topo Survey & Geological Survey	
31	21-May	Tue							Site Survey	
32	22-May	Wed							Salakan ~ Luwuk	
33	23-May	Thu							Luwuk ~ Palu	
34	24-May	Fri							Palu ~ Jakarta	
35	25-May	Sat							Meeting with Tenderer	
36	26-May	Sun							Jakarta ~ Narita	
37	27-May	Mon							Arr. Narita	
38	28-May	Tue								
39	29-May	Wed								
40	30-May	Thu								
41	31-May	Fri								
42	1-Jun	Sat								
43	2-Jun	Sun							Narita ~ Jakarta (JAL725; 11:20-16:35)	
44	3-Jun	Mon							Explanation of Interim Report to EOJ & JICA	
45	4-Jun	Tue							Explanation of Interim Report to Kimpraswil	
46	5-Jun	Wed							Jakarta ~ Manado (GA600; 09:50-15:15)	
47	6-Jun	Thu							Explanation of Interim Report to North Sulawesi	
48	7-Jun	Fri		Site Survey/ Meeting with North Sulawesi					Site Survey/ Meeting with North Sulawesi	
49	8-Jun	Sat		Manado ~ Ujun Pandan (GA601; 13:15-14:50)						
50	9-Jun	Sun		Ujun Pandan ~ Palu (MZ 718; 13:00-14:00)					Mando ~ Palu (JT 789 ; 07:00-08:30, MZ 718 ; 13:00-14:00)	
51	10-Jun	Mon							Explanation of Interim Report to Central Sulawesi	
52	11-Jun	Tue							Palu ~ Jakarta (M719; 14:40-17:45)	
53	12-Jun	Wed							Palu ~ Luwk ~ Banggai Kepulauan (MZ 8979; 10:50-12:20)	
54	13-Jun	Thu							Palu ~ Jakarta (MZ 719; 14:40-17:45)	
55	14-Jun	Fri							Meeting with Kimpraswil	
56	15-Jun	Sat							Site Survey/ Meeting with Kab. Banggai Kepulauan	
									Signing of M/D with Kimpraswil	
									Report to EOJ & JICA (Mr. Sakabe; Jakarta ~ Narita)	
									Report to EOJ & JICA, Jakarta ~ Narita	
									Arr. Narita	
									Meeting with Contractor	
									Banggai Kepulauan ~ Luwk	
									Arr. Narita	

資料 3. 関係者（面会者）リスト

An interview list

1	Embassy of Japan in Indonesia	
	Mr. KUSANO Shinichi	First Secretary Economic Section
2	Japan International Cooperation Agency (JICA)	
	Mr. KANDA Michio	Resident Representative
	Mr. AKIYAMA Junichi	Assistant Resident Representative
	Mr. ATARASHI Kazumasa	JICA Expert for Arterial Roads
	Mr. OKAMOTO Masaaki	JICA Expert on Regional Development Policy in the Decentralization Era
3	Ministry of Settlement and Regional Infrastructure Directorate General of Regional Infrastructure	
	Mr. Hisnu Pawenang Mr. Sudarmadji Koesno	Director of Technical Affairs
	Mr. Frankie Tayu	Director of East Reg, Chief
	Mr. Asril P. Barus	Chief of Sub Dit
	Mr. Judijono MM.	Directorate of Technical Affairs
	Mr. Danis H. Sumadilaga	Chief of Sub Director
	Mr. Atmanto	Chief of FUIO
	Mr. Nuryanto	Directorate of External Funds, MOF
	Mr. Mashud K.	Directorate of KIMPRASWIL Central Sulawesi
	Mr. Firuran MM	Head Division of Programs and Bilateral Cooperation
	Mr. Bambang Prihartono	Directorate of BAPPENAS
	Mr. Danis H Sumadilaga	Chief of Directorate of Budget and Foreign Aid



4	North Sulawesi Interview List	
	Mr. A.J. Sondakh	North Sulawesi Governor
	Mr. J. Saruan	Assistant Secretary
	Prof. Locky Sondakh	Head of Bapelit Bank Chairman
	Mr. Harry Untu	Settlement and infrastructure Service Chairman
	Mr. RO. Roring	Settlement and infrastructure Service Vice-Chairman
	Mr. F.C. Ambey	KAPET
	Mr. D. Mewengmasy	BKPM Province Nort Sulawesi
	Mr. Sugeng. N.	Kasnwi DJA
	Mr. R. Katiwek	Bapproy
	Mr. Audie Rumayar	LPJK Chairman
	Mr. Vicky Lumentut	Settlement and infrastructure Service
	Mr. B. Masimambow	Chief of Settlement and infrastructure Service
	Mr. L. Mentang	Settlement and infrastructure Service
	Mr. L.M.Y. Kandou	Chief operational & Dev. Road & Bridge Nort Sulawesi
	Mr. F.L. Kannang	DIHUB Minahasa
	Mr. H.V. Lolowang	DINAS KIMPRAS Minahasa
	Mr. E. Kenap	Dinas Perhubungan Province Nort Sulawesi
	Mr. Any Marenteh	DPRD of Nort Sulawesi
	Mr. A. Sembung	DINAS PRASKIM
	Mr. N. Pusung	Dians PrasKim Nort Sulawesi
	Mr. RO. Roring	Vice chairment Settl. & Infrast. Services Nort Sulawesi

5	Central Sulawesi Interview List	
	Mr. Subagyo	Staff of KIMPRASWIL
	Mr. Imam Algozali	Highway Section of KIMPRASWIL
	Mr. Moh Romlah	Staff KIMPRASWIL
	Mr. M. Idris Tahir	Staff KIMPRASWIL
	Mr. Sutomo M	Kadis. KIMPRASWIL
	Mr. Bakri Rachim	Staff of Bappeda Buol
	Mr. Solmi	Staff KIMPRASWIL
	Mr. Mashud Kasim	Kadis
	Mr. Bambang Sunaryo	KSD Bina Program
	Mr. Harry Purwantoro	Directorate of Western Kimpraswil Infrastructure
	Mr. Naake	PKLN SetJen
	Mr. Suhartono	Bintek Praswil