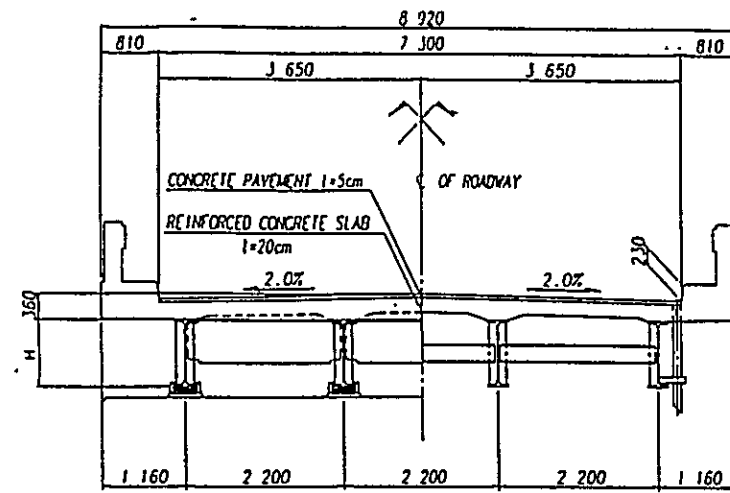
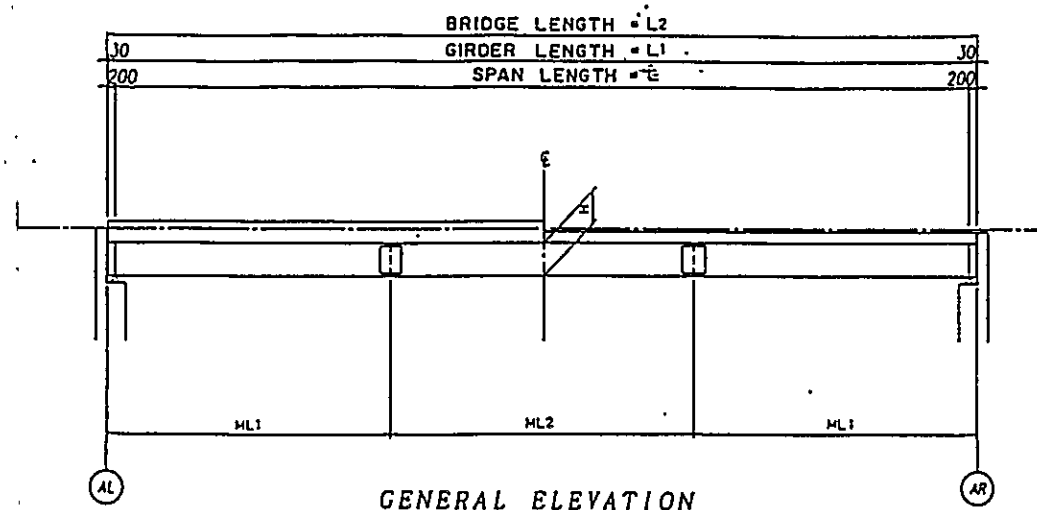


**BASIC DESIGN
OF
SUPERSTRUCTURES
(GROUP 1)**

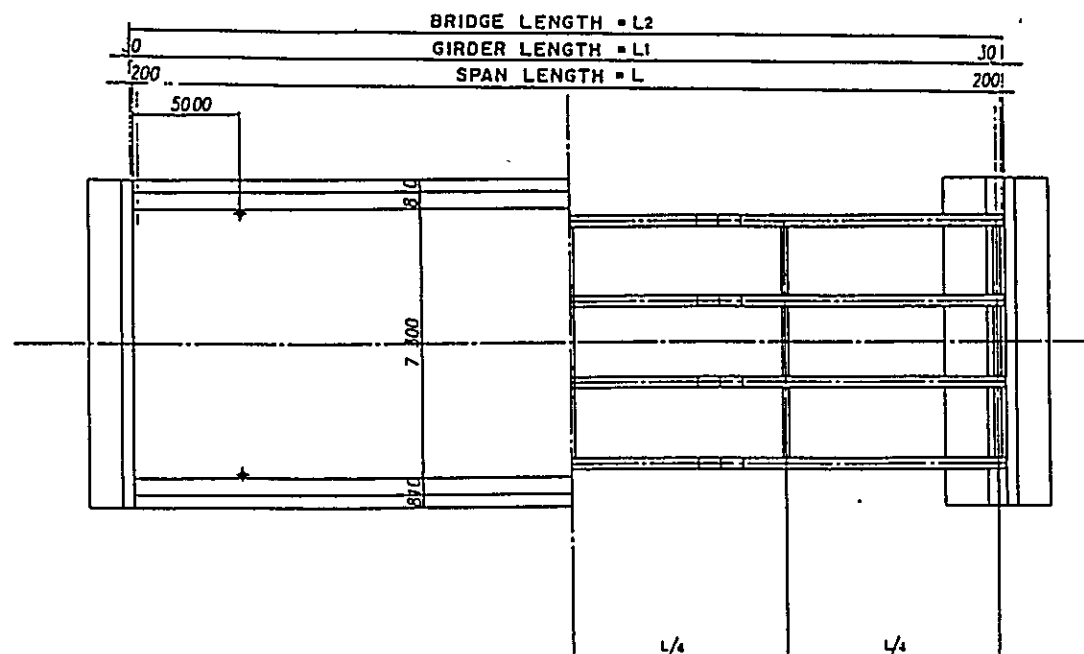
BRIDGE NO.		SHEET NO.
	GENERAL VIEW	29



SUPERSTRUCTURE CROSS SECTION



GENERAL ELEVATION



GENERAL PLAN

SPAN L (m)	BRIDGE LENGTH L ₂ (m)	GIRDER LENGTH L ₁ (m)	GIRDER SIZE	MENBE LENGTH		
				ML ₁ (m)	ML ₂ (m)	L/4
15	15.46	15.4	0.700	4.7	6.0	3.75
18	18.46	18.4	0.890	5.5	7.4	4.5
19	19.46	19.4	0.900	5.7	8.0	4.75
20	20.46	20.4	0.912	6.2	8.0	5.0
21	21.46	21.4	0.912	6.7	8.0	5.25
22	22.46	22.4	0.912	7.0	8.4	5.5
23	23.46	23.4	0.912	7.7	8.0	5.75
24	24.46	24.4	0.912	7.95	8.5	6.0

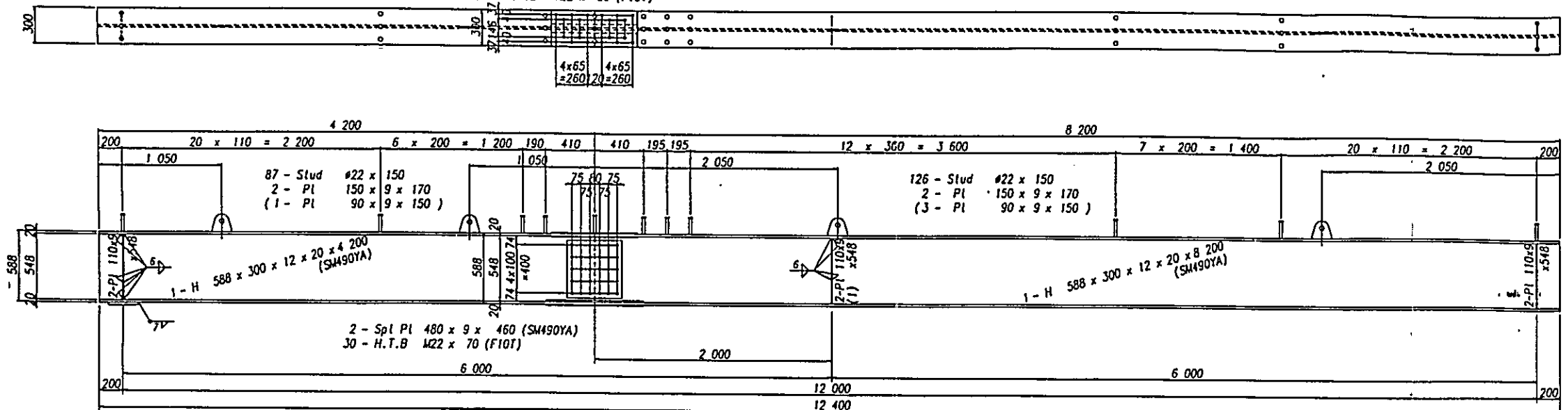
BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 12	30

DETAILS OF SUPERSTRUCTURES

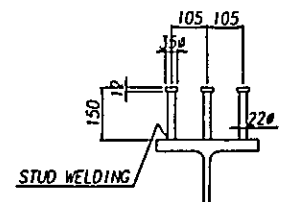
L = 12.0M

MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 300 x 10 x 720 (SM490YA)
- 2 - Spl Pl 114 x 10 x 720 (SM490YA)
- 20 - H.T.B M22 x 80 (F10T)

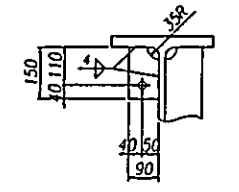


DETAIL OF STUD SCALE 1:10



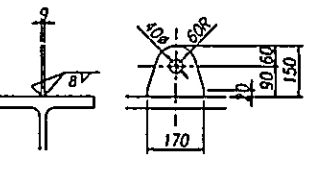
1 - Stud #22 x 150

DETAIL OF HANGER SCALE 1:10



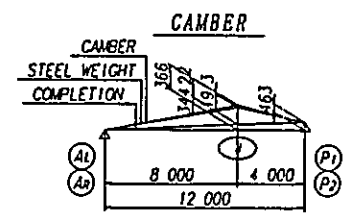
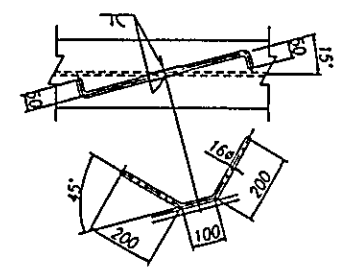
1 - Pl 90 x 9 x 150

DETAIL OF PAD EYE SCALE 1:10



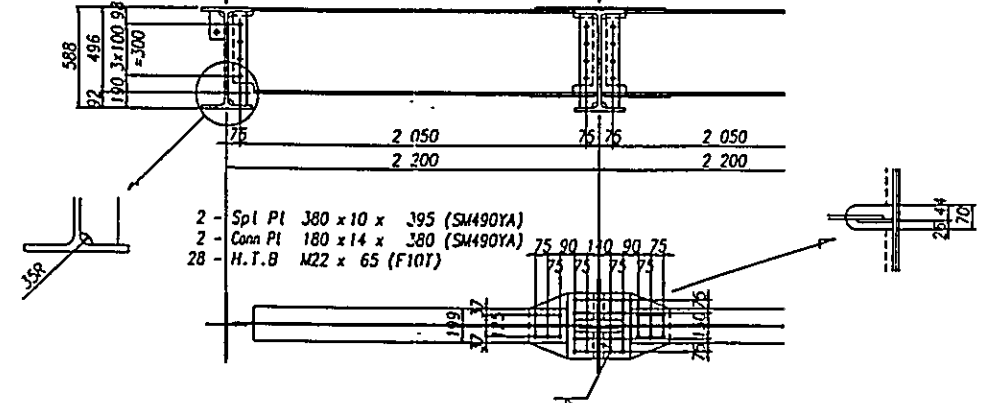
1 - Pl 150 x 9 x 170

DETAIL 'A' SCALE 1:10

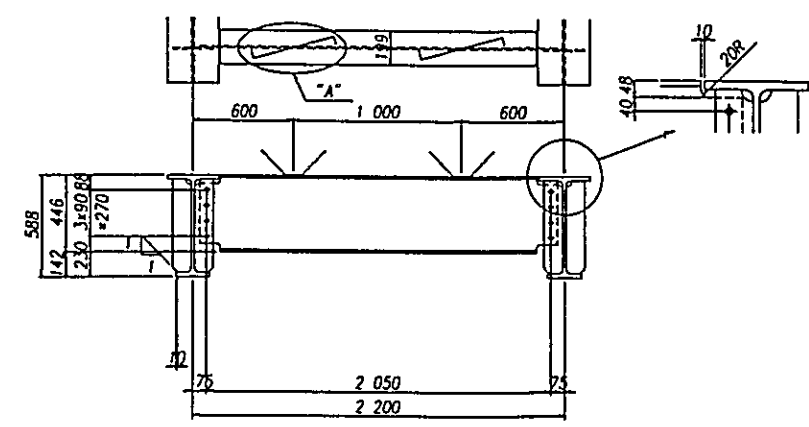


CROSS BEAM SCALE 1:20

- 1 - Spl Pl 199 x 14 x 780 (SM490YA)
- 4 - H.T.B M22 x 75 (F10T)
- 12 - H.T.B M22 x 70 (F10T)
- 1 - H 496 x 199 x 9 x 14 x 2 130 (SM490YA)
- 8 - H.T.B M22 x 60 (F10T)
- 1 - H 496 x 199 x 9 x 14 x 2 130 (SM490YA)
- 8 - H.T.B M22 x 60 (F10T)



END FLOOR BEAM SCALE 1:20



- 1 - H 446 x 199 x 8 x 12 x 2 130
- 8 - H.T.B M22 x 60 (F10T)
- 2 - R.B #16 x 600

MARKING

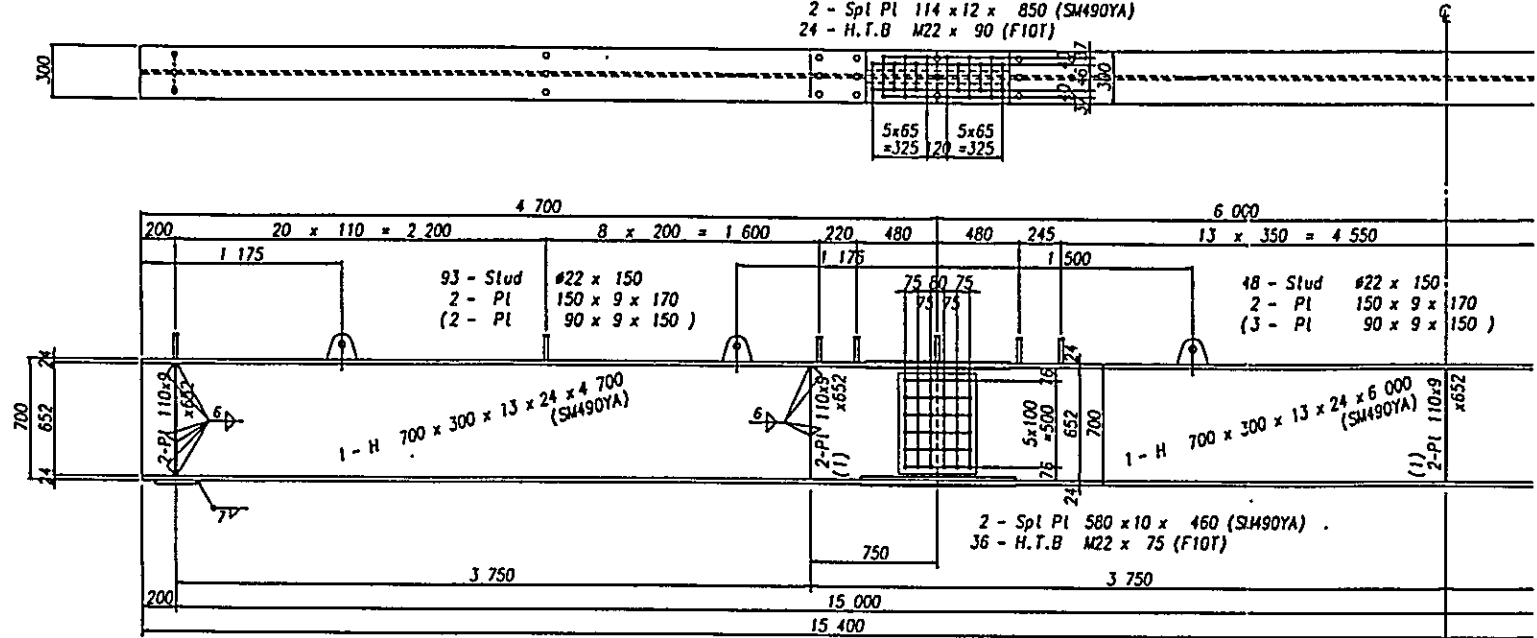
	12 400	
	12 000	200
	6 000	6 000
	4 200	8 200
	5 x 2 400 = 12 000	
HANGER		
1 x 2 200 = 6 600		
EFB, EEB, EFB		
	CB	
	CB	
	EFB, EEB, EFB	

- NOTE
- MATERIAL NOT SPECIFIED IS SS400
 - SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 - CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

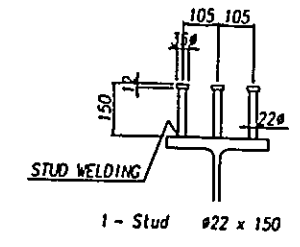
DETAILS OF SUPERSTRUCTURES
L=15.0M

MAIN GIRDER SCALE 1:20

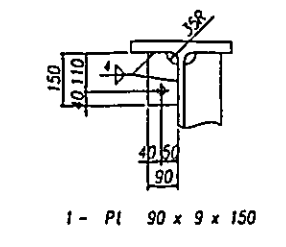
- 1 - Spl Pl 300 x 10 x 850 (SM490YA)
- 2 - Spl Pl 114 x 12 x 850 (SM490YA)
- 24 - H.T.B M22 x 90 (F10T)



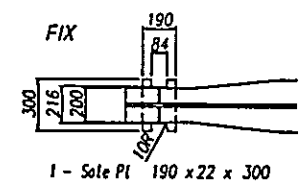
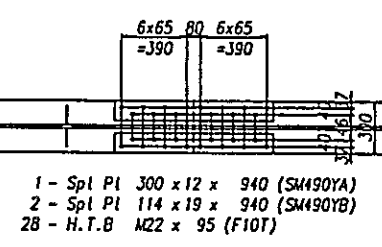
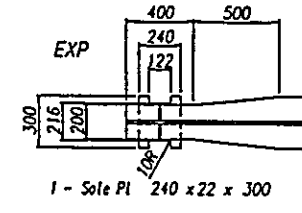
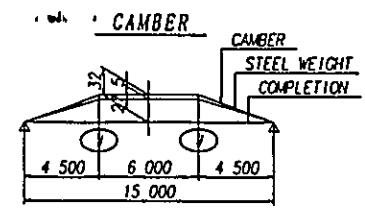
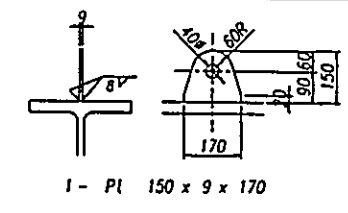
DETAIL OF STUD SCALE 1:10



DETAIL OF HANGER SCALE 1:10

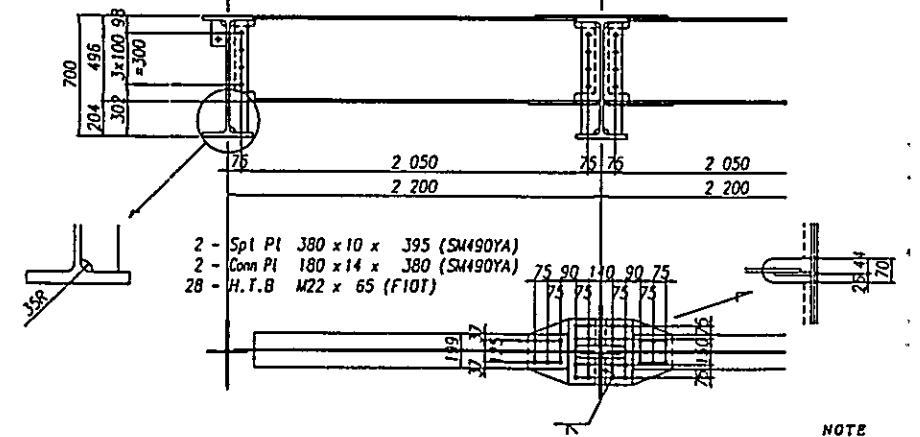


DETAIL OF PAD EYE SCALE 1:10

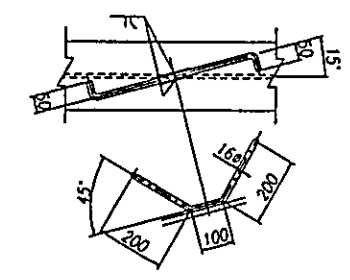


CROSS BEAM SCALE 1:20

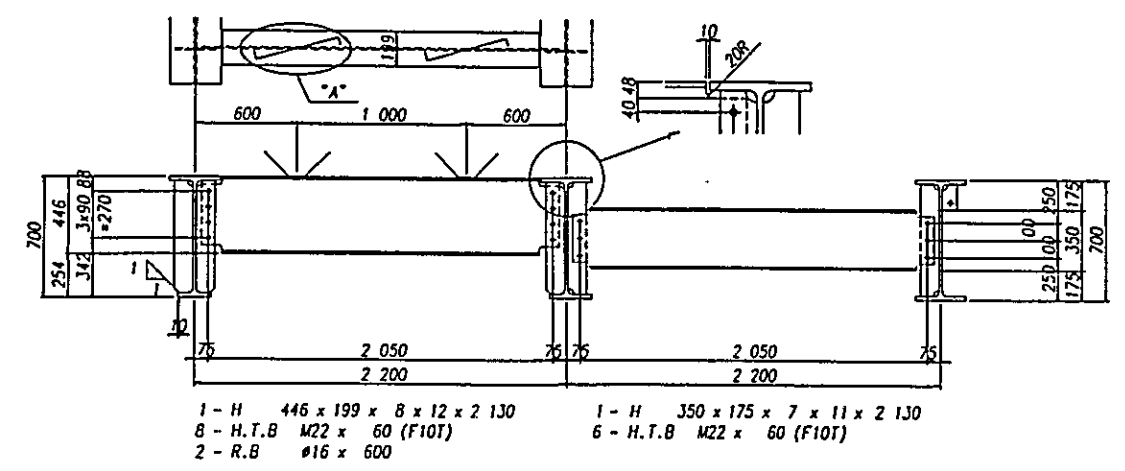
- 1 - Spl Pl 199 x 14 x 780 (SM490YA)
- 4 - H.T.B M22 x 80 (F10T)
- 12 - H.T.B M22 x 70 (F10T)
- 1 - H 496 x 199 x 9 x 14 x 2 130 (SM490YA)
- 8 - H.T.B M22 x 60 (F10T)
- 1 - H 496 x 199 x 9 x 14 x 2 130 (SM490YA)
- 8 - H.T.B M22 x 60 (F10T)



DETAIL 'A' SCALE 1:10



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



MARKING

	15 400	
	15 000	200
4 x 3 750 =	15 000	
4 700 6 000 4 700		
8 x 1 875 =	15 000	
HANGER		
3 x 2 200 =	6 600	
EFB, EFB, EFB		
FB, FB, FB		
CB, CB, CB		
FB, FB, FB		
EFB, EFB, EFB		

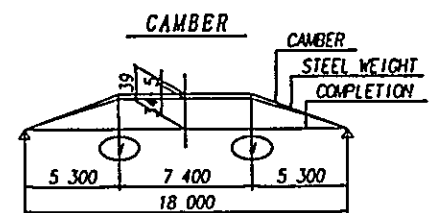
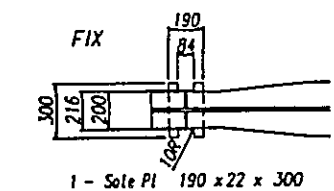
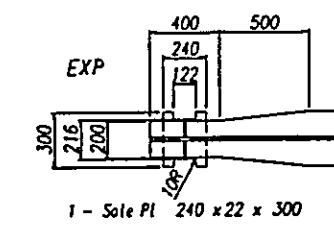
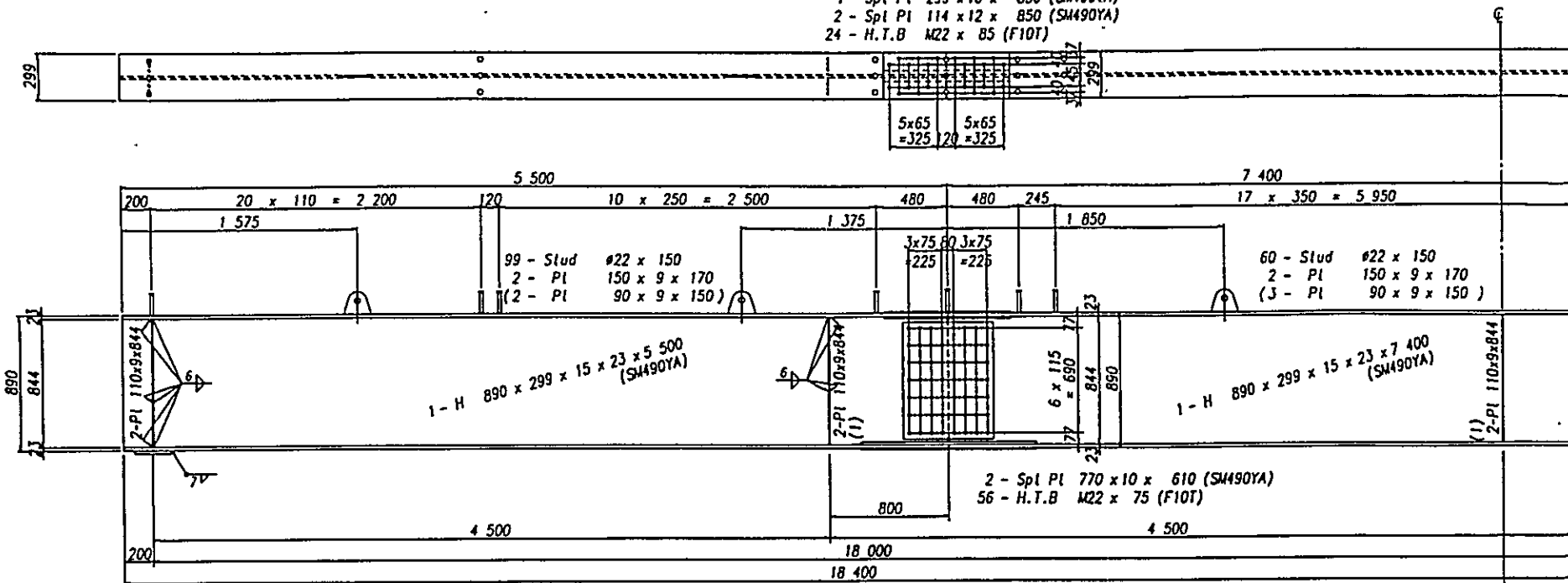
NOTE
1. MATERIAL NOT SPECIFIED IS SS400
2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

DETAILS OF SUPERSTRUCTURES

L=18.0M

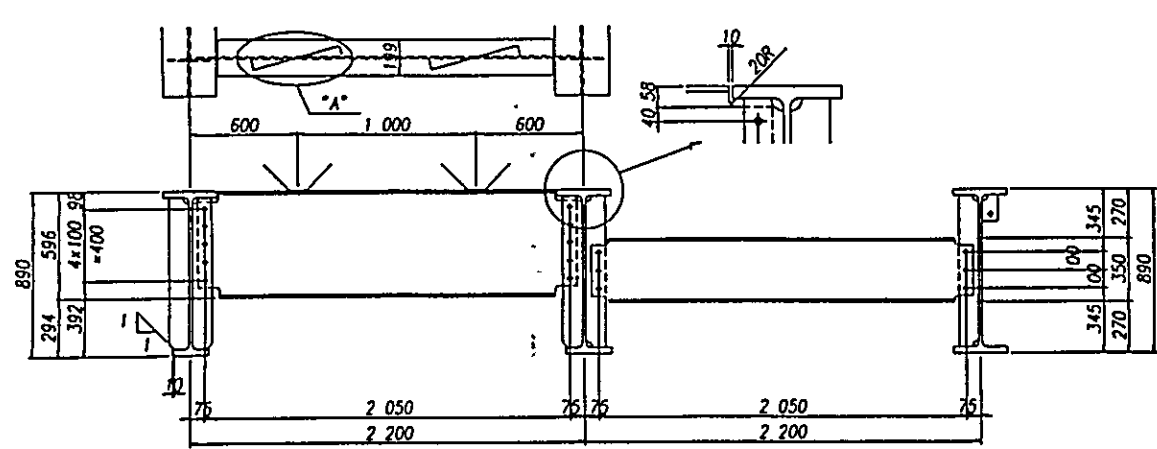
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 299 x 10 x 850 (SM490YA)
- 2 - Spl Pl 114 x 12 x 850 (SM490YA)
- 24 - H.T.B M22 x 85 (F10T)



- 1 - Spl Pl 299 x 12 x 940 (SM490YA)
- 2 - Spl Pl 114 x 19 x 940 (SM490YB)
- 28 - H.T.B M22 x 95 (F10T)

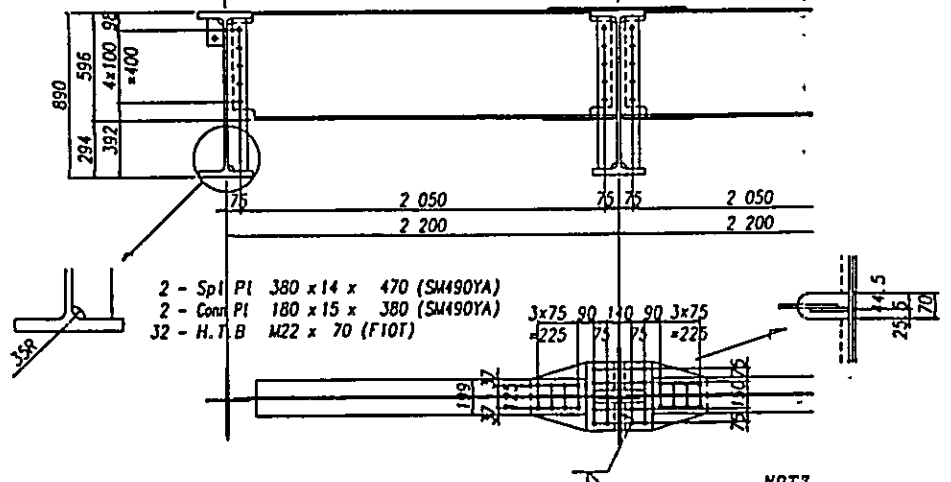
END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



- 1 - H 596 x 199 x 10 x 15 x 2 130
- 10 - H.T.B M22 x 60 (F10T)
- 2 - R.B #16 x 600
- 1 - H 350 x 175 x 7 x 11 x 2 130
- 6 - H.T.B M22 x 60 (F10T)

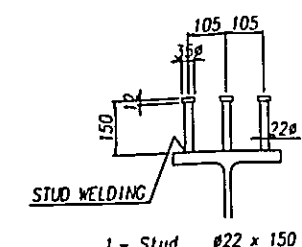
CROSS BEAM SCALE 1:20

- 1 - Spl Pl 199 x 19 x 940 (SM490YB)
- 4 - H.T.B M22 x 85 (F10T)
- 16 - H.T.B M22 x 75 (F10T)
- 1 - H 596 x 199 x 10 x 15 x 2 130 (SM490YA)
- 10 - H.T.B M22 x 60 (F10T)

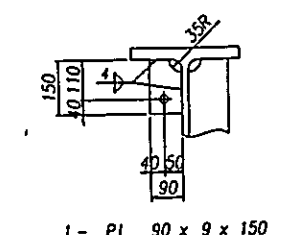


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	MAIN GIRDER L = 18	SHEET NO.
		32

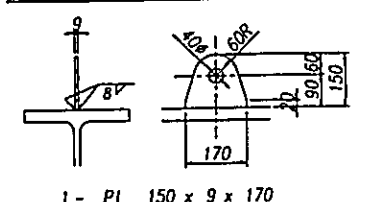
DETAIL OF STUD SCALE 1:10



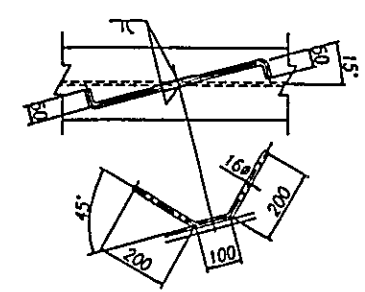
DETAIL OF HANGER SCALE 1:10



DETAIL OF PAD EYE SCALE 1:10



DETAIL "A" SCALE 1:10



MARKING

	18 400	
	18 000	200
	4 x 4 500 = 18 000	
	5 500 7 400 5 500	
	8 x 2 250 = 18 000	
HANGER		
3 x 2 200 = 6 600		
EFB EFB EFB	FB	CB
FB	CB	CB
FB	FB	FB
EFB EFB EFB	EFB EFB EFB	

NOTE:
 1. MATERIAL NOT SPECIFIED IS SS400
 2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

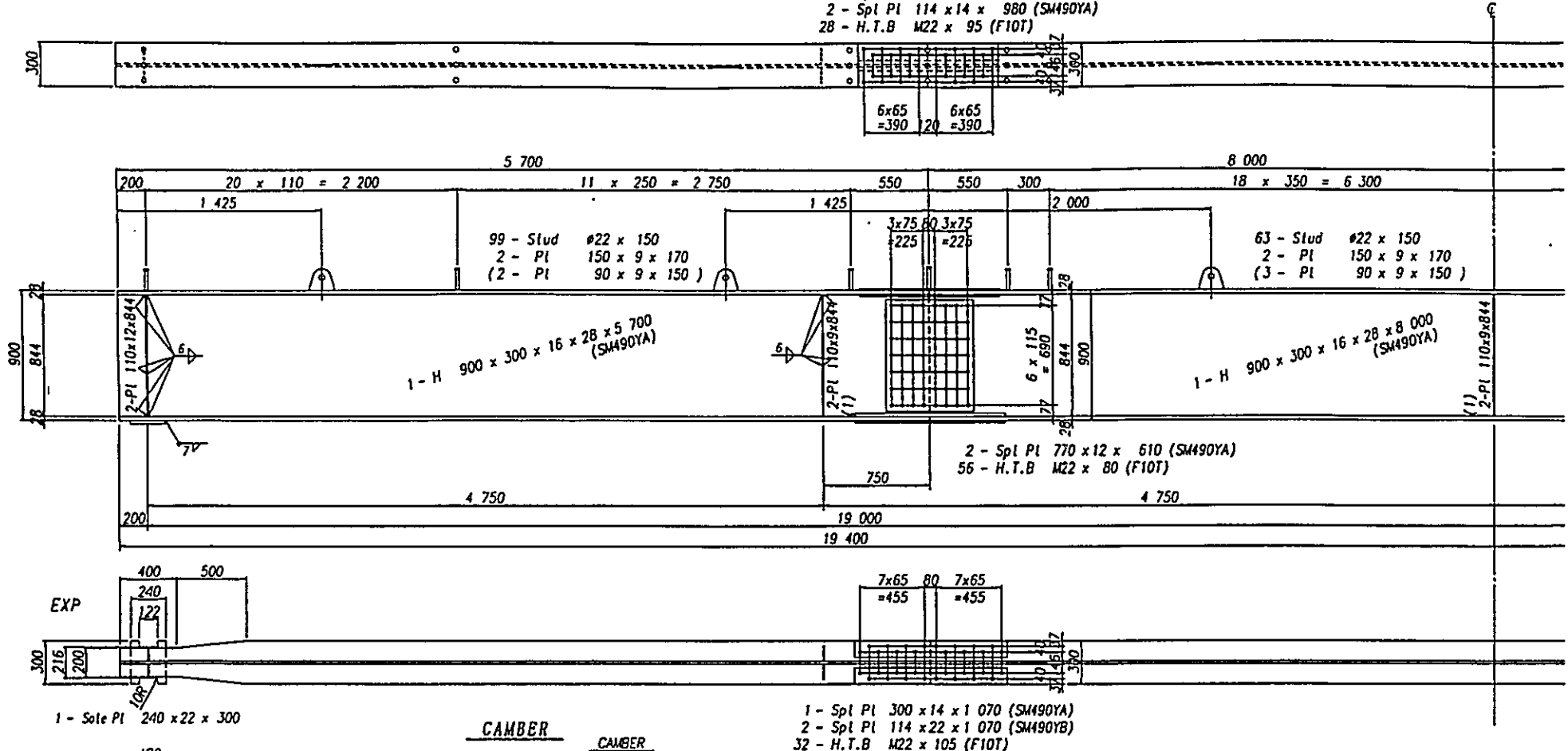
DETAILS OF SUPERSTRUCTURES

L=19.0M

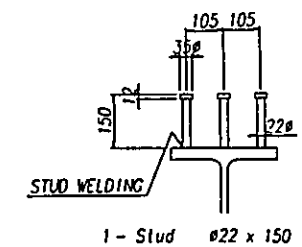
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 300 x 12 x 980 (SM490YA)
- 2 - Spl Pl 114 x 14 x 980 (SM490YA)
- 28 - H.T.B M22 x 95 (F10T)

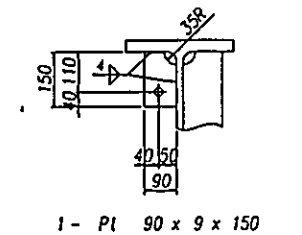
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 19	33



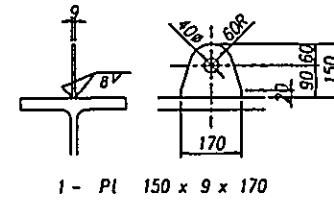
DETAIL OF STUD SCALE 1:10



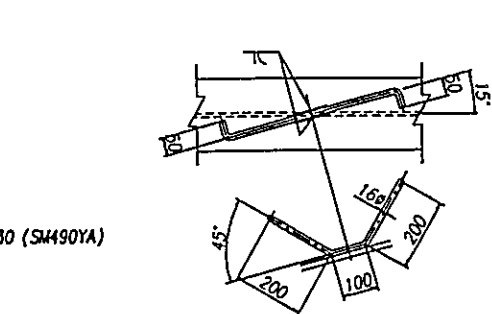
DETAIL OF HANGER SCALE 1:10



DETAIL OF PAD EYE SCALE 1:10

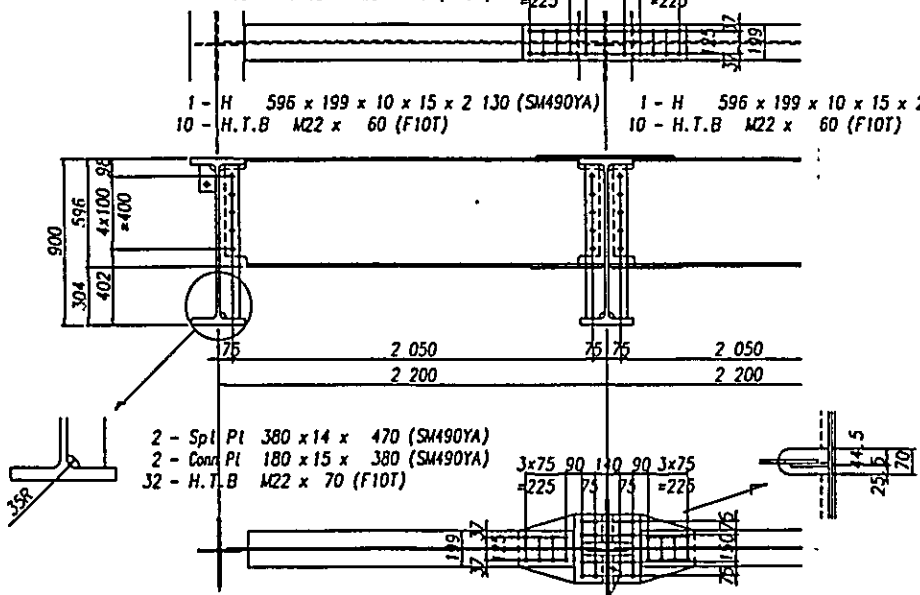


DETAIL "A" SCALE 1:10

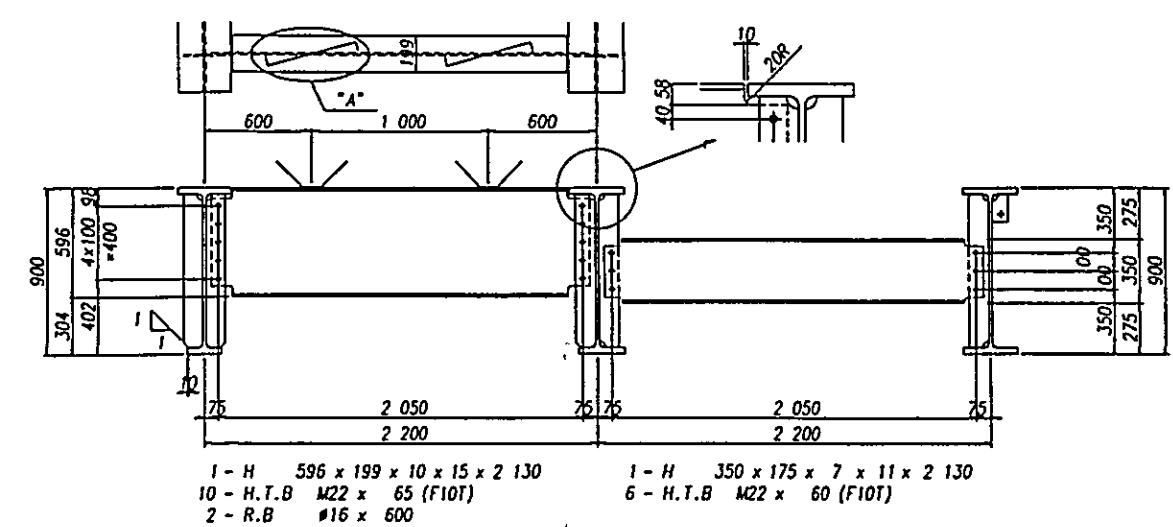


CROSS BEAM SCALE 1:20

- 1 - Spl Pl 199 x 19 x 940 (SM490YB)
- 4 - H.T.B M22 x 90 (F10T)
- 16 - H.T.B M22 x 75 (F10T)
- 1 - H 596 x 199 x 10 x 15 x 2,130 (SM490YA)
- 10 - H.T.B M22 x 60 (F10T)
- 1 - H 596 x 199 x 10 x 15 x 2,130 (SM490YA)
- 10 - H.T.B M22 x 60 (F10T)



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



MARKING

	19 400	
	19 000	
	4 x 4 750 = 19 000	
	5 700 8 000 5 700	
	8 x 2 375 = 19 000	
HANGER		
3 x 2 200 = 6 600		
EFB, EFB, EFB	FB, FB, FB	CB, CB, CB
EFB, EFB, EFB	FB, FB, FB	EFB, EFB, EFB

NOTE
 1. MATERIAL NOT SPECIFIED IS SS400
 2. SUPPORT CONDITION (PIX OR BXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

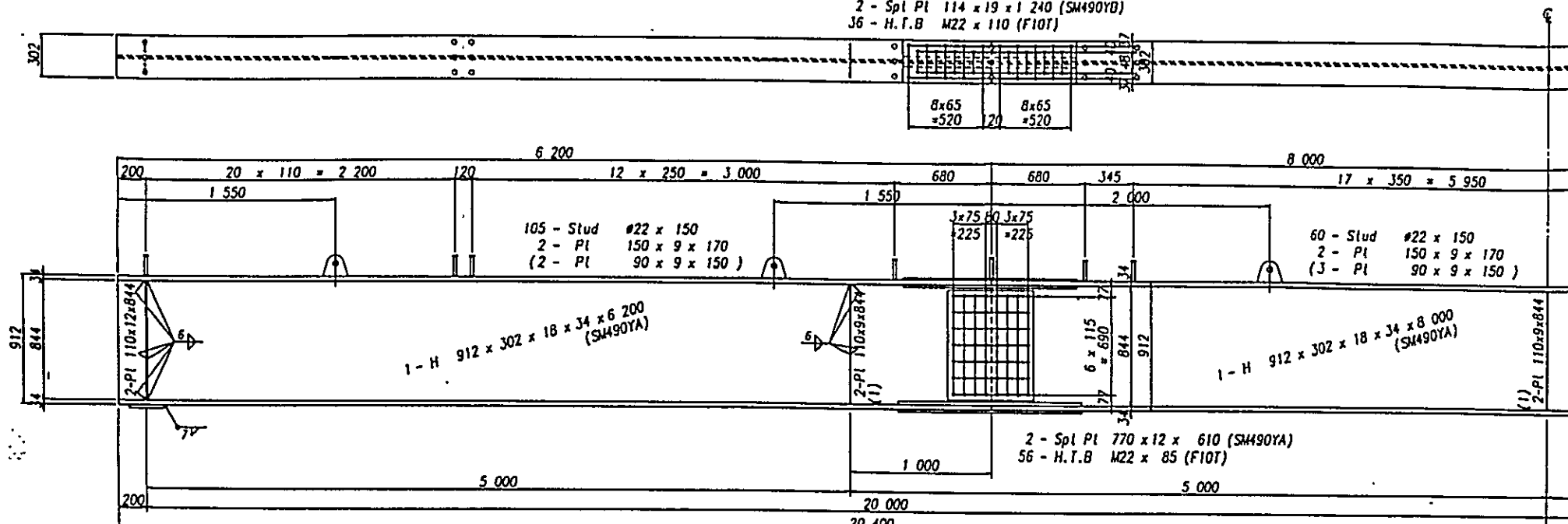
DETAILS OF SUPERSTRUCTURES

L = 20.0M

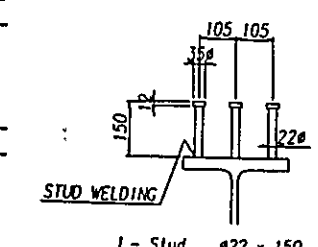
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl J02 x 14 x 1 240 (SM490YA)
- 2 - Spl Pl 114 x 19 x 1 240 (SM490YB)
- 36 - H.T.B M22 x 110 (F10T)

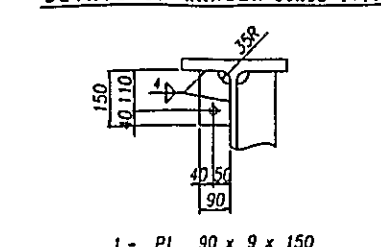
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 20	34



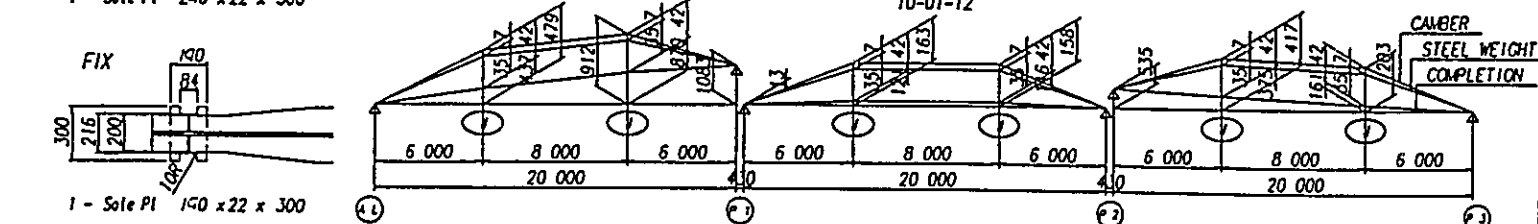
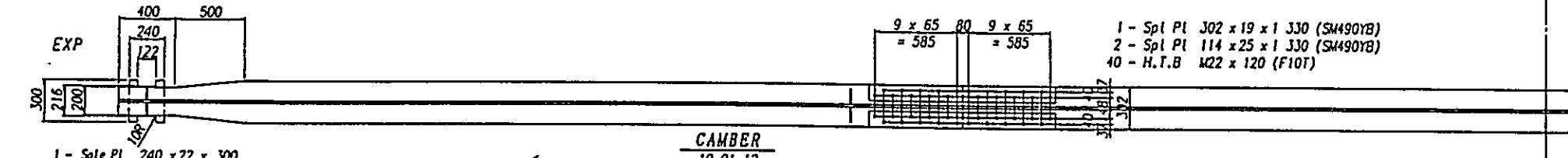
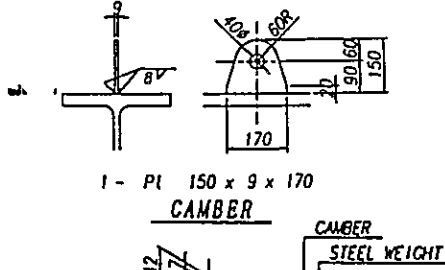
DETAIL OF STUD SCALE 1:10



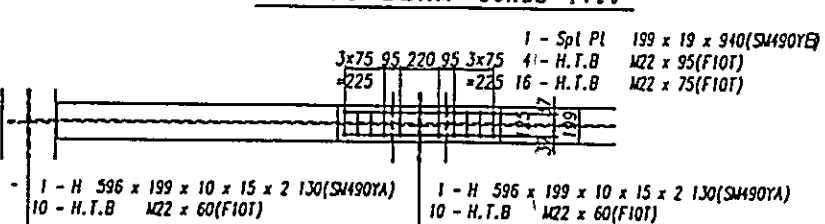
DETAIL OF HANGER SCALE 1:10



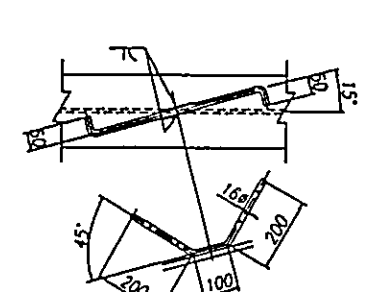
DETAIL OF PAD BYE SCALE 1:10



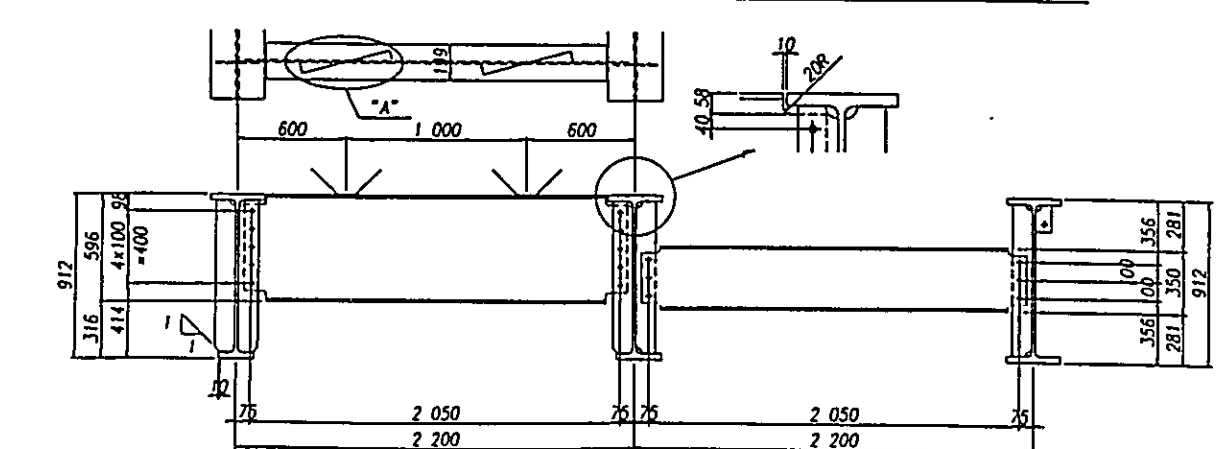
CROSS BEAM SCALE 1:20



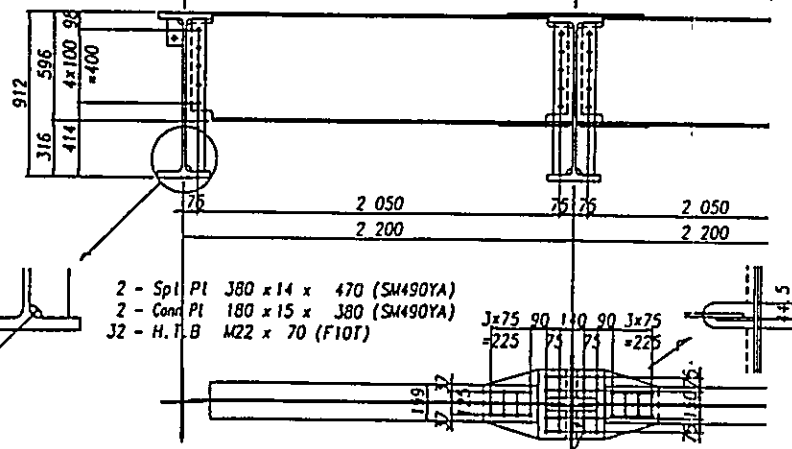
DETAIL 'A' SCALE 1:10



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



- 1 - H 596 x 199 x 10 x 15 x 2 130
- 10 - H.T.B M22 x 65 (F10T)
- 2 - R.B #16 x 600



- 1 - H 350 x 175 x 7 x 11 x 2 130
- 6 - H.T.B M22 x 60 (F10T)

MARKING

	20 400																					
	20 000																					
	4 x 5 000 = 20 000																					
	6 200 8 000 6 200																					
	8 x 2 500 = 20 000																					
HANGER	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> </tr> <tr> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> </tr> <tr> <td style="width: 25%;">CB</td> <td style="width: 25%;">CB</td> <td style="width: 25%;">CB</td> <td style="width: 25%;">CB</td> </tr> <tr> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> <td style="width: 25%;">FB</td> </tr> <tr> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> <td style="width: 25%;">EFB</td> </tr> </table>	EFB	EFB	EFB	EFB	FB	FB	FB	FB	CB	CB	CB	CB	FB	FB	FB	FB	EFB	EFB	EFB	EFB	
EFB	EFB	EFB	EFB																			
FB	FB	FB	FB																			
CB	CB	CB	CB																			
FB	FB	FB	FB																			
EFB	EFB	EFB	EFB																			

NOTE
 1. MATERIAL NOT SPECIFIED IS SS400
 2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

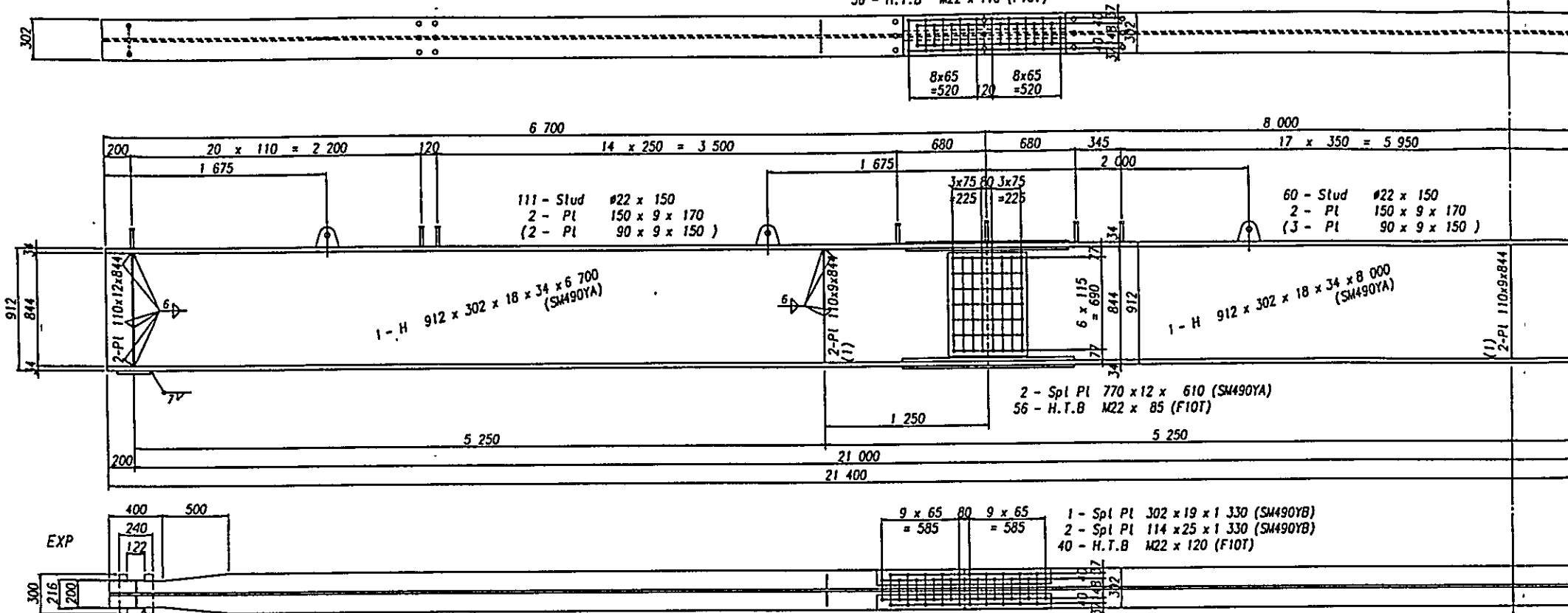
DETAILS OF SUPERSTRUCTURES

L = 21.0M

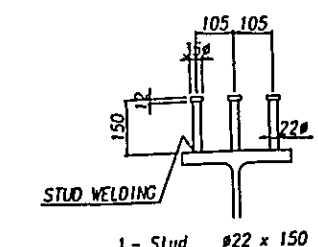
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 302 x 14 x 1 240 (SM490YA)
- 2 - Spl Pl 114 x 19 x 1 240 (SM490YB)
- 36 - H.T.B M22 x 110 (F10T)

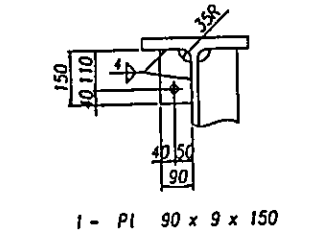
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 21	35



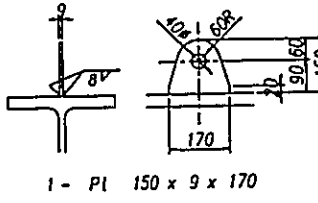
DETAIL OF STUD SCALE 1:10



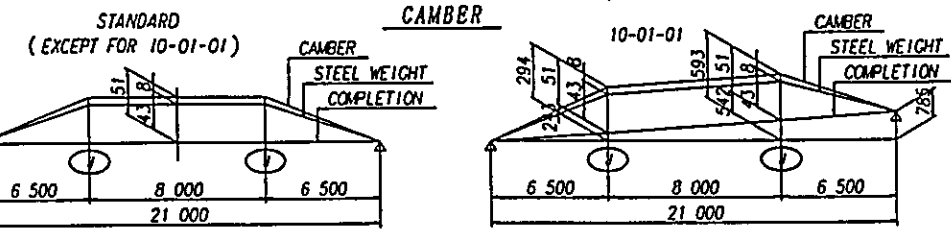
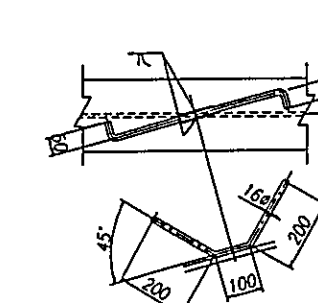
DETAIL OF HANGER SCALE 1:10



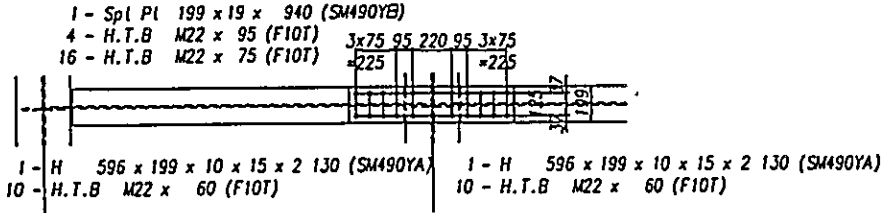
DETAIL OF PAD EYE SCALE 1:10



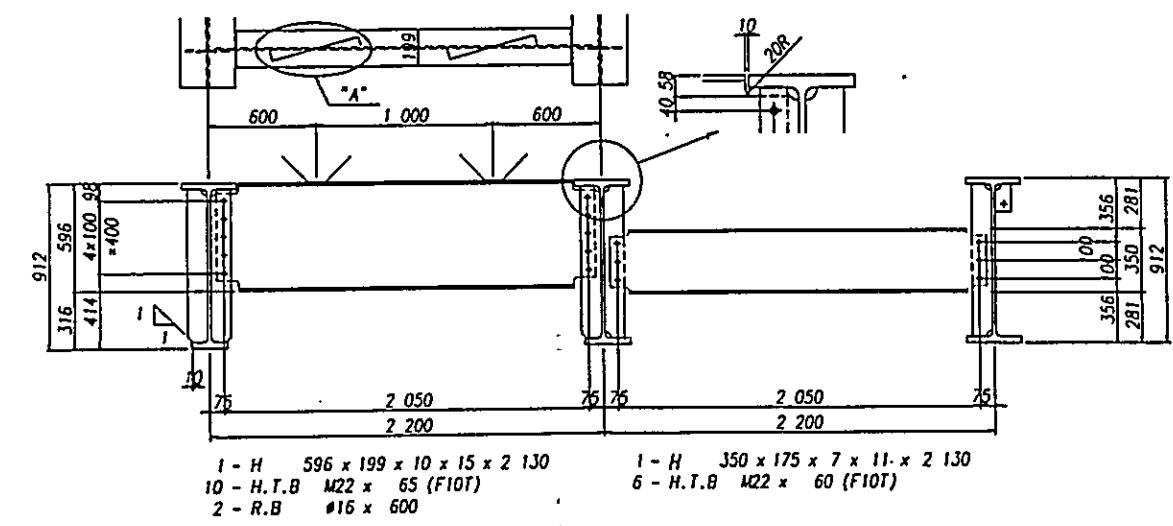
DETAIL "A" SCALE 1:10



CROSS BEAM SCALE 1:20



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



MARKING

	21 400	
	21 000	200
	4 x 5 250 = 21 000	
	6 700 8 000 6 700	
	8 x 2 625 = 21 000	
HANGER	912	
1 x 2 200 = 6 600	EFB-EFB EFB	FB FB FB CB CB FB FB FB EFB EFB EFB

NOTE
 1. MATERIAL NOT SPECIFIED IS SS400
 2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

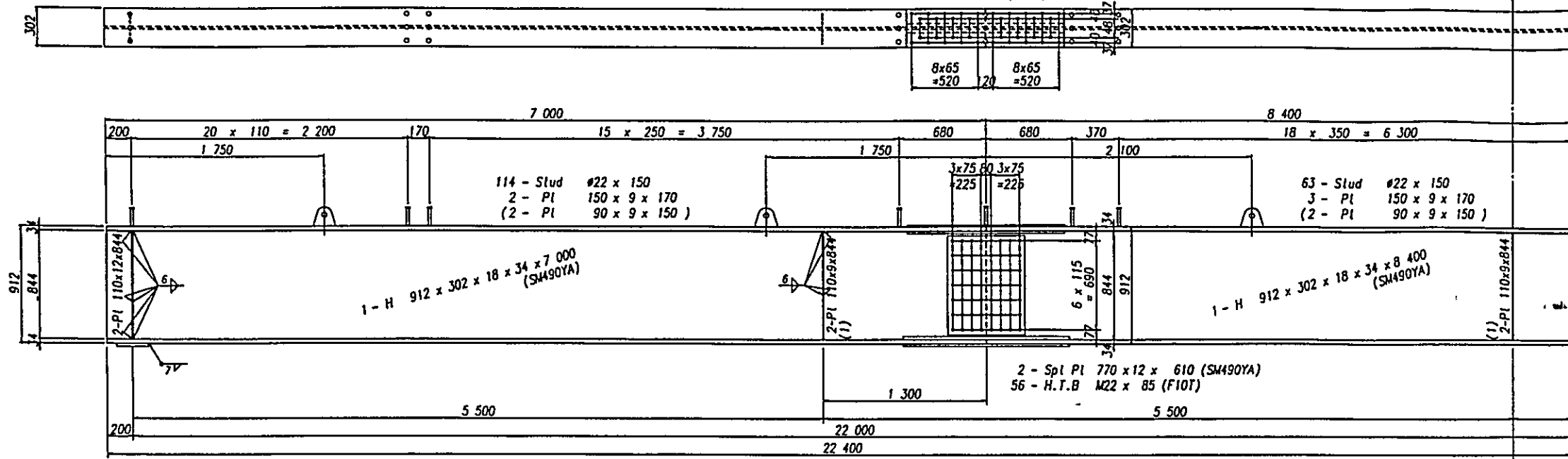
DETAILS OF SUPERSTRUCTURES

L = 22.0M

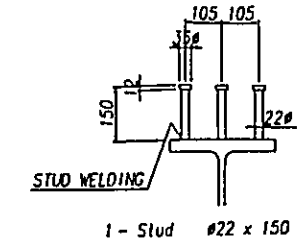
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 302 x 14 x 1 240 (SM490YA)
- 2 - Spl Pl 114 x 19 x 1 240 (SM490YB)
- 36 - H.T.B M22 x 110 (F10T)

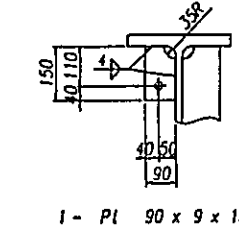
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 22	36



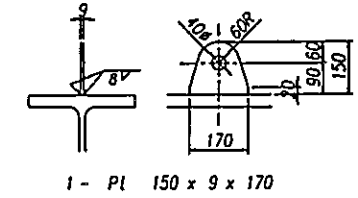
DETAIL OF STUD SCALE 1:10



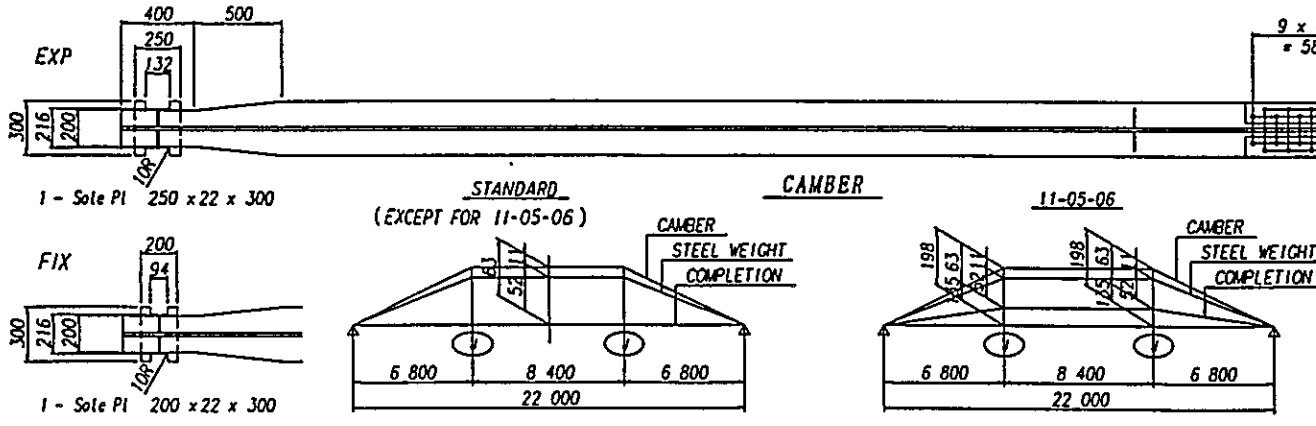
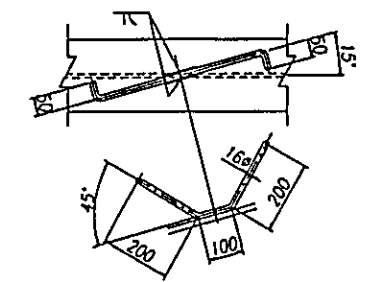
DETAIL OF HANGER SCALE 1:10



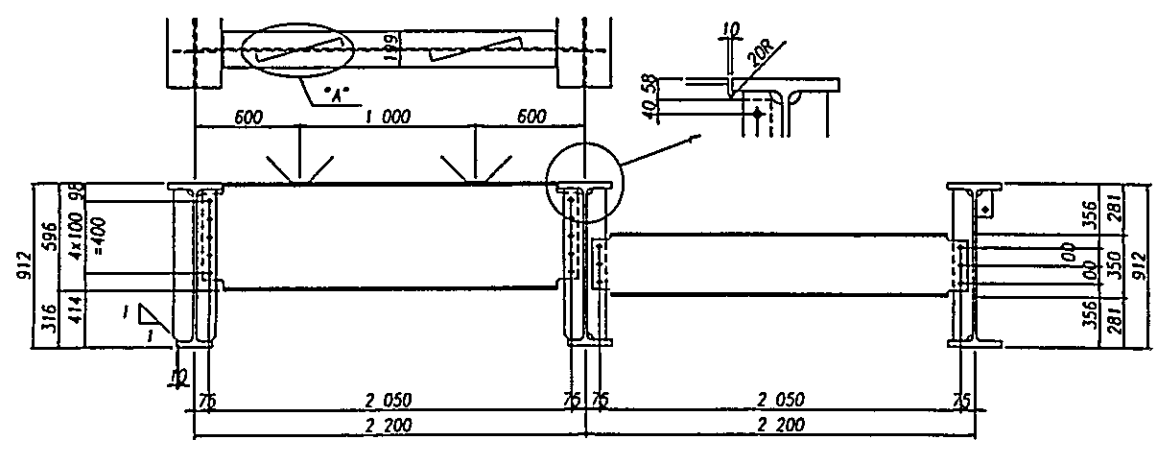
DETAIL OF PAD BYE SCALE 1:10



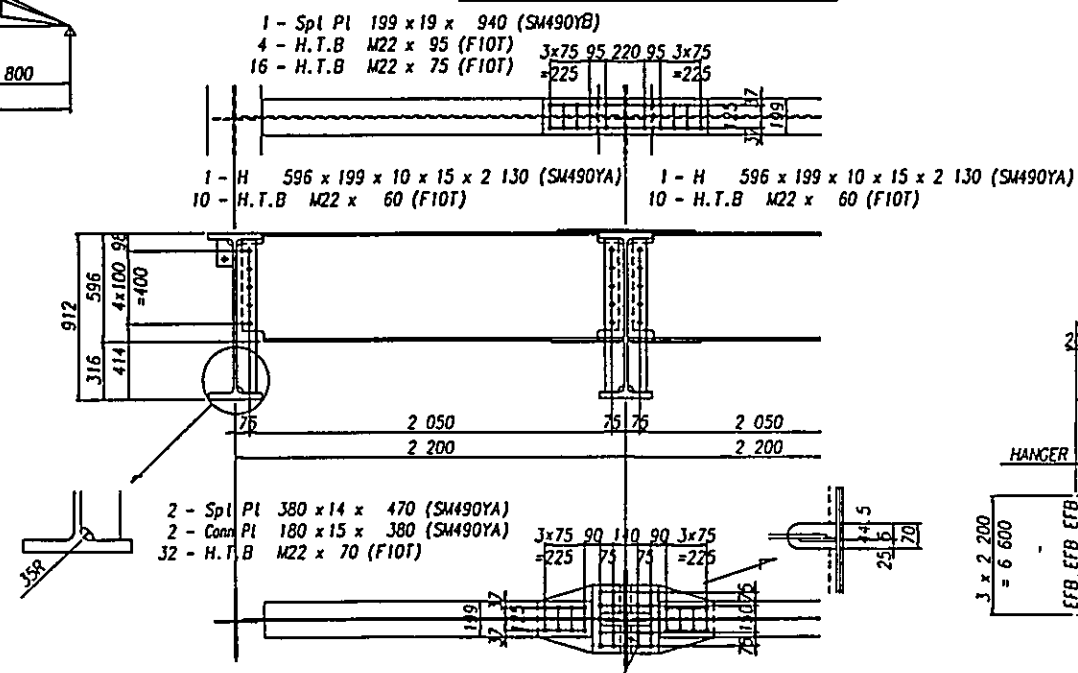
DETAIL 'A' SCALE 1:10



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



CROSS BEAM SCALE 1:20



	22 400	
	22 000	200
4 x 5 500 =	22 000	
7 000	8 400	7 000
8 x 2 750 =	22 000	
HANGER	3 x 2 200 = 6 600	
EFB, EFB, EFB	FB, FB, FB	CB, CB
FB, FB, FB	CB, CB	FB, FB, FB
EFB, EFB, EFB	EFB, EFB, EFB	EFB, EFB, EFB

NOTE
 1. MATERIAL NOT SPECIFIED IS SS400
 2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

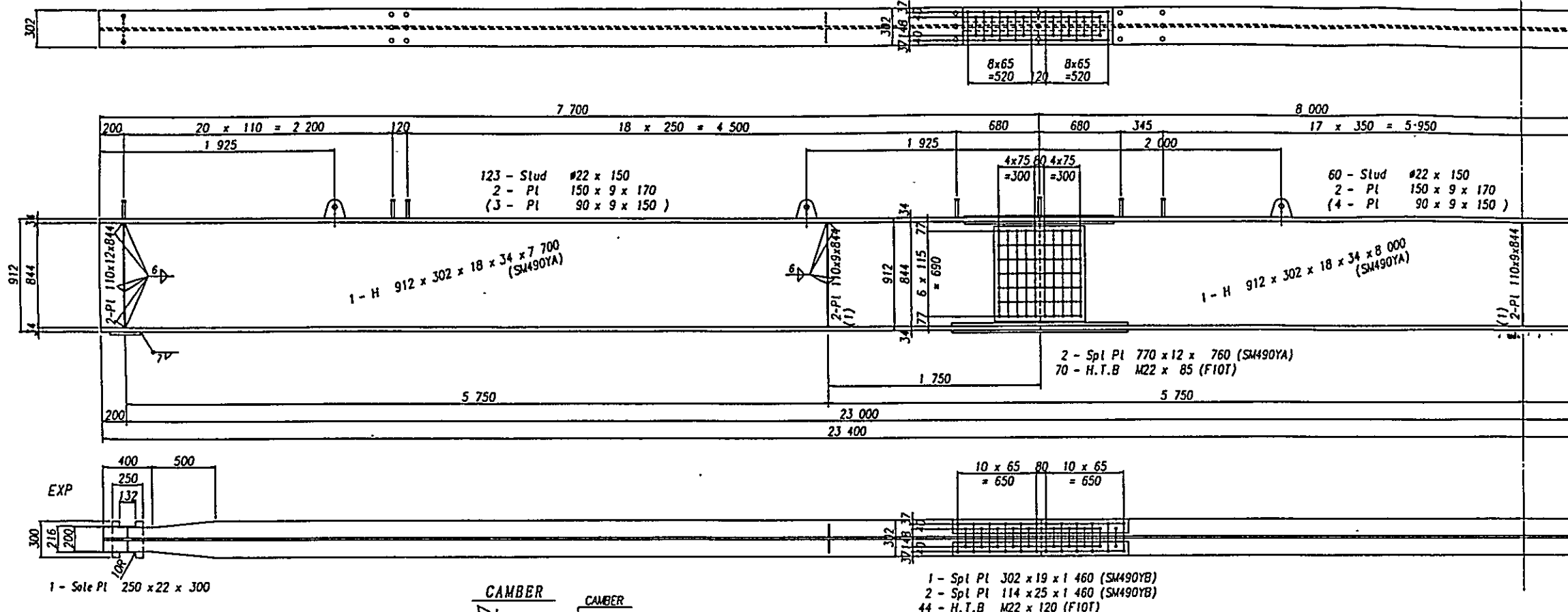
DETAILS OF SUPERSTRUCTURES

L = 23.0M

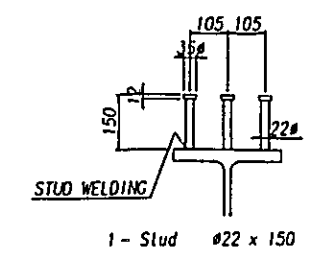
MAIN GIRDER SCALE 1:20

- 1 - Spl Pl 302 x 14 x 1 240 (SM490YA)
- 2 - Spl Pl 114 x 19 x 1 240 (SM490YB)
- 36 - H.T.B M22 x 110 (F10T)

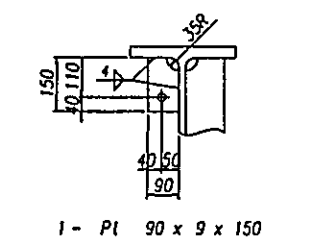
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA	
BRIDGE NO.	SHEET NO.
MAIN GIRDER	L = 23
	37



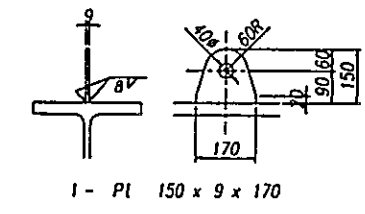
DETAIL OF STUD SCALE 1:11



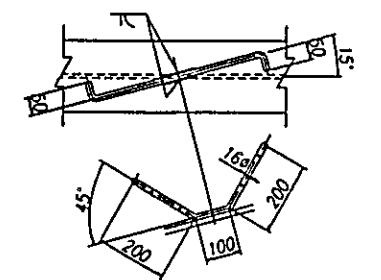
DETAIL OF HANGER SCALE 1:11



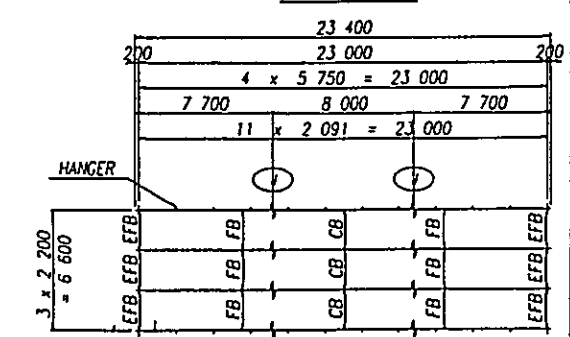
DETAIL OF PAD EYE SCALE 1:11



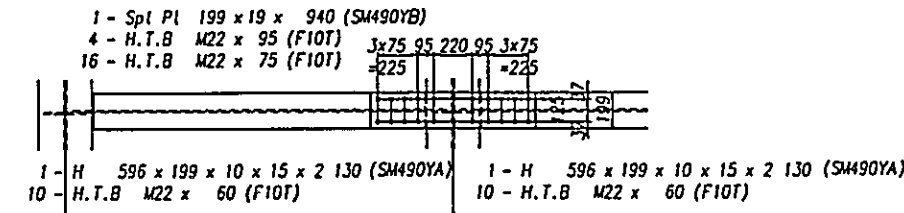
DETAIL "A" SCALE 1:10



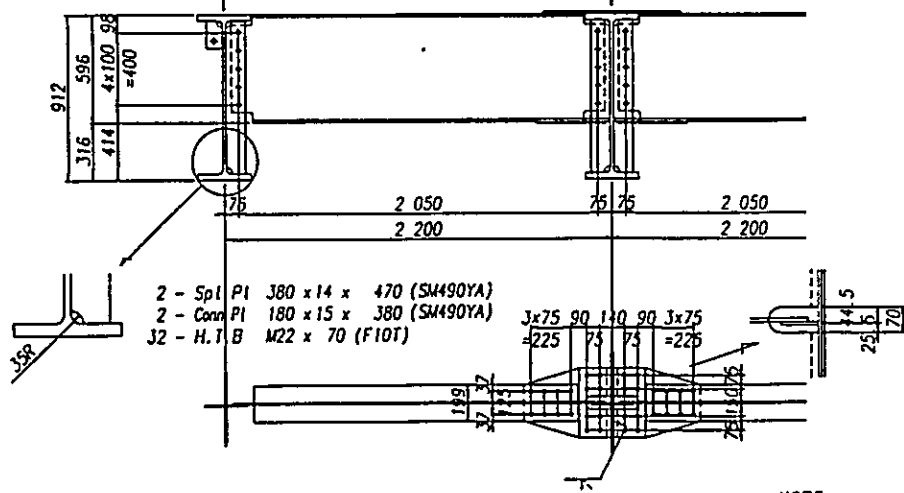
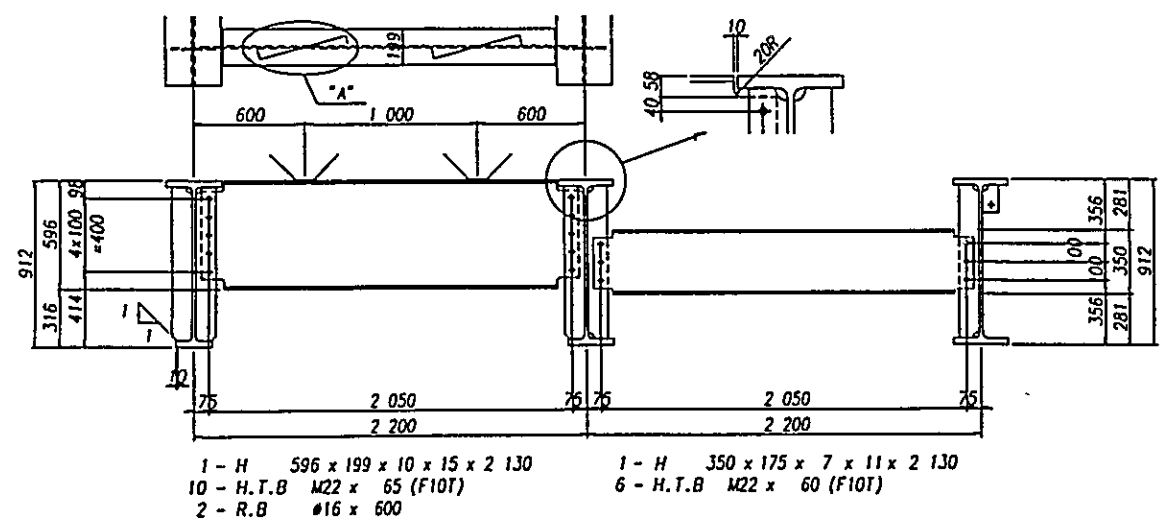
MARKING



CROSS BEAM SCALE 1:20



END FLOOR BEAM SCALE 1:20 FLOOR BEAM SCALE 1:20



NOTE
 1. MATERIAL NOT SPECIFIED IS SS100
 2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
 3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

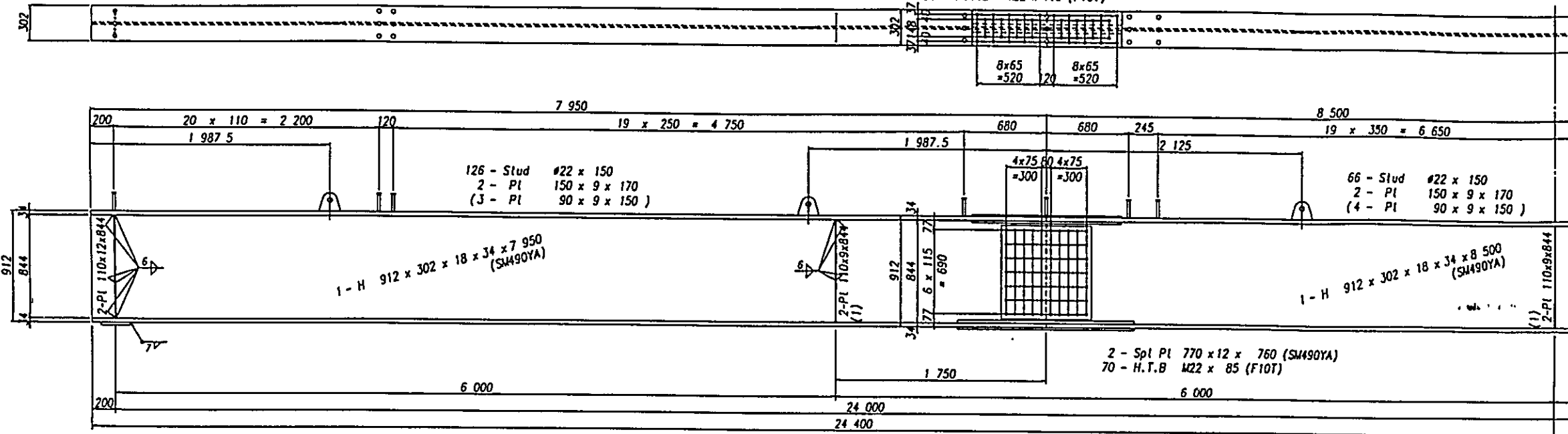
DETAILS OF SUPERSTRUCTURES

L = 24.0M
MAIN GIRDER SCALE 1:20

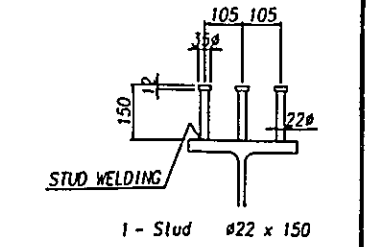
BASIC DESIGN STUDY ON THE PROJECT
FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA

BRIDGE NO.		SHEET NO.
	MAIN GIRDER L = 24	38

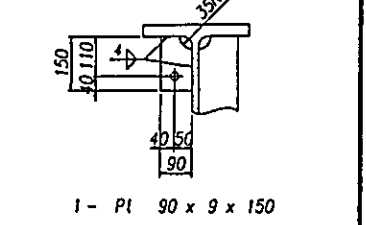
- 1 - Spl Pl 302 x 14 x 1 240 (SM490YA)
- 2 - Spl Pl 114 x 19 x 1 240 (SM490YB)
- 36 - H.T.B M22 x 110 (F10T)



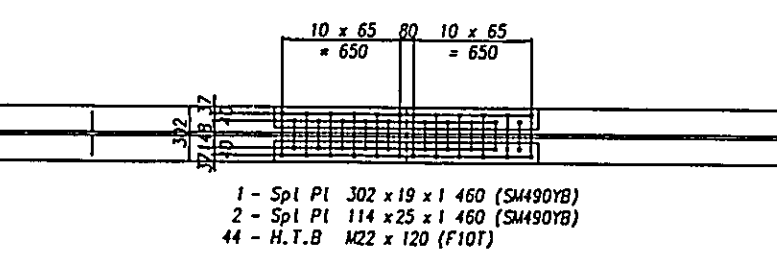
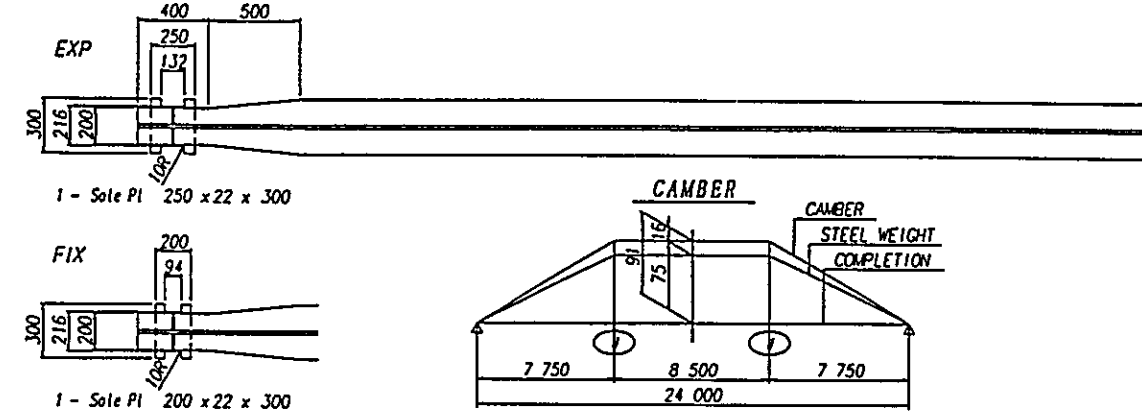
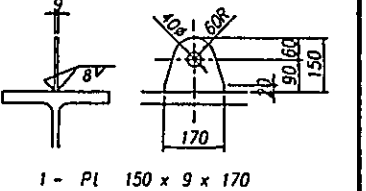
DETAIL OF STUD SCALE 1:10



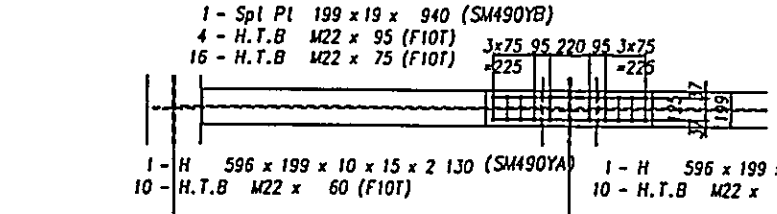
DETAIL OF HANGER SCALE 1:10



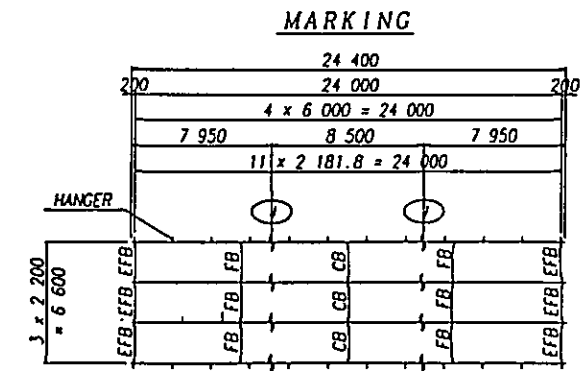
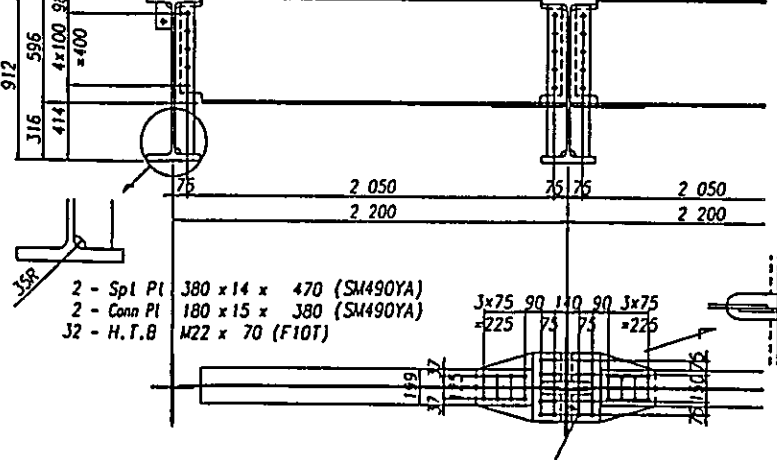
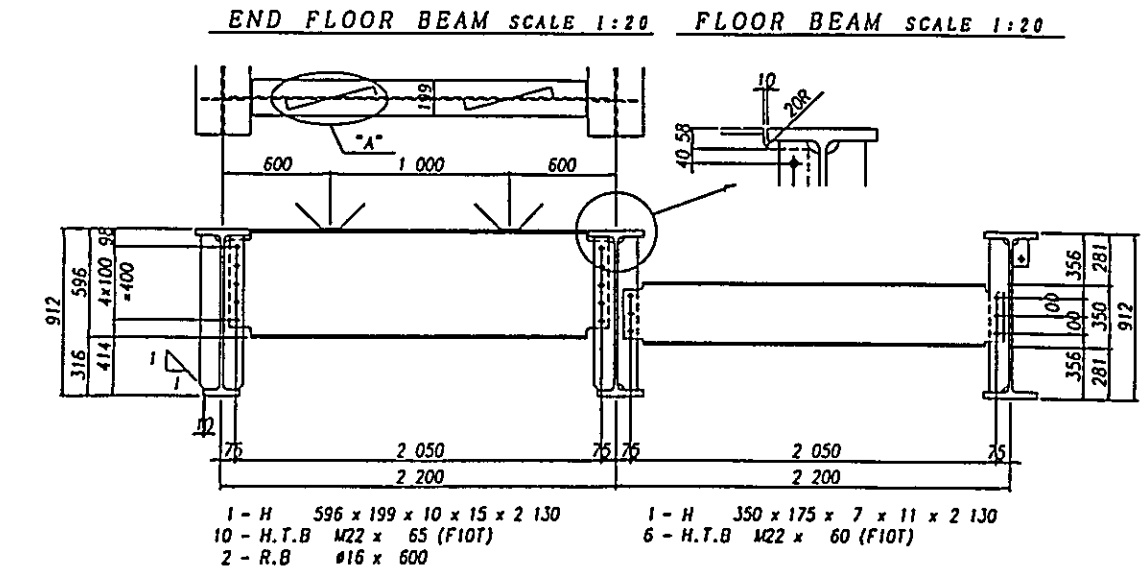
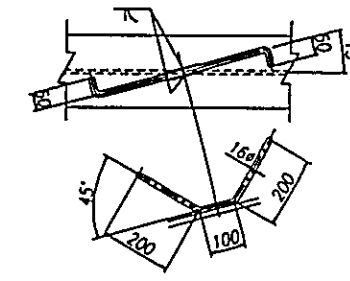
DETAIL OF PAD EYE SCALE 1:10



CROSS BEAM SCALE 1:20



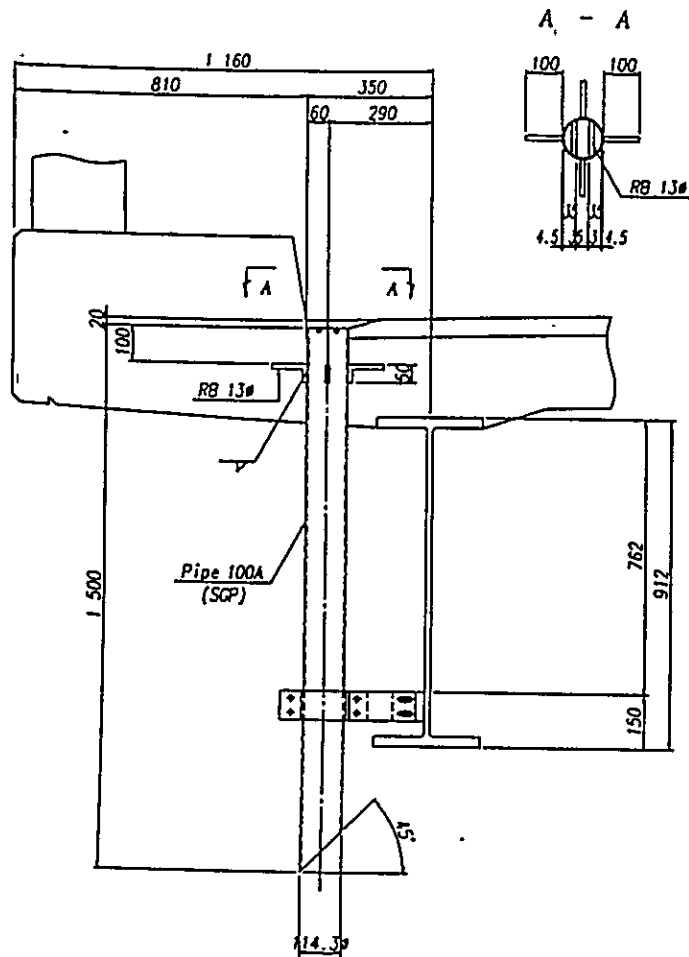
DETAIL 'A' SCALE 1:10



NOTE
1. MATERIAL NOT SPECIFIED IS SS400
2. SUPPORT CONDITION (FIX OR EXP) IS REFERRED TO BRIDGE PLAN
3. CAMBER IS PARABOLIC BUT IN THIS DRAWING IS MAXIMUM

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	SHOE	39

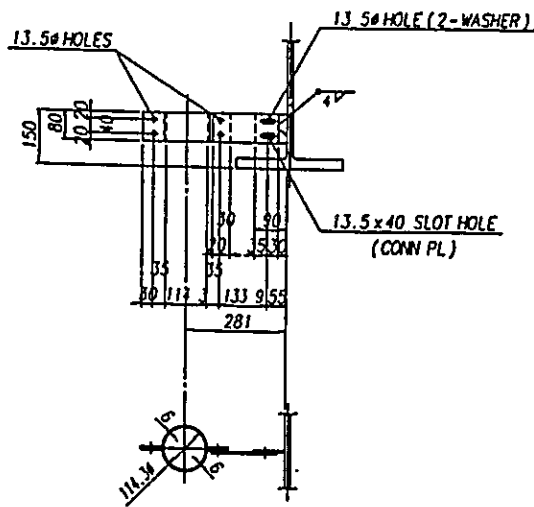
DRAIN s=1/10



- 1-PIPE 100A x 1 500 (SCP)
- 4-RB 13# x 150
- 2-RB 13# x 99

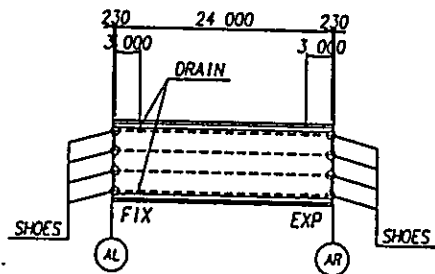
SUPPORT PLATE s=1/10

L = 24.0m



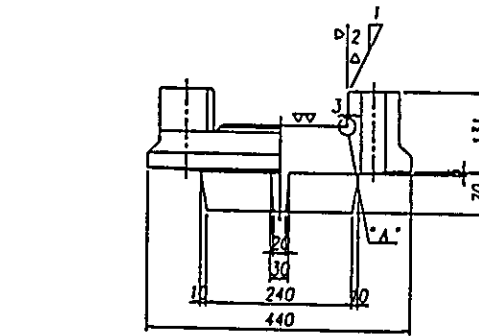
- 2-PL 80 x 6 x 310
- 1-PL 80 x 6 x 184
- 1-PL 80 x 6 x 90
- 2-BN M12 x 35 (2-WASHER)
- 4-BN M12 x 40

MARKING

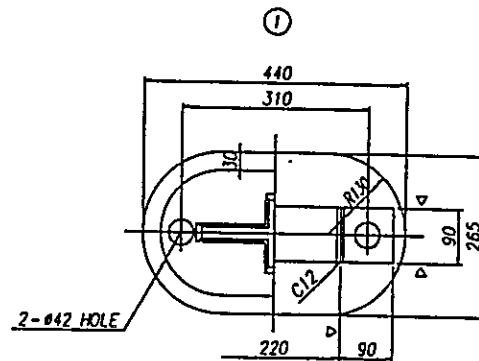
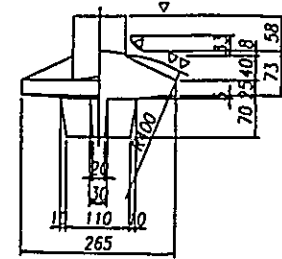
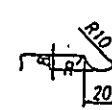


SHOE s=1/6

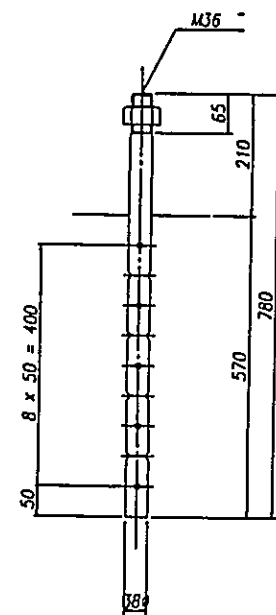
(TSS60-58)
TOTAL WEIGHT = 66kg



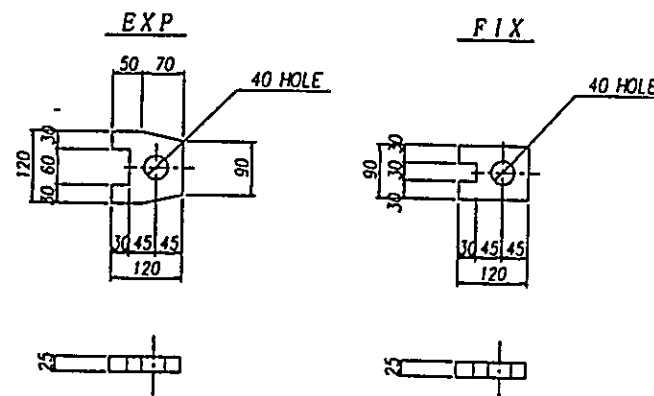
DETAIL 'A'



WEIGHT = 48kg



WEIGHT = 14kg



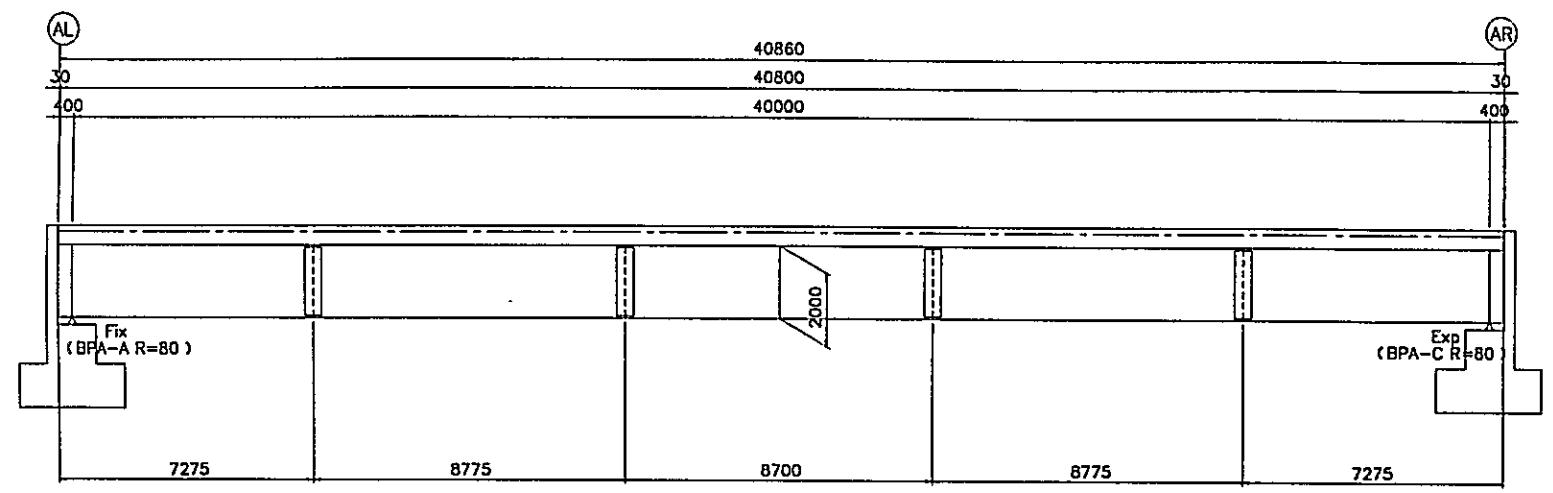
WEIGHT = 4kg

NOTE
1. MATERIAL NOT SPECIFIED IS SS400

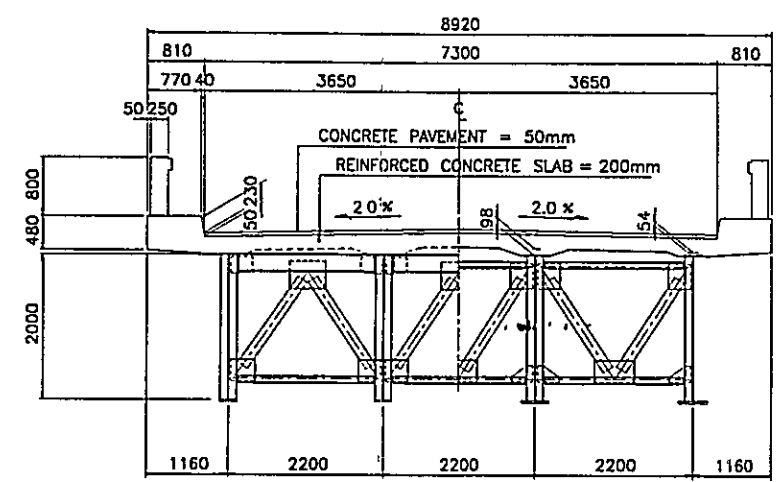
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Mesli	SHEET NO.
10-02-01	GENERAL VIEW	40

GENERAL VIEW

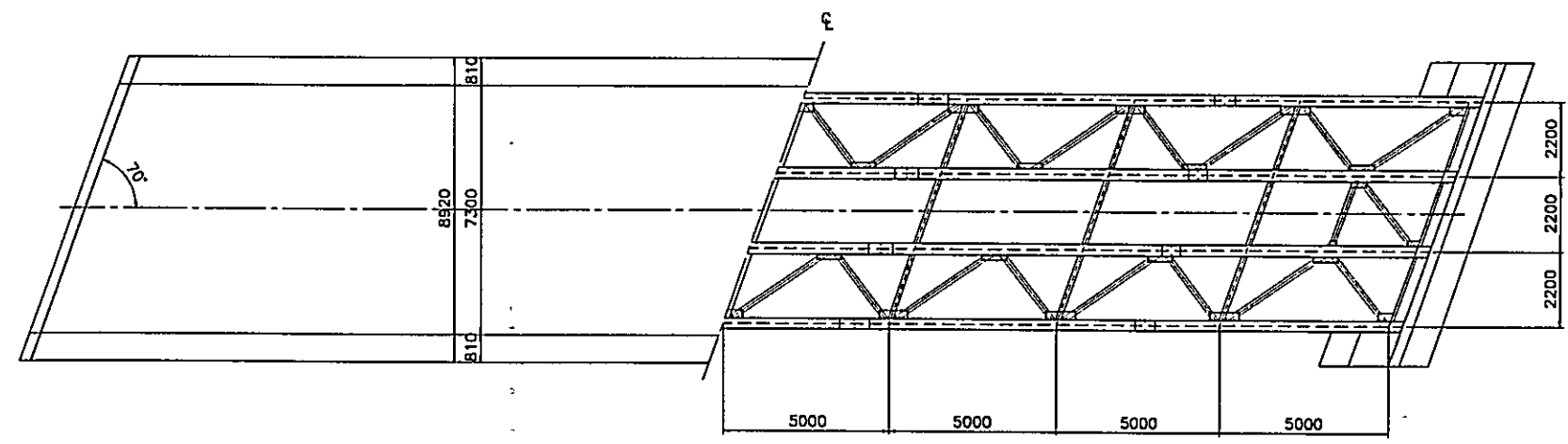
GENERAL ELEVATION
SCALE 1:100



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



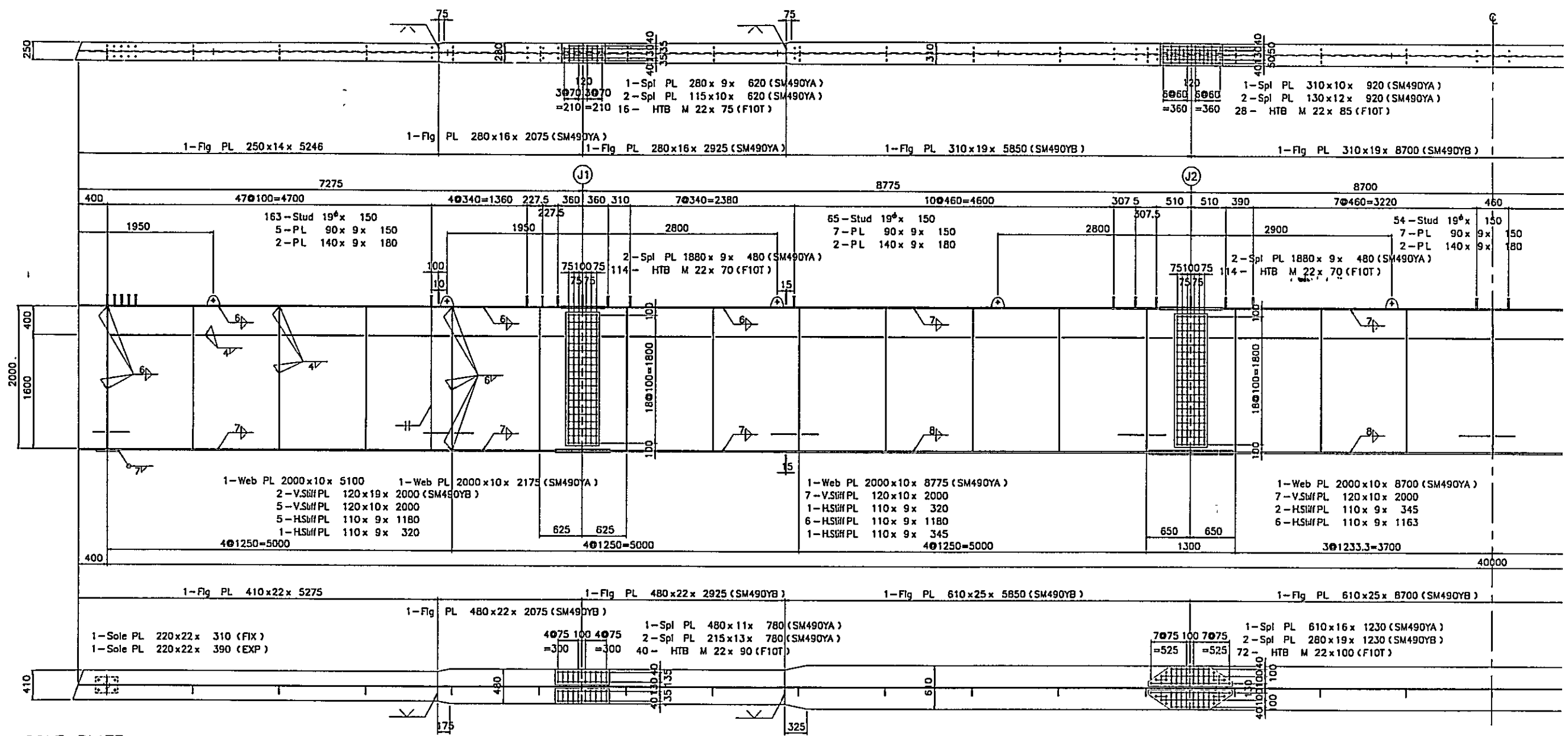
GENERAL PLAN
SCALE 1:100



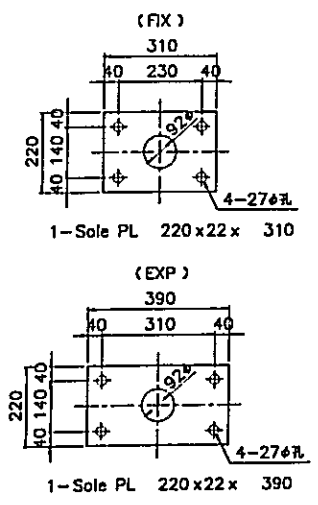
1. DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
2. DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m³
CONCRETE PAVEMENT 23.54 KN/m³
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° . FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
3. MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS
4. SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED,
DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED
IN SUBSTRUCTURE'S DRAWING.
5. DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS
ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Mesli	SHEET NO.
10-02-01	MAIN GIRDER G1, G4	41

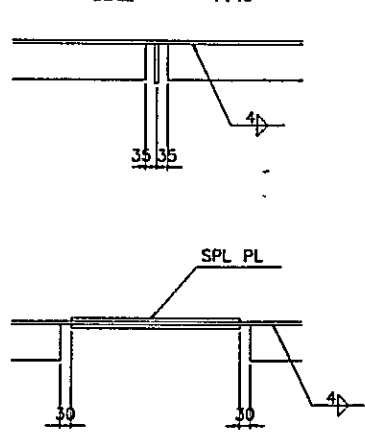
MAIN GIRDER G1,G4
SCALE 1:30



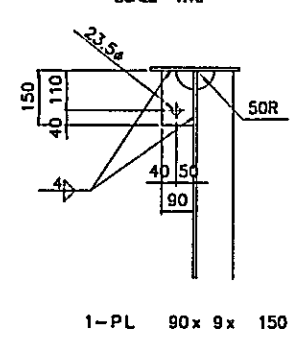
SOLE PLATE
SCALE 1:10



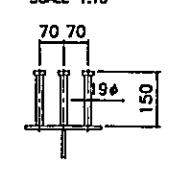
H. STIFFENER
SCALE 1:10



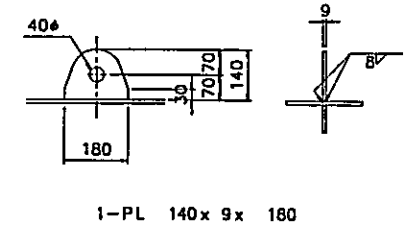
HANGER
SCALE 1:10



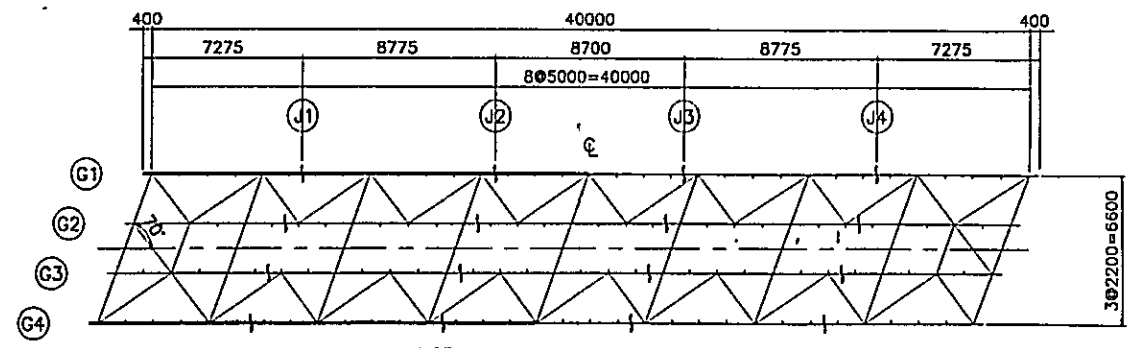
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10

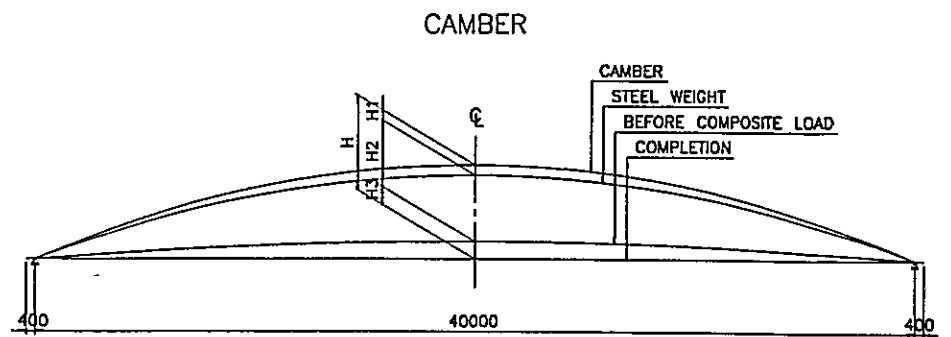
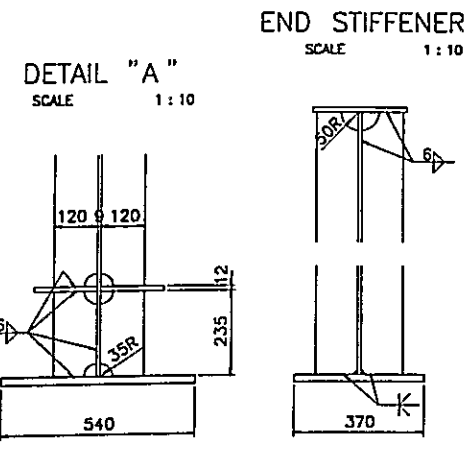
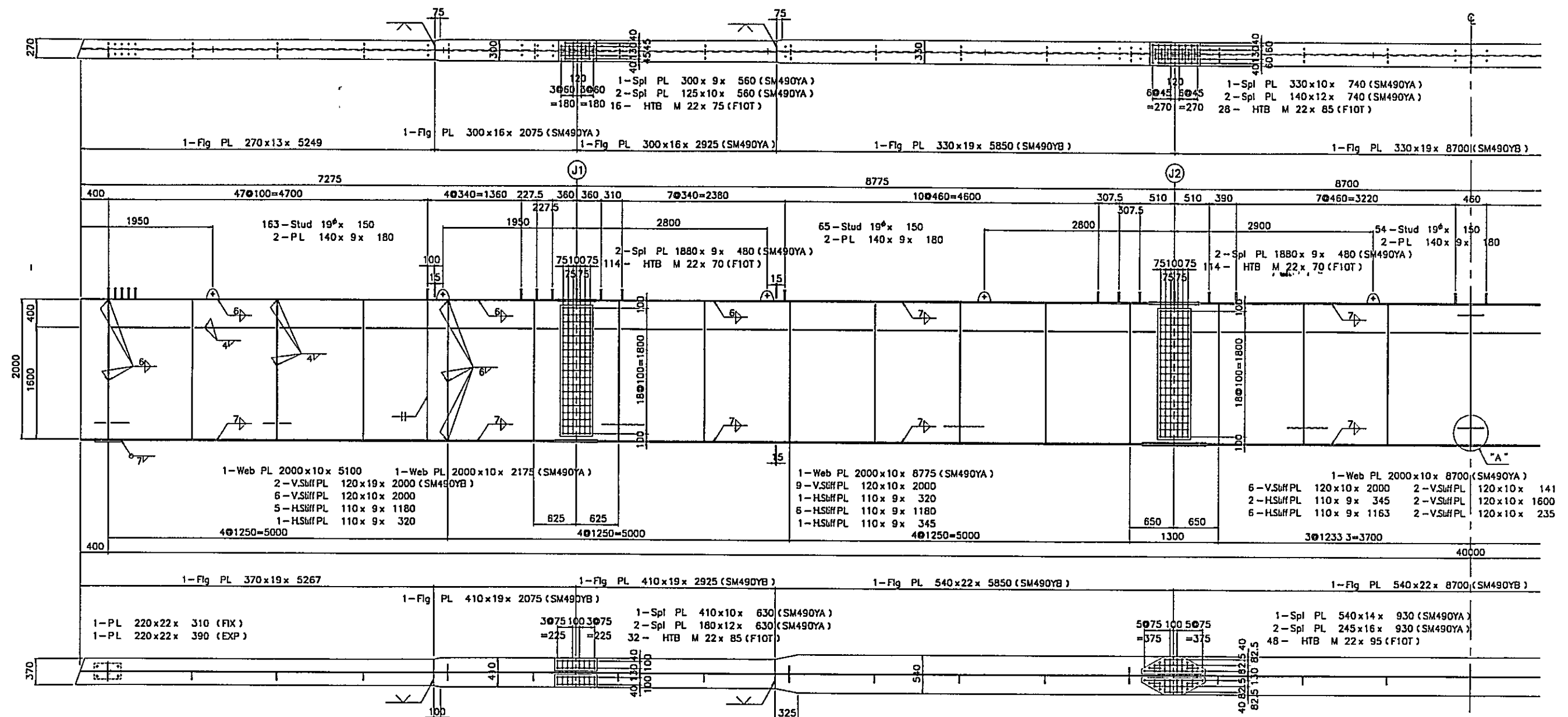


MARKING DIAGRAM

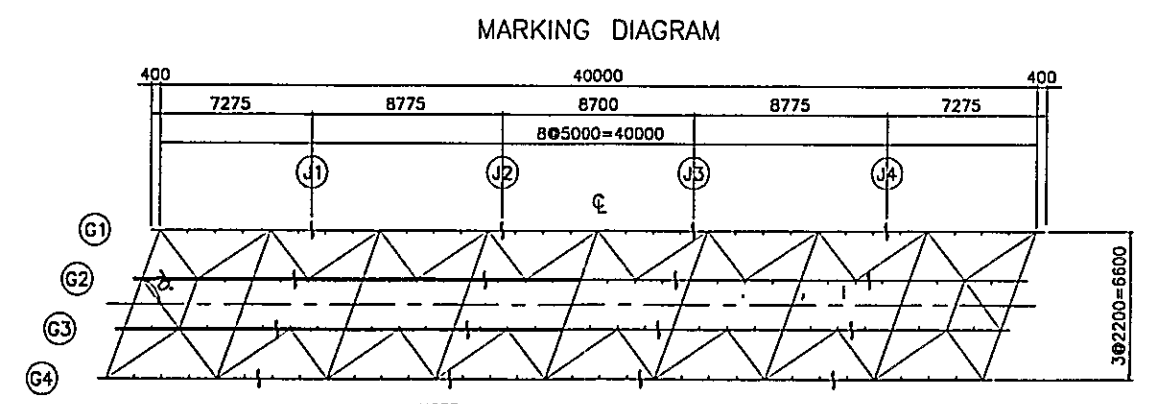


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

MAIN GIRDER G2,G3
SCALE 1:30



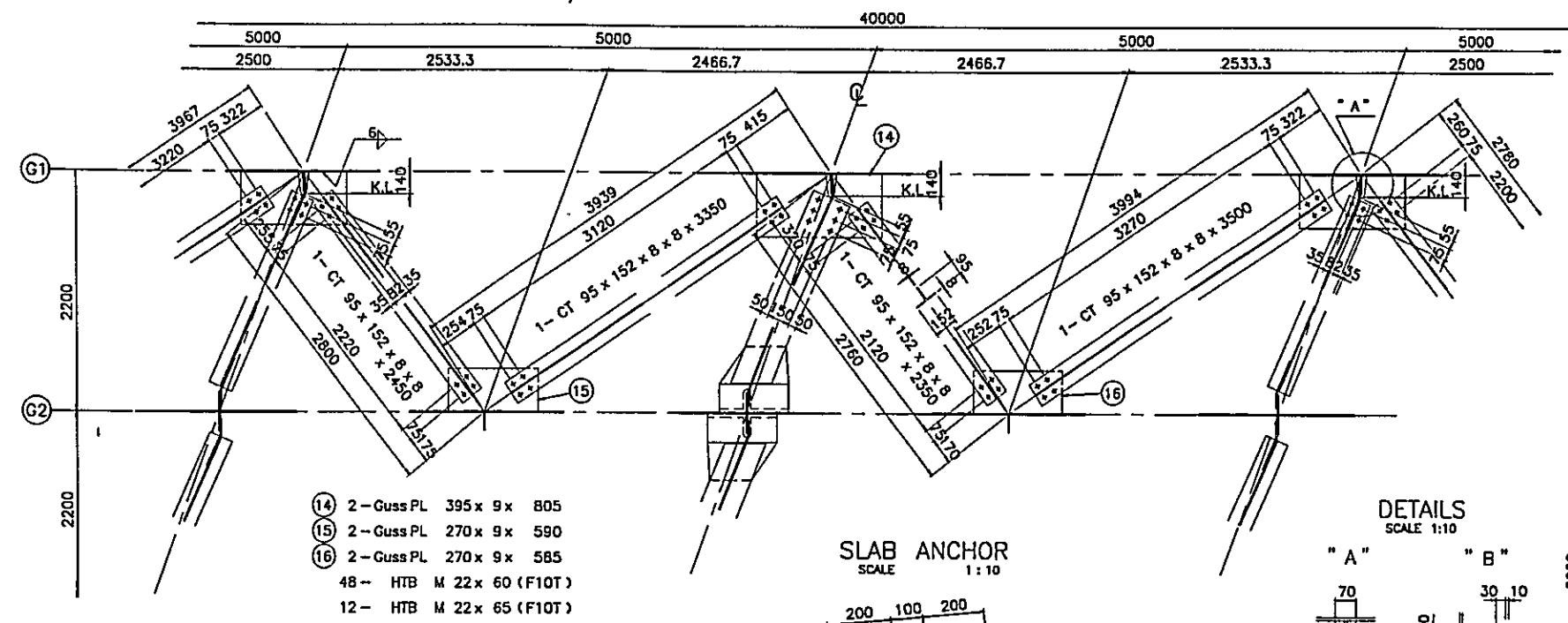
	H1	H2	H3	H
G1,G4	30	110	17	157
G2,G3	32	126	0	158



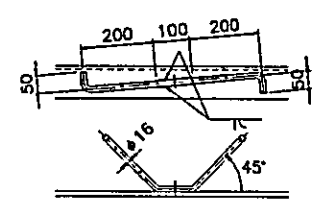
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Mesli	SHEET NO.
10-02-01	CROSS BEAM & SWAY	43

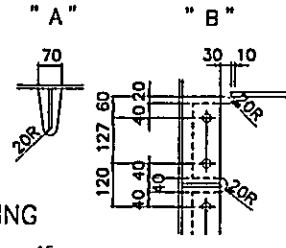
LATERAL BRACING
SCALE 1:20



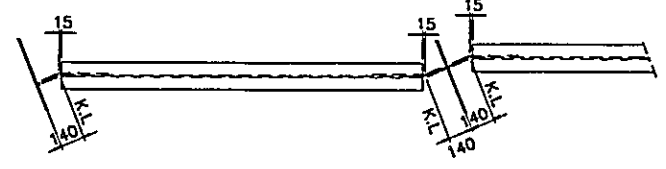
SLAB ANCHOR
SCALE 1:10



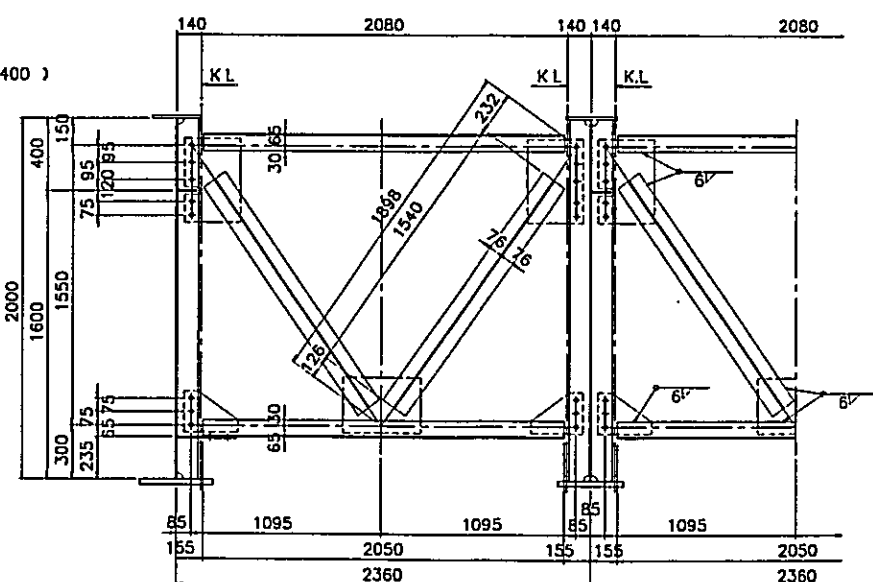
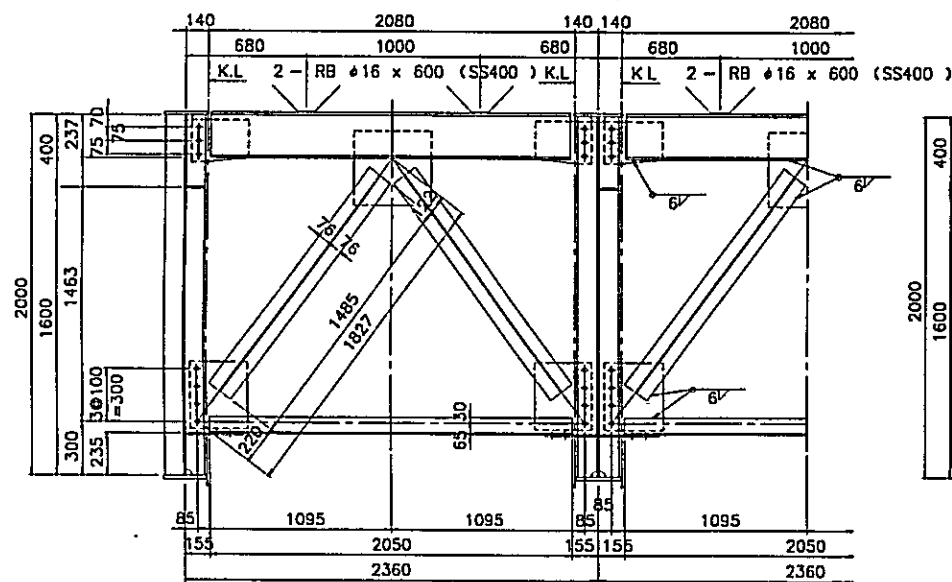
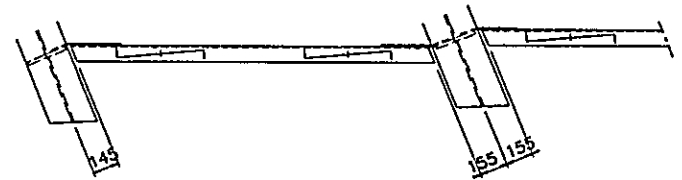
DETAILS
SCALE 1:10



INT. SWAY BRACING
SCALE 1:20



END SWAY BRACING
SCALE 1:20

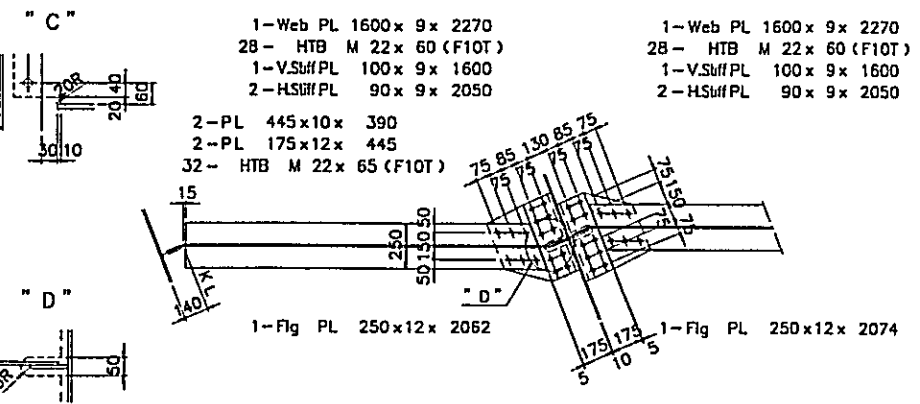
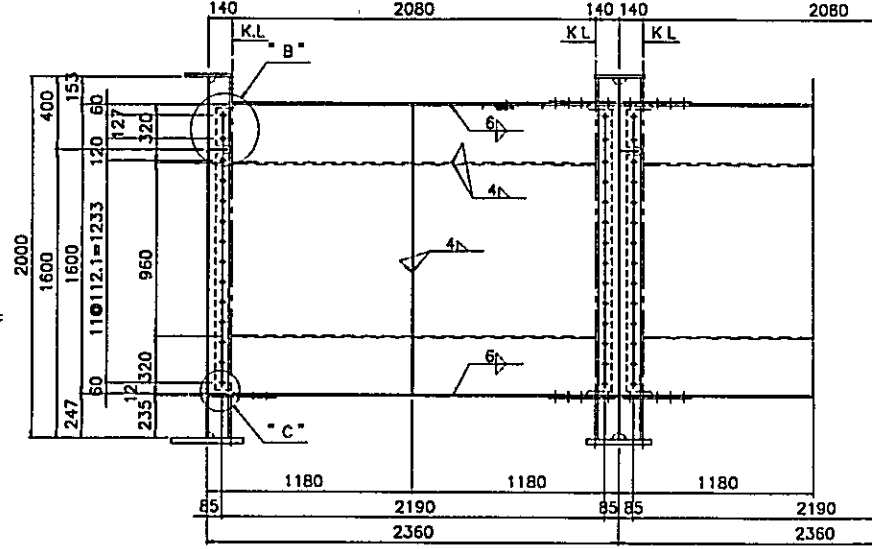
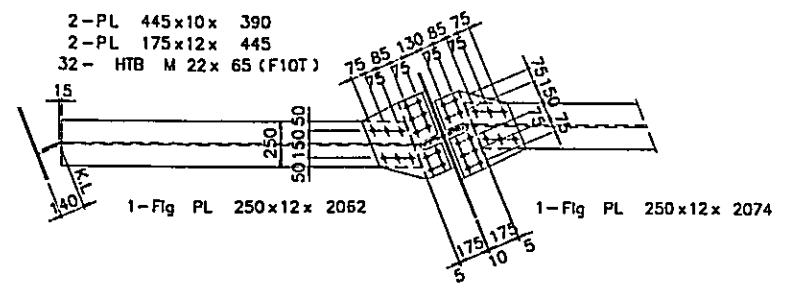


- 1 - C 250 x 90 x 9 x 13 x 2091
- 2 - CT 95 x 152 x 8 x 8 x 1485
- 1 - CT 95 x 152 x 8 x 8 x 2050
- 2 - Guss PL 230 x 9 x 325
- 1 - Guss PL 410 x 9 x 445
- 2 - Guss PL 380 x 9 x 325
- 14 - HTB M 22 x 70 (F10T)

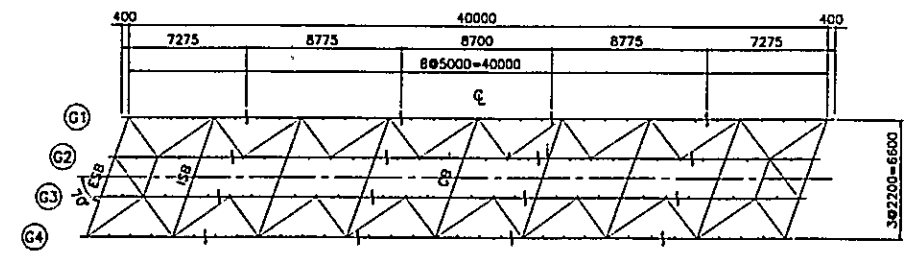
- 1 - C 250 x 90 x 9 x 13 x 2081
- 2 - CT 95 x 152 x 8 x 8 x 1485
- 1 - CT 95 x 152 x 8 x 8 x 2050
- 2 - Guss PL 230 x 9 x 325
- 1 - Guss PL 410 x 9 x 445
- 2 - Guss PL 380 x 9 x 325
- 14 - HTB M 22 x 70 (F10T)

- 2 - CT 95 x 152 x 8 x 8 x 2050
- 2 - CT 95 x 152 x 8 x 8 x 1540
- 2 - Guss PL 465 x 9 x 325
- 1 - Guss PL 310 x 9 x 445
- 2 - Guss PL 230 x 9 x 300
- 16 - HTB M 22 x 60 (F10T)

CROSS BEAM
SCALE 1:20

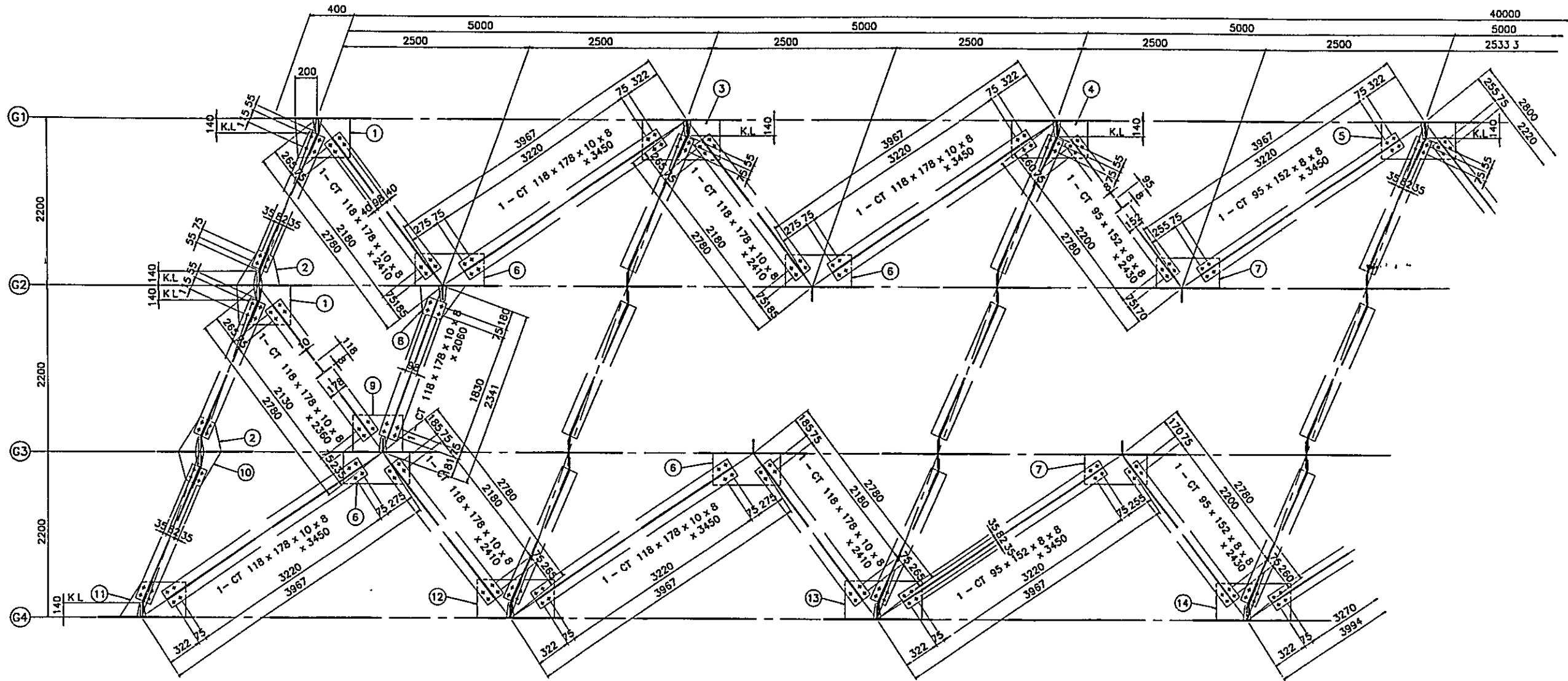


MARKING DIAGRAM



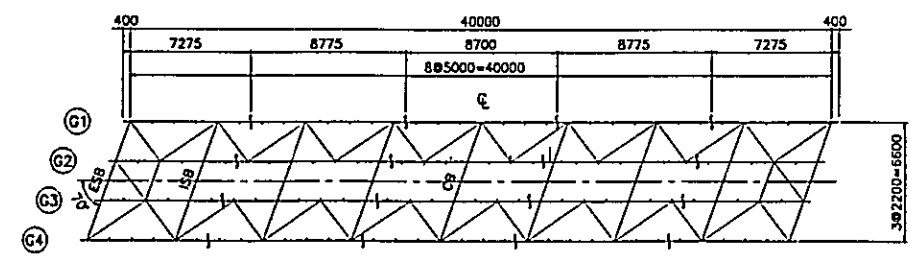
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

LATERAL BRACING
SCALE 1:20



- | | |
|-----------------------------|-----------------------------|
| ① 4 - Guss PL 350 x 9 x 505 | ⑧ 2 - Guss PL 305 x 9 x 400 |
| ② 4 - Guss PL 315 x 9 x 400 | ⑨ 2 - Guss PL 330 x 9 x 470 |
| ③ 2 - Guss PL 350 x 9 x 715 | ⑩ 2 - Guss PL 300 x 9 x 400 |
| ④ 2 - Guss PL 340 x 9 x 710 | ⑪ 2 - Guss PL 350 x 9 x 615 |
| ⑤ 2 - Guss PL 335 x 9 x 695 | ⑫ 2 - Guss PL 350 x 9 x 715 |
| ⑥ 8 - Guss PL 290 x 9 x 630 | ⑬ 2 - Guss PL 350 x 9 x 710 |
| ⑦ 4 - Guss PL 270 x 9 x 585 | ⑭ 2 - Guss PL 340 x 9 x 700 |
| | 360 - HTB M 22 x 60 (F10T) |

MARKING DIAGRAM

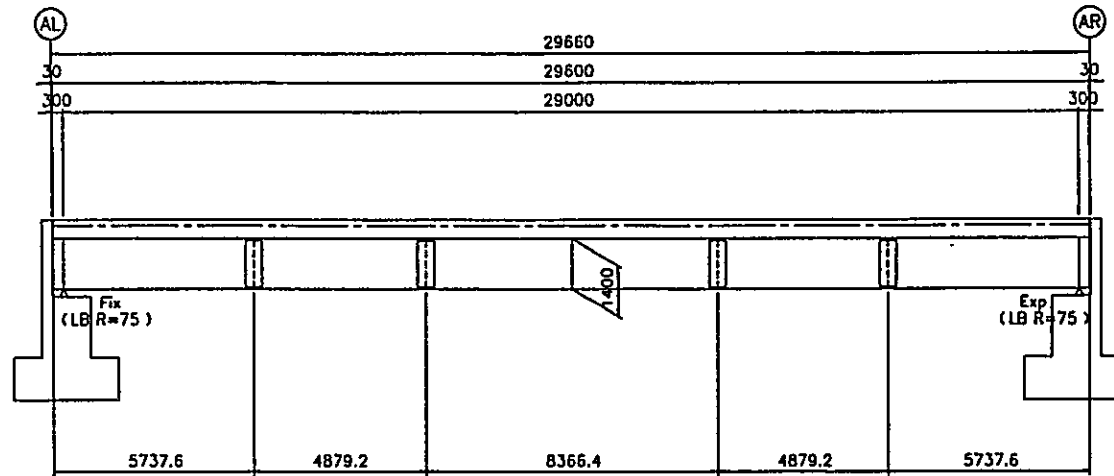


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

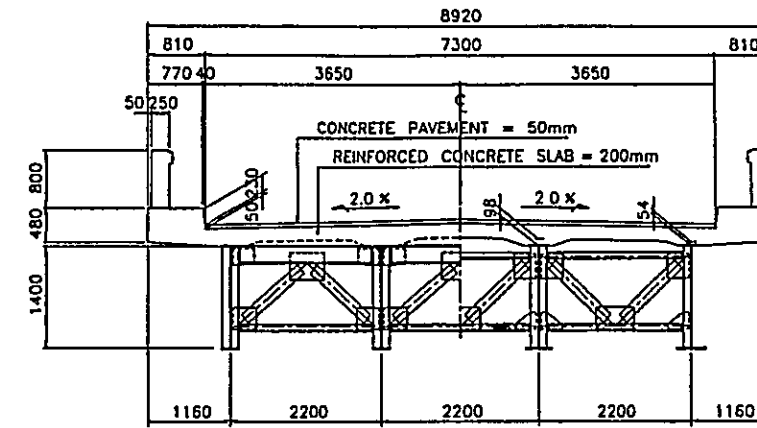
GENERAL VIEW

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Silae	SHEET NO.
10-03-09	GENERAL VIEW	45

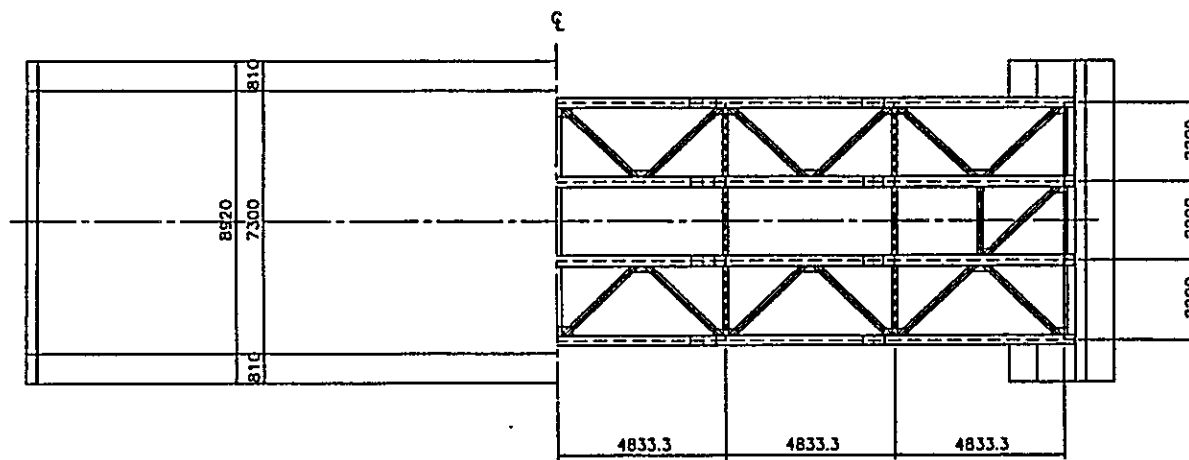
GENERAL ELEVATION
SCALE 1:100



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



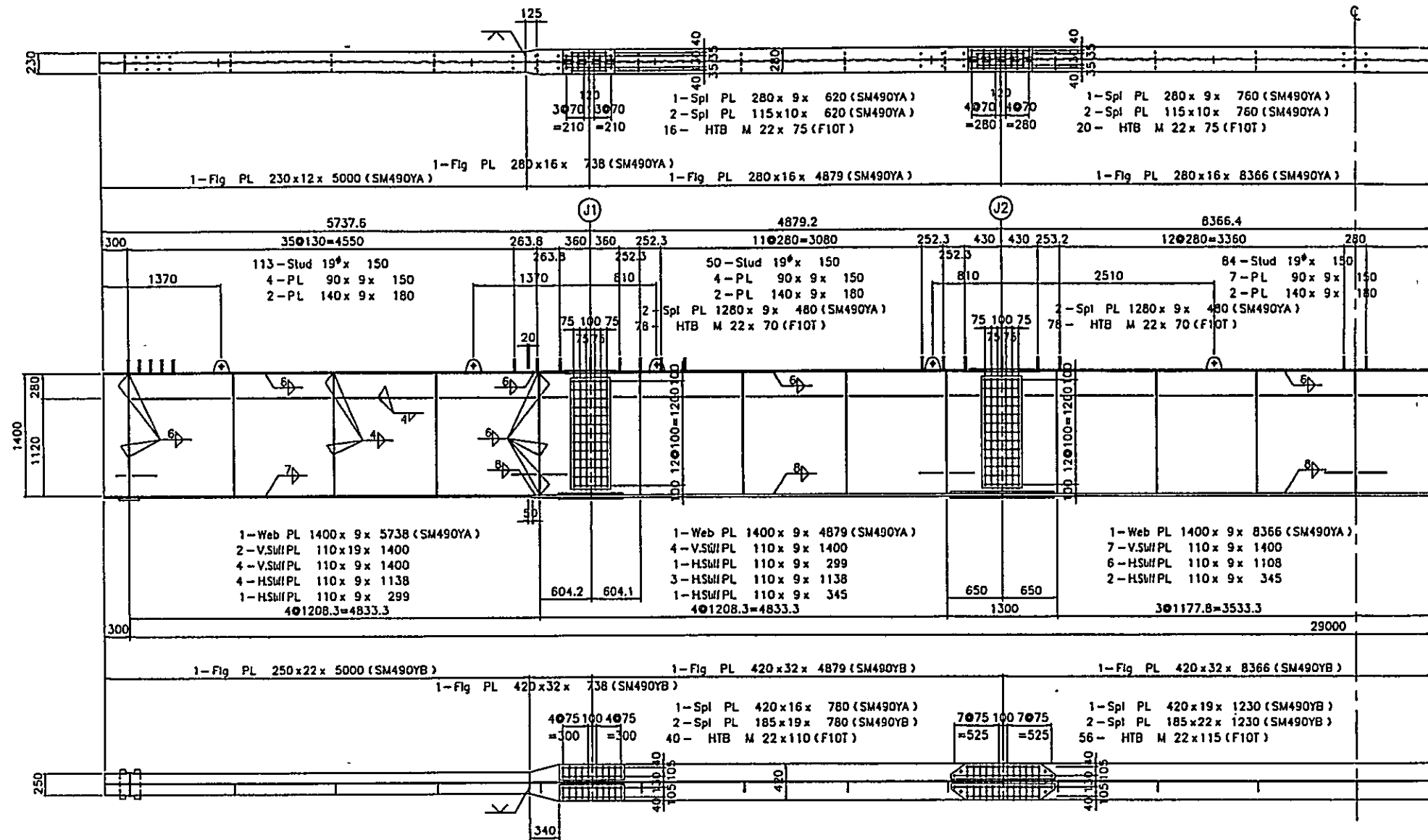
GENERAL PLAN
SCALE 1:100



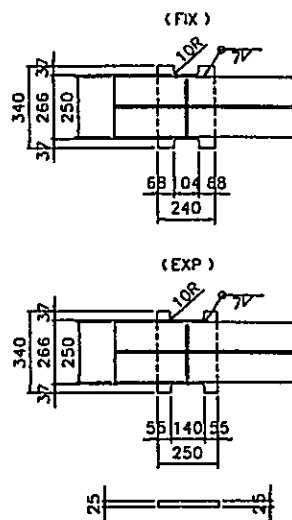
- DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
- DESIGN LOAD
 - DEAD LOAD : CONCRETE 23.54 KN/m³
CONCRETE PAVEMENT 23.54 KN/m³
 - LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - TEMPERATURE CHANGE :
RISE +20' . FALL -20'
 - EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
- MATERIALS
 - STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
- SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
- DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Site	SHEET NO.
10-03-09	MAIN GIRDER G1, G4	46

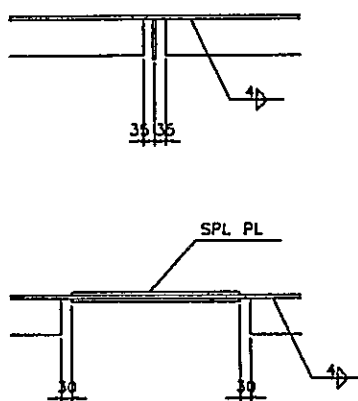
MAIN GIRDER G1,G4
SCALE 1:30



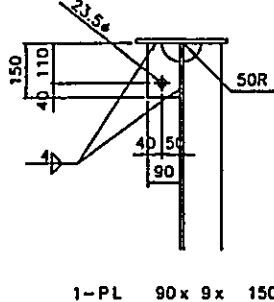
SOLE PLATE
SCALE 1:15



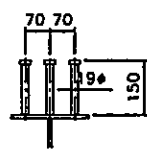
H. STIFFENER
SCALE 1:10



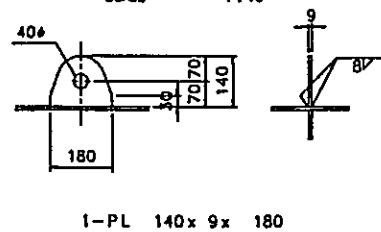
HANGER
SCALE 1:10



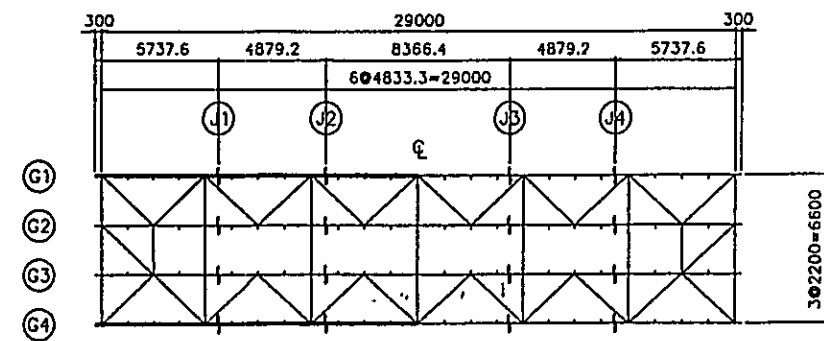
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10

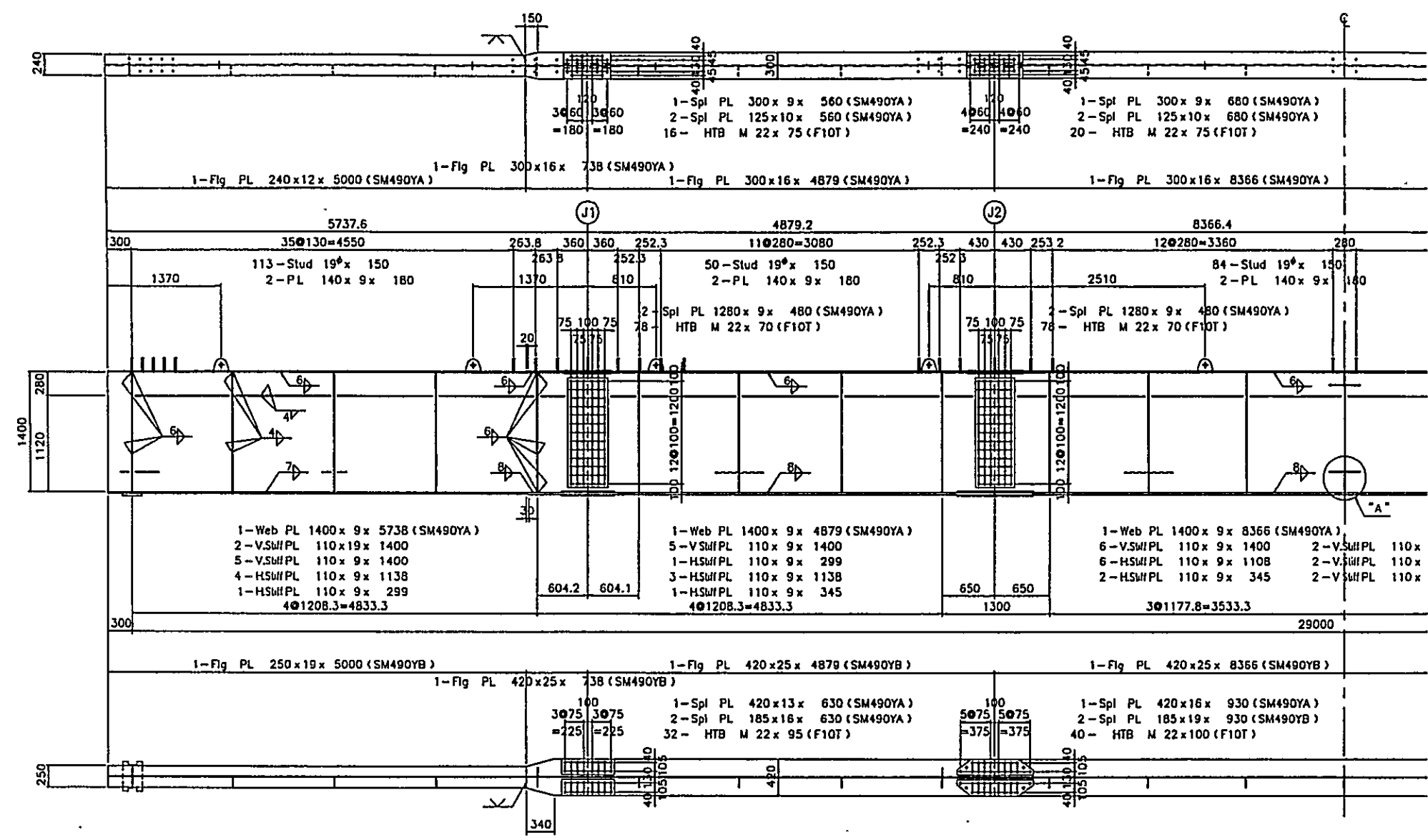


MARKING DIAGRAM

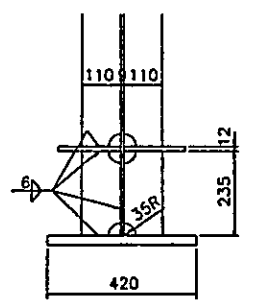


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

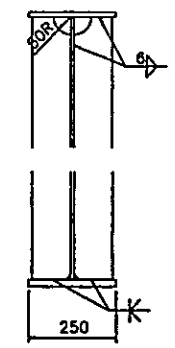
MAIN GIRDER G2,G3
SCALE 1:30



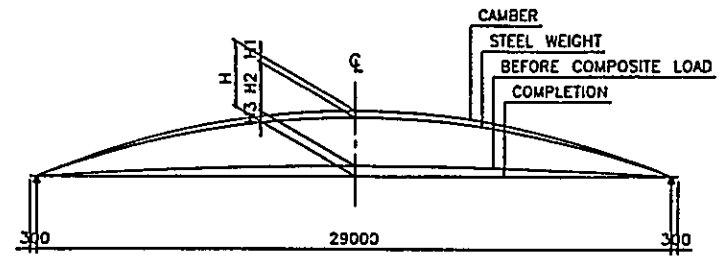
DETAIL "A"
SCALE 1:10



END STIFFENER
SCALE 1:10

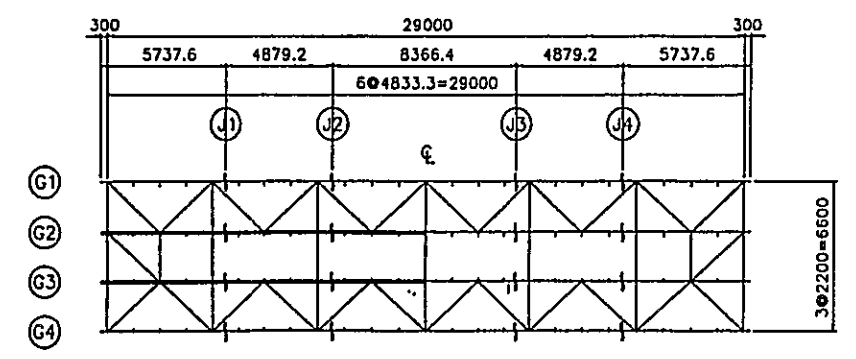


CAMBER



	H1	H2	H3	H
G1,G4	17	81	11	109
G2,G3	19	91	0	110

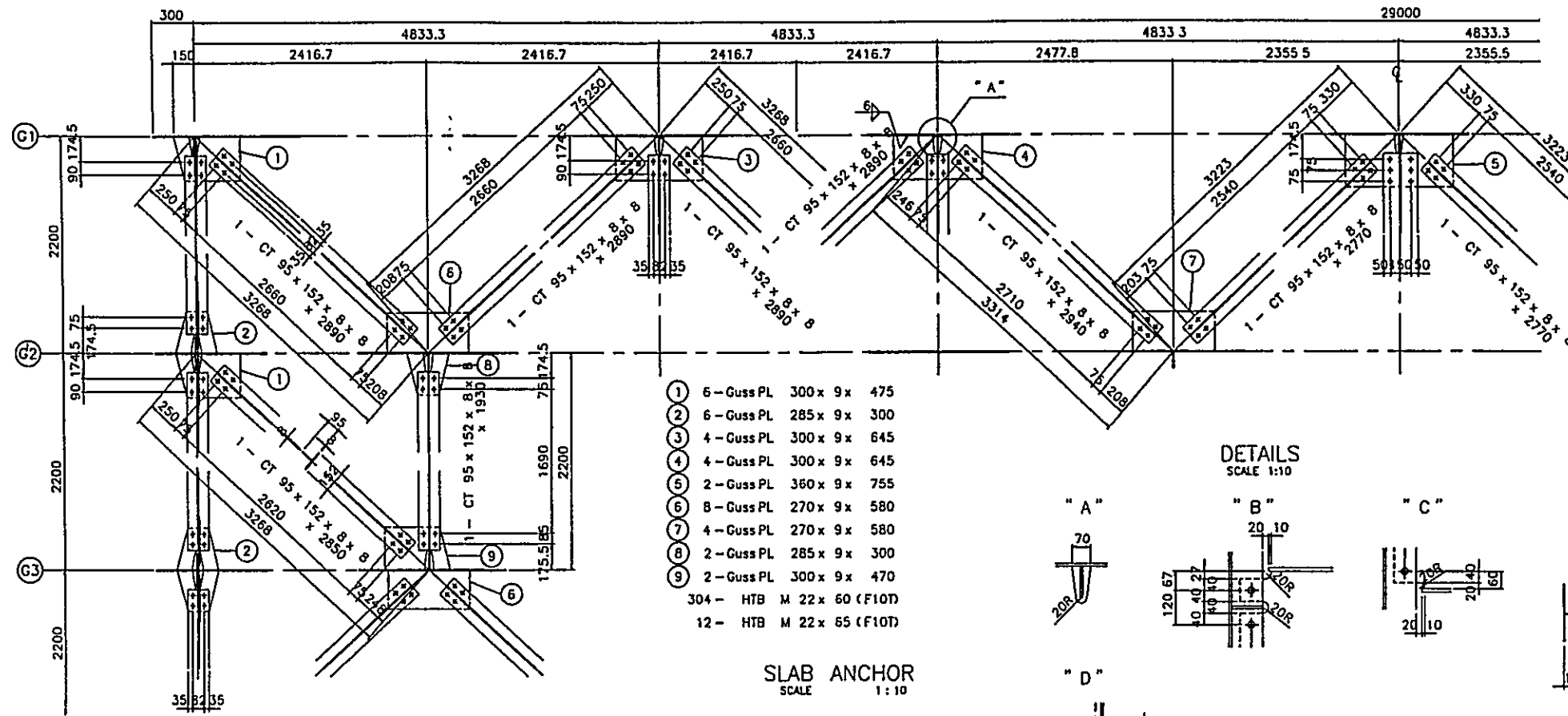
MARKING DIAGRAM



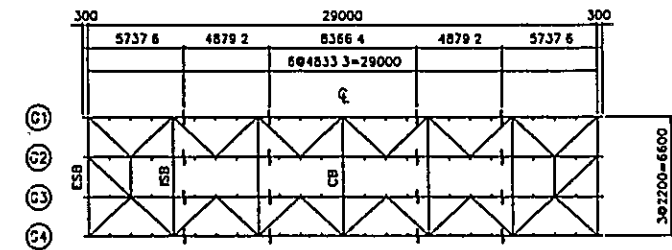
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

LATERAL BRACING
SCALE 1:20

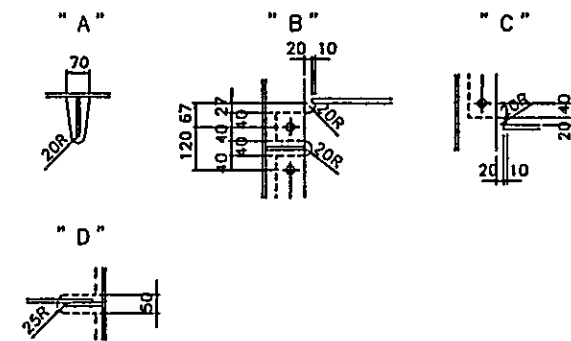
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Silae	SHEET NO.
10-03-09	CROSS BEAM, SWAY & LATERAL	48



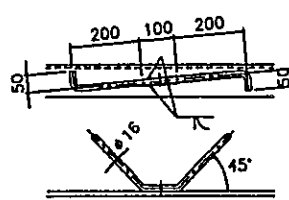
MARKING DIAGRAM



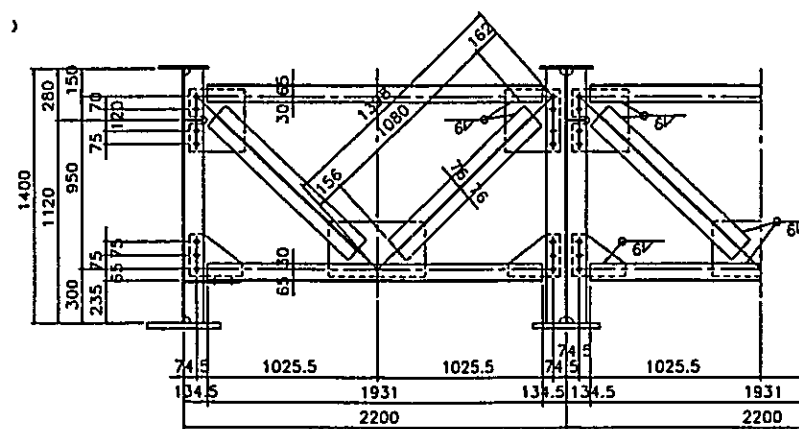
DETAILS
SCALE 1:10



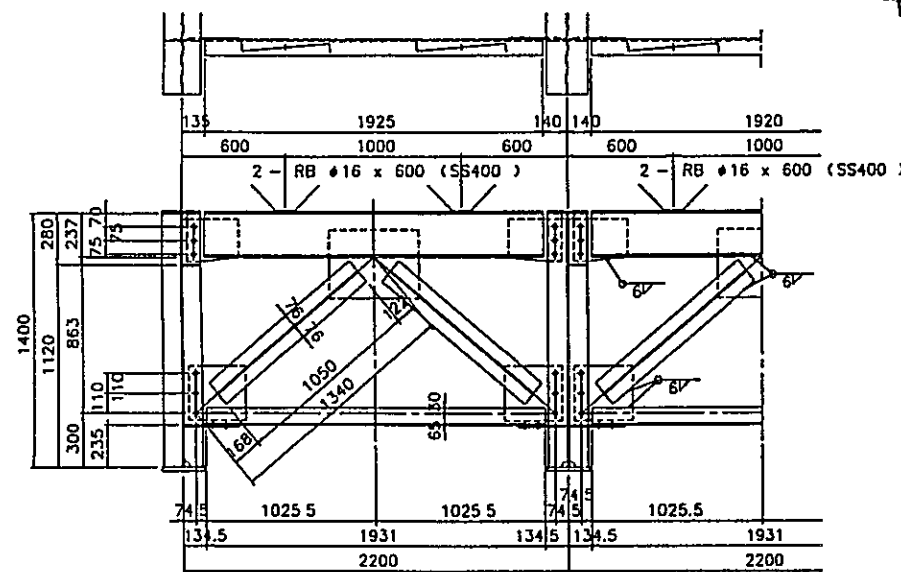
SLAB ANCHOR
SCALE 1:10



INT. SWAY BRACING
SCALE 1:20



END SWAY BRACING
SCALE 1:20

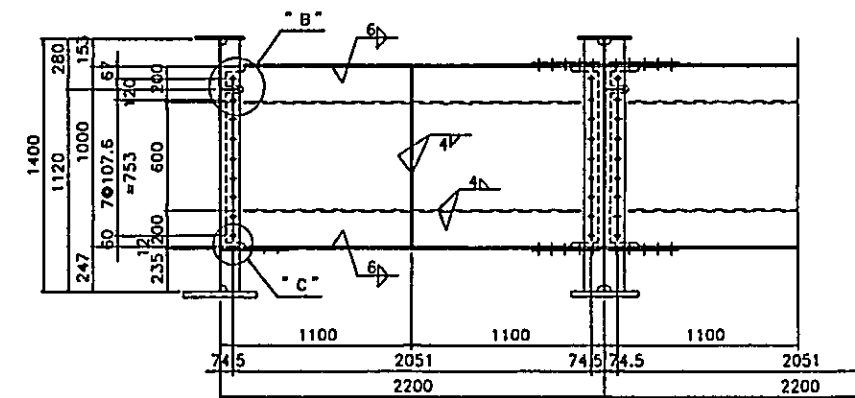
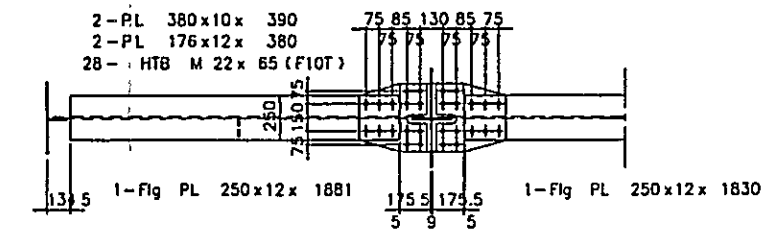


- | | |
|--------------------------------|--------------------------------|
| 1 - C 250 x 90 x 9 x 13 x 1925 | 1 - C 250 x 90 x 9 x 13 x 1920 |
| 2 - CT 95 x 152 x 8 x 8 x 1050 | 2 - CT 95 x 152 x 8 x 8 x 1050 |
| 1 - CT 95 x 152 x 8 x 8 x 1931 | 1 - CT 95 x 152 x 8 x 8 x 1931 |
| 2 - Guss PL 230 x 9 x 305 | 2 - Guss PL 230 x 9 x 305 |
| 1 - Guss PL 380 x 9 x 515 | 1 - Guss PL 380 x 9 x 515 |
| 2 - Guss PL 300 x 9 x 330 | 2 - Guss PL 300 x 9 x 330 |
| 12 - HTB M 22 x 70 (F10T) | 12 - HTB M 22 x 70 (F10T) |

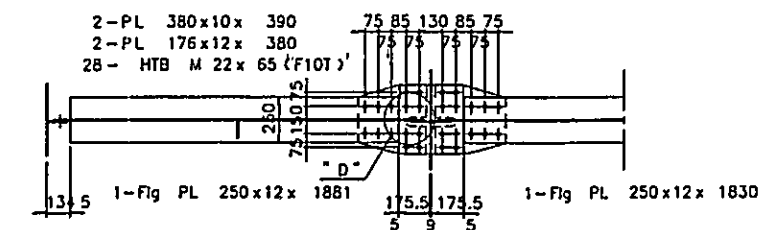
- 2 - CT 95 x 152 x 8 x 8 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 1080
- 2 - Guss PL 315 x 9 x 345
- 1 - Guss PL 305 x 9 x 555
- 2 - Guss PL 230 x 9 x 300
- 14 - HTB M 22 x 60 (F10T)

NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

CROSS BEAM
SCALE 1:20

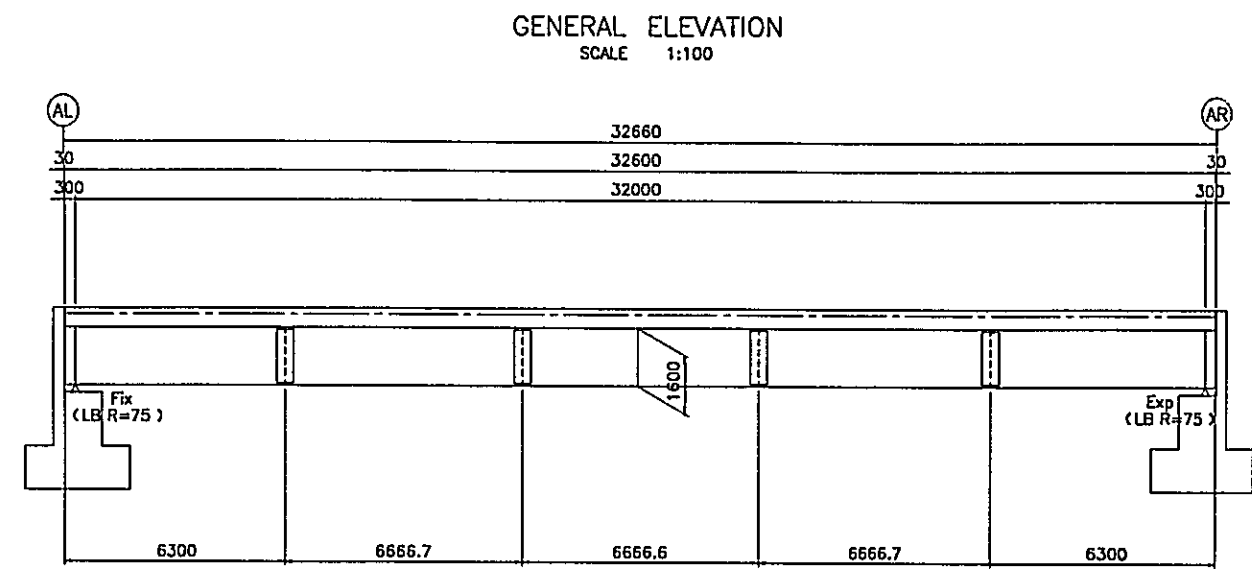


- | | |
|------------------------------|------------------------------|
| 1 - Web PL 1000 x 9 x 2131 | 1 - Web PL 1000 x 9 x 2131 |
| 18 - HTB M 22 x 60 (F10T) | 18 - HTB M 22 x 60 (F10T) |
| 1 - V.Sulf PL 100 x 9 x 1000 | 1 - V.Sulf PL 100 x 9 x 1000 |
| 2 - H.Sulf PL 90 x 9 x 1910 | 2 - H.Sulf PL 90 x 9 x 1910 |

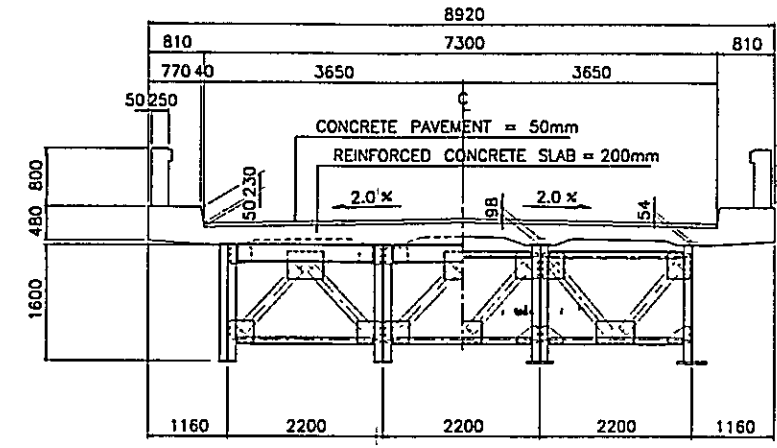


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Pagtilaan, Pangyan	SHEET NO.
11-01-02 11-06-03	GENERAL VIEW	49

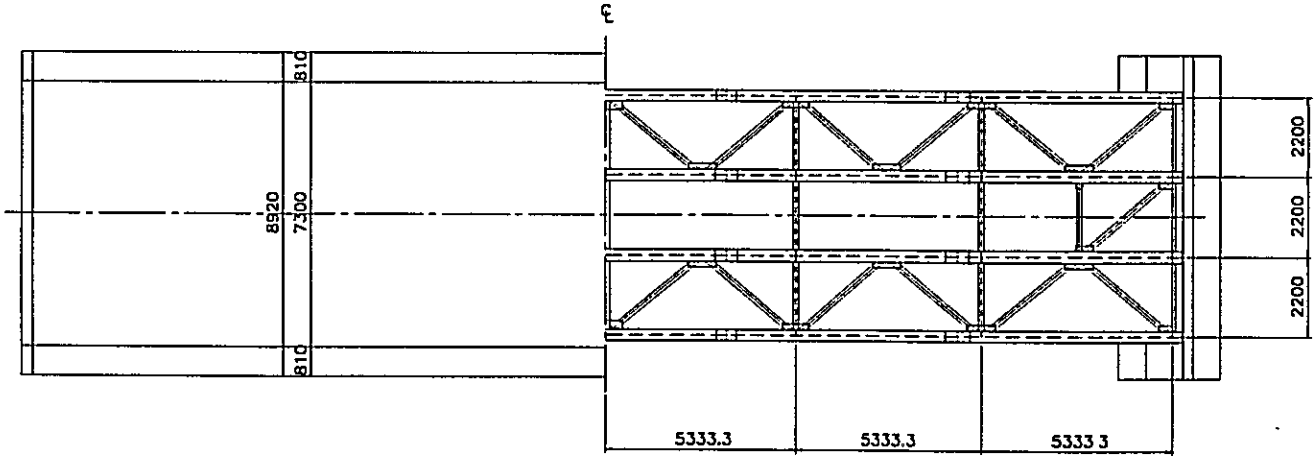
GENERAL VIEW



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



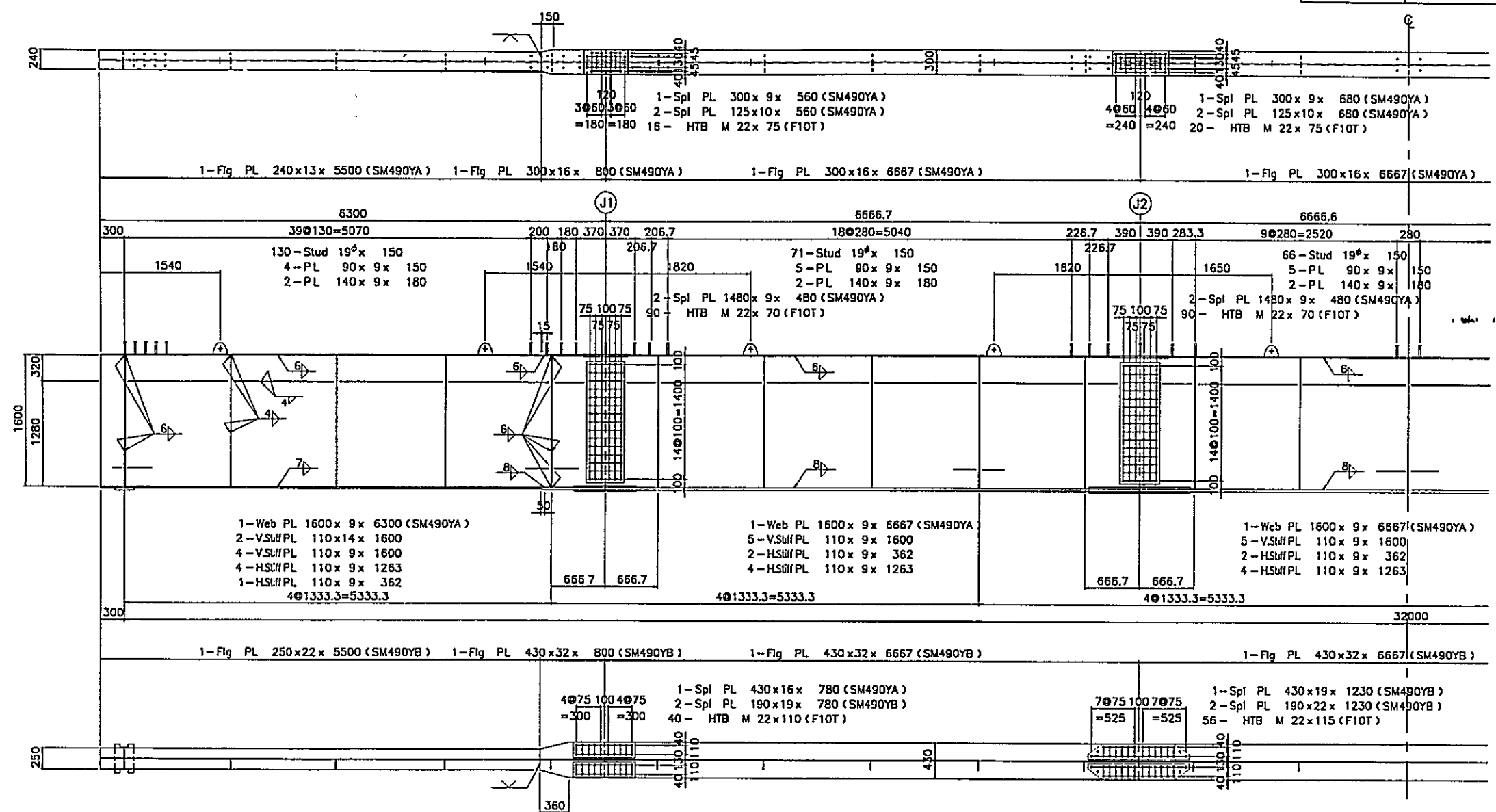
GENERAL PLAN
SCALE 1:100



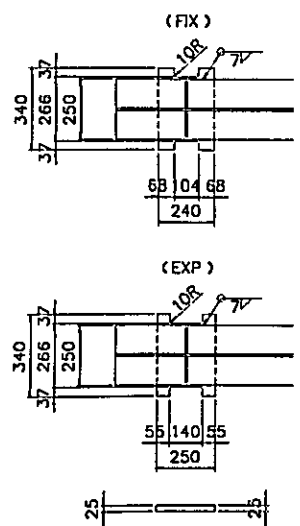
1. DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
2. DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m²
CONCRETE PAVEMENT 23.54 KN/m²
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° . FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
3. MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c'=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c'=280kg/cm²
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
4. SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
5. DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS
ALL ELEVATION ARE IN METERS

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Pagtilaan, Pangyan	SHEET NO.
11-01-02 11-06-03	MAIN GIRDER G1, G4	50

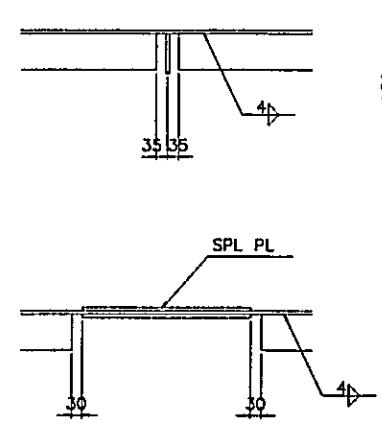
MAIN GIRDER G1, G4
SCALE 1:30



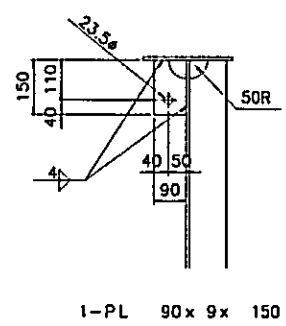
SOLE PLATE
SCALE 1:15



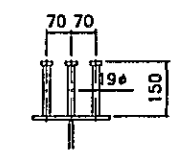
H. STIFFENER
SCALE 1:10



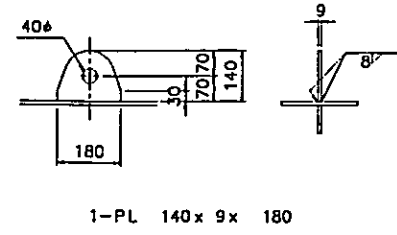
HANGER
SCALE 1:10



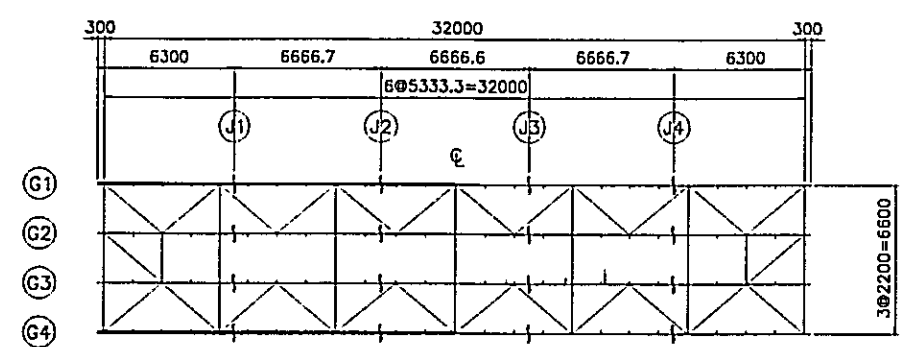
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10

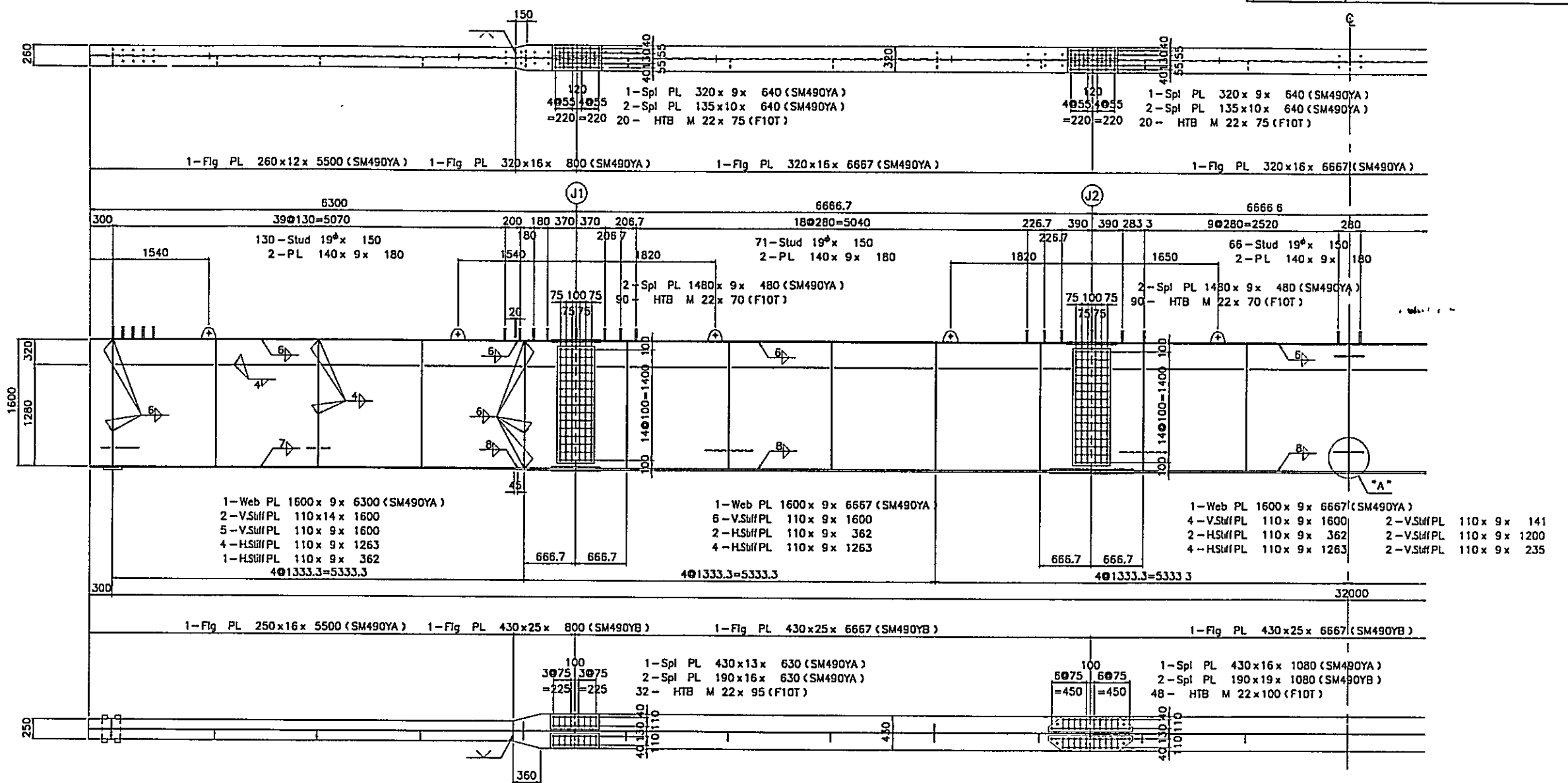


MARKING DIAGRAM

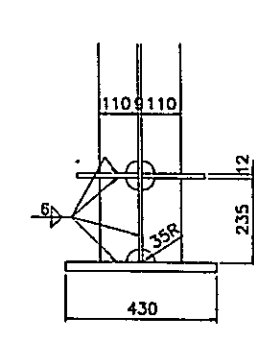


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

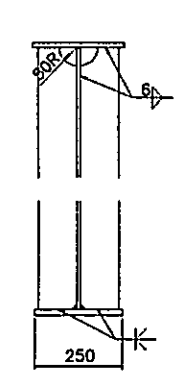
MAIN GIRDER G2,G3
SCALE 1:30



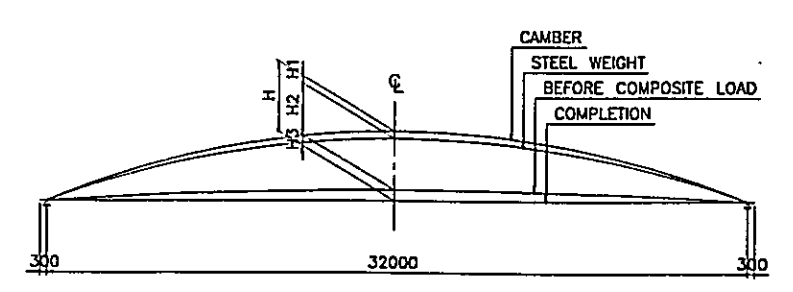
DETAIL "A"
SCALE 1:10



END STIFFENER
SCALE 1:10

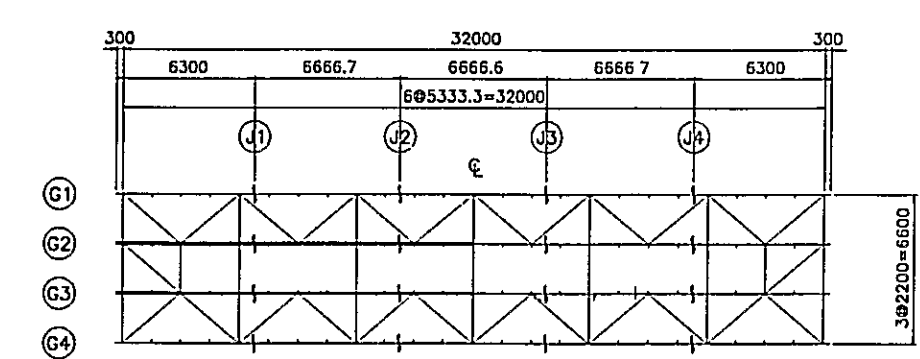


CAMBER



	H1	H2	H3	H
G1,G4	18	86	12	116
G2,G3	20	98	0	118

MARKING DIAGRAM

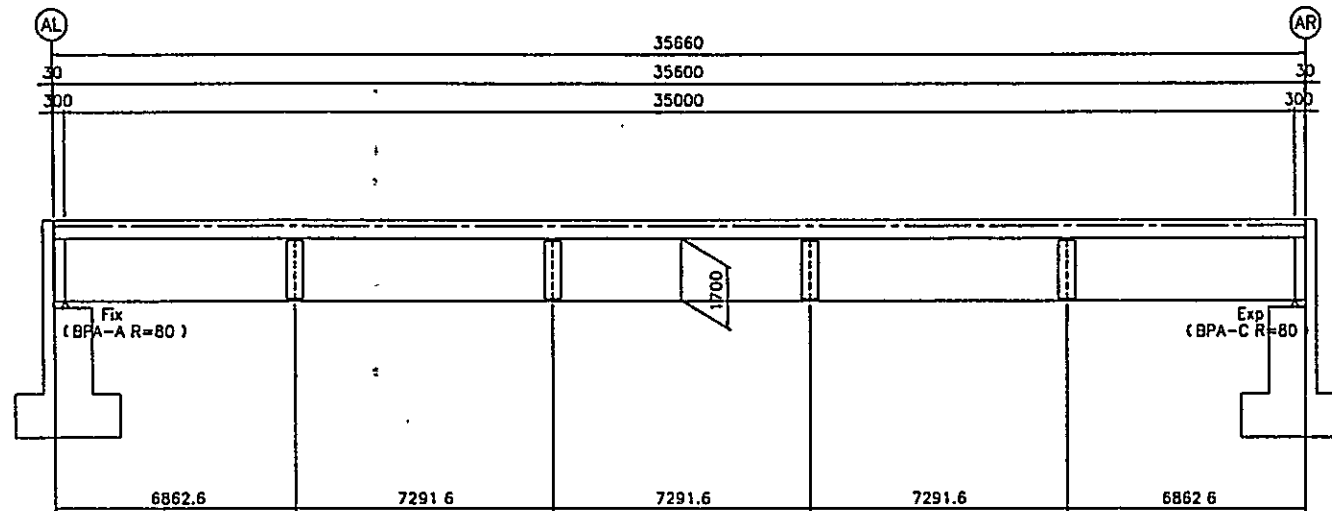


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

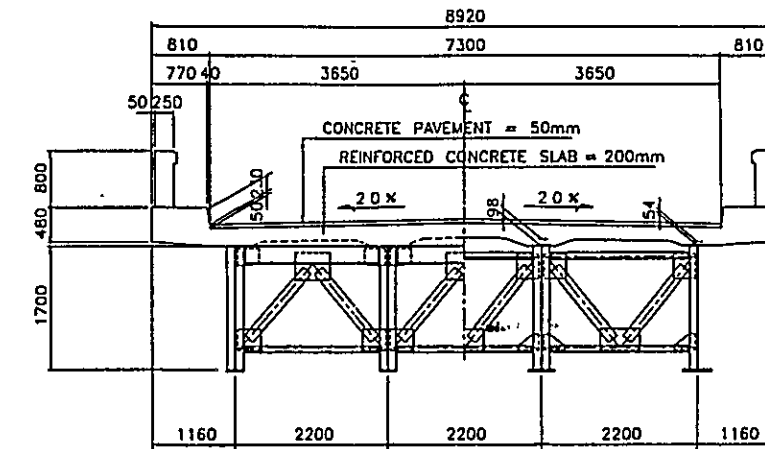
GENERAL VIEW

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Union	SHEET NO.
11-01-05	GENERAL VIEW	53

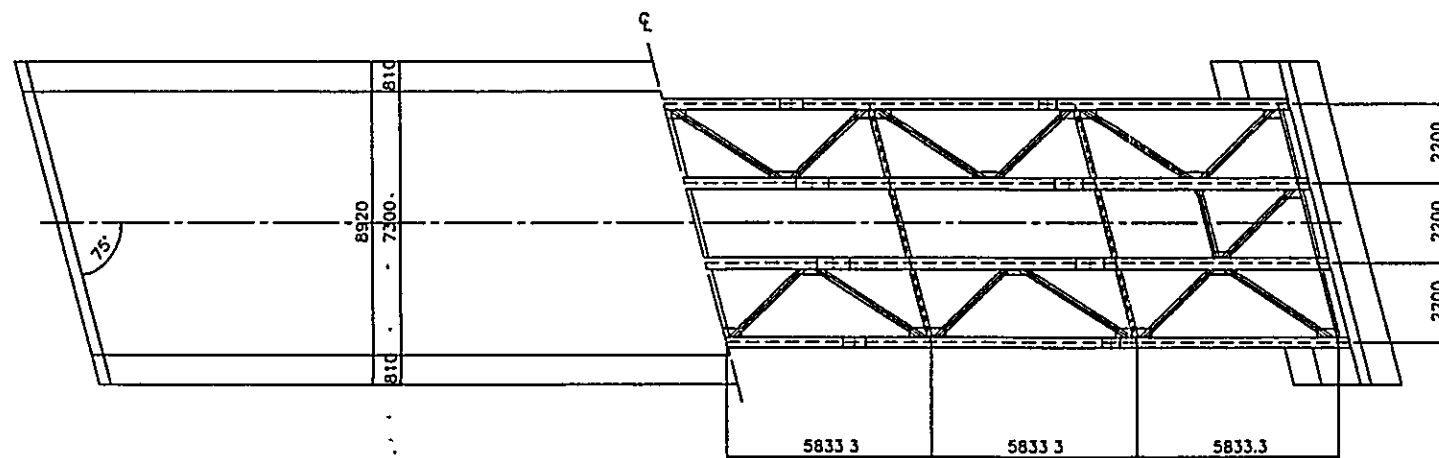
GENERAL ELEVATION
SCALE 1:100



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



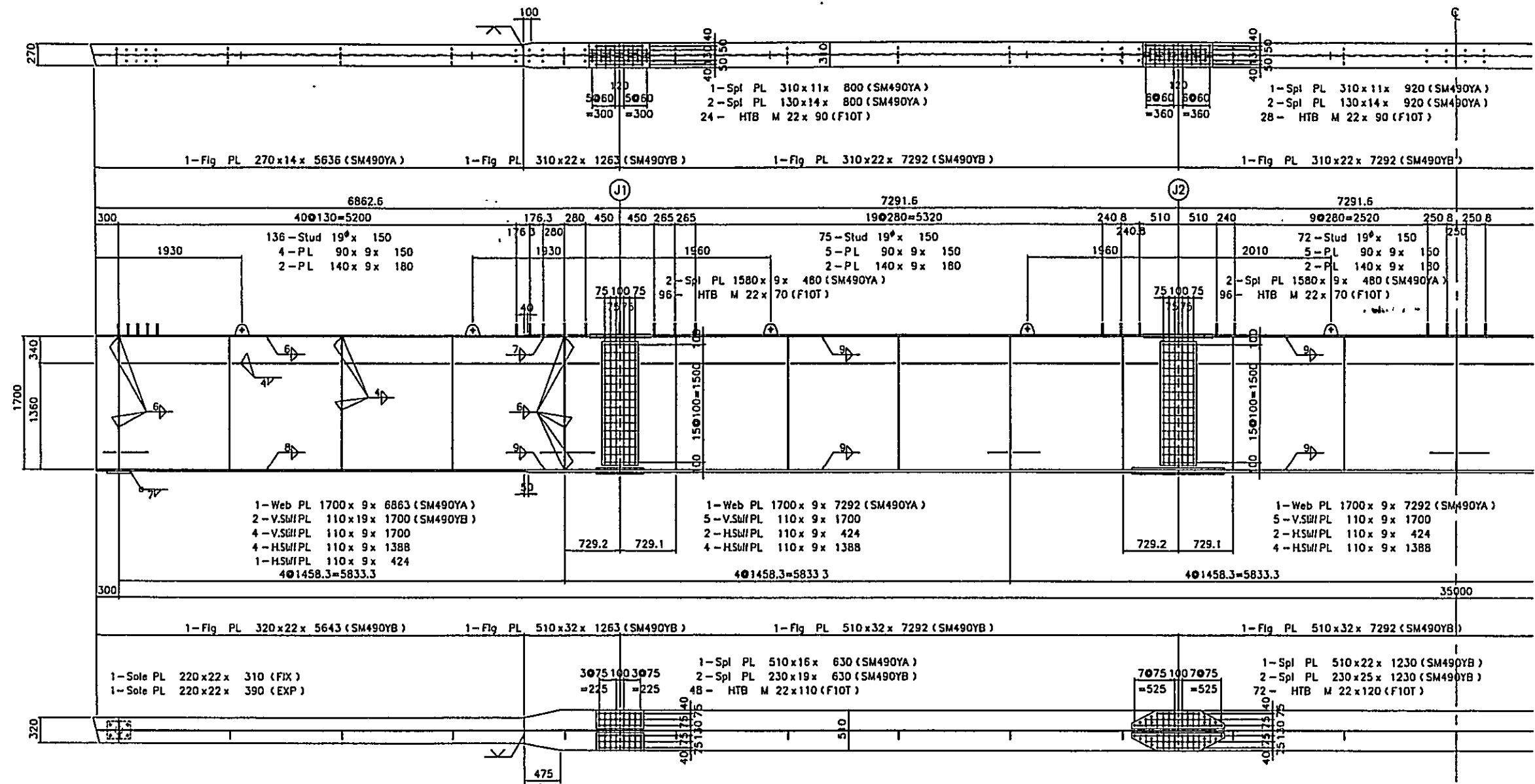
GENERAL PLAN
SCALE 1:100



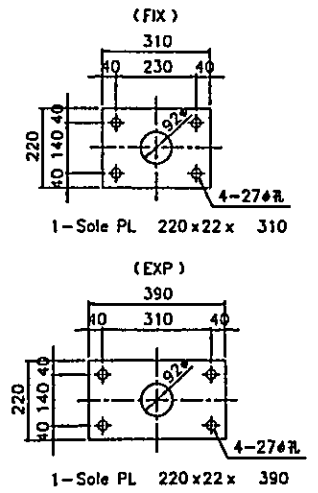
1. DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
2. DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m²
CONCRETE PAVEMENT 23.54 KN/m²
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° , FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
3. MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE (f_c'=(CLASS A) f_c=280kg/cm²)
CONCRETE FOR SUBSTRUCTURE (f_c'=(CLASS A) f_c=280kg/cm²)
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
4. SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
5. DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Union	SHEET NO.
11-01-05	MAIN GIRDER G1, G4	54

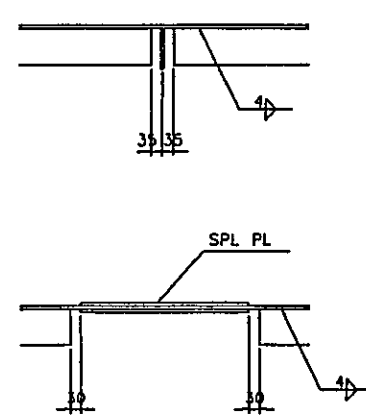
MAIN GIRDER G1,G4
SCALE 1:30



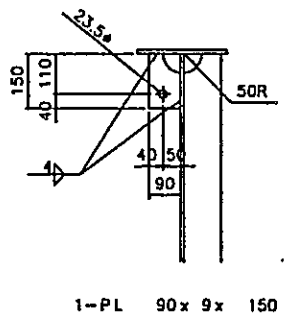
SOLE PLATE
SCALE 1:10



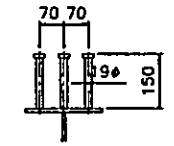
H. STIFFENER
SCALE 1:10



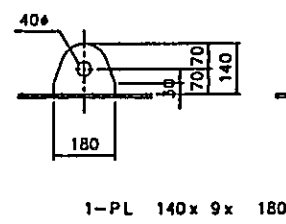
HANGER
SCALE 1:10



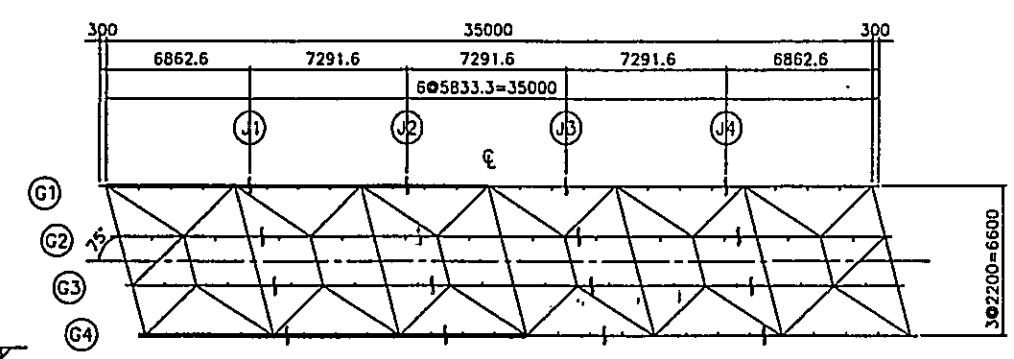
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10

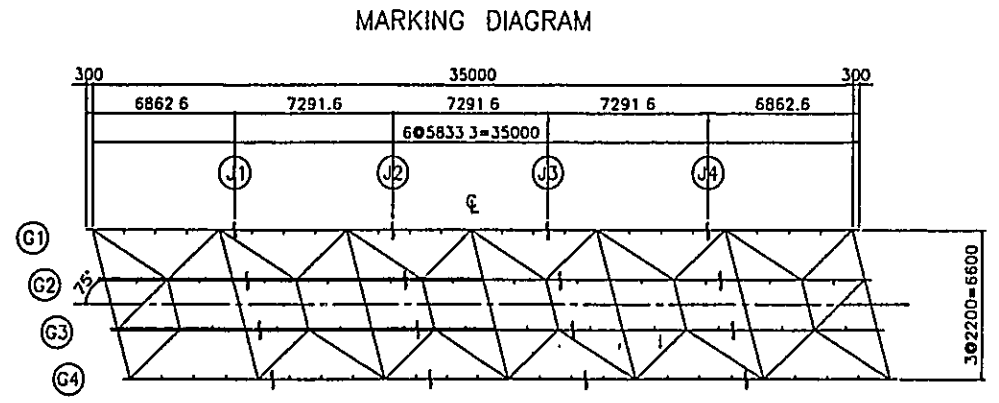
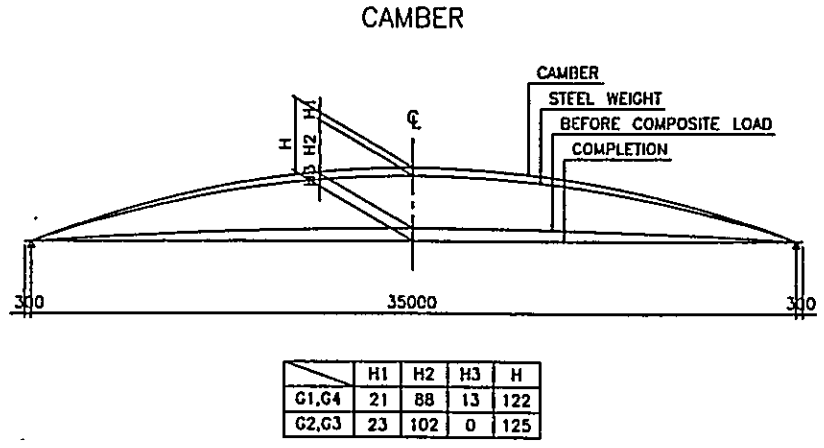
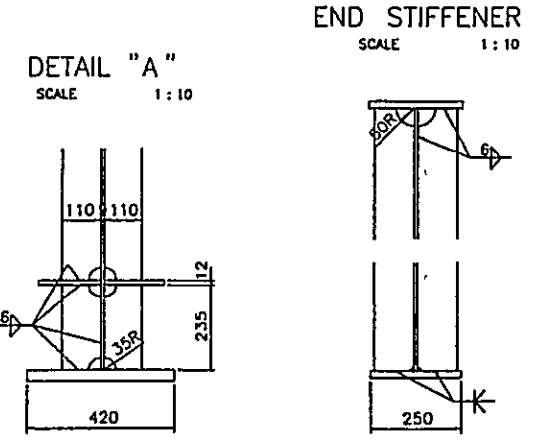
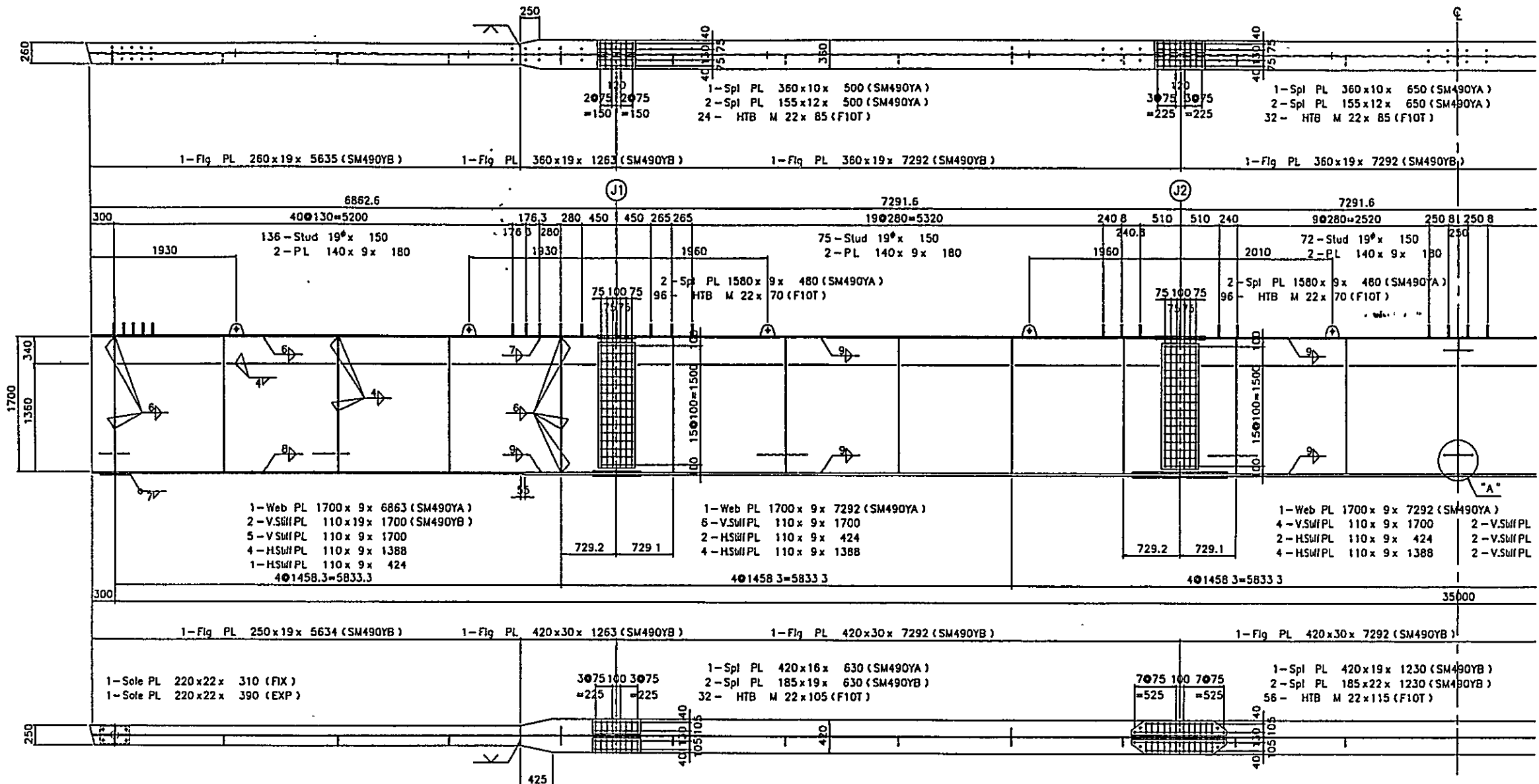


MARKING DIAGRAM



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

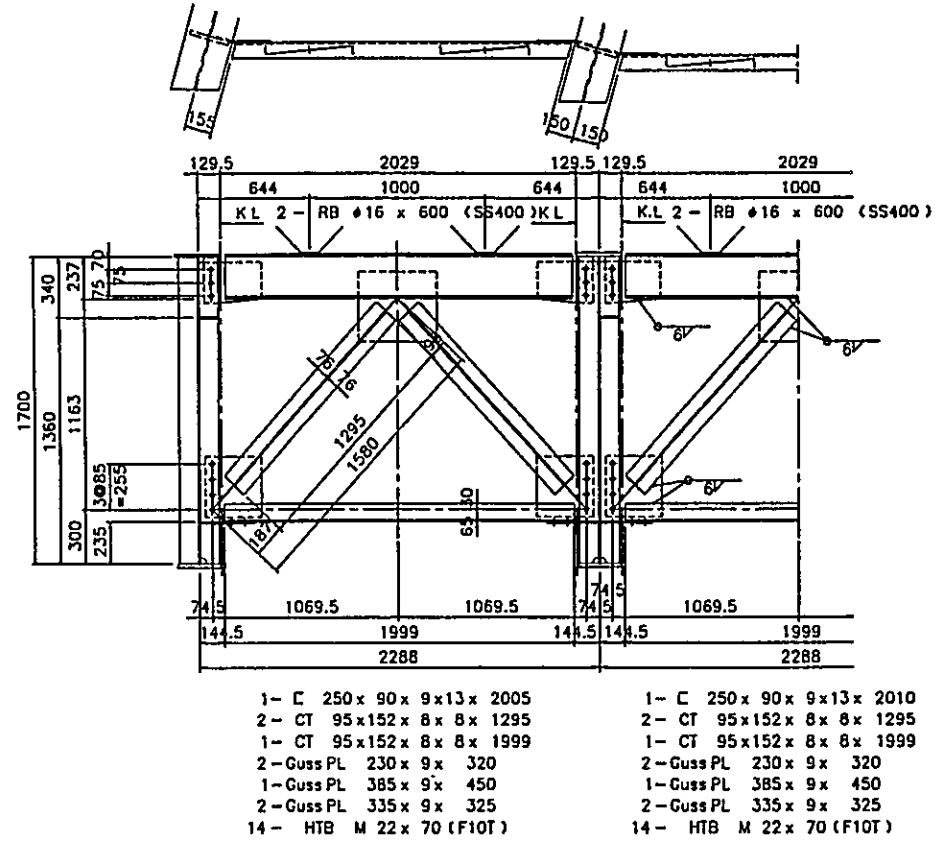
MAIN GIRDER G2,G3
SCALE 1:30



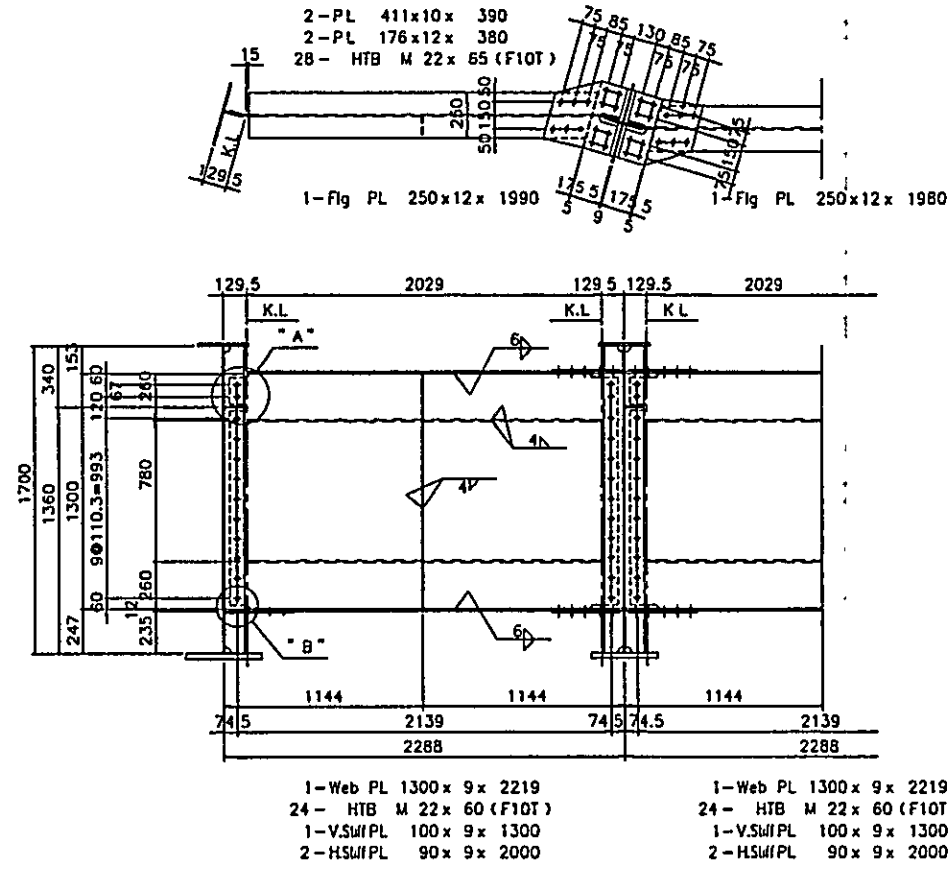
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Union	SHEET NO.
11-01-05	CROSS BEAM & SWAY	56

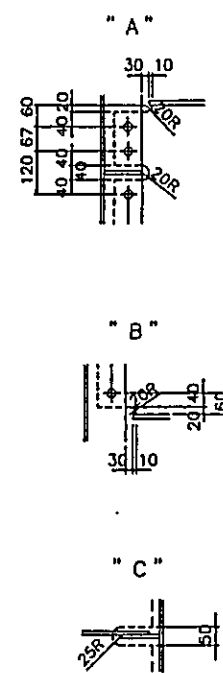
END SWAY BRACING
SCALE 1:20



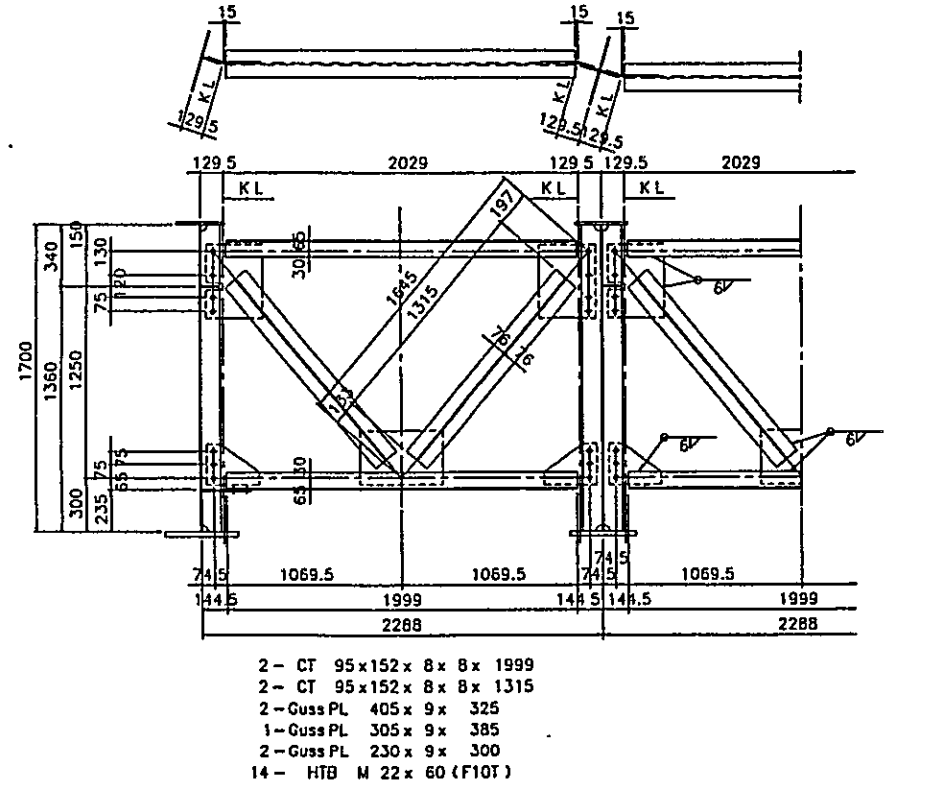
CROSS BEAM
SCALE 1:20



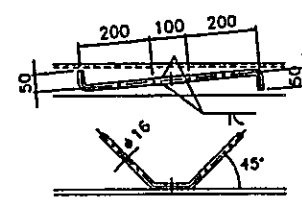
DETAILS
SCALE 1:10



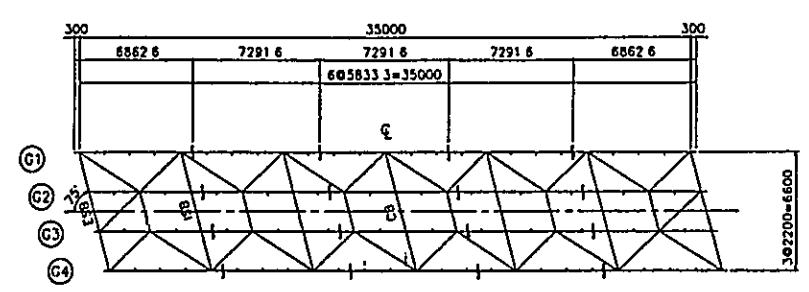
INT. SWAY BRACING
SCALE 1:20



SLAB ANCHOR
SCALE 1:10



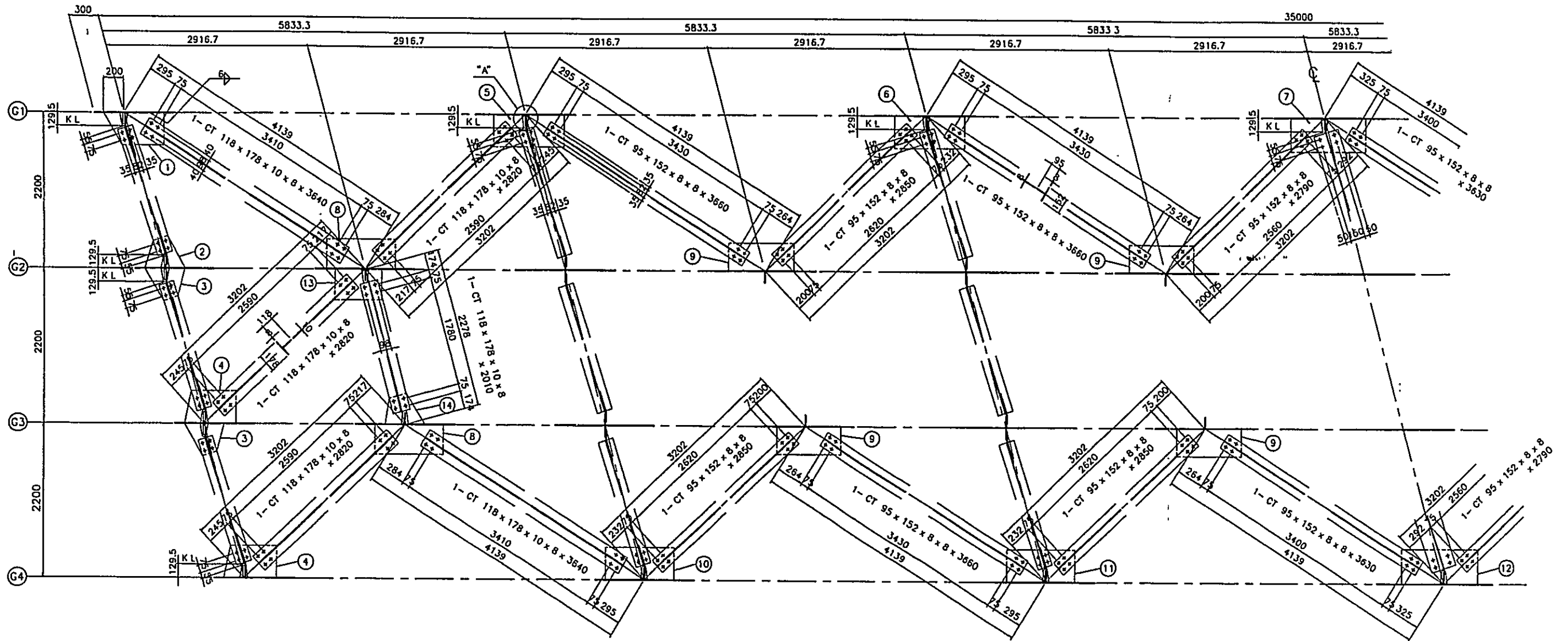
MARKING DIAGRAM



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Union	SHEET NO.
11-01-05	LATERAL BRACING	57

LATERAL BRACING
SCALE 1:20



DETAIL
SCALE 1:10

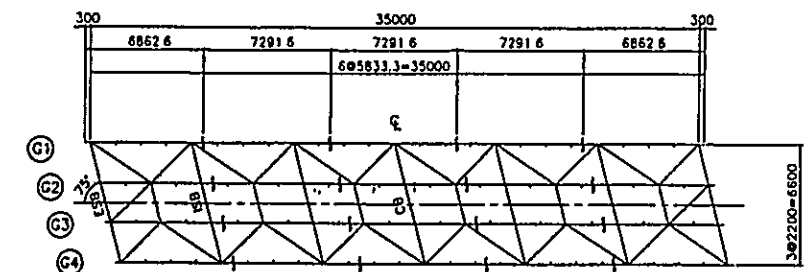
"A"



- ① 2 - Guss PL 315 x 9 x 595
- ② 2 - Guss PL 310 x 9 x 400
- ③ 4 - Guss PL 315 x 9 x 400
- ④ 4 - Guss PL 310 x 9 x 525
- ⑤ 2 - Guss PL 315 x 9 x 715
- ⑥ 2 - Guss PL 315 x 9 x 695
- ⑦ 1 - Guss PL 330 x 9 x 765
- ⑧ 4 - Guss PL 290 x 9 x 690

- ⑨ 8 - Guss PL 270 x 9 x 645
- ⑩ 2 - Guss PL 310 x 9 x 700
- ⑪ 2 - Guss PL 310 x 9 x 695
- ⑫ 1 - Guss PL 330 x 9 x 765
- ⑬ 2 - Guss PL 300 x 9 x 465
- ⑭ 2 - Guss PL 295 x 9 x 400
- 304 - HTB M 22 x 60 (F10T)
- B - HTB M 22 x 65 (F10T)

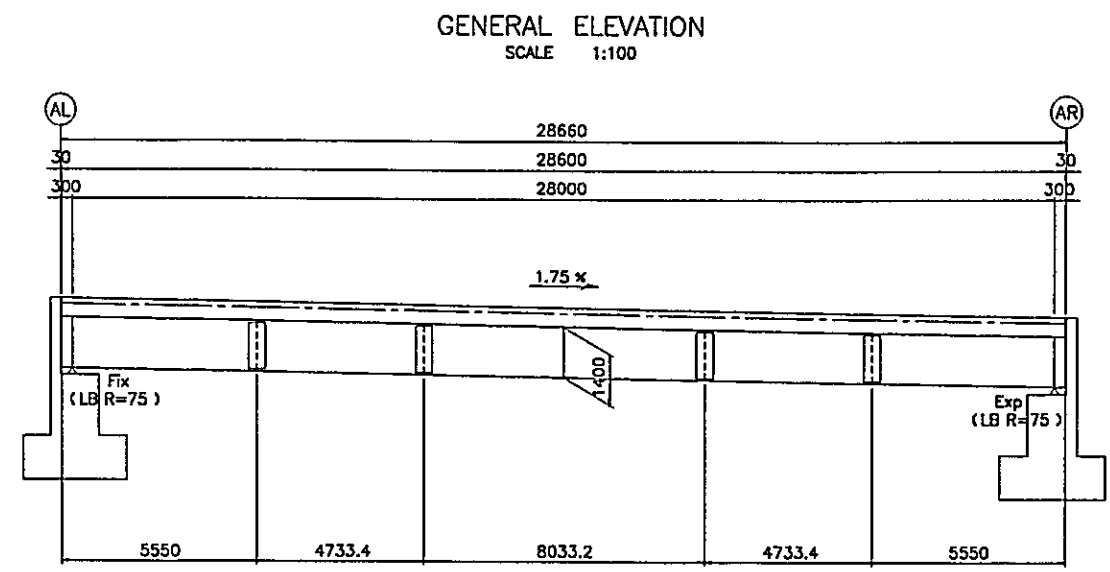
MARKING DIAGRAM



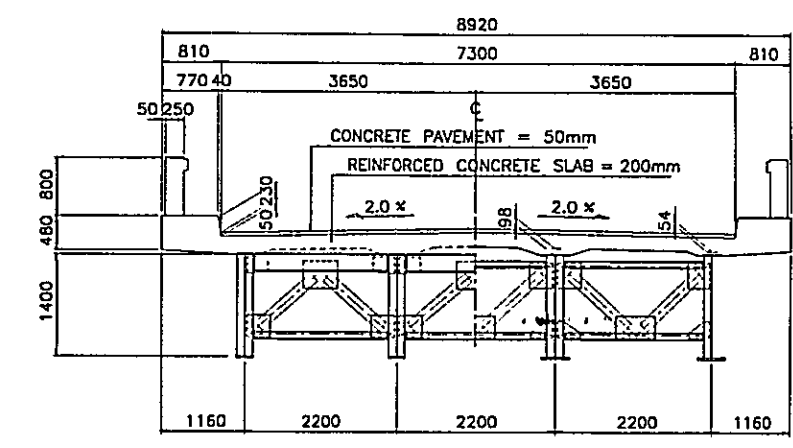
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Tagasaka	SHEET NO.
11-01-06	GENERAL VIEW	58

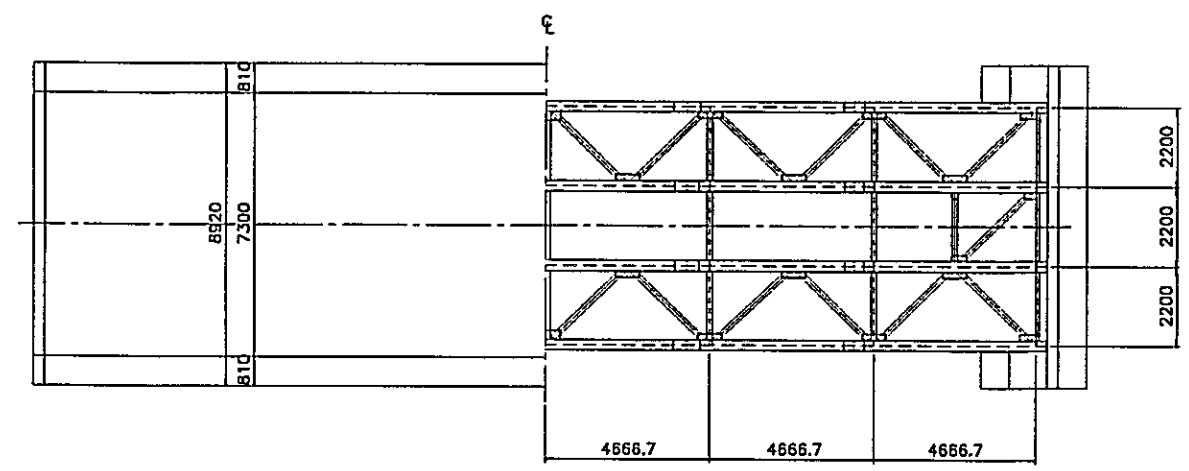
GENERAL VIEW



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



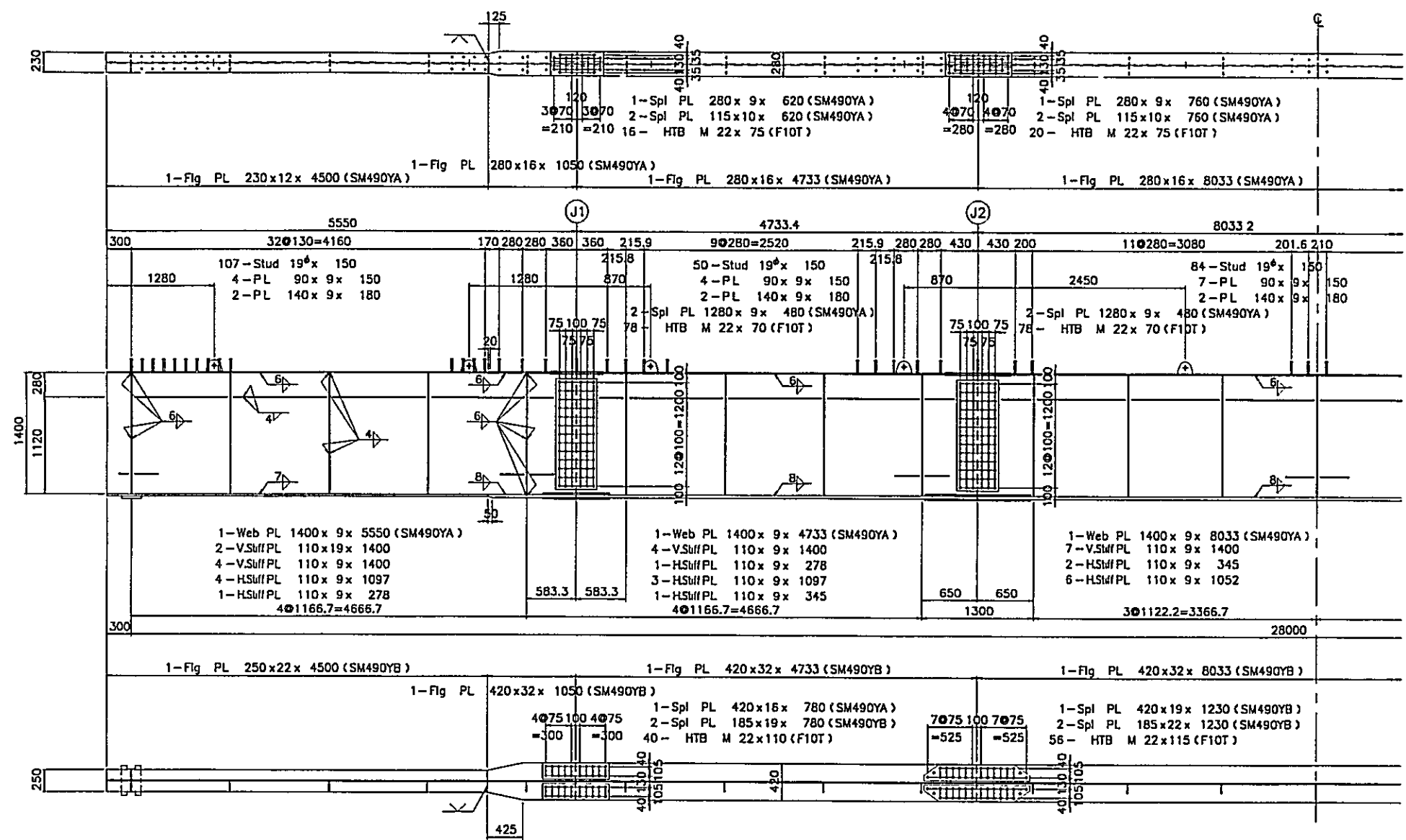
GENERAL PLAN
SCALE 1:100



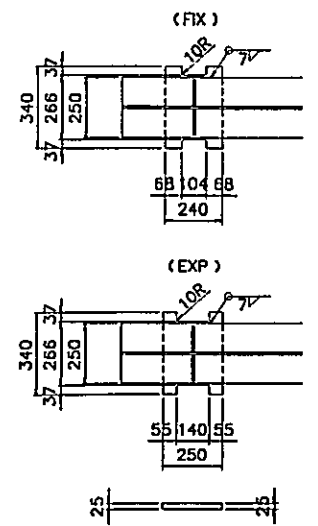
- DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
- DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m²
CONCRETE PAVEMENT 23.54 KN/m²
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° . FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
- MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
- SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
- DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Tagasaka	SHEET NO.
11-01-06	MAIN GIRDER G1, G4	59

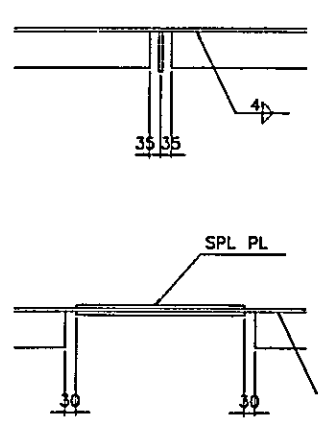
MAIN GIRDER G1,G4
SCALE 1:30



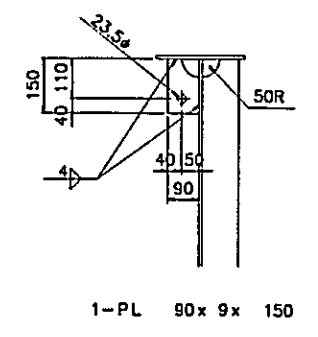
SOLE PLATE
SCALE 1:15



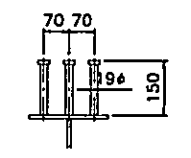
H. STIFFENER
SCALE 1:10



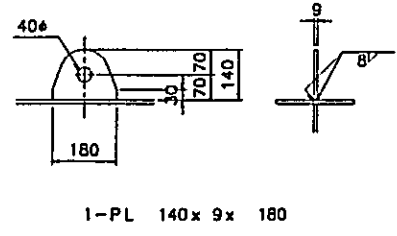
HANGER
SCALE 1:10



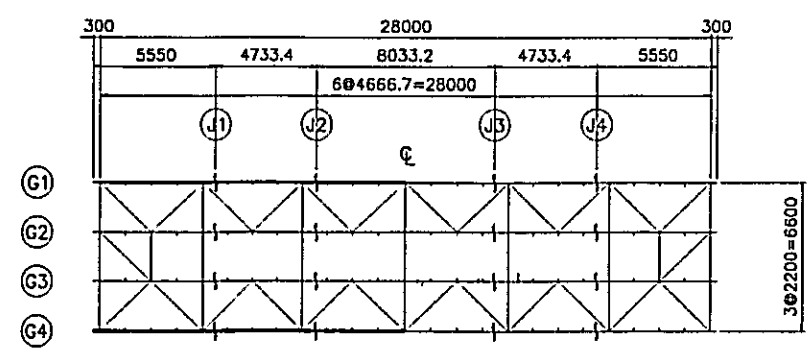
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10



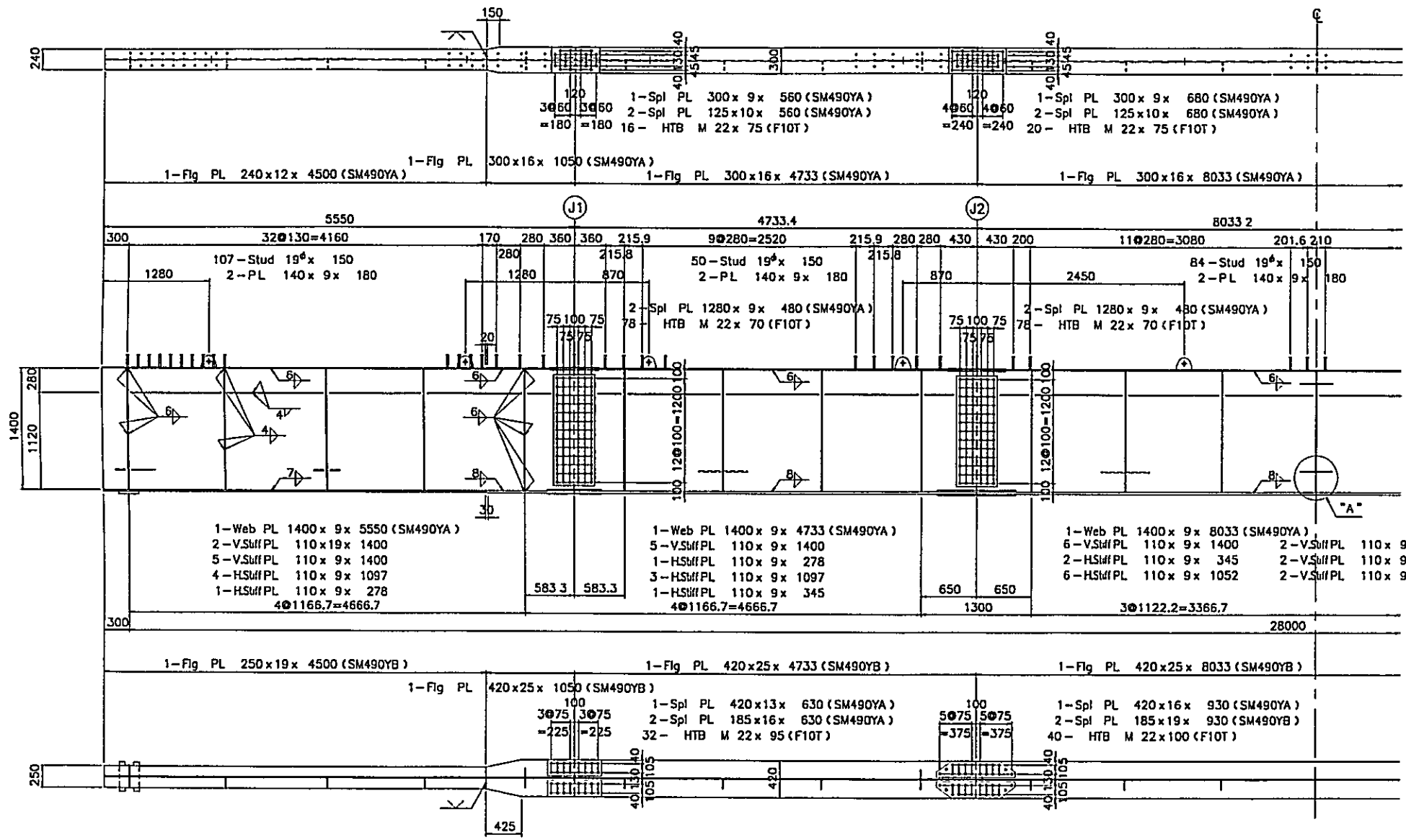
MARKING DIAGRAM



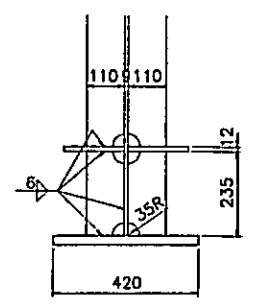
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Tagasaka	SHEET NO.
11-01-06	MAIN GIRDER G2, G3	60

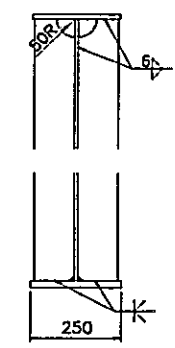
MAIN GIRDER G2,G3
SCALE 1:30



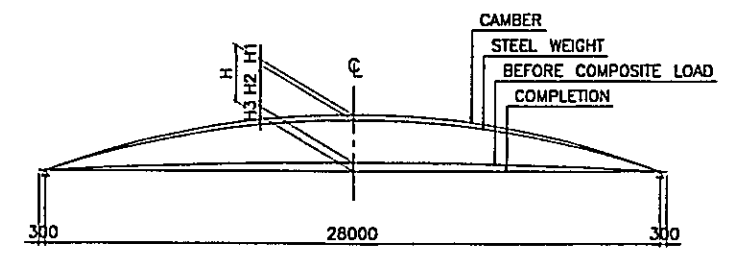
DETAIL "A"
SCALE 1:10



END STIFFENER
SCALE 1:10

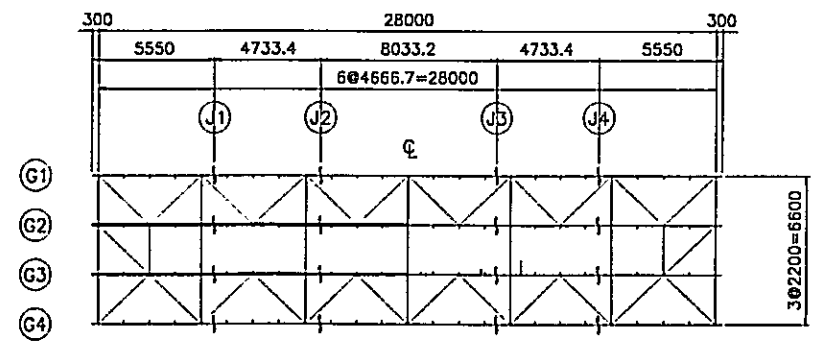


CAMBER



	H1	H2	H3	H
G1,G4	15	70	9	94
G2,G3	16	78	0	94

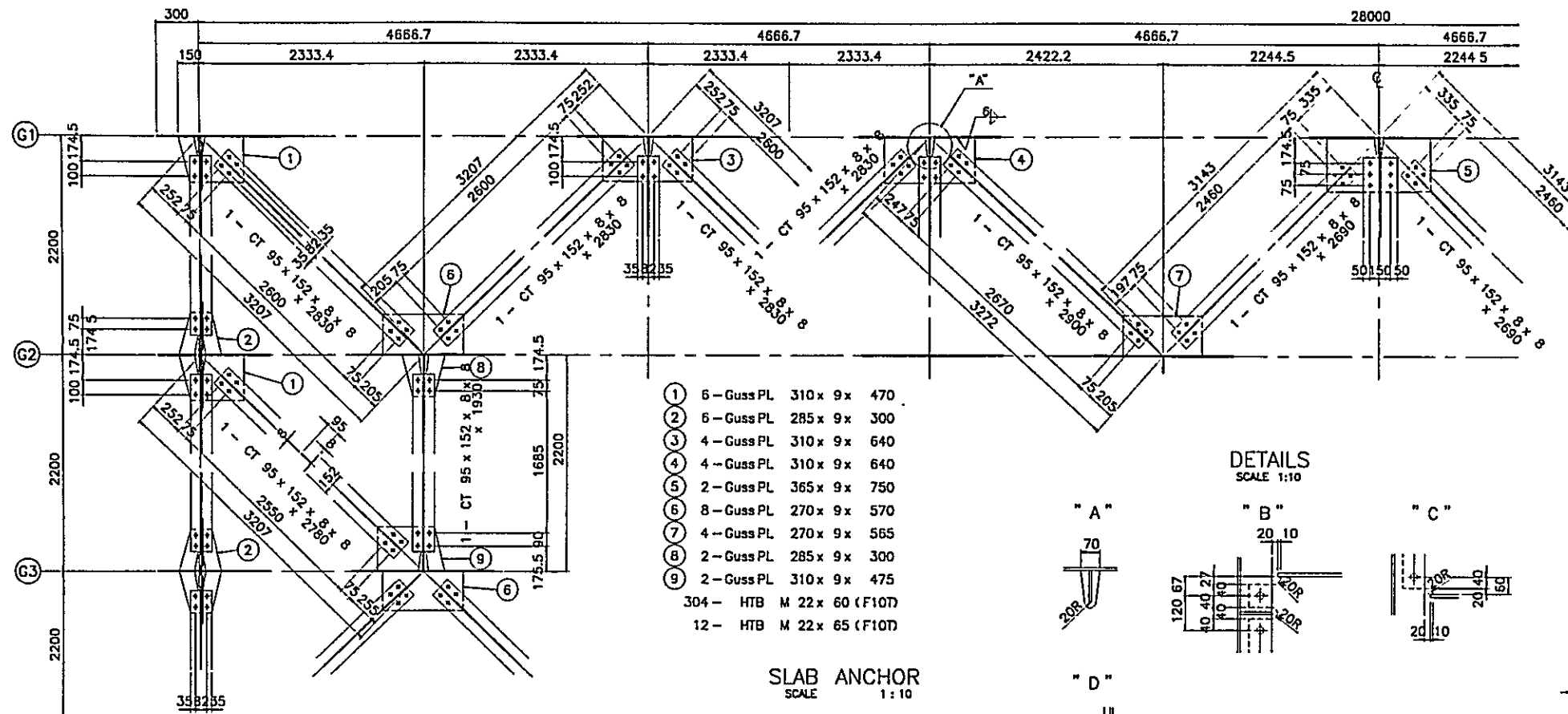
MARKING DIAGRAM



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

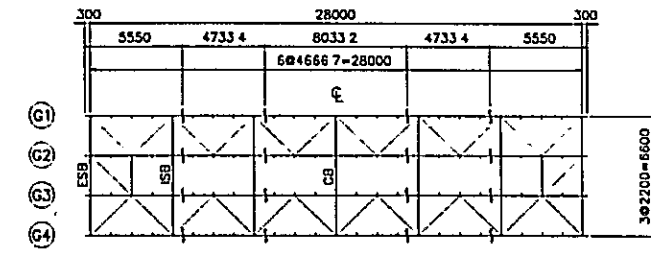
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Tagasaka	SHEET NO.
11-01-06	CROSS BEAM, SWAY & LATERAL	61

LATERAL BRACING SCALE 1:20

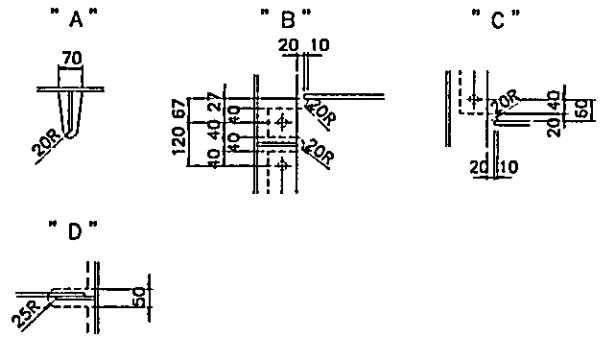


- ① 6 - Guss PL 310 x 9 x 470
- ② 6 - Guss PL 285 x 9 x 300
- ③ 4 - Guss PL 310 x 9 x 640
- ④ 4 - Guss PL 310 x 9 x 640
- ⑤ 2 - Guss PL 365 x 9 x 750
- ⑥ 8 - Guss PL 270 x 9 x 570
- ⑦ 4 - Guss PL 270 x 9 x 565
- ⑧ 2 - Guss PL 285 x 9 x 300
- ⑨ 2 - Guss PL 310 x 9 x 475
- 304 - HTB M 22 x 60 (F10T)
- 12 - HTB M 22 x 65 (F10T)

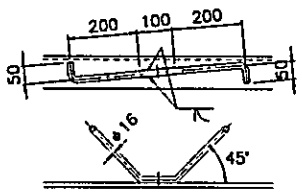
MARKING DIAGRAM



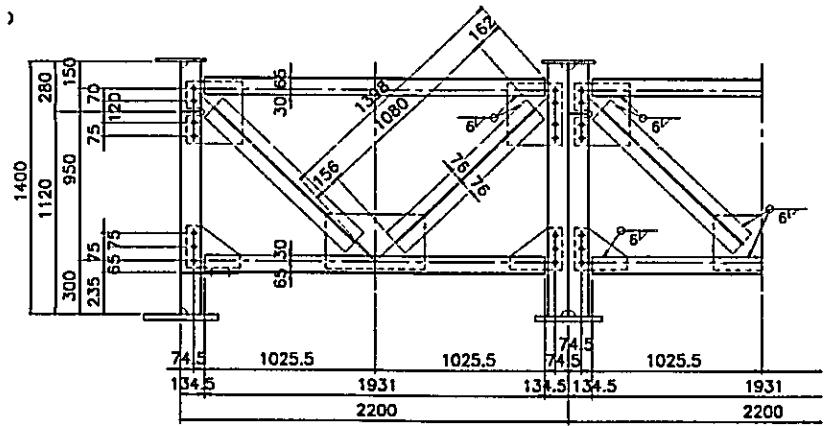
DETAILS SCALE 1:10



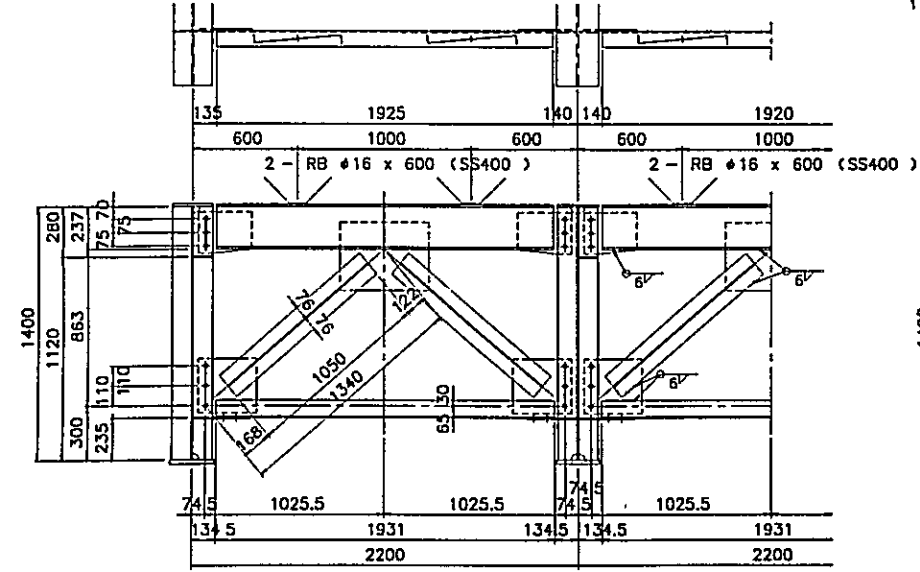
SLAB ANCHOR SCALE 1:10



INT. SWAY BRACING SCALE 1:20



END SWAY BRACING SCALE 1:20



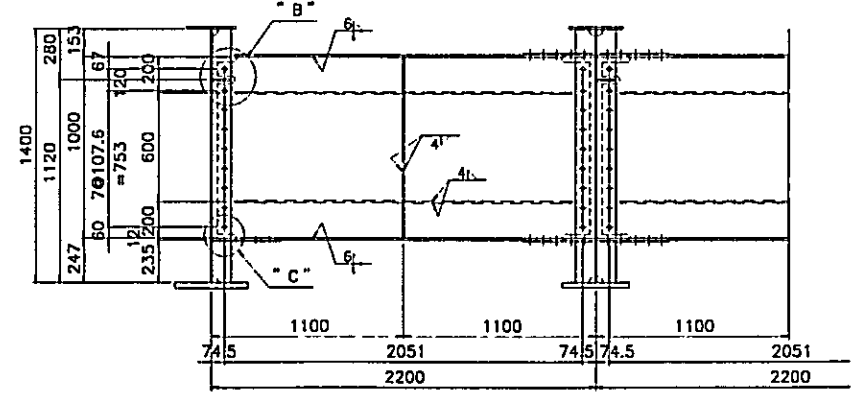
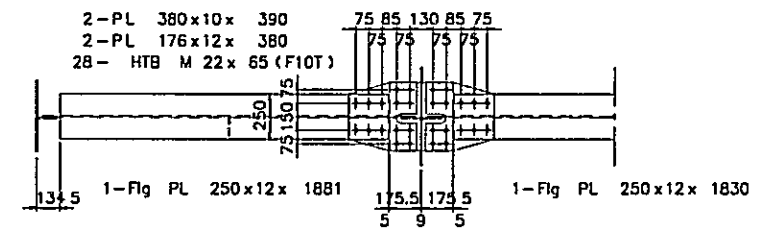
- 1 - C 250 x 90 x 9 x 13 x 1925
- 2 - CT 95 x 152 x 8 x 8 x 1050
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 230 x 9 x 305
- 1 - Guss PL 380 x 9 x 515
- 2 - Guss PL 300 x 9 x 330
- 12 - HTB M 22 x 70 (F10T)

- 1 - C 250 x 90 x 9 x 13 x 1920
- 2 - CT 95 x 152 x 8 x 8 x 1050
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 230 x 9 x 305
- 1 - Guss PL 380 x 9 x 515
- 2 - Guss PL 300 x 9 x 330
- 12 - HTB M 22 x 70 (F10T)

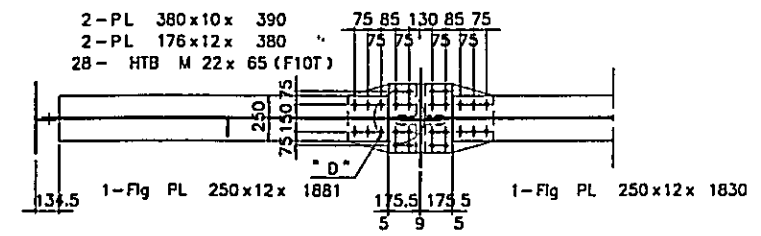
- 2 - CT 95 x 152 x 8 x 8 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 1080
- 2 - Guss PL 315 x 9 x 315
- 1 - Guss PL 305 x 9 x 555
- 2 - Guss PL 230 x 9 x 300
- 14 - HTB M 22 x 60 (F10T)

NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

CROSS BEAM SCALE 1:20

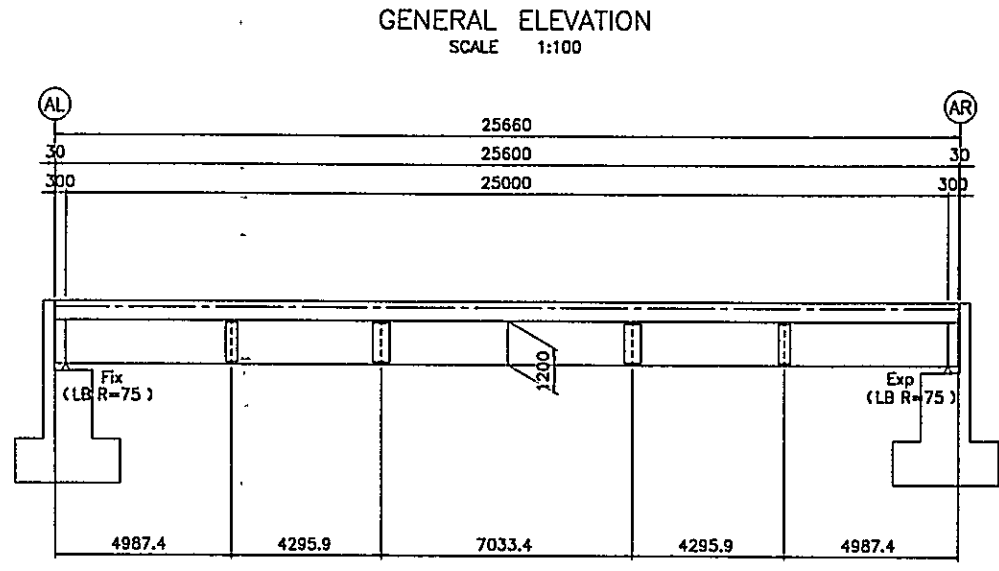


- 1 - Web PL 1000 x 9 x 2131
- 18 - HTB M 22 x 60 (F10T)
- 1 - V.Stiff PL 100 x 9 x 1000
- 2 - H.Stiff PL 90 x 9 x 1910

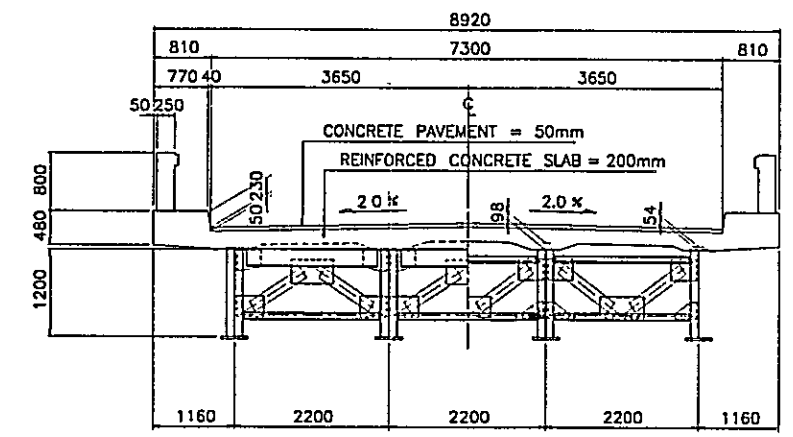


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Licop	SHEET NO.
11-03-02	GENERAL VIEW	62

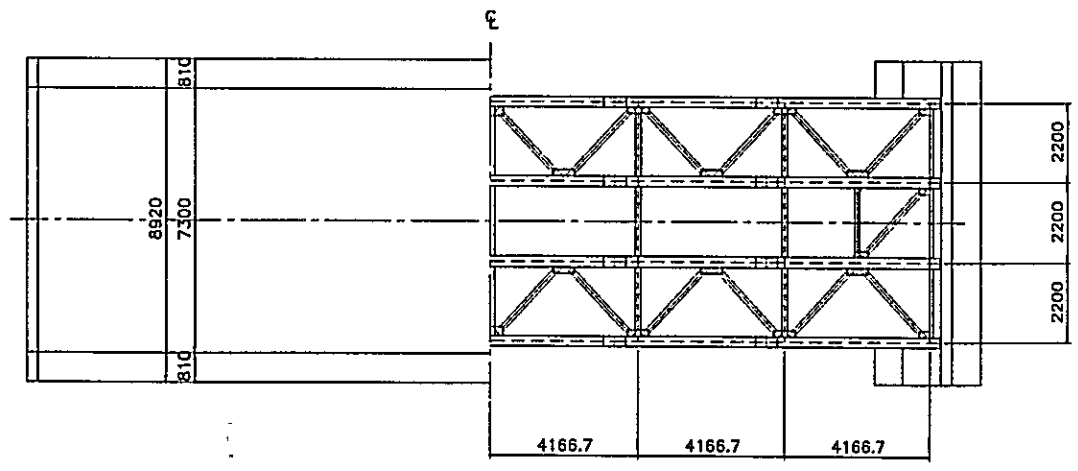
GENERAL VIEW



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



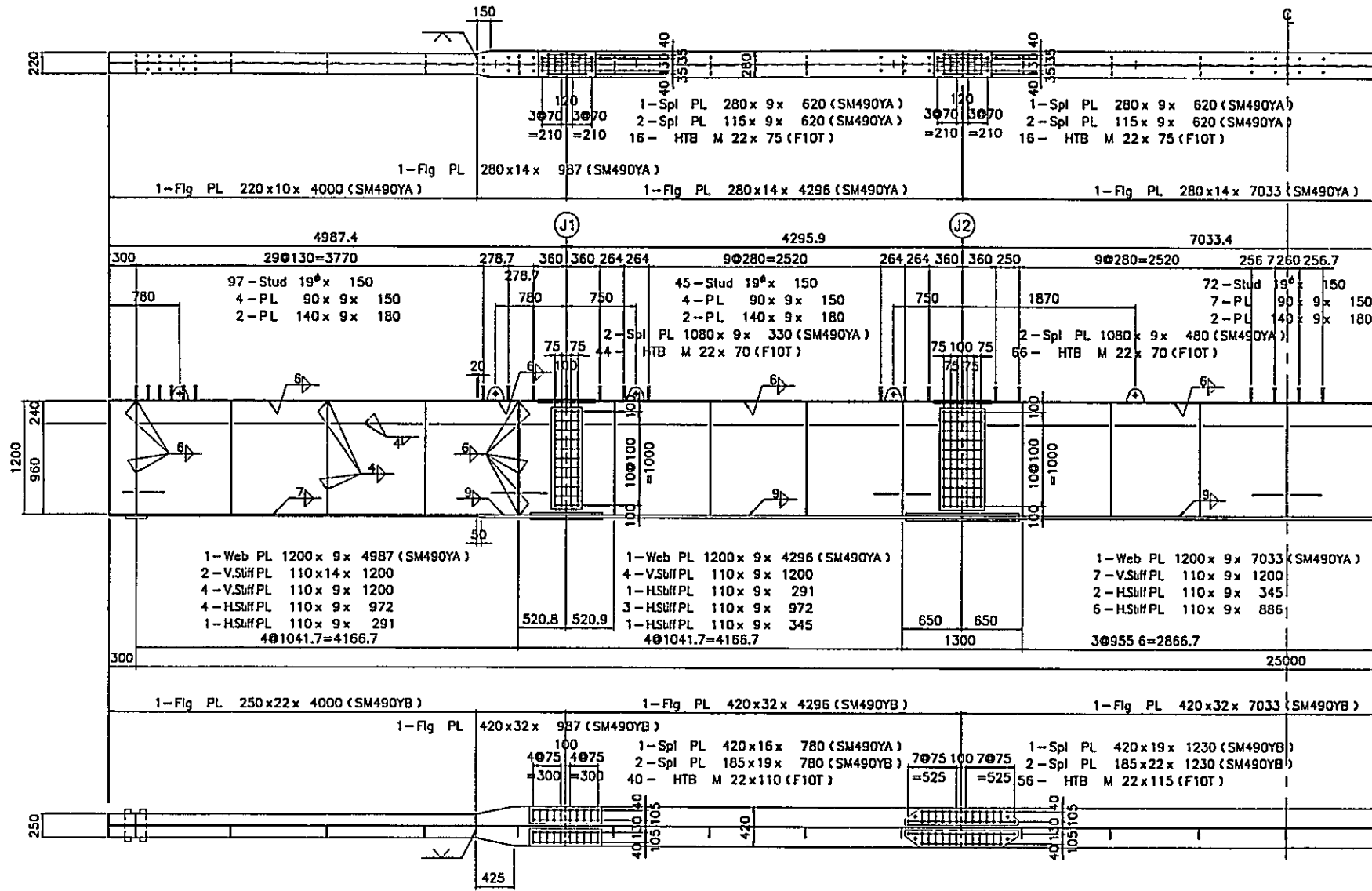
GENERAL PLAN
SCALE 1:100



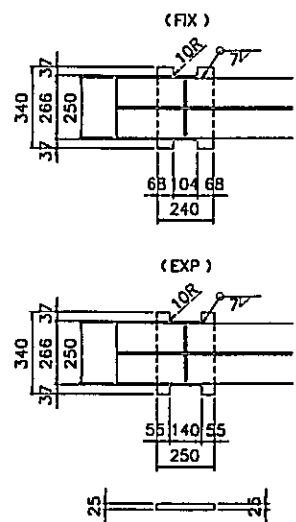
1. DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
2. DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m²
CONCRETE PAVEMENT 23.54 KN/m²
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° . FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
3. MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
4. SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
5. DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN HINDANAO AREA		
BRIDGE NO.	Licop	SHEET NO.
11-03-02	MAIN GIRDER G1, G4	63

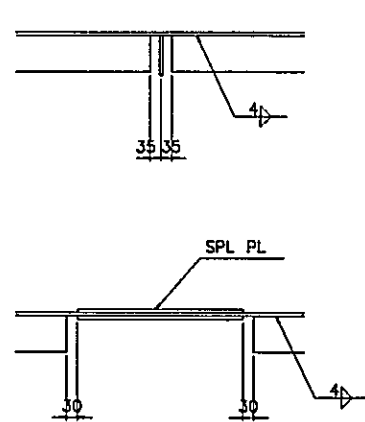
MAIN GIRDER G1,G4
SCALE 1:30



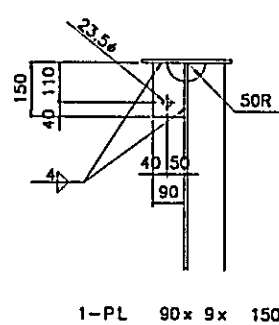
SOLE PLATE
SCALE 1:15



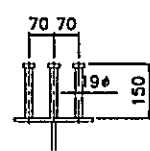
H. STIFFENER
SCALE 1:10



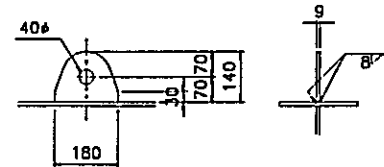
HANGER
SCALE 1:10



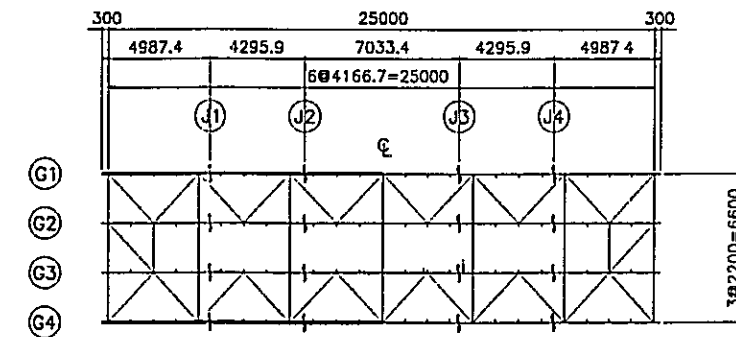
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10



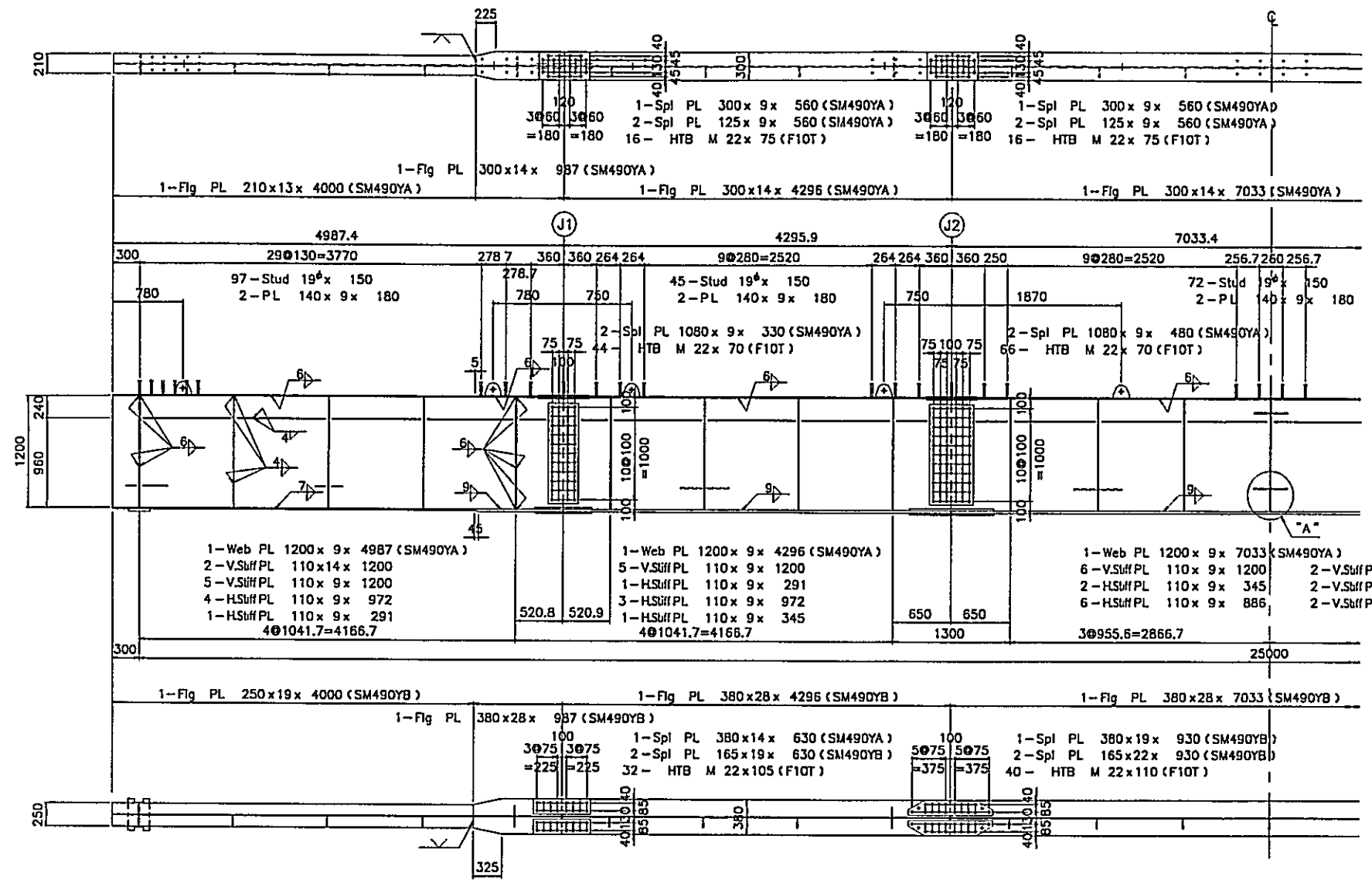
MARKING DIAGRAM



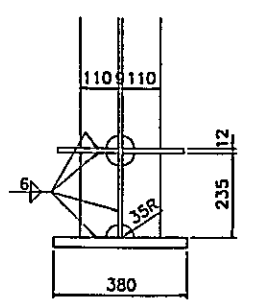
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BRIDGE NO.	Licop	SHEET NO.
11-03-02	MAIN GIRDER G2, G3	64

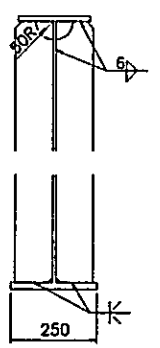
MAIN GIRDER G2,G3
SCALE 1:30



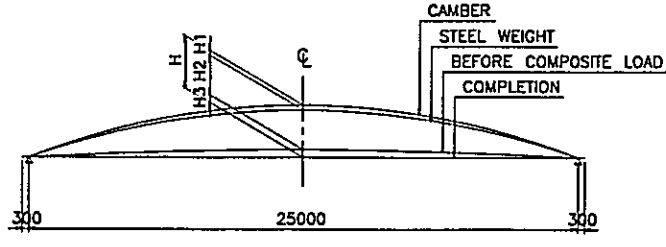
DETAIL "A"
SCALE 1:10



END STIFFENER
SCALE 1:10

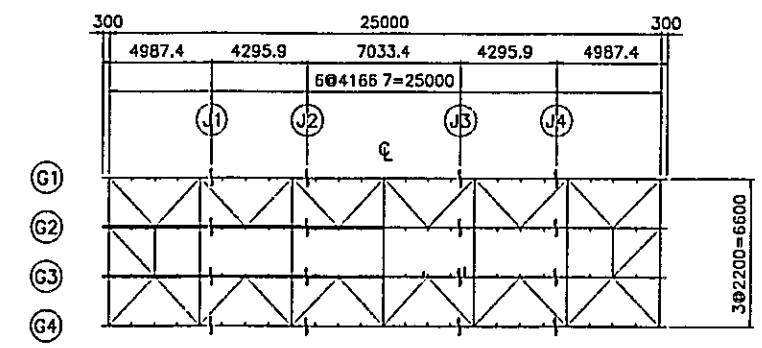


CAMBER



	H1	H2	H3	H
G1,G4	13	66	8	87
G2,G3	14	73	0	87

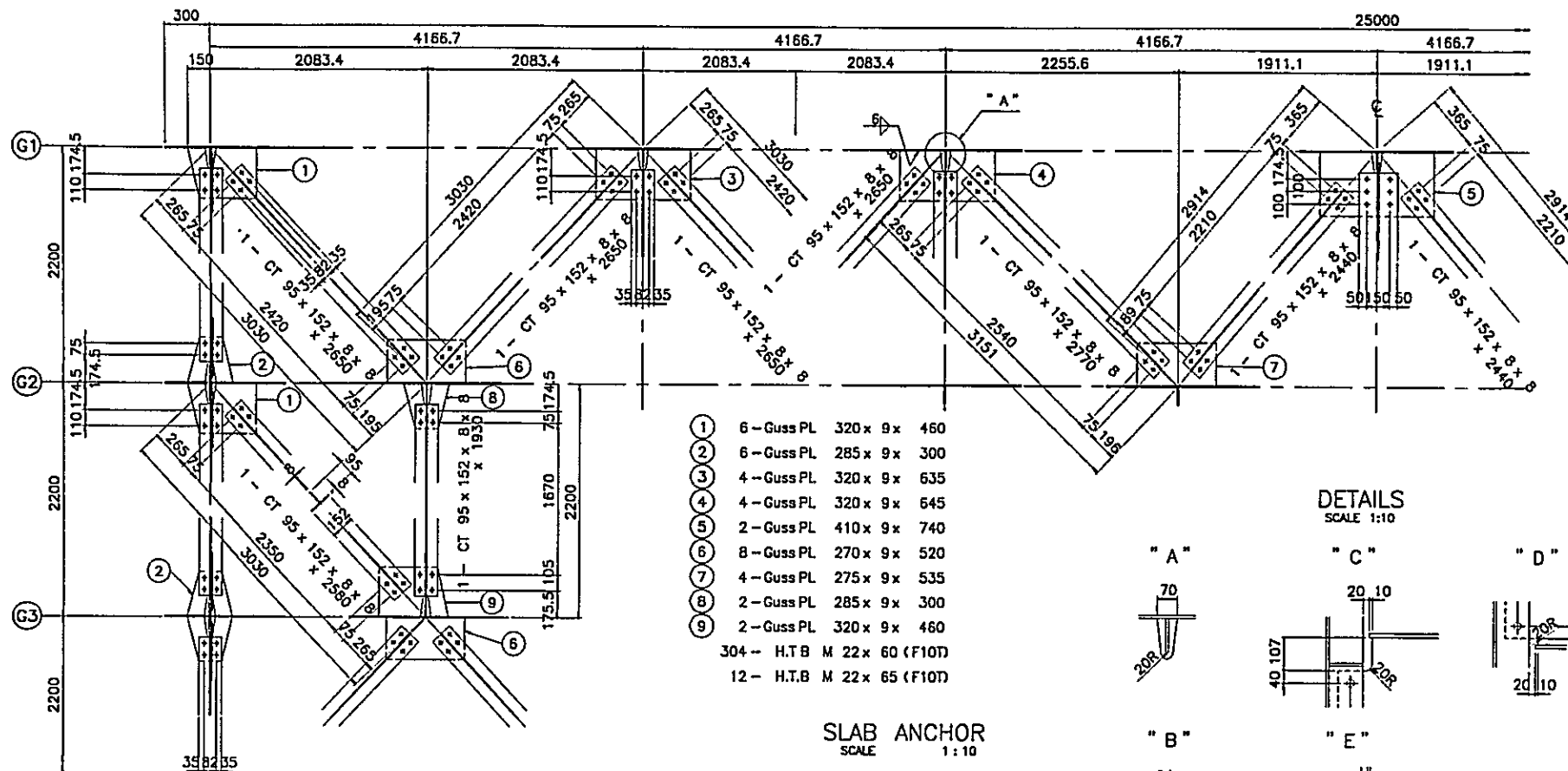
MARKING DIAGRAM



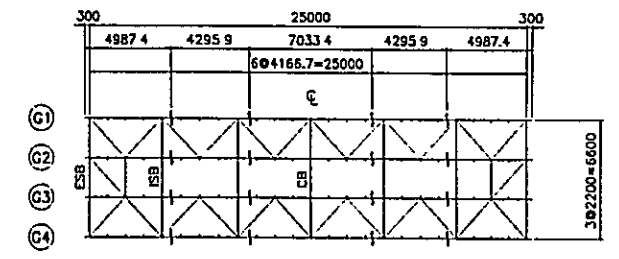
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Licop	SHEET NO.
11-03-02	CROSS BEAM, SWAY & LATERAL	65

LATERAL BRACING
SCALE 1:20

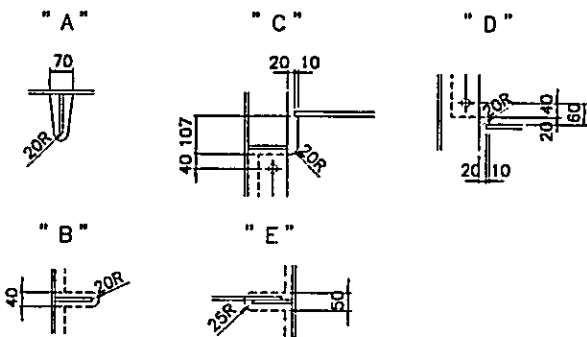


MARKING DIAGRAM

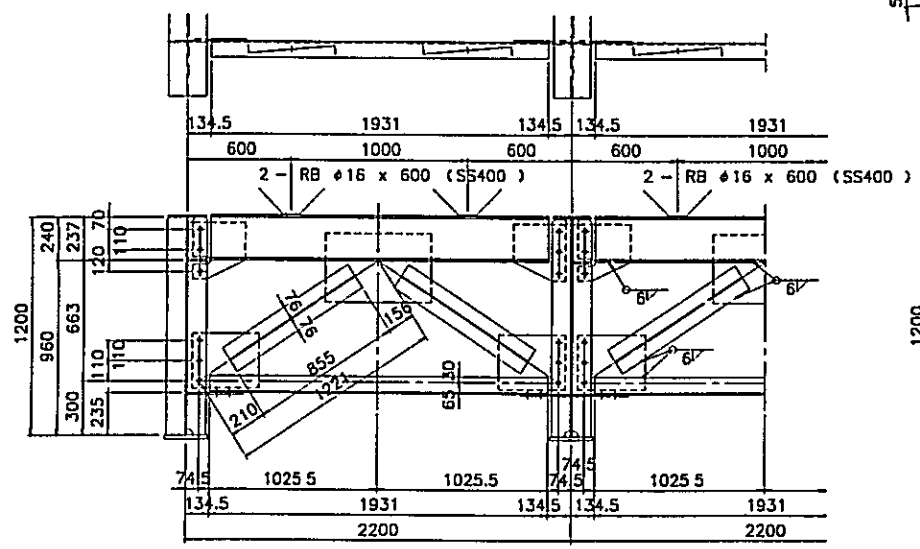


- ① 6 - Guss PL 320 x 9 x 460
- ② 6 - Guss PL 285 x 9 x 300
- ③ 4 - Guss PL 320 x 9 x 635
- ④ 4 - Guss PL 320 x 9 x 645
- ⑤ 2 - Guss PL 410 x 9 x 740
- ⑥ 8 - Guss PL 270 x 9 x 520
- ⑦ 4 - Guss PL 275 x 9 x 535
- ⑧ 2 - Guss PL 285 x 9 x 300
- ⑨ 2 - Guss PL 320 x 9 x 460
- 304 - H.T.B M 22 x 60 (F10T)
- 12 - H.T.B M 22 x 65 (F10T)

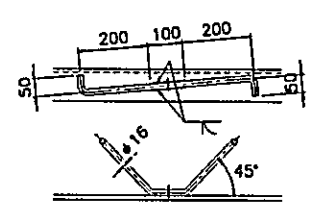
DETAILS
SCALE 1:10



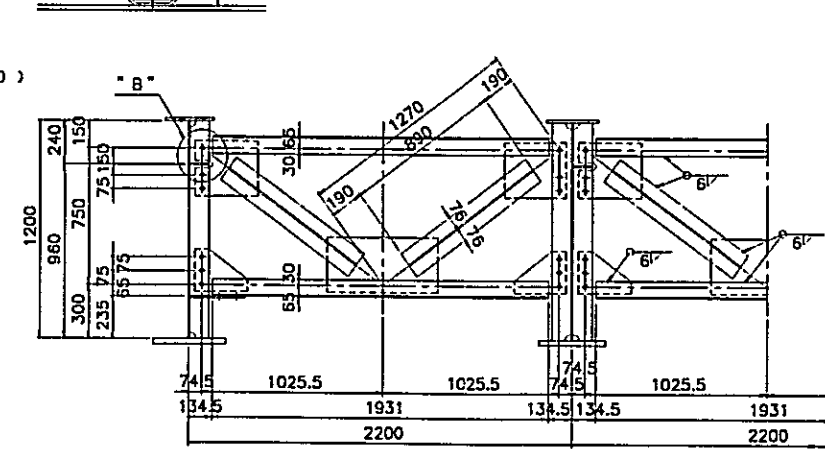
END SWAY BRACING
SCALE 1:20



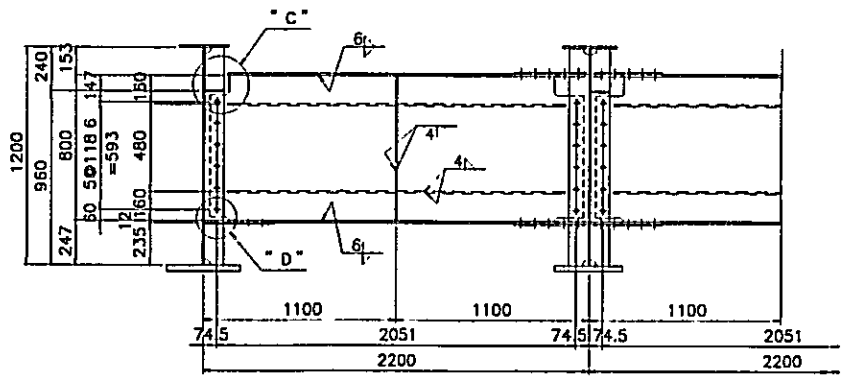
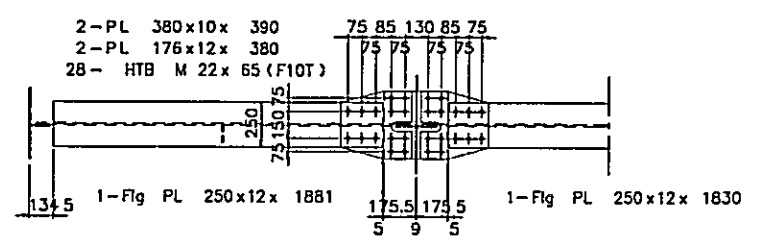
SLAB ANCHOR
SCALE 1:10



INT. SWAY BRACING
SCALE 1:20



CROSS BEAM
SCALE 1:20



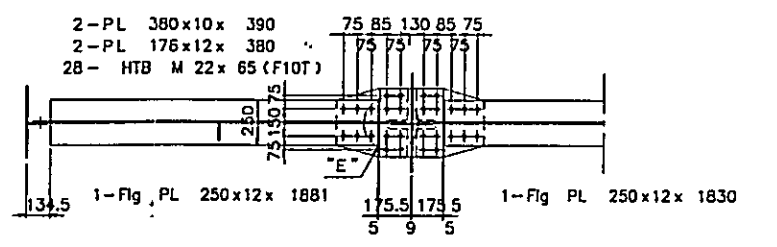
- 1 - C 250 x 90 x 9 x 13 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 855
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 300 x 9 x 310
- 1 - Guss PL 380 x 9 x 595
- 2 - Guss PL 300 x 9 x 380
- 12 - HTB M 22 x 65 (F10T)

- 1 - C 250 x 90 x 9 x 13 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 855
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 300 x 9 x 310
- 1 - Guss PL 380 x 9 x 595
- 2 - Guss PL 300 x 9 x 380
- 12 - HTB M 22 x 65 (F10T)

- 2 - CT 95 x 152 x 8 x 8 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 890
- 2 - Guss PL 300 x 9 x 330
- 1 - Guss PL 380 x 9 x 595
- 2 - Guss PL 230 x 9 x 300
- 12 - HTB M 22 x 60 (F10T)

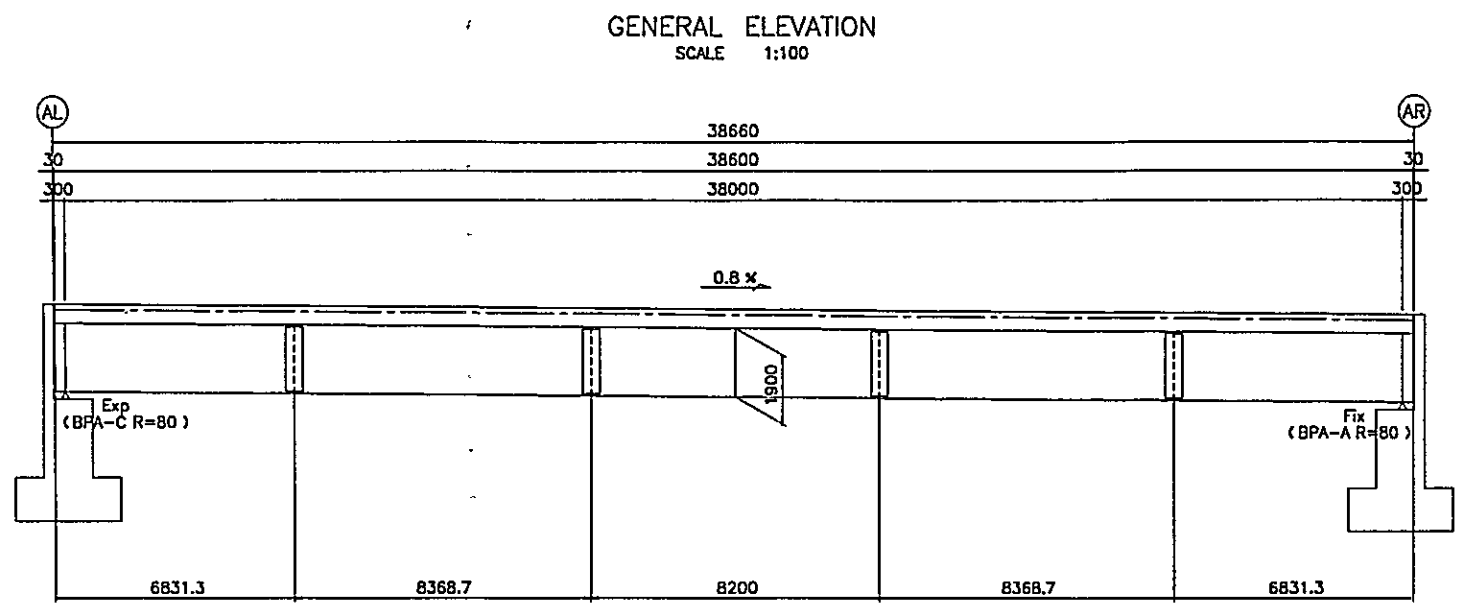
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

- 1 - Web PL 800 x 9 x 2131
- 12 - HTB M 22 x 60 (F10T)
- 1 - V.Stiff PL 100 x 9 x 800
- 2 - H.Stiff PL 90 x 9 x 1910

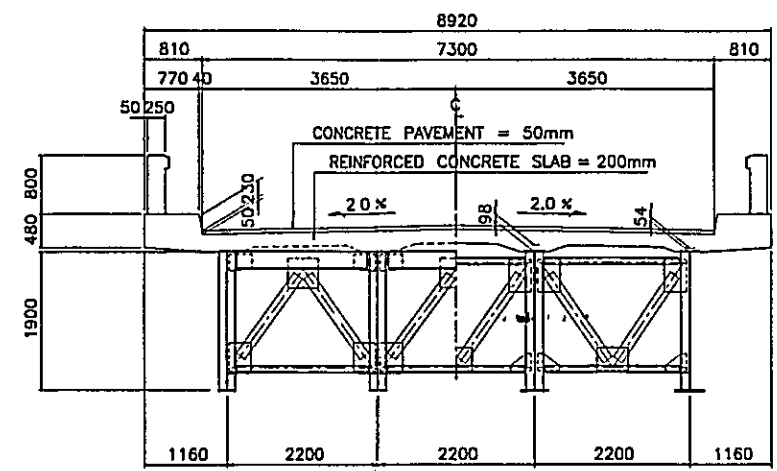


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Los Amigos	SHEET NO.
11-05-02	GENERAL VIEW	66

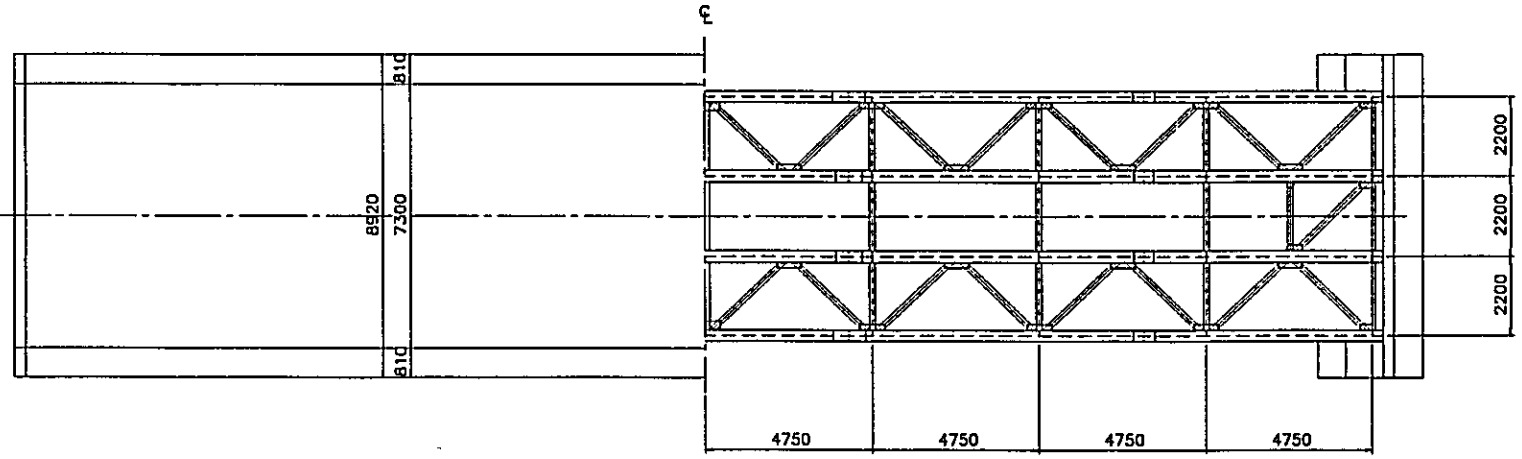
GENERAL VIEW



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



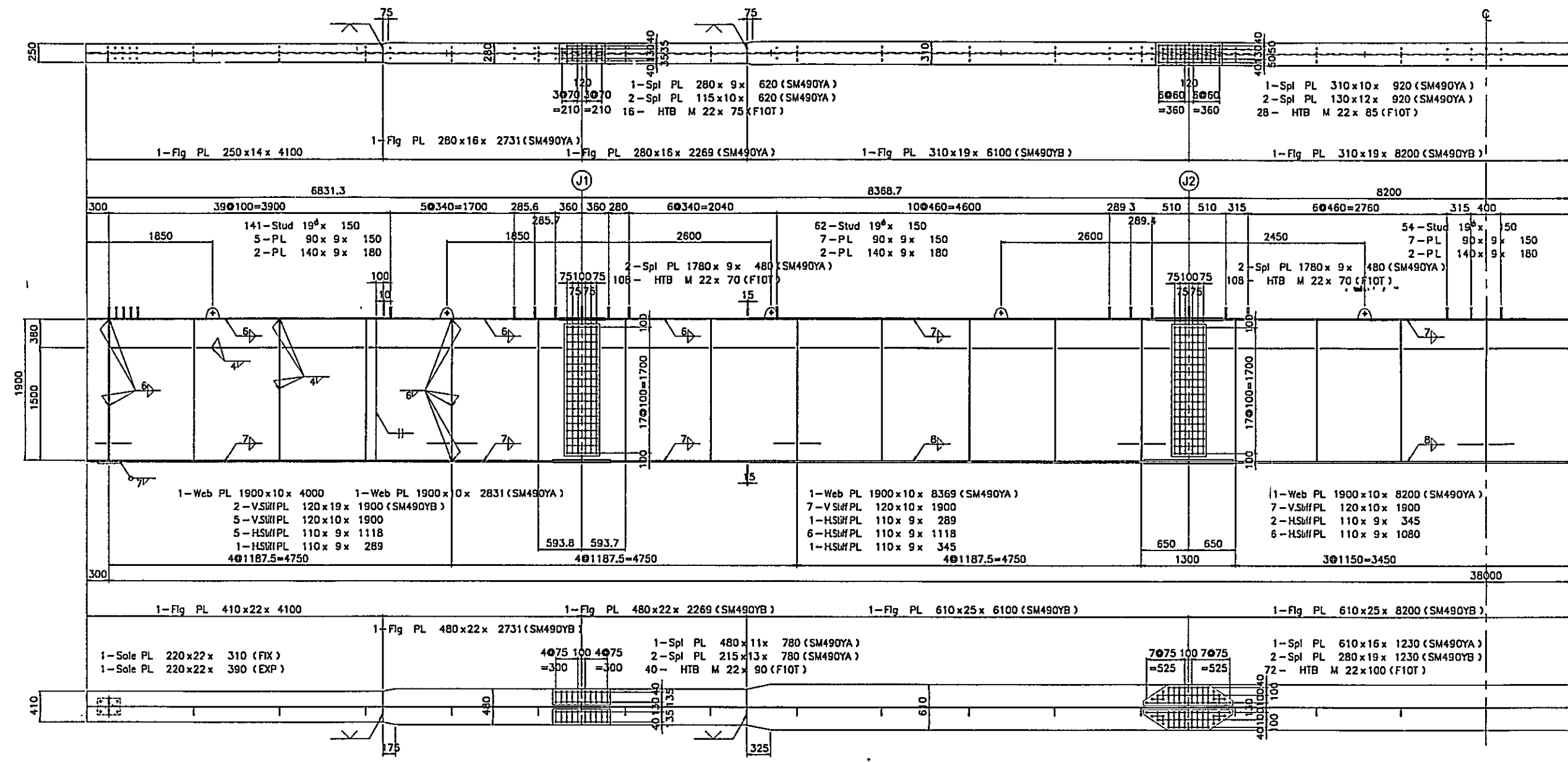
GENERAL PLAN
SCALE 1:100



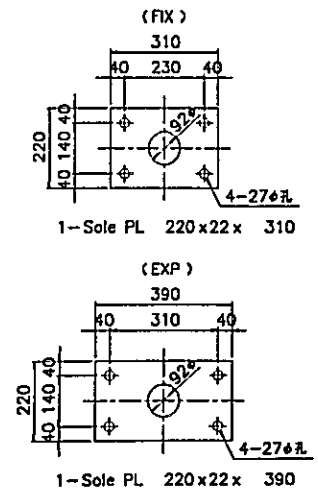
- DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
- DESIGN LOAD
 - DEAD LOAD: CONCRETE 23.54 KN/m², CONCRETE PAVEMENT 23.54 KN/m²
 - LIVE LOAD: ROADWAY LIVE LOAD HS 20-44, SIDEWALK LIVE LOAD 2.873 KN/m²
 - TEMPERATURE CHANGE: RISE +20°, FALL -20°
 - EARTHQUAKE LOAD: C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - OTHER LOADS: IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
- MATERIALS
 - STEEL FOR SUPERSTRUCTURE: STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - CONCRETE: CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm², CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - OTHERS: OTHER MATERIALS SHALL CONFORM TO JIS.
- SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
- DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Los Amigos	SHEET NO.
11-05-02	MAIN GIRDER G1, G4	67

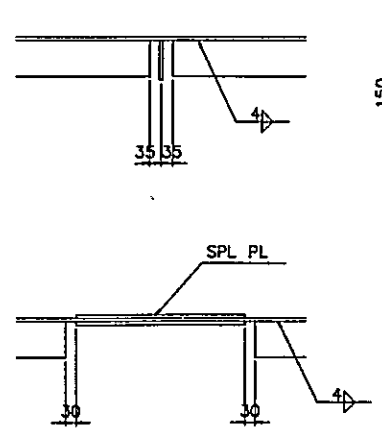
MAIN GIRDER G1,G4
SCALE 1:30



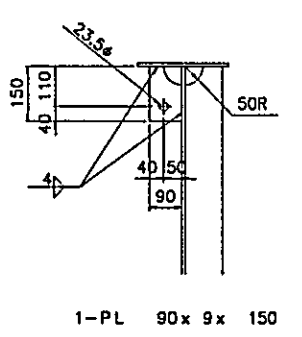
SOLE PLATE
SCALE 1:10



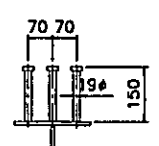
H. STIFFENER
SCALE 1:10



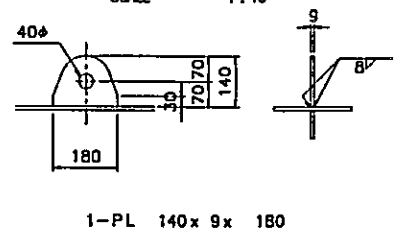
HANGER
SCALE 1:10



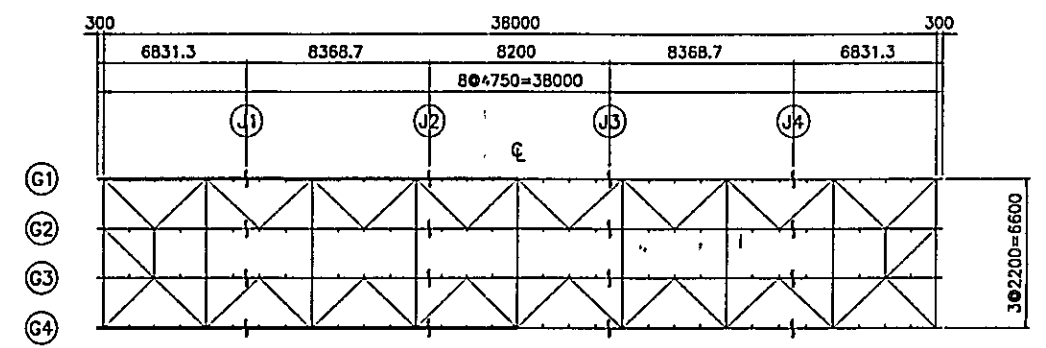
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10



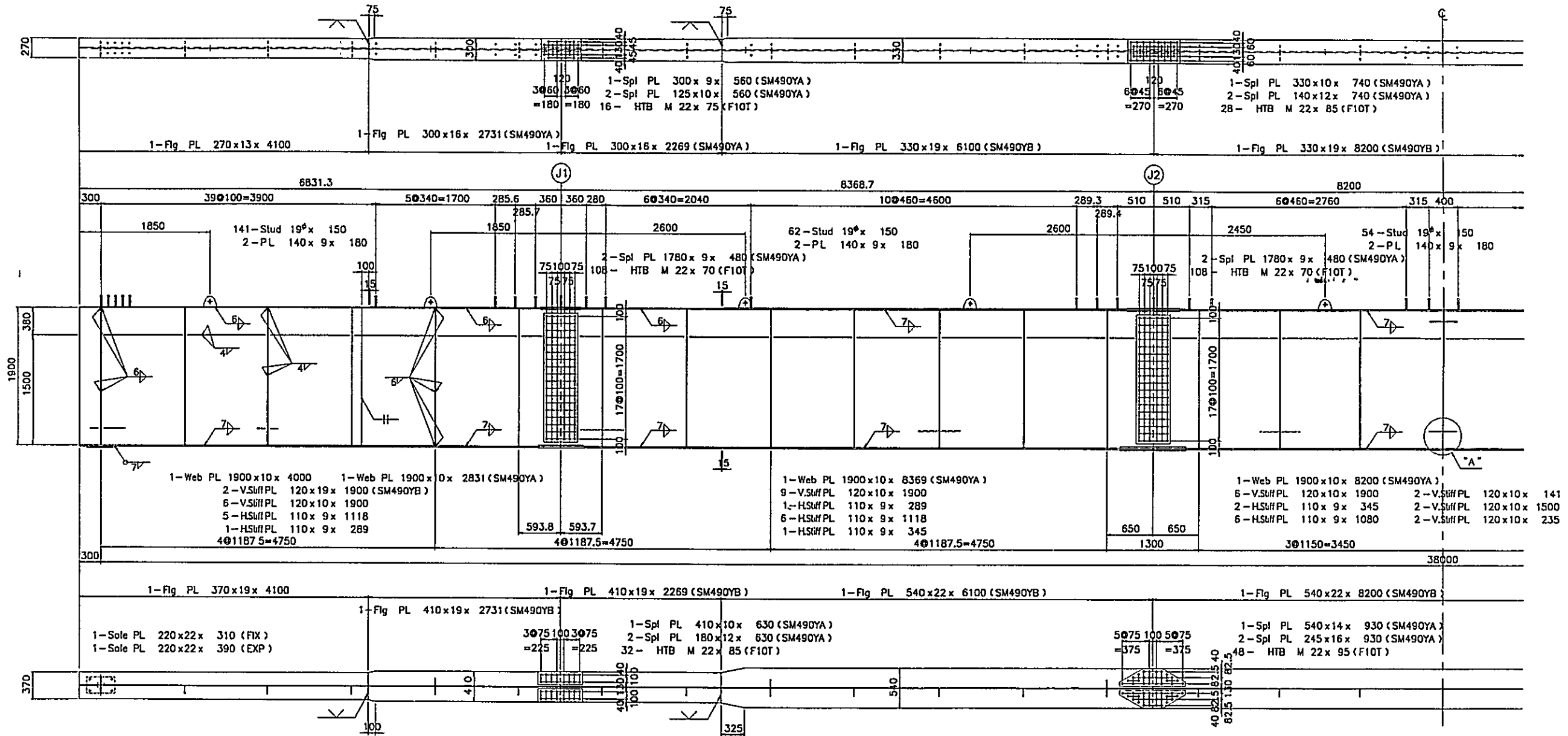
MARKING DIAGRAM



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

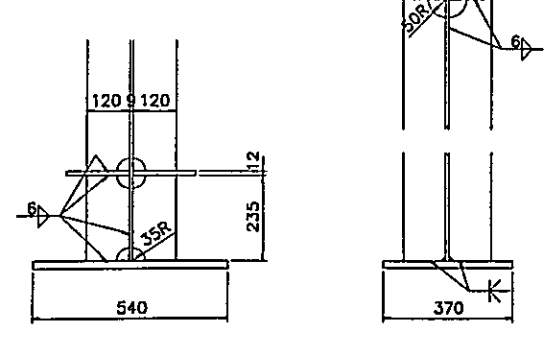
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Los Amigos	SHEET NO.
11-05-02	MAIN GIRDER G2, G3	68

MAIN GIRDER G2,G3
SCALE 1:30

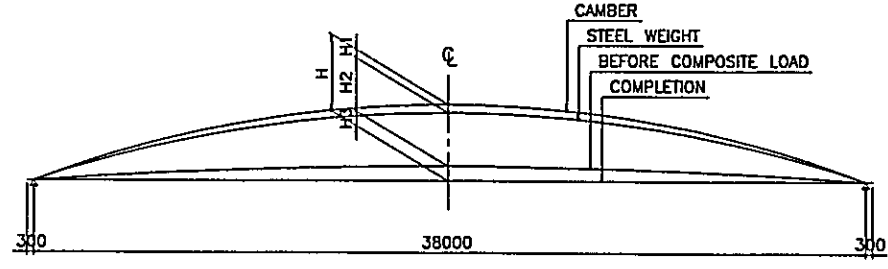


END STIFFENER
SCALE 1:10

DETAIL "A"
SCALE 1:10

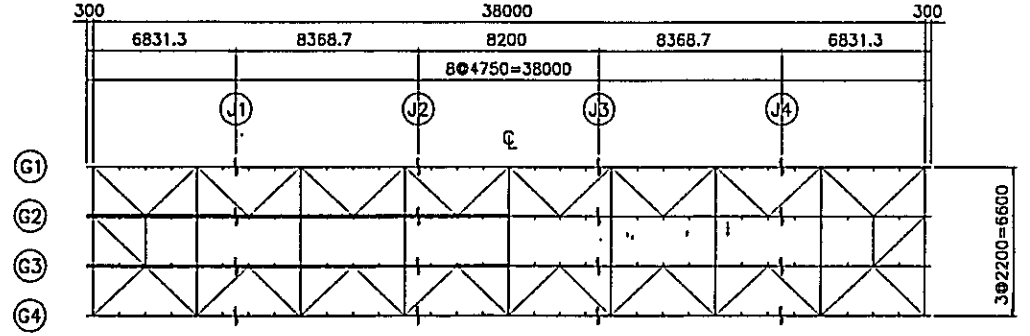


CAMBER



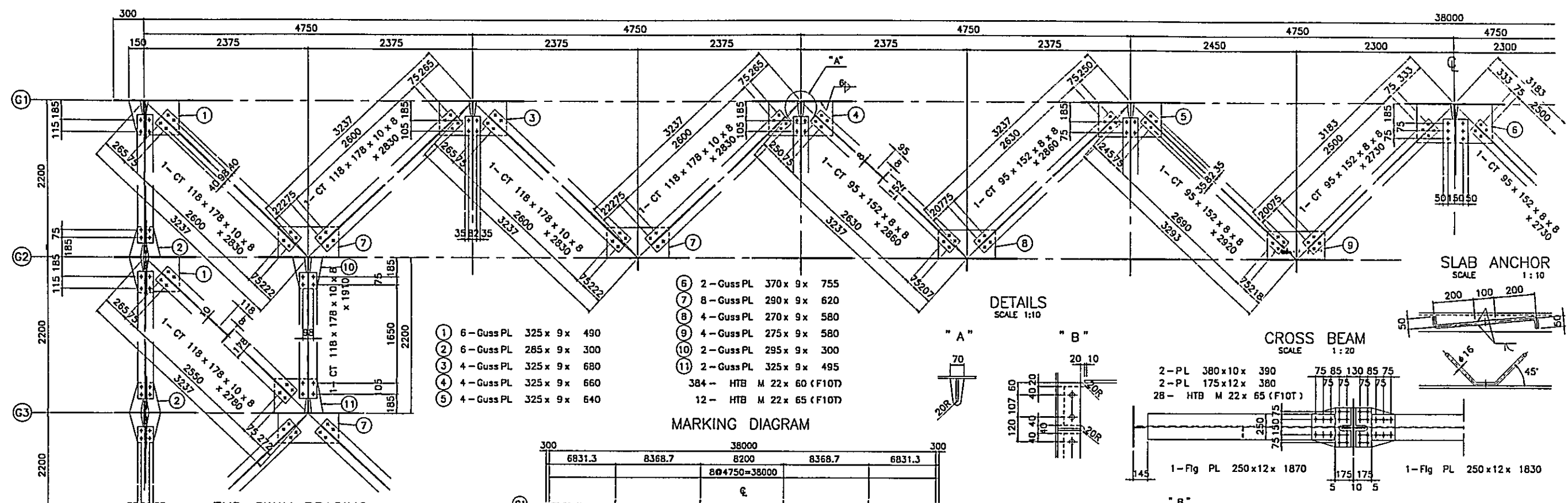
	H1	H2	H3	H
G1,G4	24	89	14	127
G2,G3	26	101	0	127

MARKING DIAGRAM

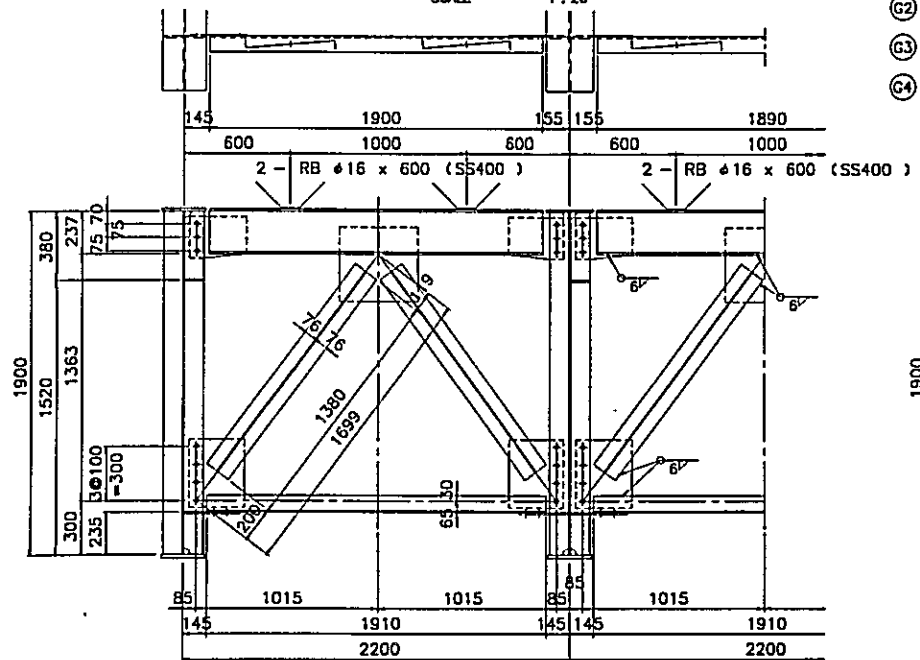


NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

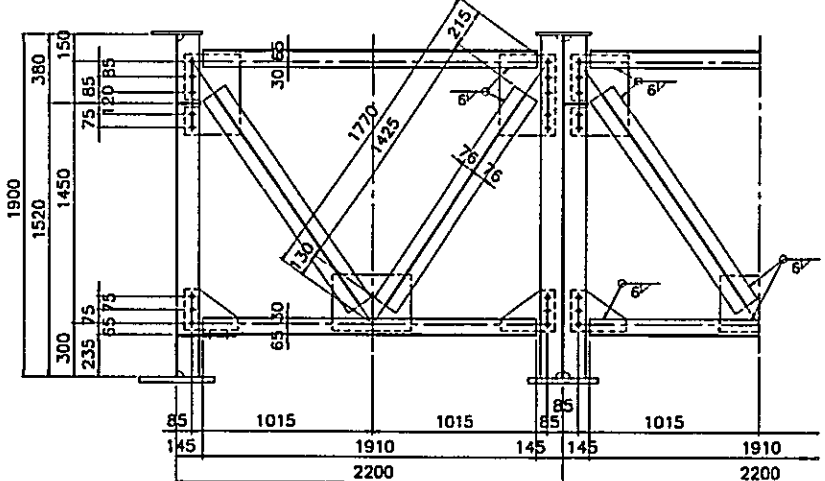
LATERAL BRACING
SCALE 1:20



END SWAY BRACING
SCALE 1:20



INT. SWAY BRACING
SCALE 1:20

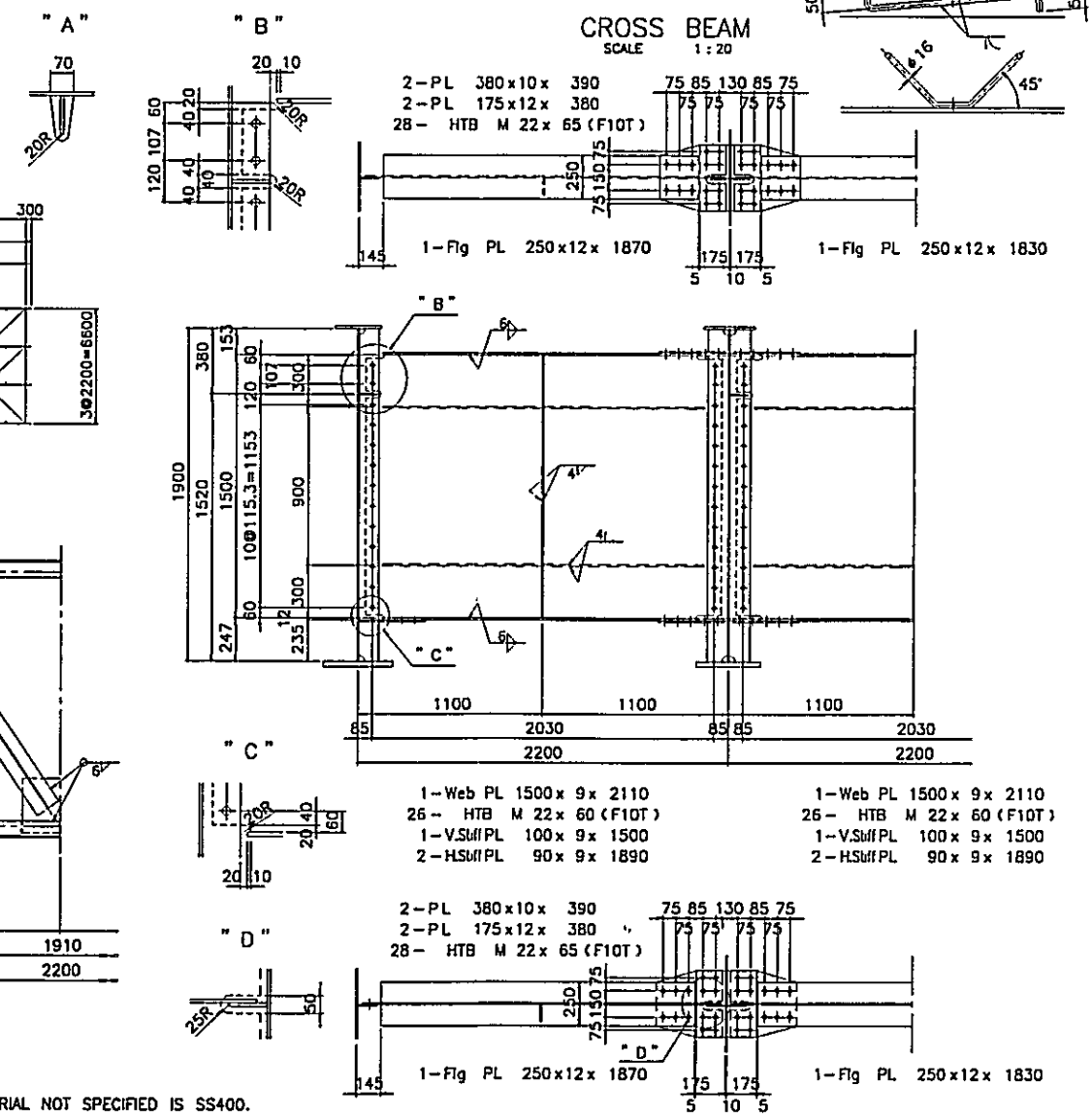


- | | |
|--|--|
| <ul style="list-style-type: none"> 1 - C 250 x 90 x 9 x 13 x 1900 2 - CT 95 x 152 x 8 x 8 x 1380 1 - CT 95 x 152 x 8 x 8 x 1910 2 - Guss PL 230 x 9 x 320 1 - Guss PL 415 x 9 x 450 2 - Guss PL 380 x 9 x 315 14 - HTB M 22 x 70 (F10T) | <ul style="list-style-type: none"> 1 - C 250 x 90 x 9 x 13 x 1890 2 - CT 95 x 152 x 8 x 8 x 1380 1 - CT 95 x 152 x 8 x 8 x 1910 2 - Guss PL 230 x 9 x 320 1 - Guss PL 415 x 9 x 450 2 - Guss PL 380 x 9 x 315 14 - HTB M 22 x 70 (F10T) |
|--|--|

- 2 - CT 95 x 152 x 8 x 8 x 1910
- 2 - CT 95 x 152 x 8 x 8 x 1425
- 2 - Guss PL 370 x 9 x 315
- 1 - Guss PL 315 x 9 x 450
- 2 - Guss PL 230 x 9 x 300
- 16 - HTB M 22 x 60 (F10T)

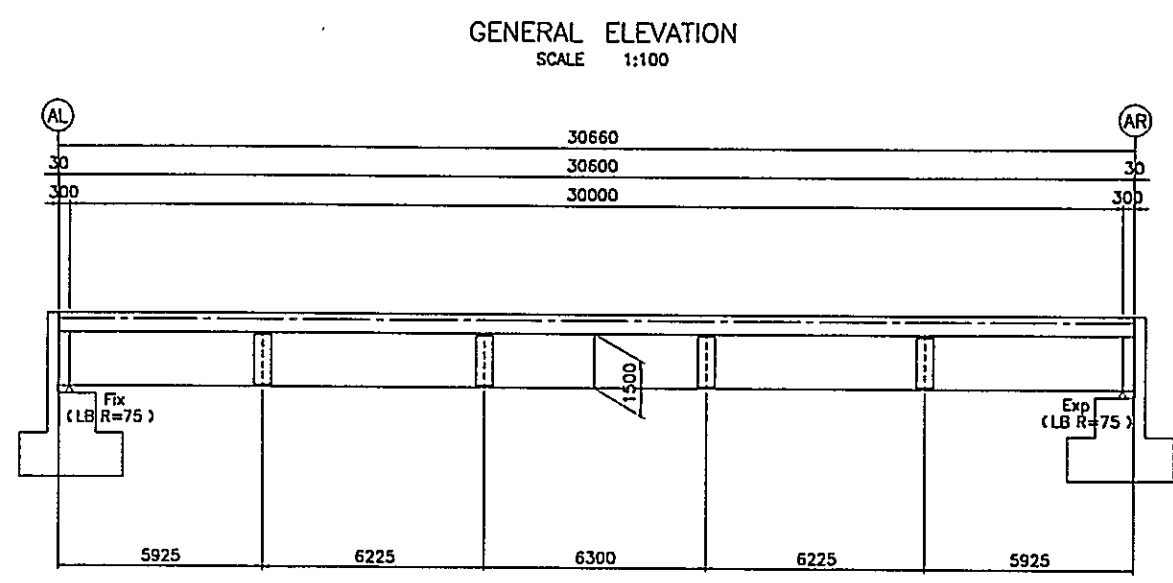
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

DETAILS
SCALE 1:10

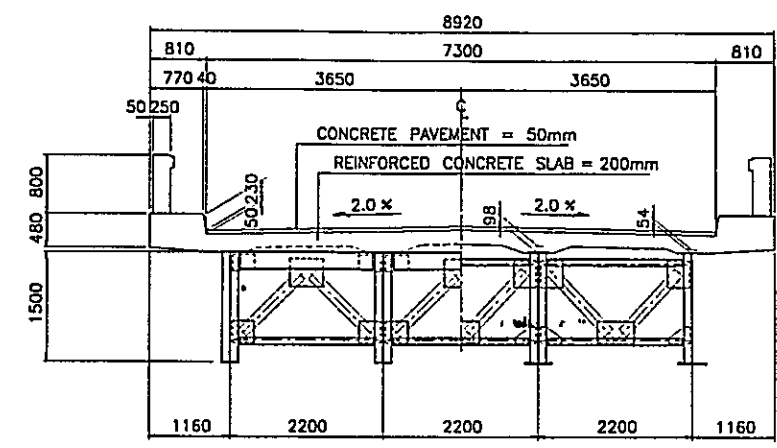


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Lais Baliton	SHEET NO.
11-05-07 11-06-02	GENERAL VIEW	70

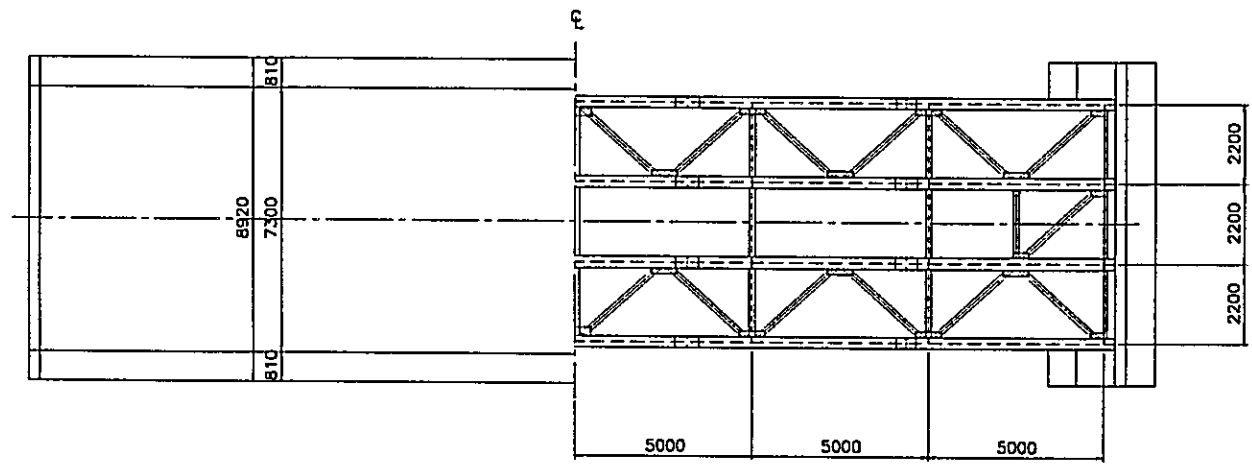
GENERAL VIEW



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50



GENERAL PLAN
SCALE 1:100

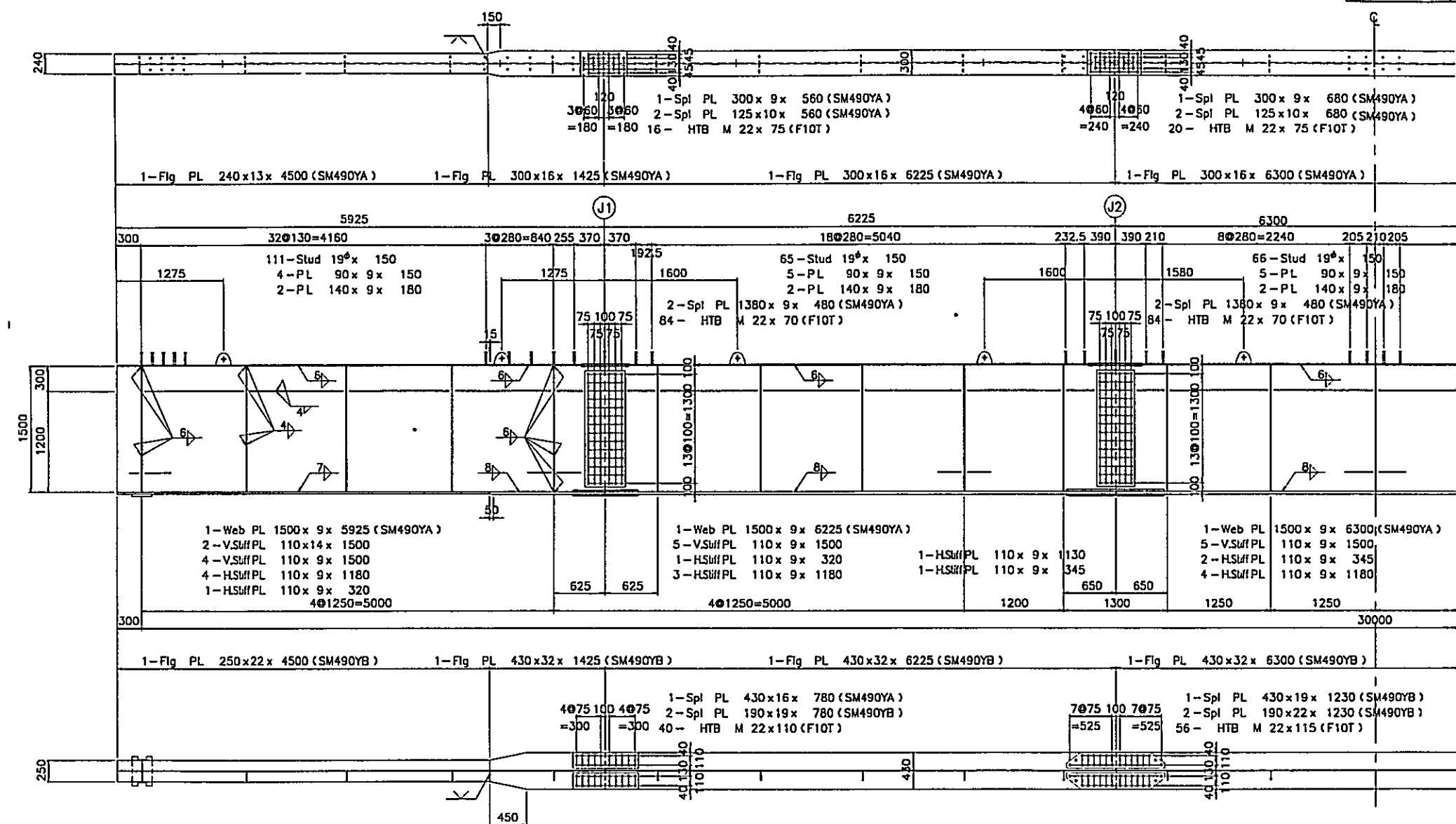


1. DESIGN SPECIFICATION
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (15th EDITION 1992).
2. DESIGN LOAD
 - 2.1 DEAD LOAD : CONCRETE 23.54 KN/m³
CONCRETE PAVEMENT 23.54 KN/m³
 - 2.2 LIVE LOAD : ROADWAY LIVE LOAD HS 20-44
SIDEWALK LIVE LOAD 2.873 KN/m²
 - 2.3 TEMPERATURE CHANGE :
RISE +20° . FALL -20°
 - 2.4 EARTHQUAKE LOAD :
C=0.20 WITH REFERENCE TO RELEVANT AASHTO PROVISIONS AND APPLICABLE CODE.
 - 2.5 OTHER LOADS : IN ACCORDANCE WITH 1992 AASHTO SPECIFICATION.
3. MATERIALS
 - 3.1 STEEL FOR SUPERSTRUCTURE :
STEEL SHALL BE SPECIFIED BY JIS GRADE.
 - 3.2 CONCRETE : CONCRETE FOR SUPERSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
CONCRETE FOR SUBSTRUCTURE f_c'=(CLASS A) f_c=280kg/cm²
 - 3.3 OTHERS : OTHER MATERIALS SHALL CONFORM TO JIS.
4. SUBSTRUCTURE
AS DETAILED INFORMATION FOR SUBSTRUCTURES ARE NOT PROVIDED, DECIDED TYPE AND DIMENSION OF SUBSTRUCTURES WILL BE SPECIFIED IN SUBSTRUCTURE'S DRAWING.
5. DRAWING
ALL DIMENSIONS ARE EXPRESSED IN MILLIMETER UNLESS OTHERWISE SHOWN PLANS ALL ELEVATION ARE IN METERS

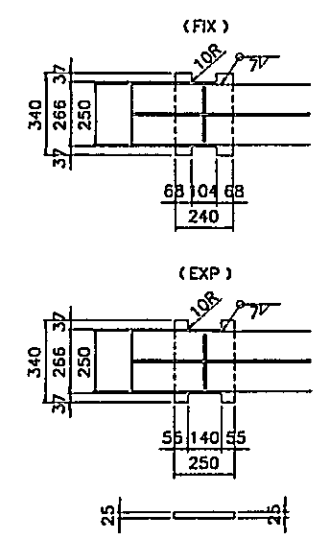
BASIC DESIGN STUDY ON THE PROJECT
FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA

BRIDGE NO.	Lais Baliton	SHEET NO.
11-05-07 11-06-02	MAIN GIRDER G1, G4	71

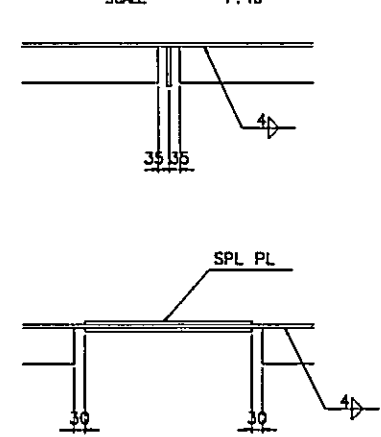
MAIN GIRDER G1,G4
SCALE 1:30



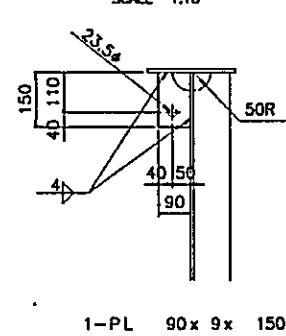
SOLE PLATE
SCALE 1:15



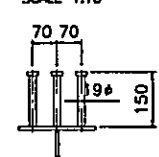
H. STIFFENER
SCALE 1:10



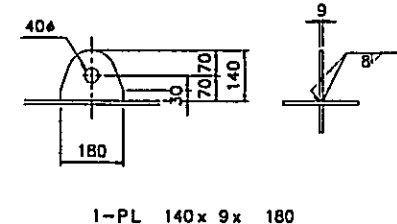
HANGER
SCALE 1:10



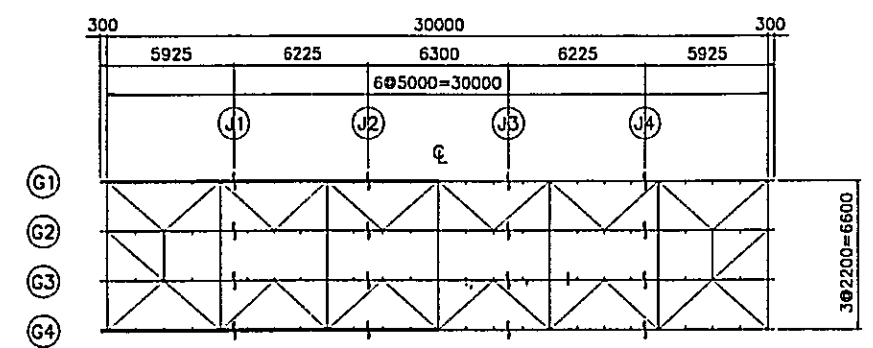
STUD
SCALE 1:10



GIRDER HANGER
SCALE 1:10



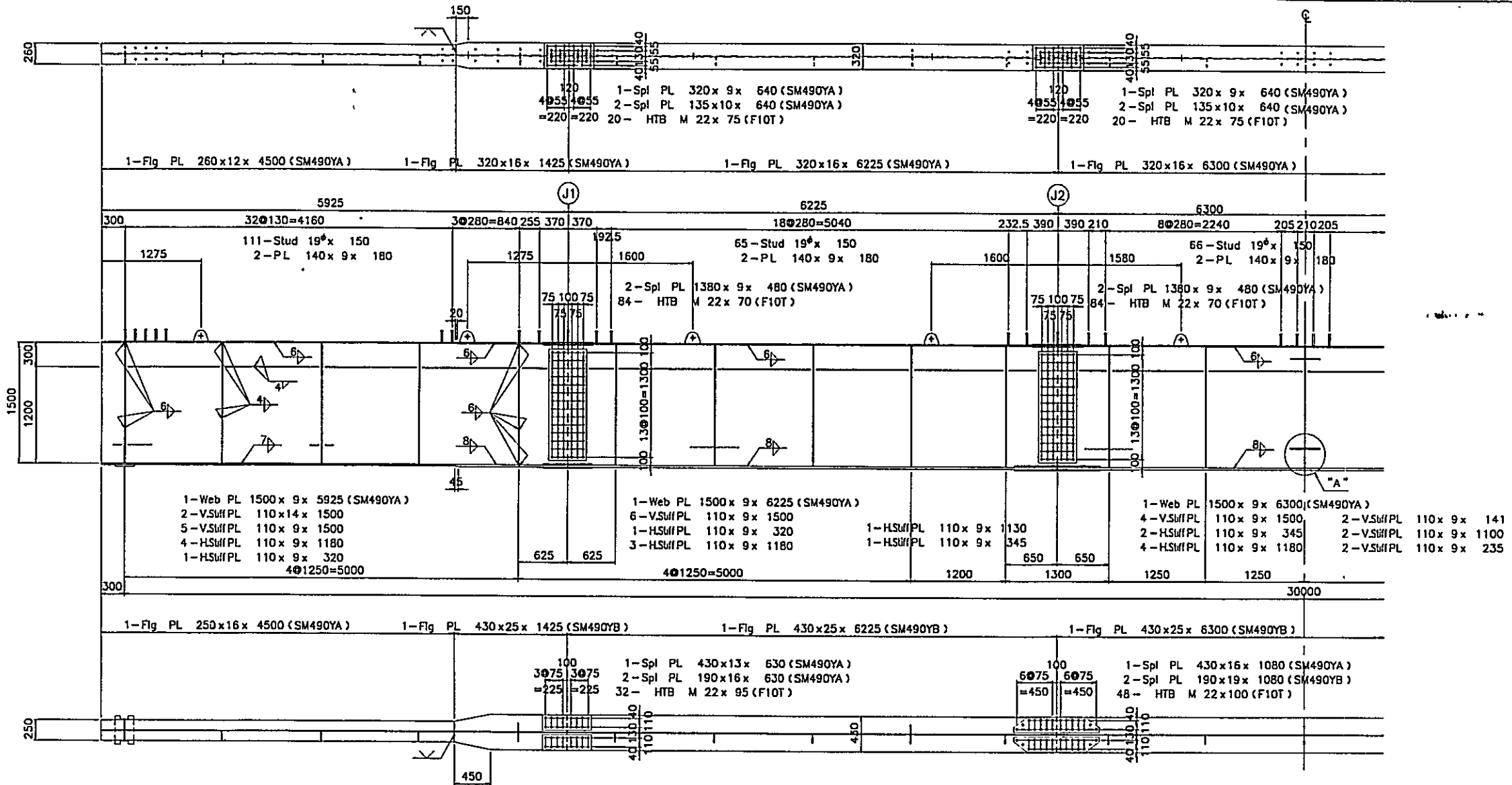
MARKING DIAGRAM



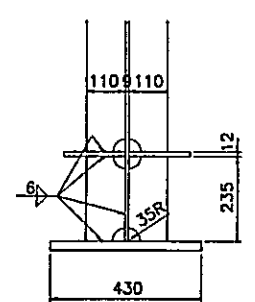
NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Lais Baliton	SHEET NO.
11-05-07 11-06-02	MAIN GIRDER G2, G3	72

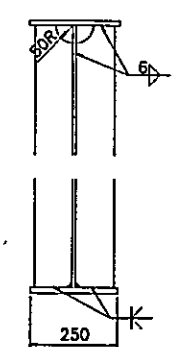
MAIN GIRDER G2,G3
SCALE 1:30



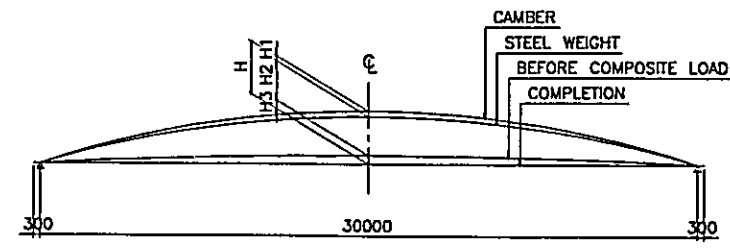
DETAIL "A"
SCALE 1:10



END STIFFENER
SCALE 1:10

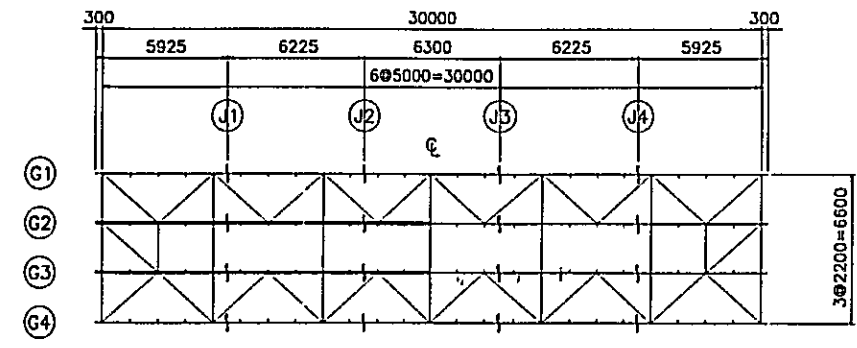


CAMBER



	H1	H2	H3	H
G1,G4	14	65	9	88
G2,G3	15	74	0	89

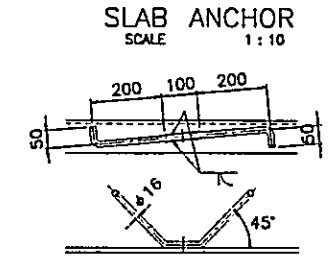
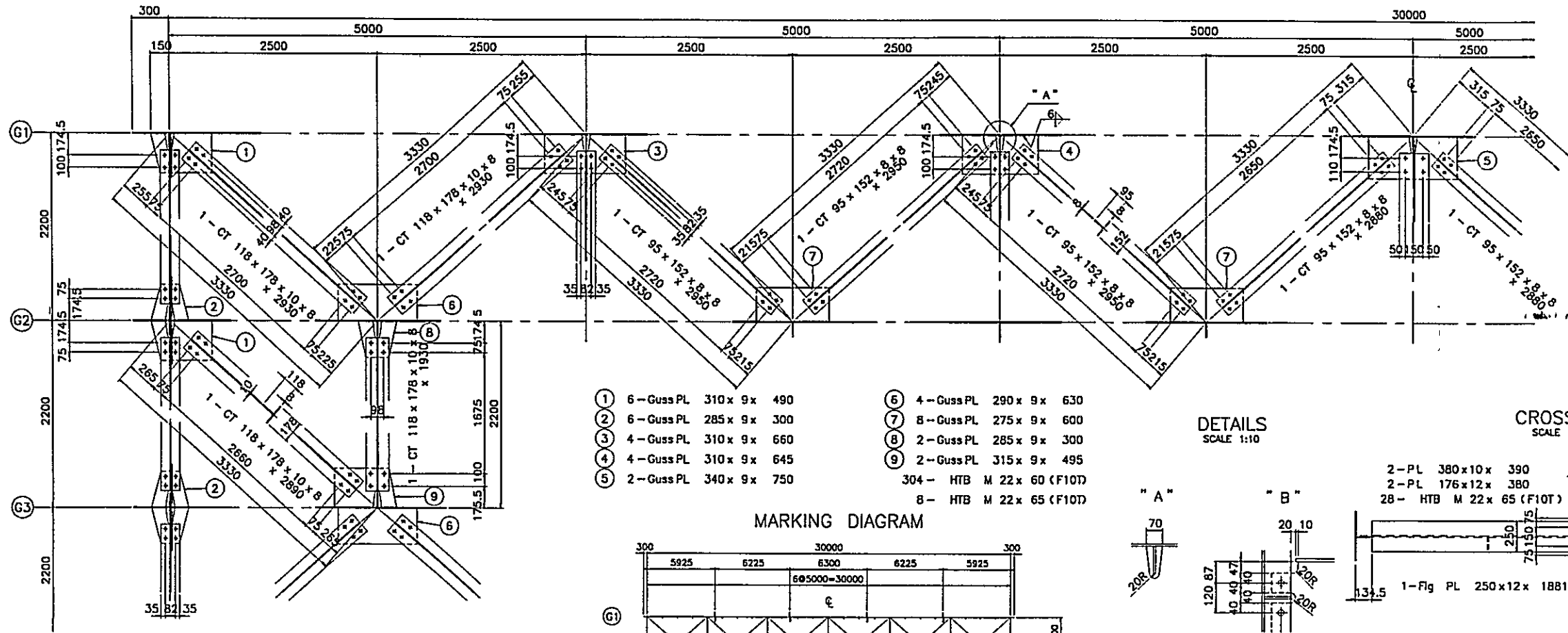
MARKING DIAGRAM



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.

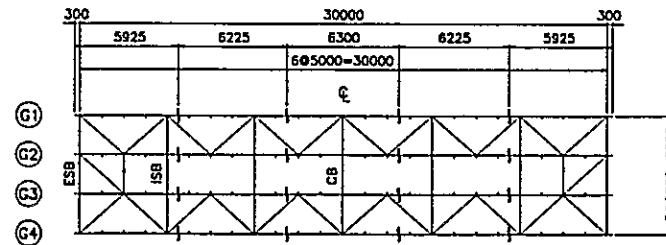
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	Lais Baliton	SHEET NO.
11-05-07 11-06-02	CROSS BEAM, SWAY & LATERAL	73

LATERAL BRACING
SCALE 1:20

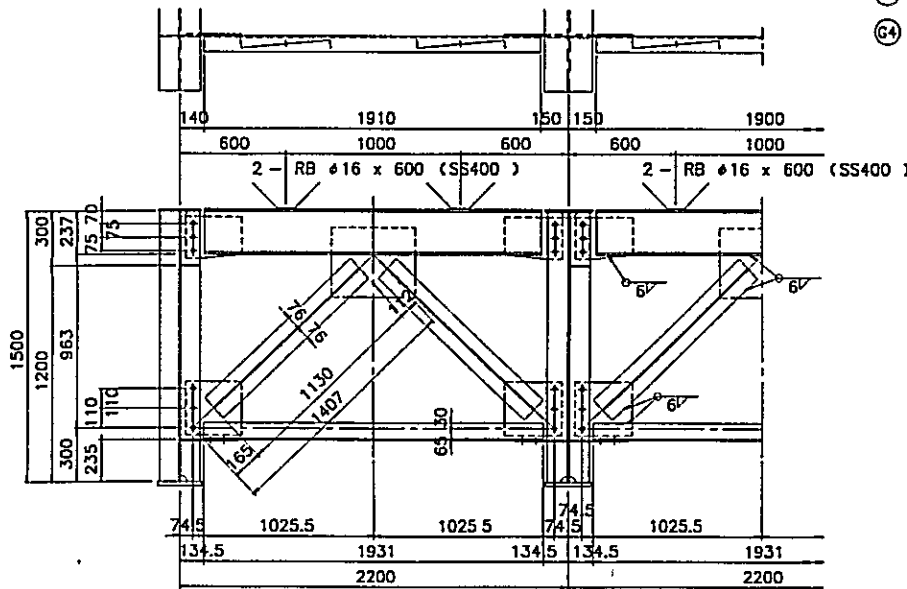


- ① 6 - Guss PL 310 x 9 x 490
- ② 6 - Guss PL 285 x 9 x 300
- ③ 4 - Guss PL 310 x 9 x 660
- ④ 4 - Guss PL 310 x 9 x 645
- ⑤ 2 - Guss PL 340 x 9 x 750
- ⑥ 4 - Guss PL 290 x 9 x 630
- ⑦ 8 - Guss PL 275 x 9 x 600
- ⑧ 2 - Guss PL 285 x 9 x 300
- ⑨ 2 - Guss PL 315 x 9 x 495
- 304 - HTB M 22 x 60 (F10T)
- 8 - HTB M 22 x 65 (F10T)

MARKING DIAGRAM

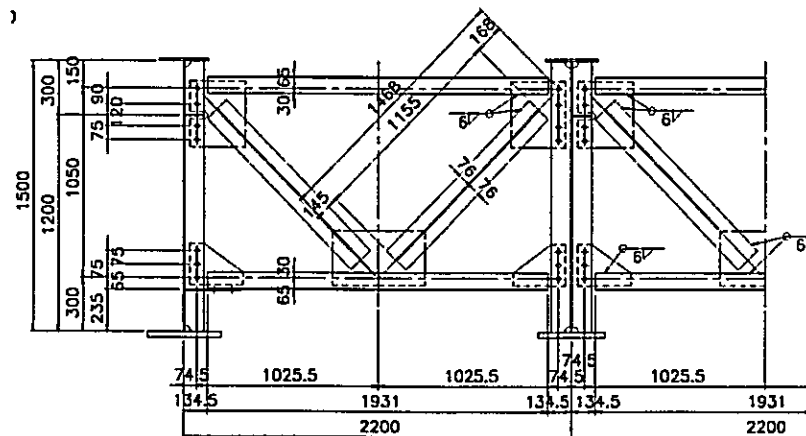


END SWAY BRACING
SCALE 1:20



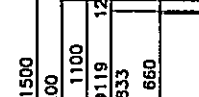
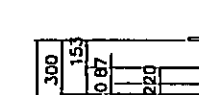
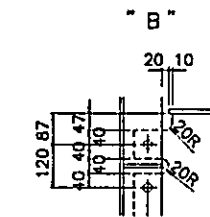
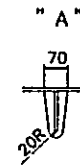
- 1 - C 250 x 90 x 9 x 13 x 1910
- 2 - CT 95 x 152 x 8 x 8 x 1130
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 230 x 9 x 315
- 1 - Guss PL 385 x 9 x 485
- 2 - Guss PL 300 x 9 x 315
- 12 - HTB M 22 x 65 (F10T)
- 1 - C 250 x 90 x 9 x 13 x 1900
- 2 - CT 95 x 152 x 8 x 8 x 1130
- 1 - CT 95 x 152 x 8 x 8 x 1931
- 2 - Guss PL 230 x 9 x 315
- 1 - Guss PL 385 x 9 x 485
- 2 - Guss PL 300 x 9 x 315
- 12 - HTB M 22 x 65 (F10T)

INT. SWAY BRACING
SCALE 1:20

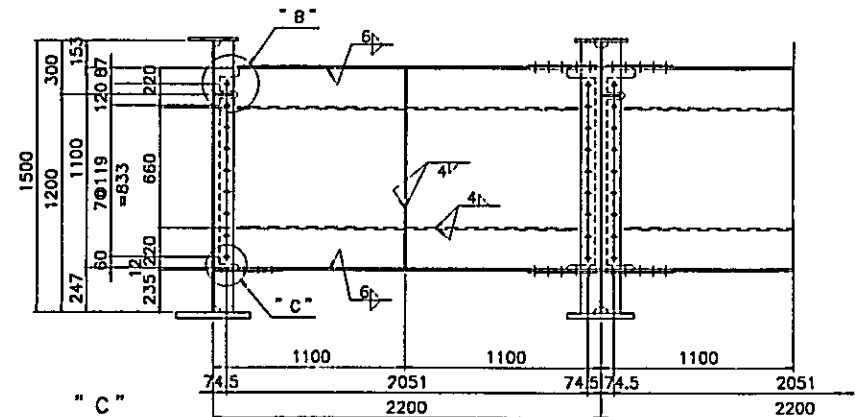
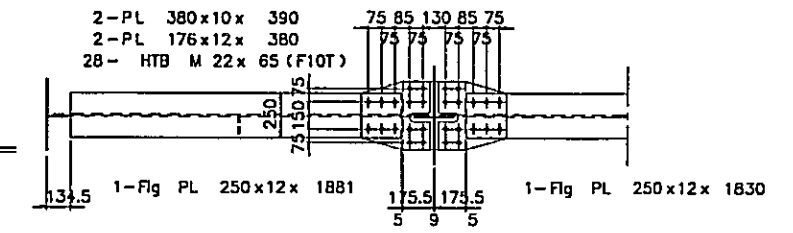


- 2 - CT 95 x 152 x 8 x 8 x 1931
- 2 - CT 95 x 152 x 8 x 8 x 1155
- 2 - Guss PL 320 x 9 x 365
- 1 - Guss PL 305 x 9 x 520
- 2 - Guss PL 230 x 9 x 300
- 14 - HTB M 22 x 60 (F10T)

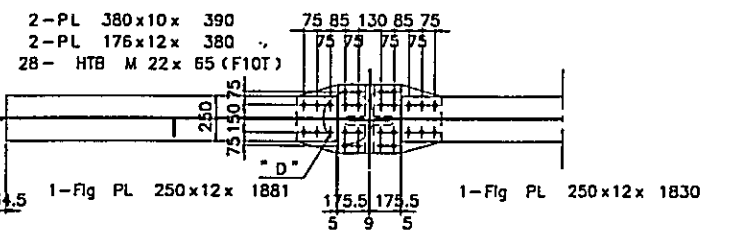
DETAILS
SCALE 1:10



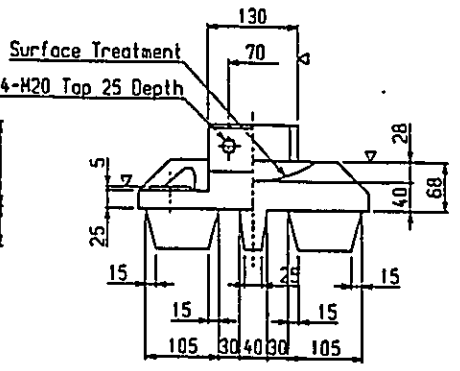
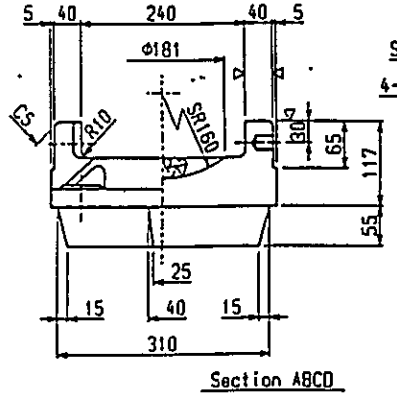
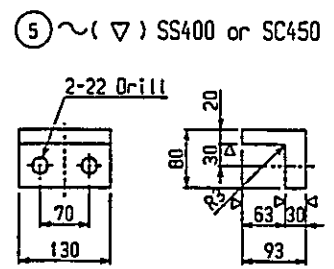
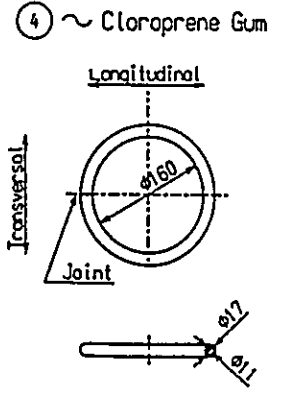
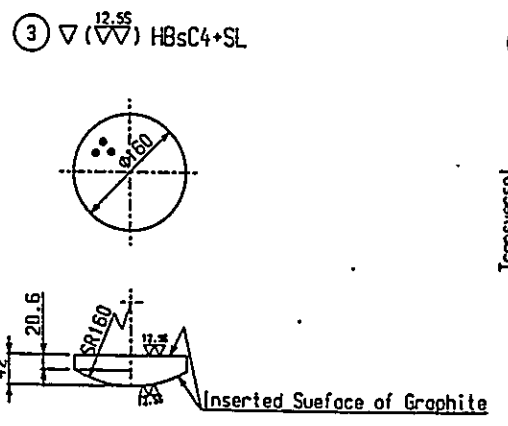
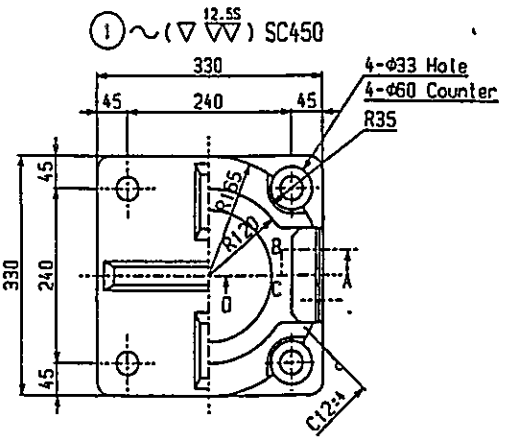
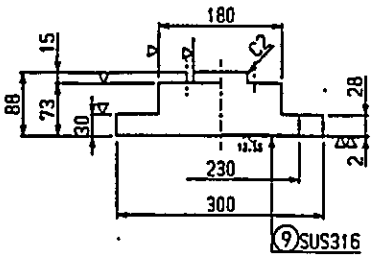
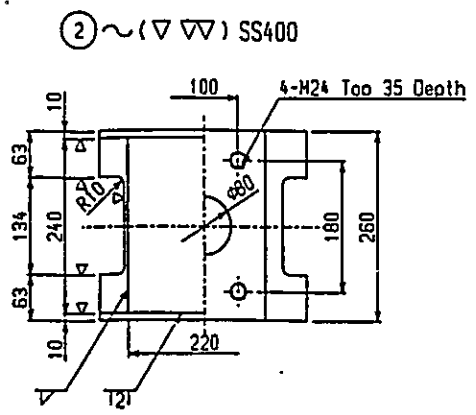
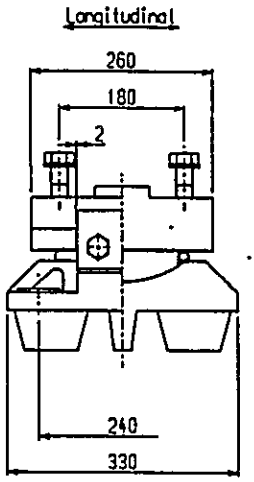
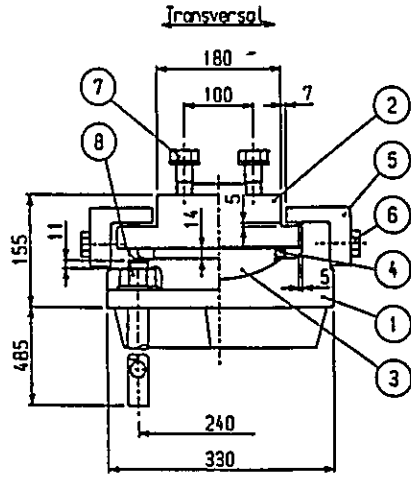
CROSS BEAM
SCALE 1:20



- 1 - Web PL 1100 x 9 x 2131
- 18 - HTB M 22 x 60 (F10T)
- 1 - VSW PL 100 x 9 x 1100
- 2 - HSW PL 90 x 9 x 1910
- 1 - Web PL 1100 x 9 x 2131
- 18 - HTB M 22 x 60 (F10T)
- 1 - VSW PL 100 x 9 x 1100
- 2 - HSW PL 90 x 9 x 1910



NOTE:
1. MATERIAL NOT SPECIFIED IS SS400.



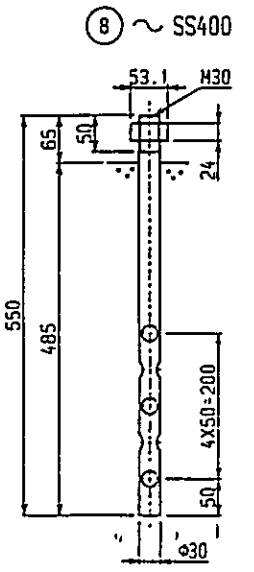
- ⑥ Hexagon Bolt M20X50 4.6
- ⑦ Hexagon Bolt M24X 4.6
- Plain Washers 24 X 44 X 4.5 -10H

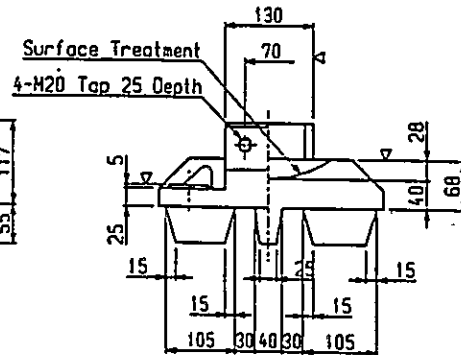
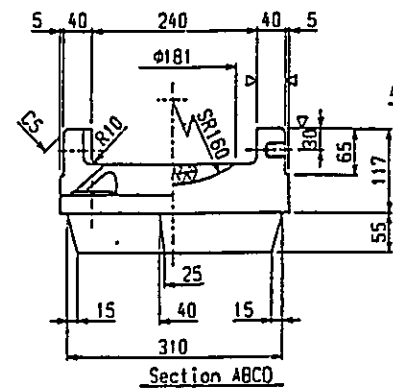
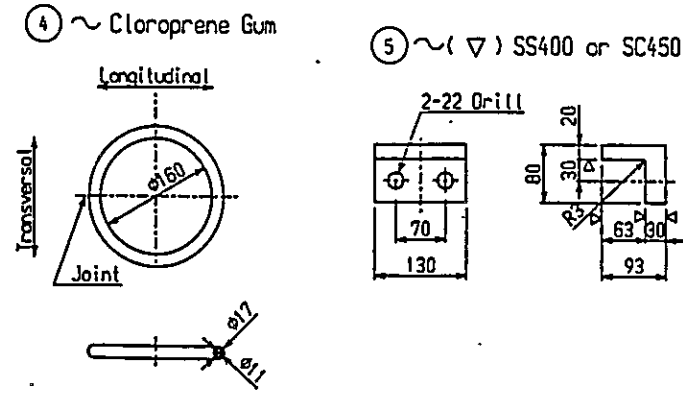
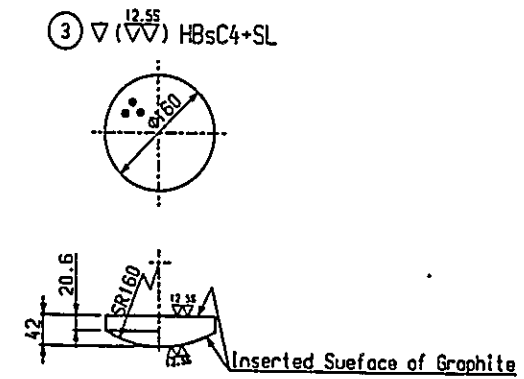
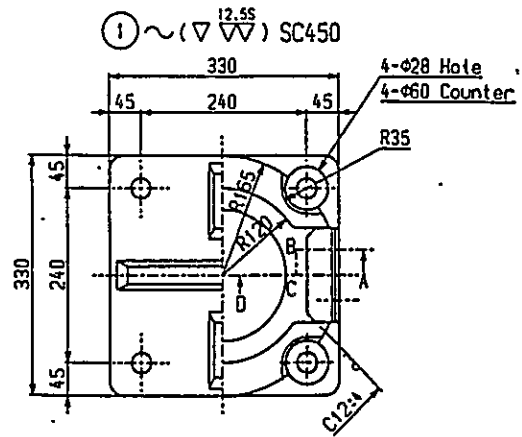
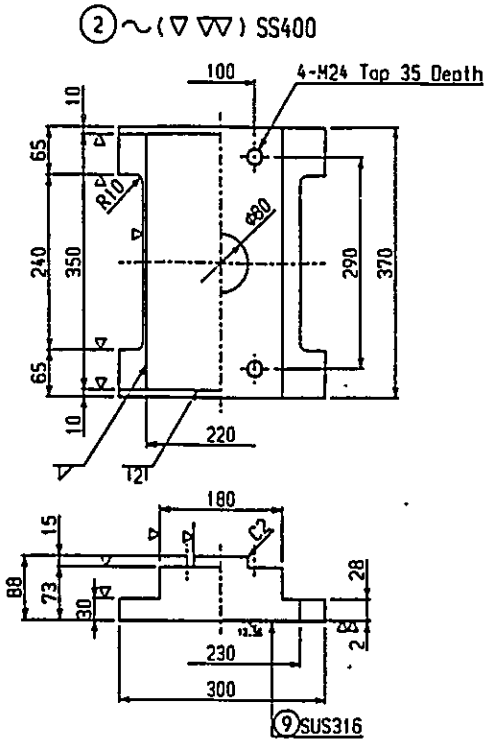
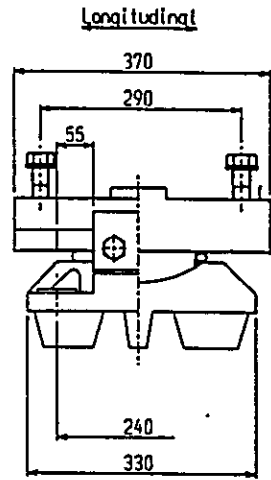
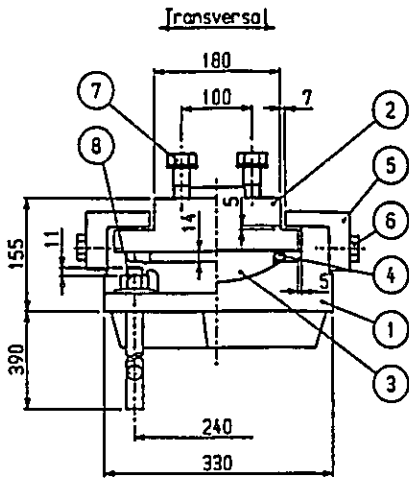
DESIGN CONDITIONS

REACTION		
Total Reaction	R	60.3 ton
Dead Load Reaction	Rd	48 ton
Longitudinal Reaction(Mov)	RHf	19.5 ton
Longitudinal Reaction(Seismic)	RHs	25.4 ton
Transverse Reaction(Seismic)	RHt	24.2 ton
Uplift	V	6.7 ton
BEARING STRESS		
Lower Constructing Allowable	σ_{ba}	80 kg/cm ²
Upper Constructing Allowable	σ_{ba}	2100 kg/cm ²

MATERIAL LIST

MARK	N A M E	MATERIAL	Q'ty	WEIGHT(kg)	REMARKS
1	Lower Shoe	SC450	1	51.8	
2	Upper Shoe	SS400	1	31.1	
3	Bearing Plate	HBsC4+SL	1	4.9	
4	Seal Ring	Chloroprene Gum	1	0.1	
5	Side Block	SS400 or SC450	2	7.1	
6	Hexagon Bolt	-	4	0.8	JIS B 1180
7	Hexagon Bolt-Washer	-	4	1.4	JIS B 1180
8	Anchor Bolt-Nut	SS400	4	9.8	JIS B 1181
9	Stainless Plate	SUS316	1	0.8	Z20X2236
Total Weight (kg)				107.8	
TREATMENT OF ANTI-TRUST					
Zinc Dip Galvanizing	Quantity	550g/m ² min, 350g/m ² min(Bolt)			
Paint	Paint Area	0.40m ²			





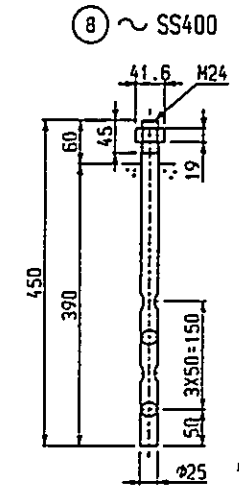
- ⑥ Hexagon bolt M20X50 4.6
- ⑦ Hexagon Bolt M24X Plain Washer 24X44X4.5-10H 4.6

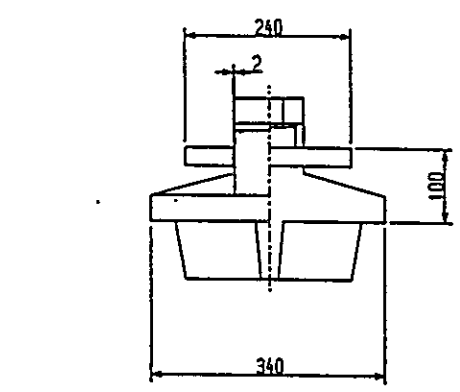
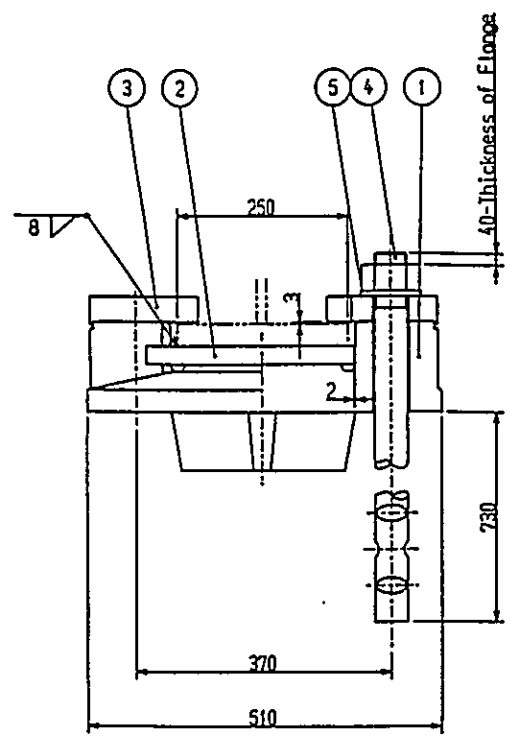
DESIGN CONDITION

REACTION		
Total Reaction	R	60.3 ton
Dead Load Reaction	R _d	48 ton
Longitudinal Reaction(Hbv)	R _{H1}	9 ton
Longitudinal Reaction(Seismic)	R _{Hs}	17.6 ton
Transverse Reaction(Seismic)	R _{ts}	17.6 ton
Uplift	V	6.7 ton
MOVEMENT		
Movable Length	e ₁	50 mm
Surplus Length	e ₂	70 mm
Total Length	e	120 mm
FRICTION		
Friction Coefficient	f	0.15
BEARING STRESS		
Lower Constructing Allowable	σ _{ba}	80 kg/cm ²
Upper Constructing Allowable	σ _{ba}	2100 kg/cm ²

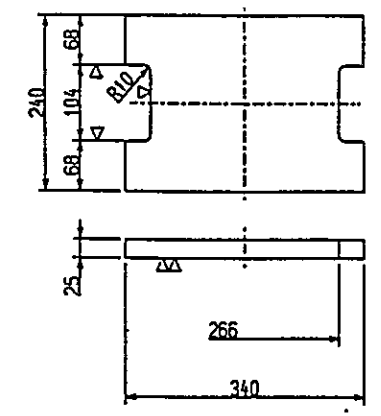
MATERIAL LIST

MARK	NAME	MATERIAL	Q'ty	WEIGHT (kg)	REMARKS
1	Lower Shoe	SC450	1	52.0	
2	Upper Shoe	SS400	1	43.4	
3	Bearing Plate	HBsC4+SL	1	4.9	
4	Seal Ring	Chloroprene Gum	1	0.1	
5	Side Block	SS400 or SC450	2	7.1	
6	Hexagon Bolt	-	4	0.8	JIS B 1180
7	Hexagon Bolt·Washer	-	4	1.4	JIS B 1180
8	Anchor Bolt·Nut	SS400	4	5.8	JIS B 1181
9	Stainless Plate	SUS316	1	1.2	Z20X23X6
Total Weight (kg)				116.7	
TREATMENT OF ANTI RUST					
Zinc Hot Dip Galvanizing	Quantity	550g/m ² min, 350g/m ² min(Bolt)			
Paint	Paint Area	0.42 m ²			

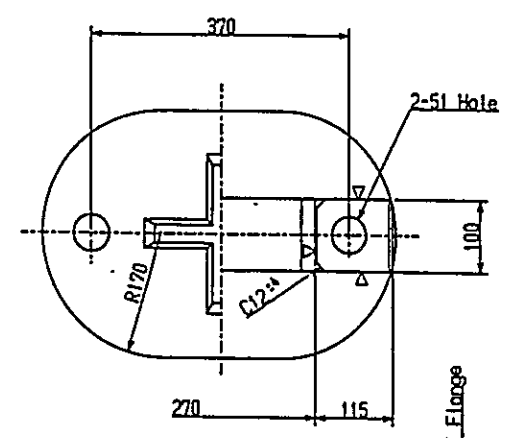




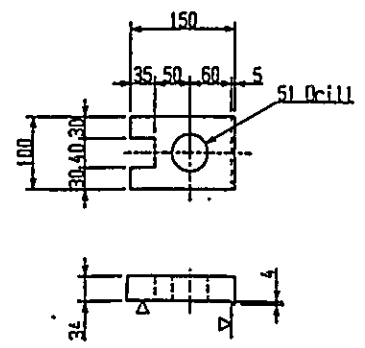
② ~ (▽▽)SS400



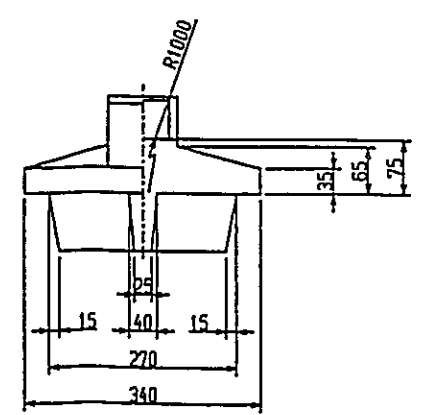
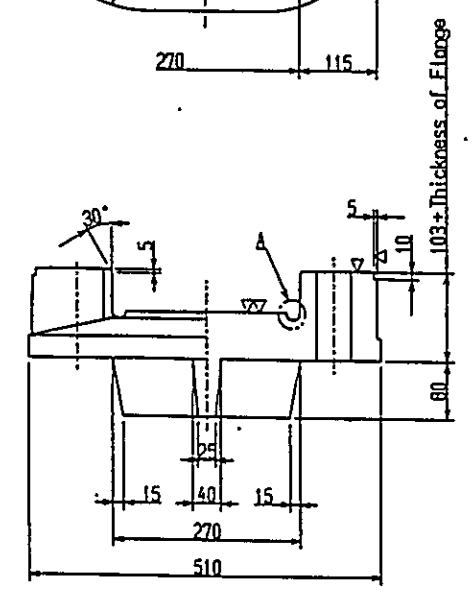
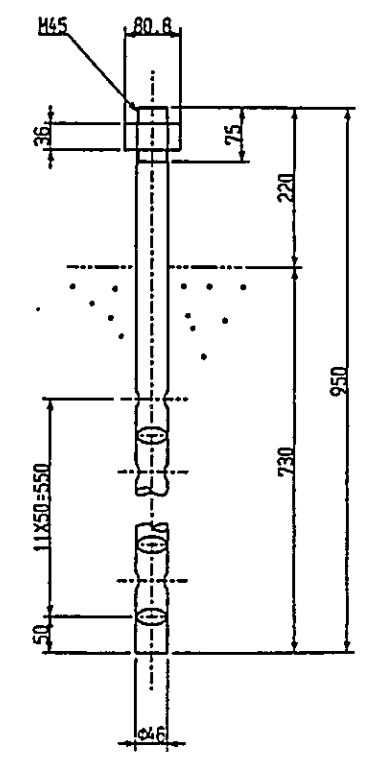
① ~ (▽▽)SC450



③ ~ (▽)SS400



④ ~ SS400



DESIGN CONDITION

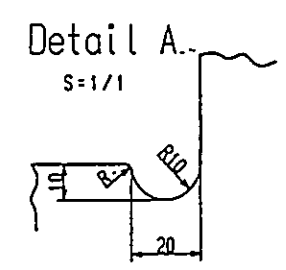
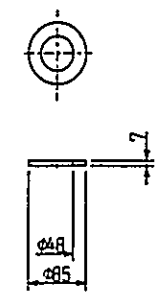
REACTION		
Total Reaction	R	75 ton
Dead Load Reaction	Rd	56.3 ton
Live Load Reaction	R(l+i)	18.7 ton
Longitudinal Reaction(Mov)	Rml	18.8 ton
Longitudinal Reaction(Seismic)	RHe	27 ton
Transverse Reaction(Seismic)	RHe	13.5 ton
Uplift	V	5.63 ton
SEISMIC INTENSITY COEFFICIENT		
Horizontal Seismic Intensity Coefficient	Kh	0.24
FRICTION		
Friction Coefficient	f	0.25
BEARING STRESS		
Lower Construction Allowable	σ_{ba}	80 kg/cm ²

MATERIAL LIST

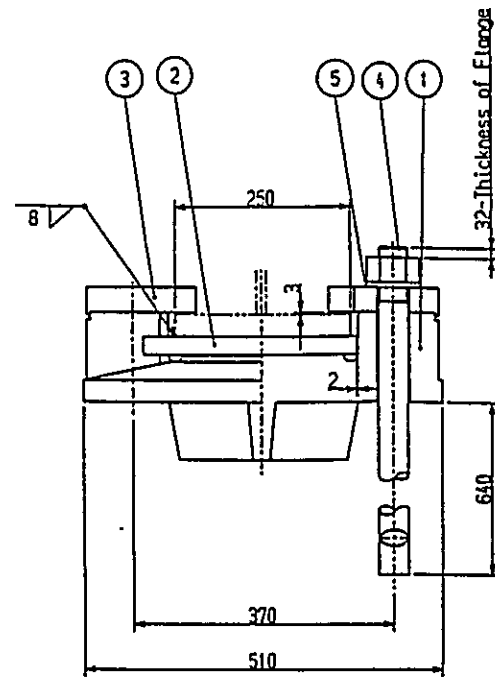
MARK	N A M E	MATERIAL	Q'ty	WEIGHT (kg)	REMARKS
1	Lower Shoe	SC450	1	80.1	
2	Upper Shoe	SS400	1	14.5	
3	Pinch Plate	SS400	2	6.2	
4	Anchor Bolt Nut	SS400	2	26.3	
5	Plain Washer	SS400	2	0.4	
Total Weight (kg)				127.5	

Paint Area 0.46m²

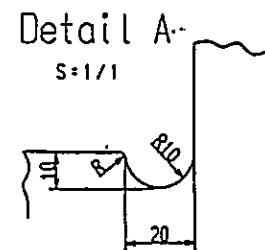
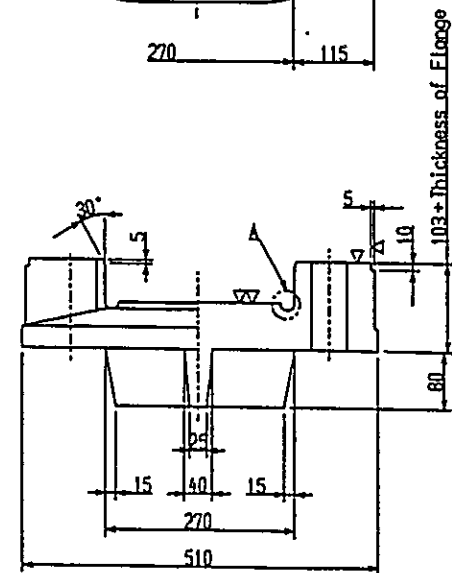
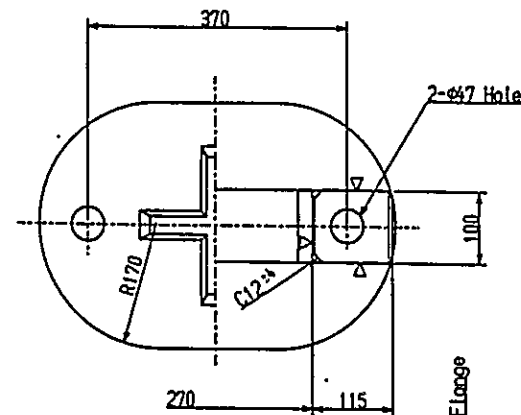
⑤ ~ SS400



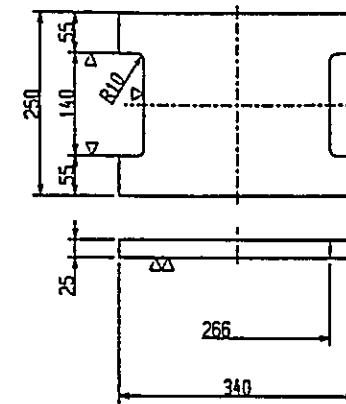
BRIDGE NO.		SHEET NO.
	SHOE (4)	77



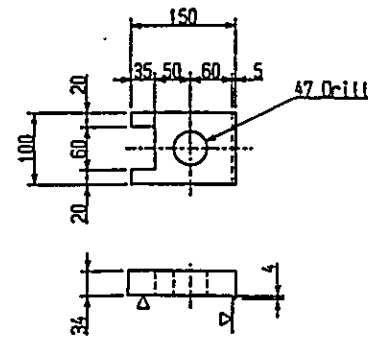
① ~ (▽▽)SC450



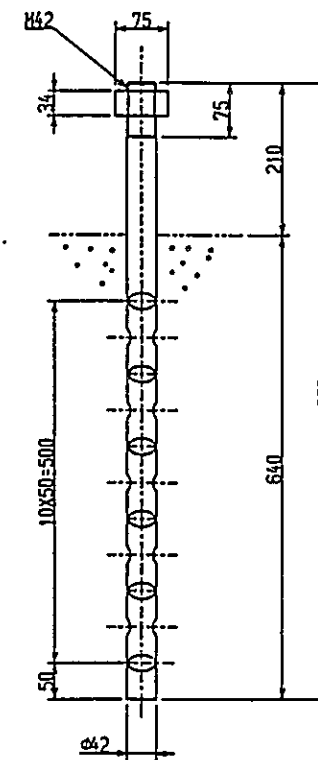
② ~ (▽▽)SS400



③ ~ (▽)SS400



④ ~ SS400



DESIGN CONDITION

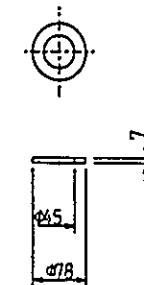
REACTION		
Total Reaction	R	75 ton
Dead Load Reaction	R _d	56.3 ton
Live Load Reaction	R _(L+I)	18.7 ton
Longitudinal Reaction(Mov)	R _{H1}	18.8 ton
Longitudinal Reaction(Seismic)	R _{H2}	13.5 ton
Transverse Reaction(Seismic)	R _{V2}	13.5 ton
Uplift	V	5.63 ton
MOVEMENT		
Movable Length	e ₁	20 mm
Surplus Length	e ₂	40 mm
Total Length	e	40 mm
SEISMIC INTENSITY COEFFICIENT		
Horizontal Seismic Intensity Coefficient	K _H	0.24
FRICTION		
Friction Coefficient	f	0.25
BEARING STRESS		
Lower Constructing Allowable	σ _{ba}	80 kg/cm ²

MATERIAL LIST

MARK	N	A	H	E	MATERIAL	Q'ty	WEIGHT (kg)	REMARKS
1					Lower Shoe	SC450	1	80.7
2					Upper Shoe	SS400	1	14.7
3					Pinch Plate	SS400	2	6.0
4					Anchor Bolt Nut	SS400	2	19.7
5					Plain Washer	SS400	2	0.4
Total Weight (kg)							121.5	

Point Area 0.38m²

⑤ ~ SS400



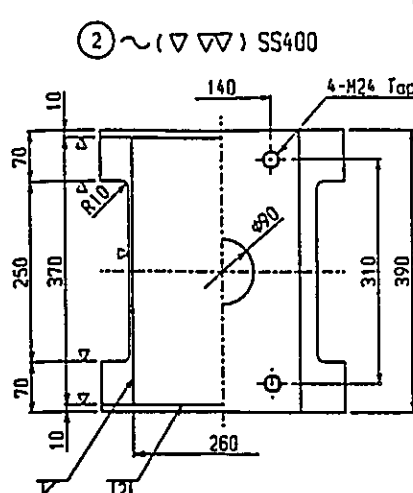
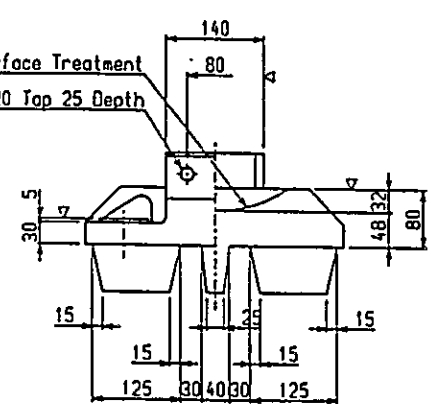
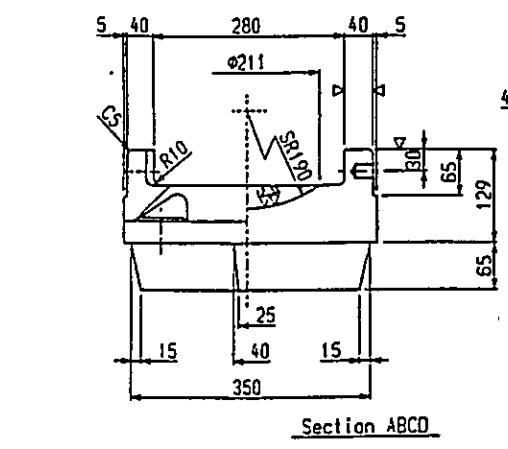
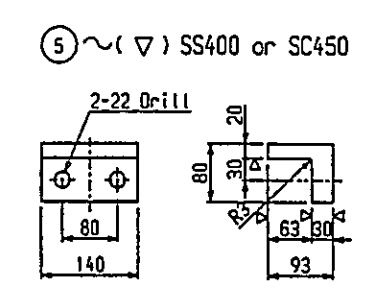
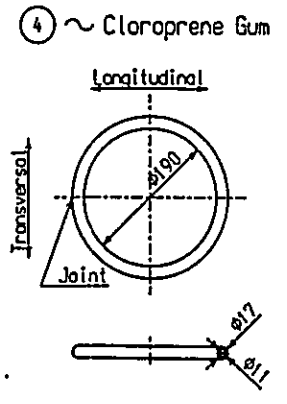
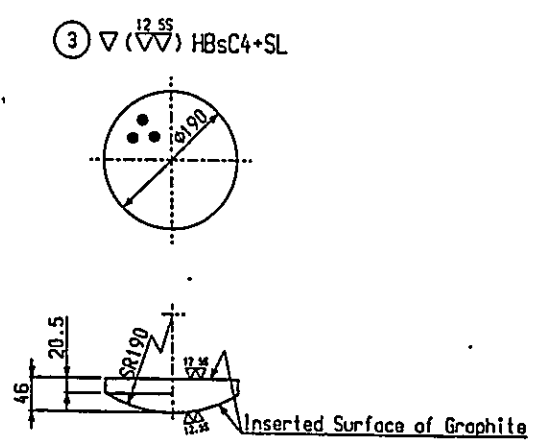
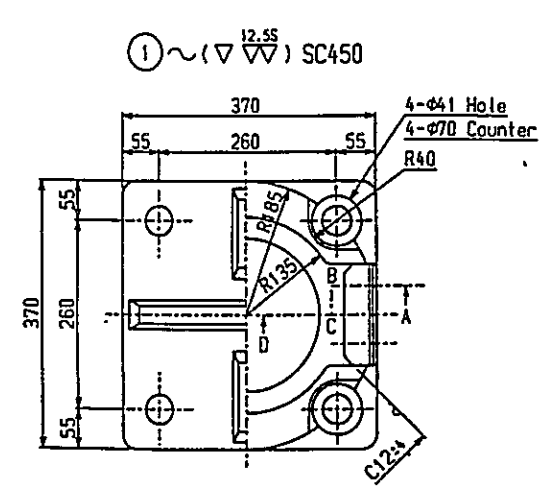
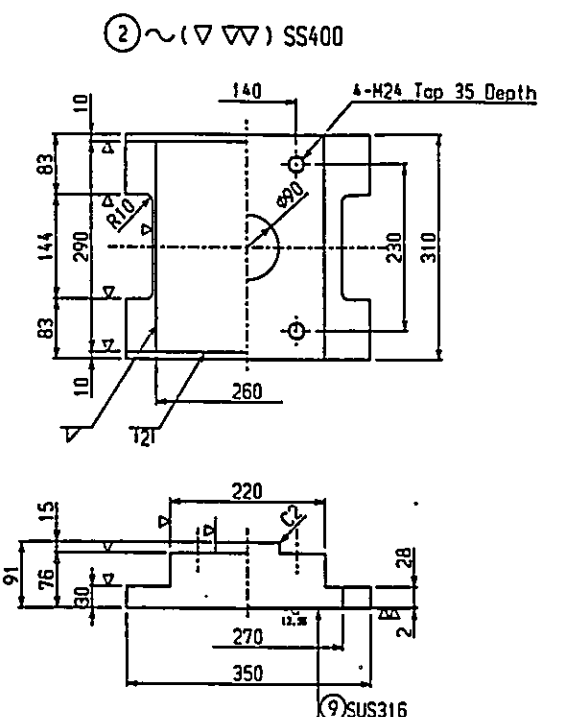
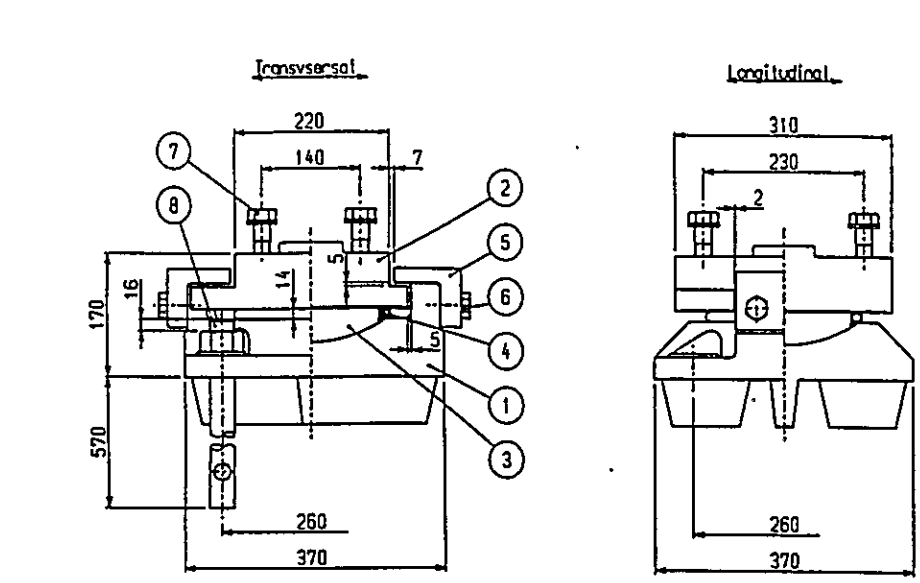
DESIGN CONDITION

REACTION		
Total Reaction	R	85 ton
Dead Load Reaction	Rd	64 ton
Longitudinal Reaction(Mov)	R _{HL}	22.9 ton
Longitudinal Reaction(Seismic)	R _{HS}	36.6 ton
Transverse Reaction(Seismic)	R _{TS}	26.1 ton
Uplift	V	7.2 ton

BEARING STRESS		
Lower Constructing Allowable	σ_{ba}	80 kg/cm ²
Upper Constructing Allowable	σ_{ba}	2100 kg/cm ²

MATERIAL LIST

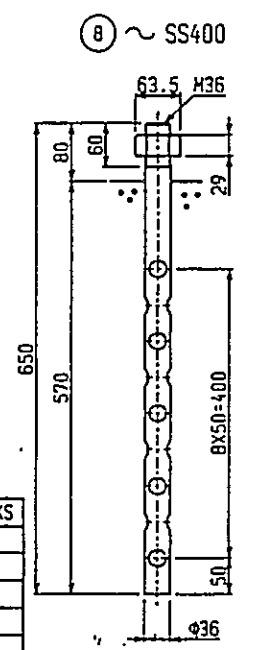
MARK	N A M E	MATERIAL	Q'ty	WEIGHT (kg)	REMARKS
1	Lower Shoe	SC450	1	73.8	
2	Upper Shoe	SS400	1	46.3	
3	Bearing Plate	HBsC4+SL	1	7.4	
4	Seal Ring	Chloroprene Gum	1	0.1	
5	Side Block	SS400 or SC450	2	7.7	
6	Hexagon Bolt	-	4	0.8	JIS B 1180
7	Hexagon Bolt+Washer	-	4	1.4	JIS B 1180 JIS B 1256
8	Anchor Bolt+Nut	SS400	4	15.9	JIS B 1181
9	Stainless Plate	SUS316	1	1.2	250X2285
Total Weight (kg)				154.6	
TREATMENT OF ANTIRUST					
Zinc Hot Dip Galvanizing Quantity 550g/m ² min, 350g/m ² min(Bolt)					
Paint				Paint Area	0.48m ²



- ⑥ Hexagon Bolt M20X50 4.6
- ⑦ Hexagon Bolt M24X 4.6
- Plain Washer 24 X 44 X 4.5 -10H

MATERIAL LIST

MARK	N A M E	MATERIAL	Q'ty	WEIGHT (kg)	REMARKS
1	Lower Shoe	SC450	1	74.5	
2	Upper Shoe	SS400	1	57.0	
3	Bearing Plate	HBsC4+SL	1	7.4	
4	Seal Ring	Chloroprene Gum	1	0.1	
5	Side Block	SS400 or SC450	2	7.7	
6	Hexagon Bolt	-	4	0.8	JIS B 1180
7	Hexagon Bolt+Washer	-	4	1.4	JIS B 1180 JIS B 1256
8	Anchor Bolt+Nut	SS400	4	5.8	JIS B 1181
9	Stainless Plate	SUS316	1	1.5	250X2286
Total Weight (kg)				156.2	
TREATMENT OF ANTIRUST					
Zinc Hot Dip Galvanizing Quantity 550g/m ² min, 350g/m ² min(Bolt)					
Paint				Paint Area	0.49m ²



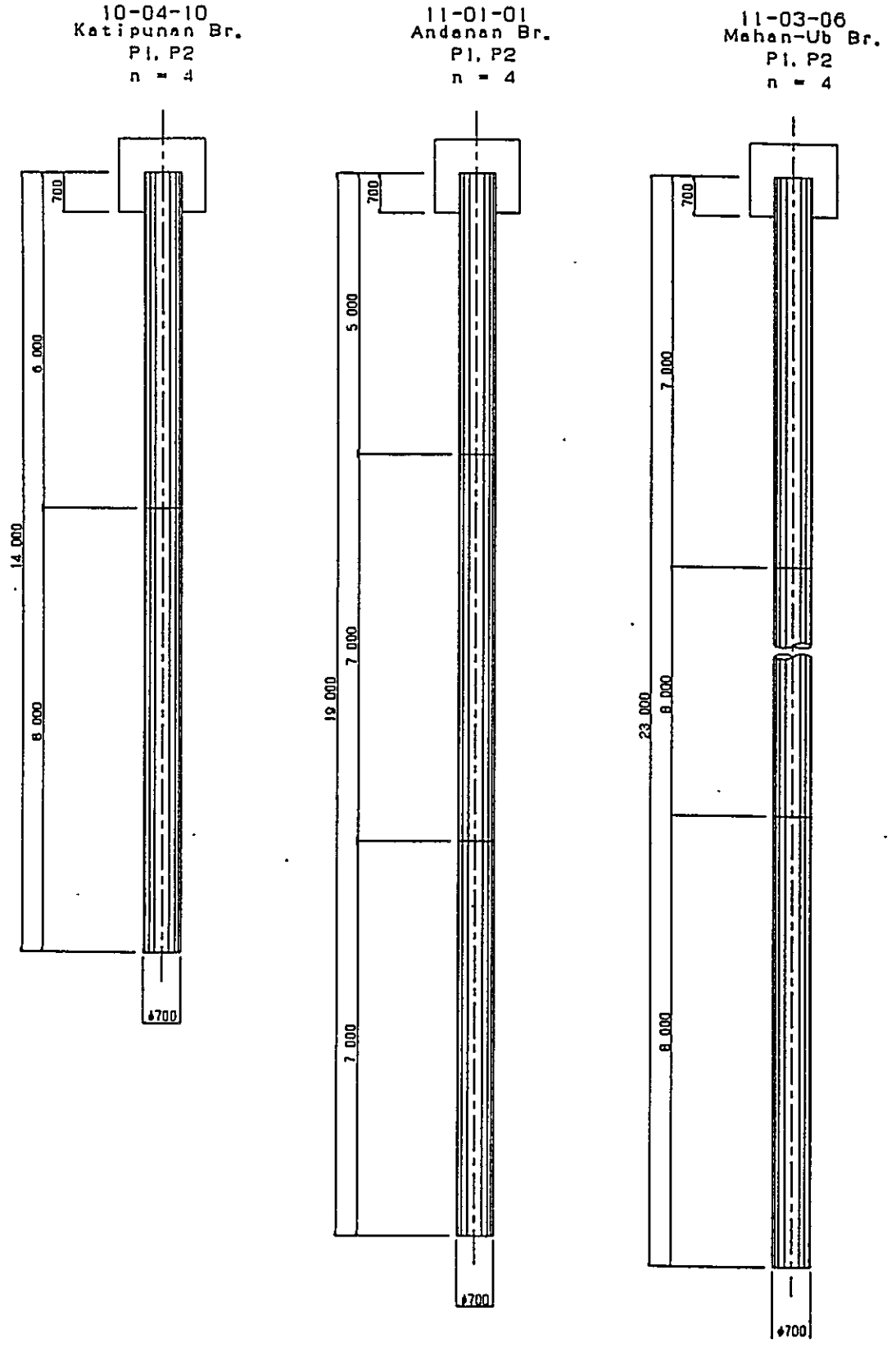
**BASIC DESIGN OF
MISCELLANEOUS STRUCTURES
TO BE PROCURED BY THE PROJECT
(GROUP 1)**

78

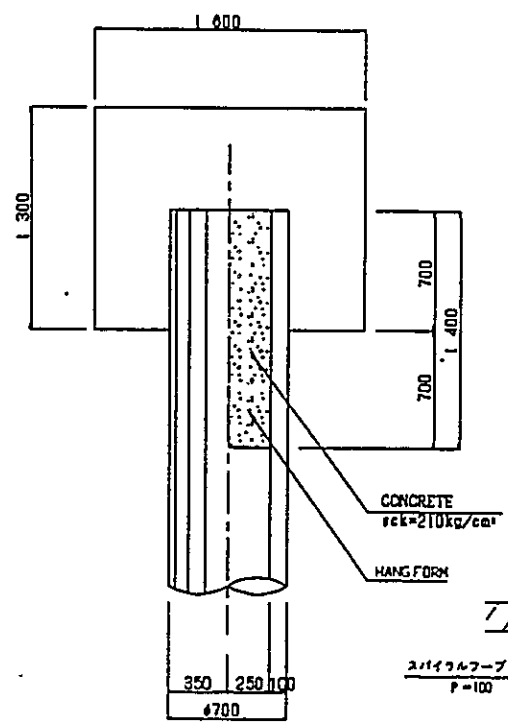
2/2

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.		SHEET NO.
	DETAIL OF PC PILE	79

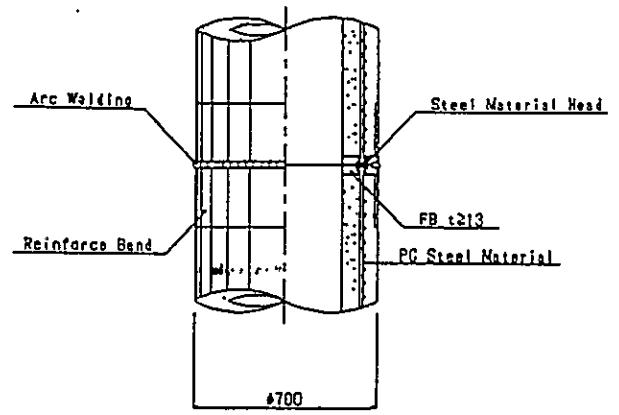
Detail Of PHC-Pile (Class-B)
scale 1:50M



Pile Head Connection
scale 1:20M

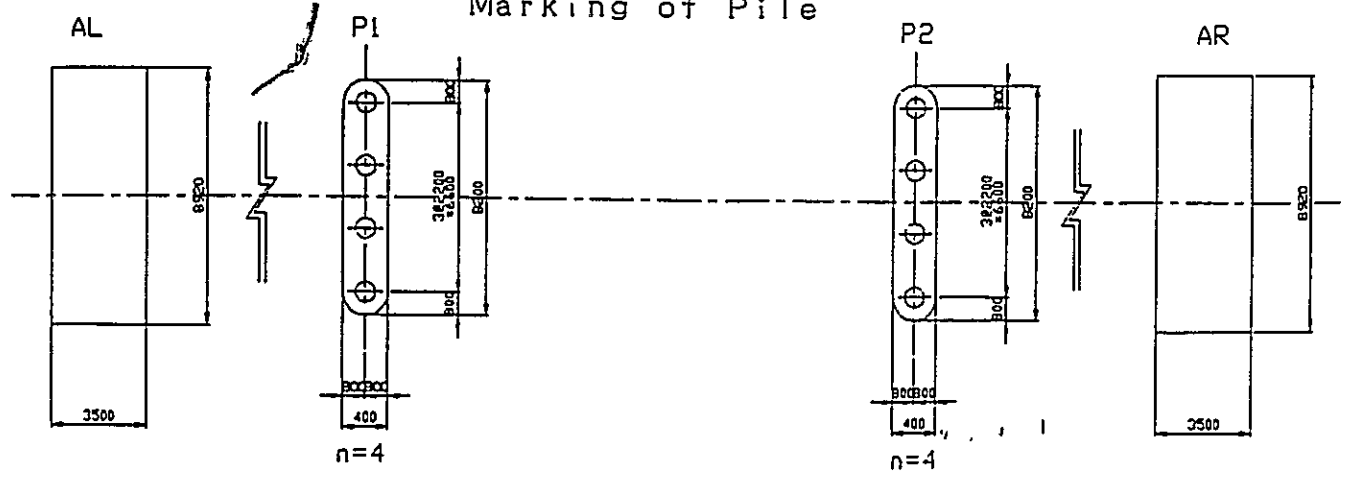


Detail For Spot Joint

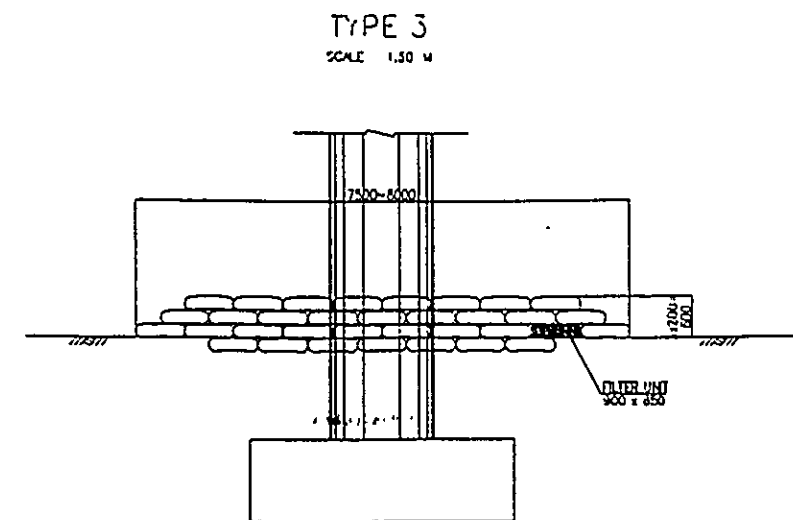
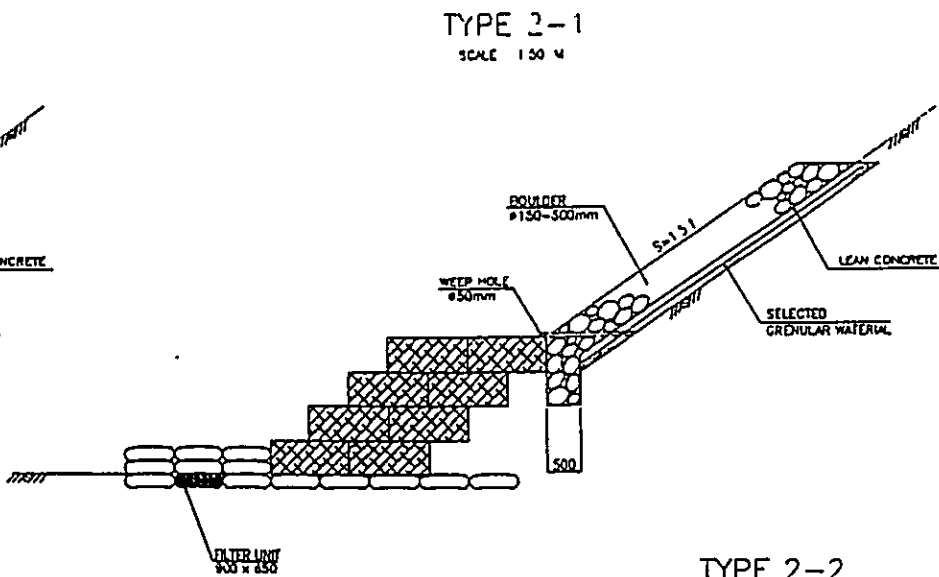
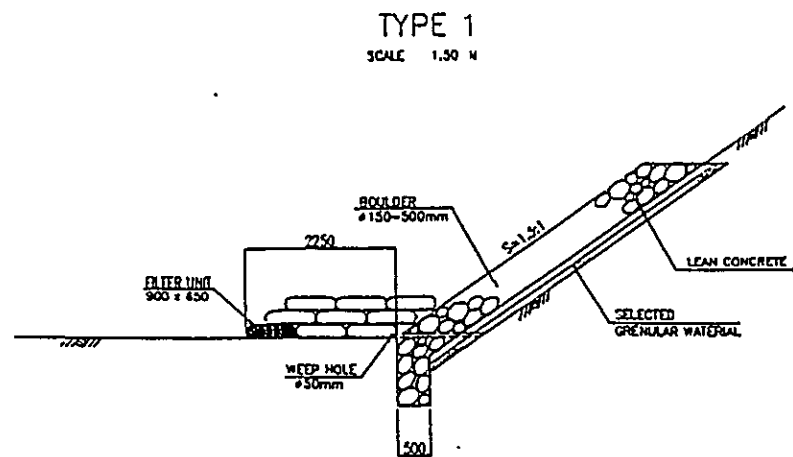


(Class-B)

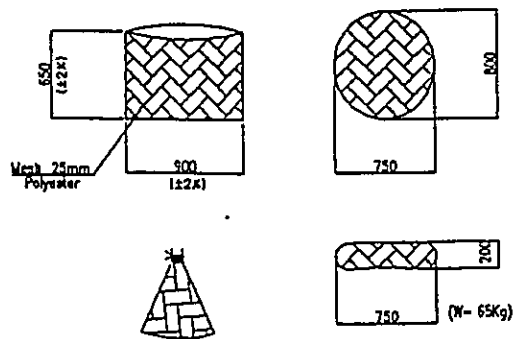
Marking of Pile



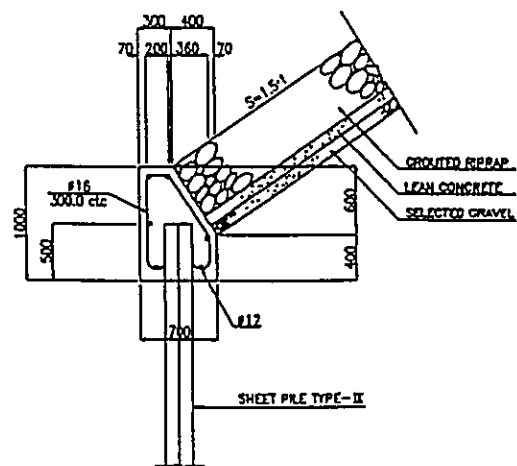
DETELE OF PROTECTION



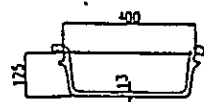
DETELE OF FILTER UNIT
SCALE 1:25 M



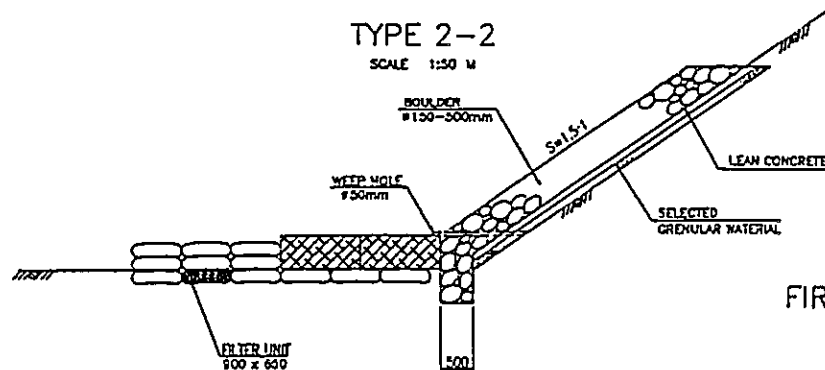
DETELE OF SHEET PILES
SCALE 1:30 M



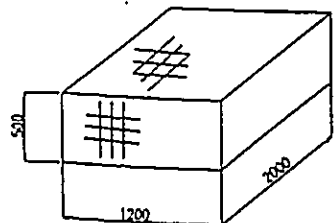
SECTION
SCALE 1:10 M



TYPE 2-2
SCALE 1:30 M

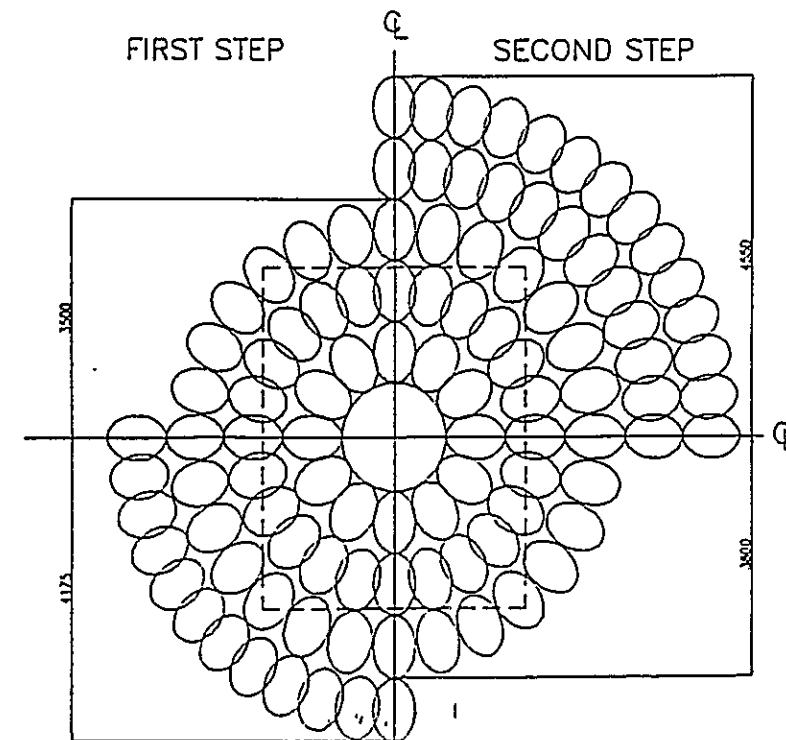


DETELE OF GABION
SCALE 1:25 M



FIRST STEP

SECOND STEP

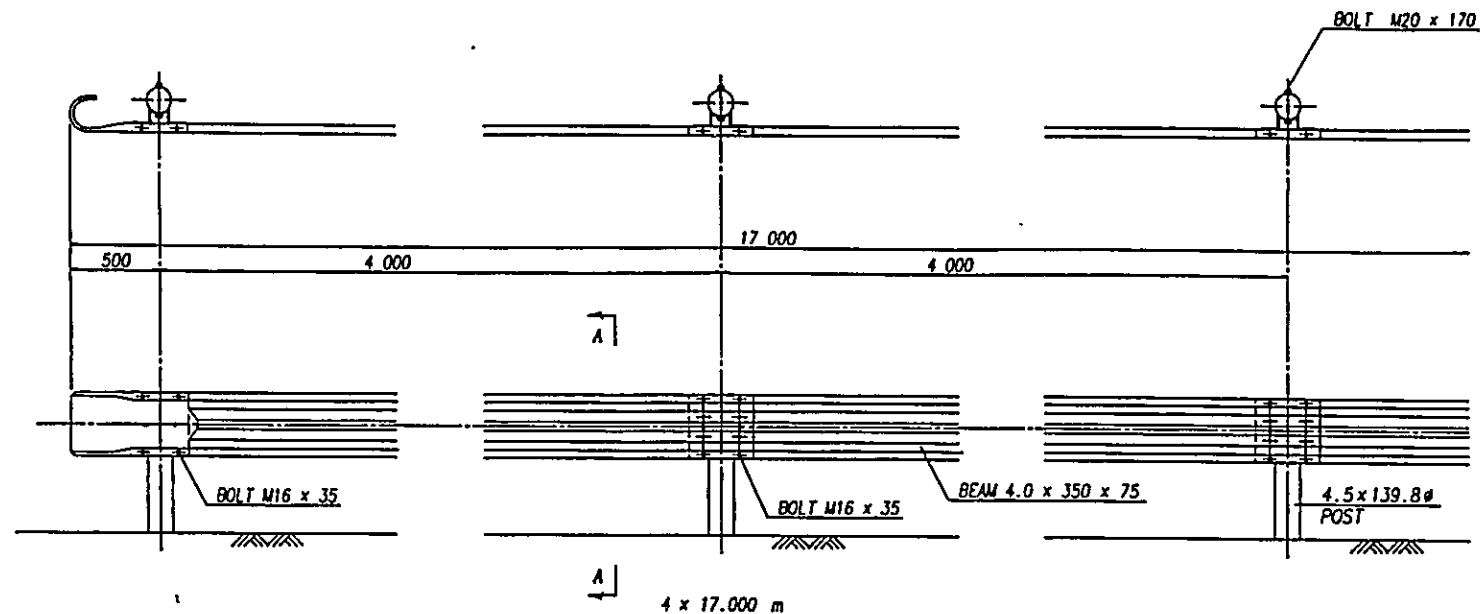


THIRD STEP

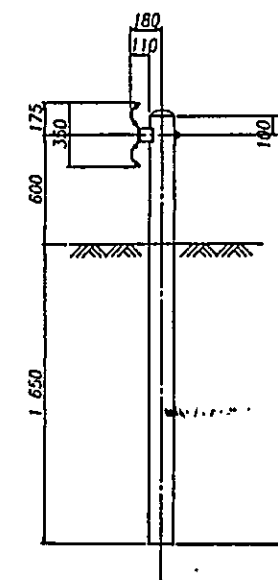
FORTH STEP

BRIDGE NO.		SHEET NO.
	GUARD RAIL	81

GUARD RAIL S=1/20

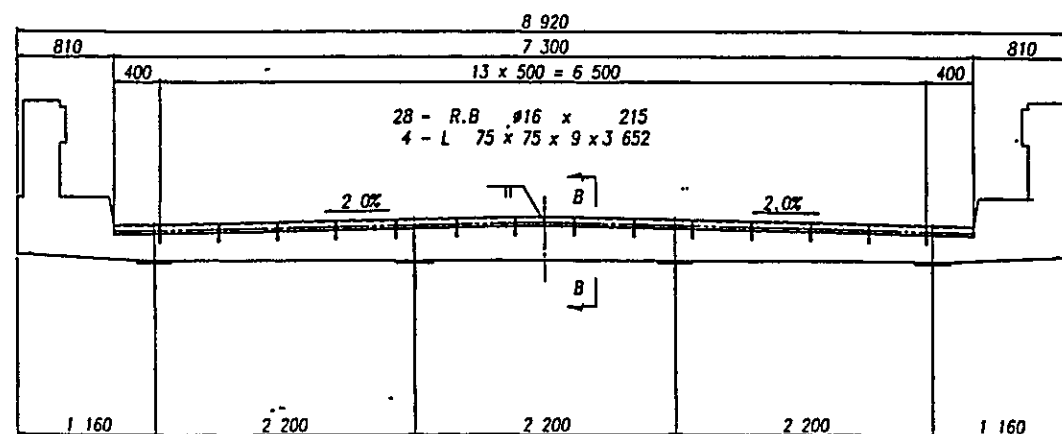


A - A

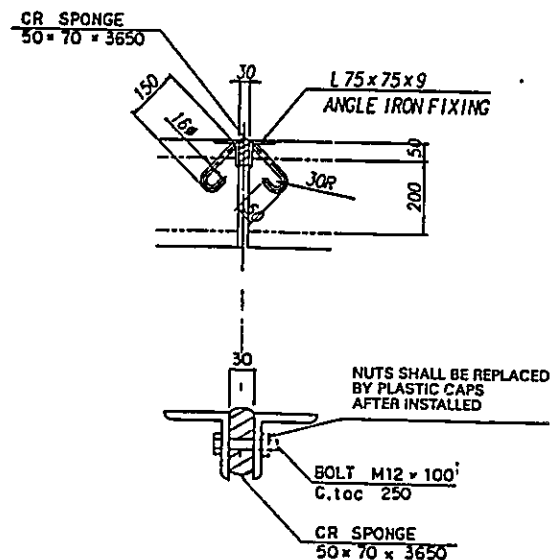


EXPANSION S=1/30

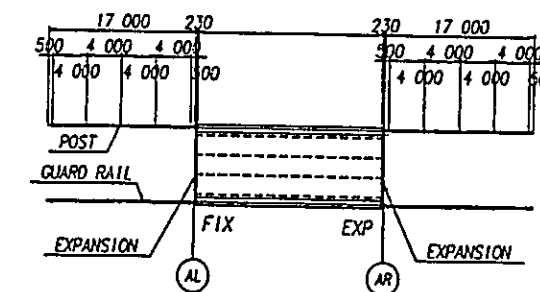
ROCAATION OF ANGLE IRON FIXING



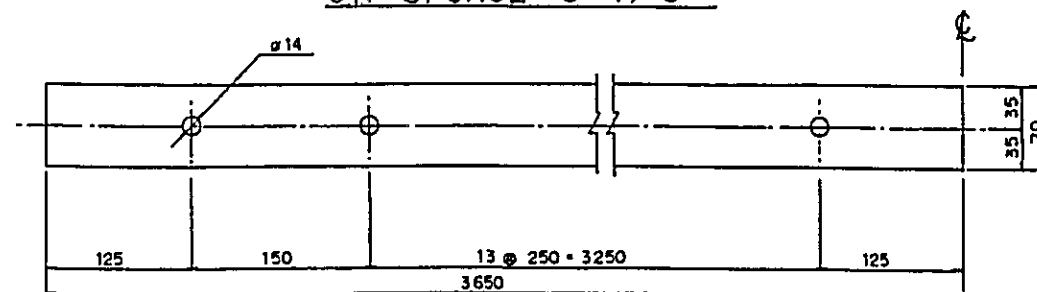
B - B S=1/10



MARKING



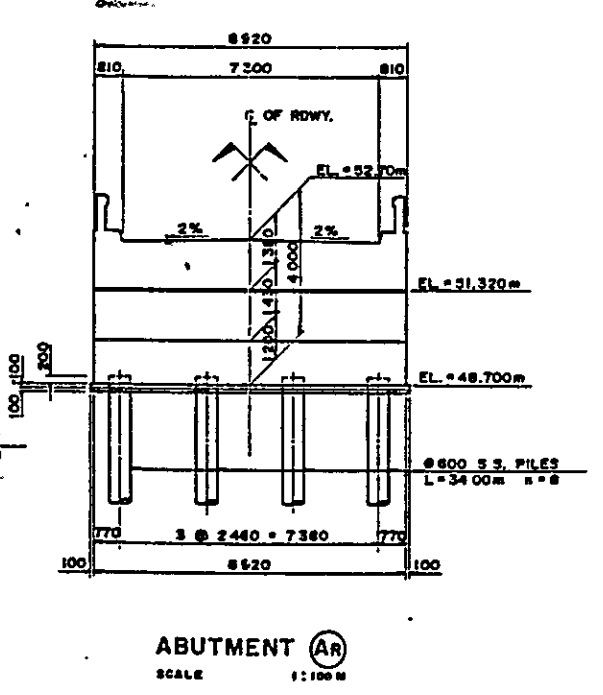
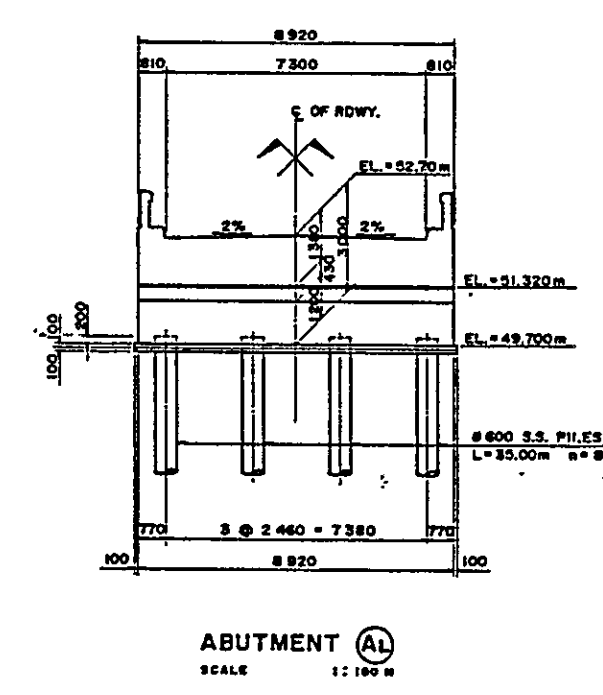
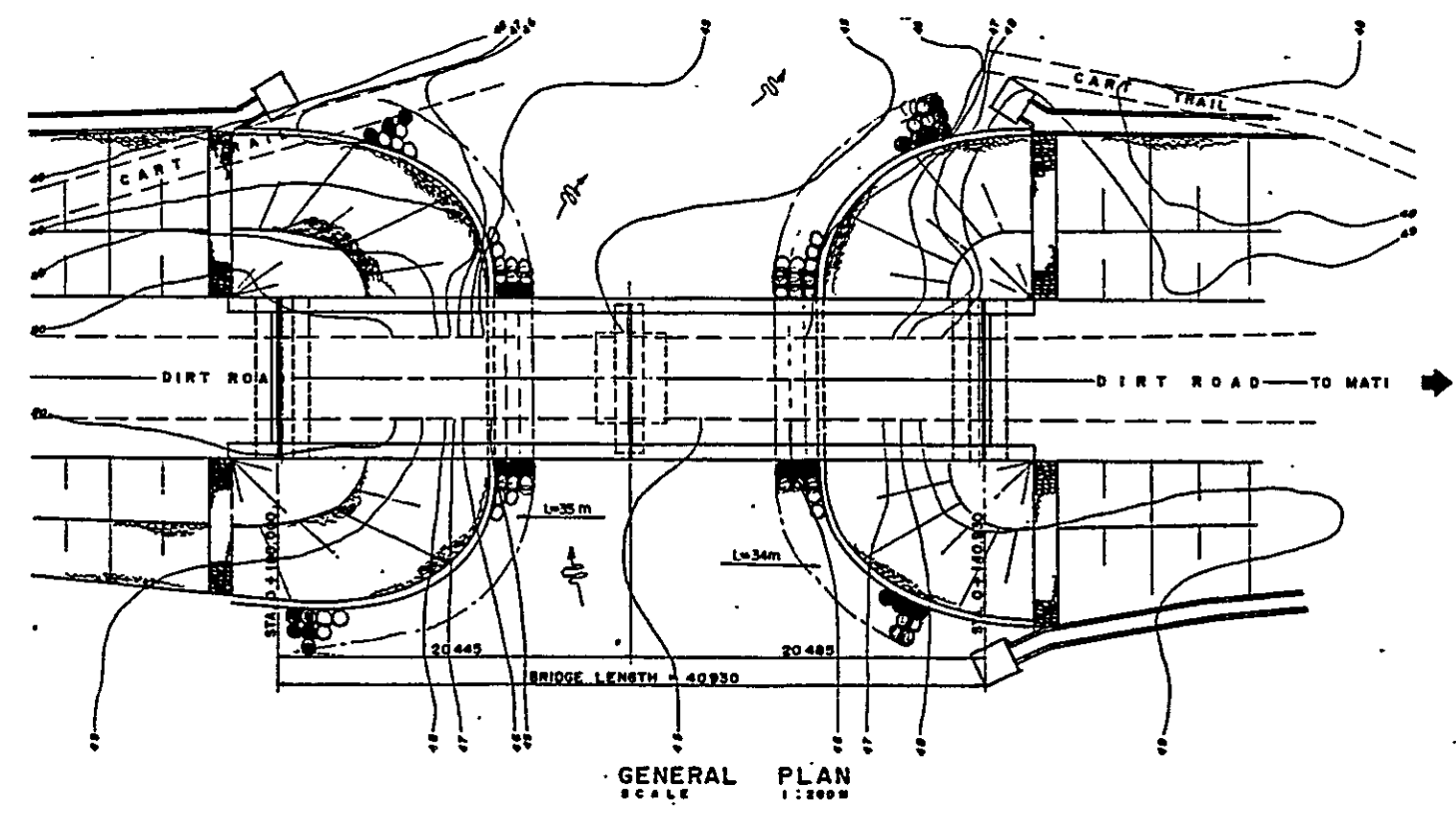
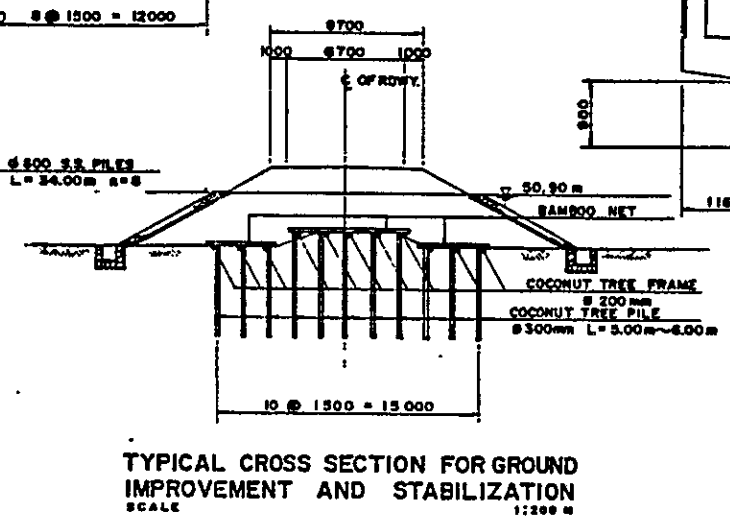
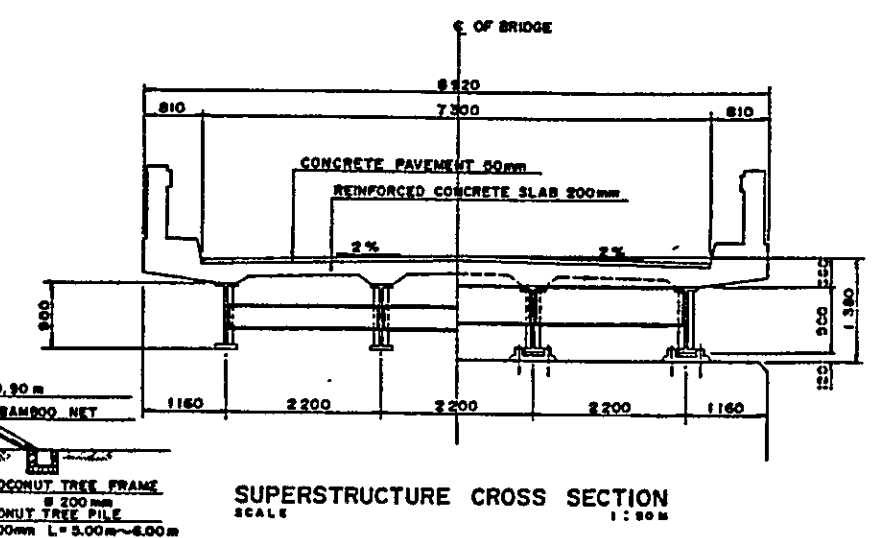
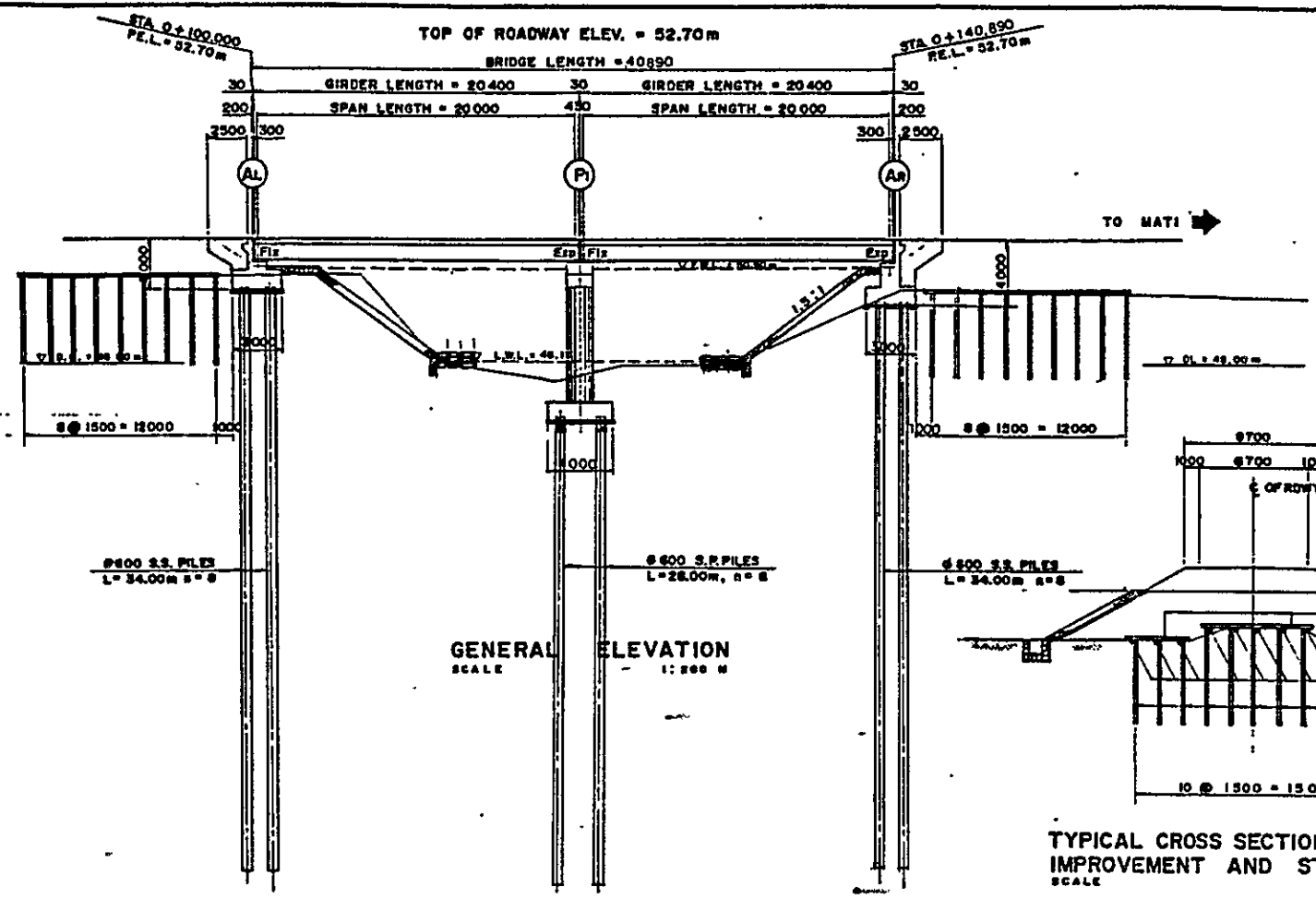
CR SPONGE S=1/3



NOTE
1. MATERIAL NOT SPECIFIED IS SS400

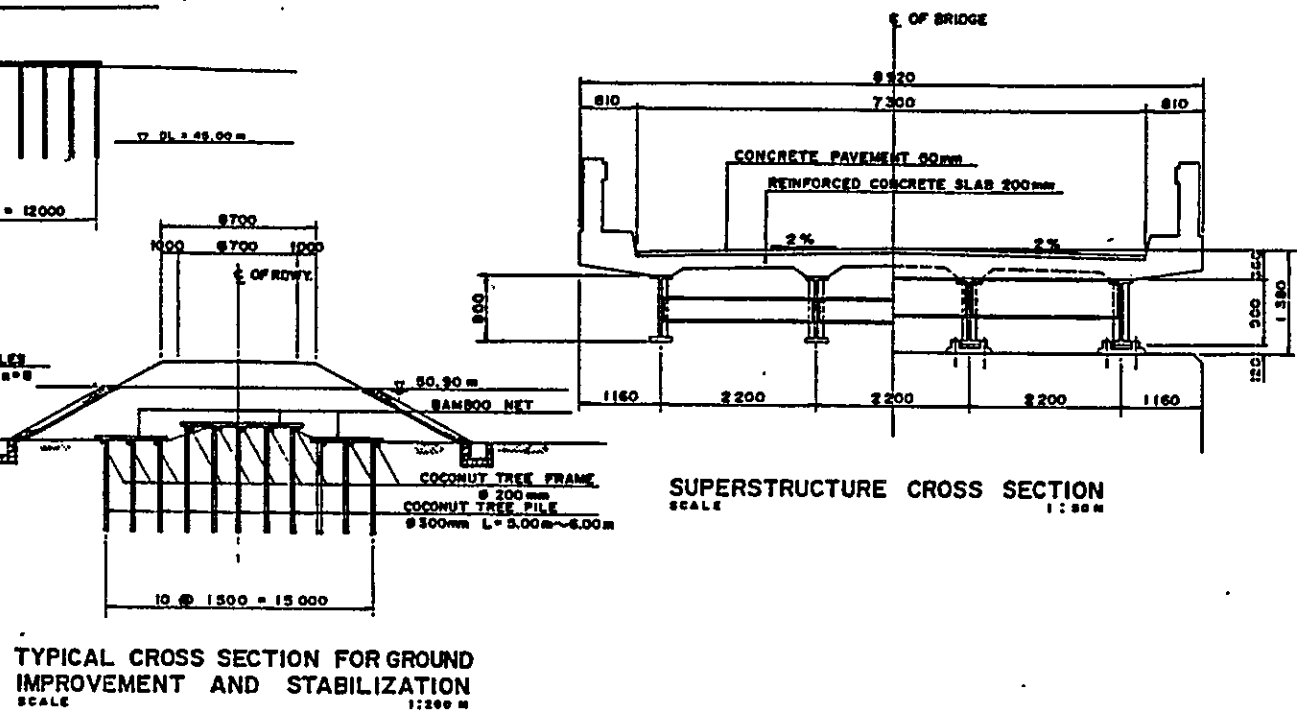
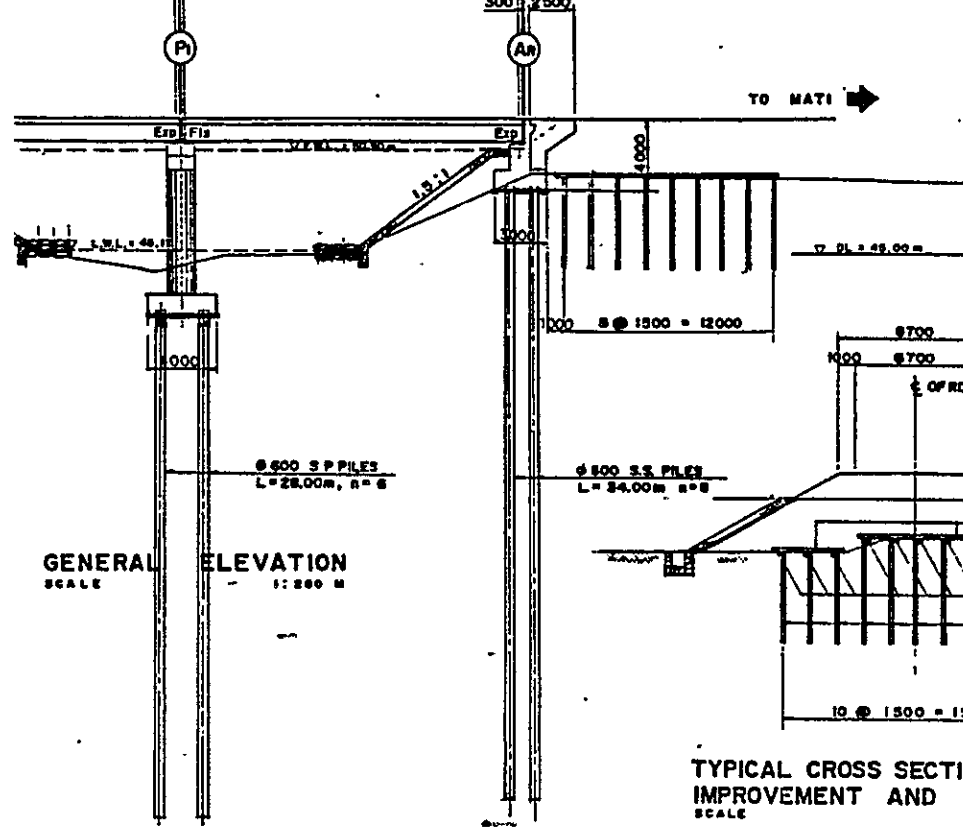
**GENERAL VIEW
OF
BRIDGES
(GROUP 2)**

FOR CONSTRUCTION	
BRIDGE NO.	
	10-01-08

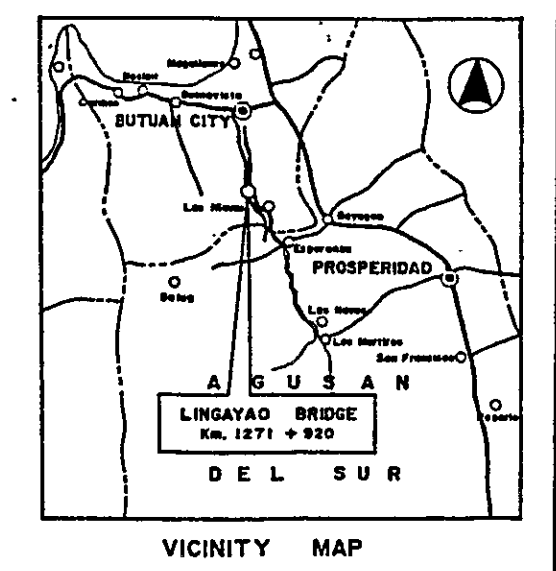
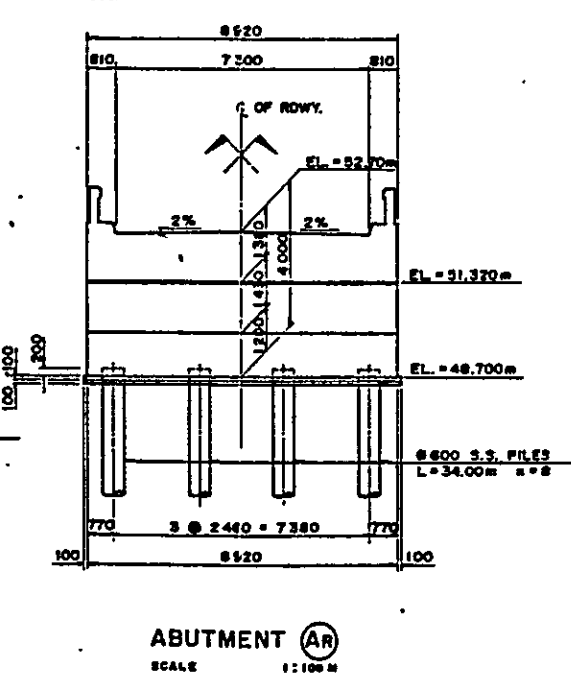
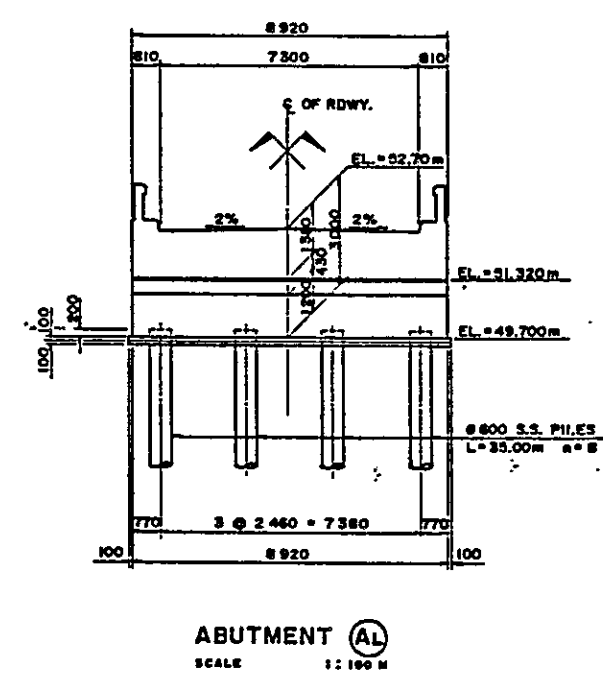
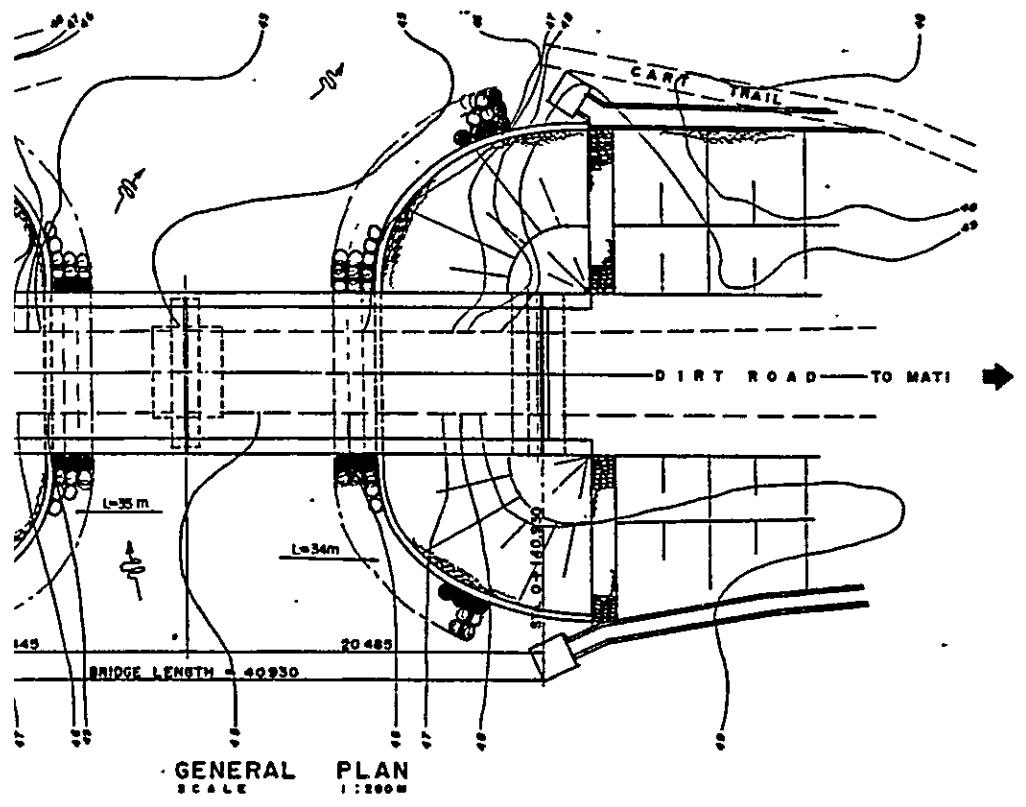
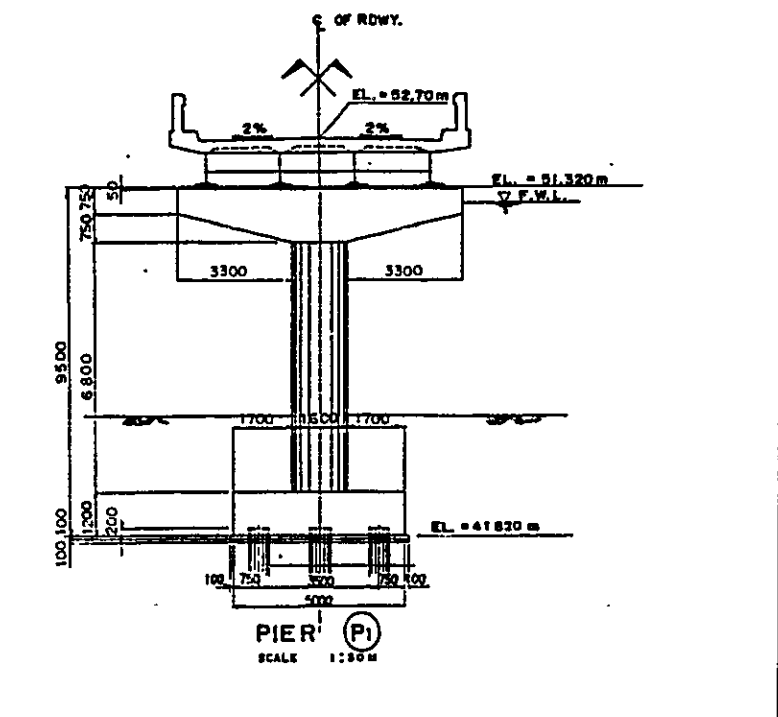


TOP OF ROADWAY ELEV. = 52.70m
 STA 0+140.890
 E.L. = 52.70m

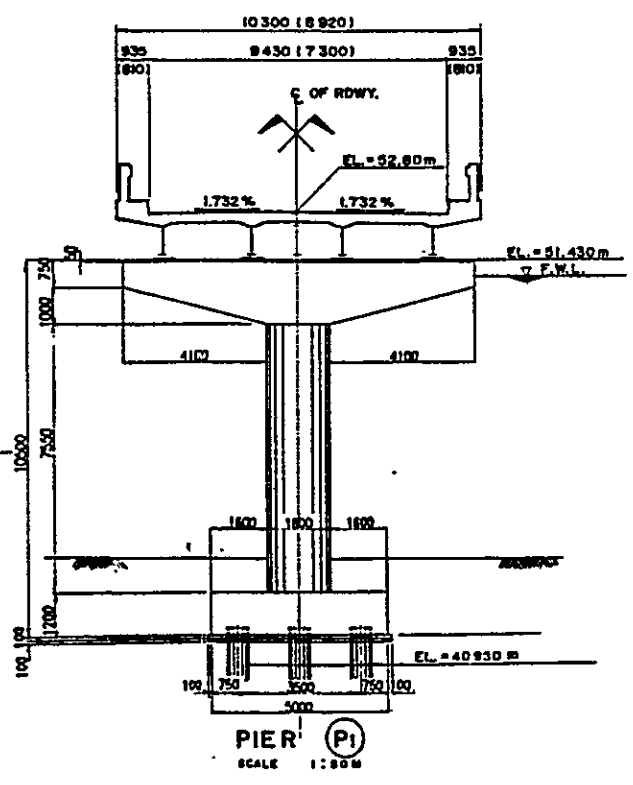
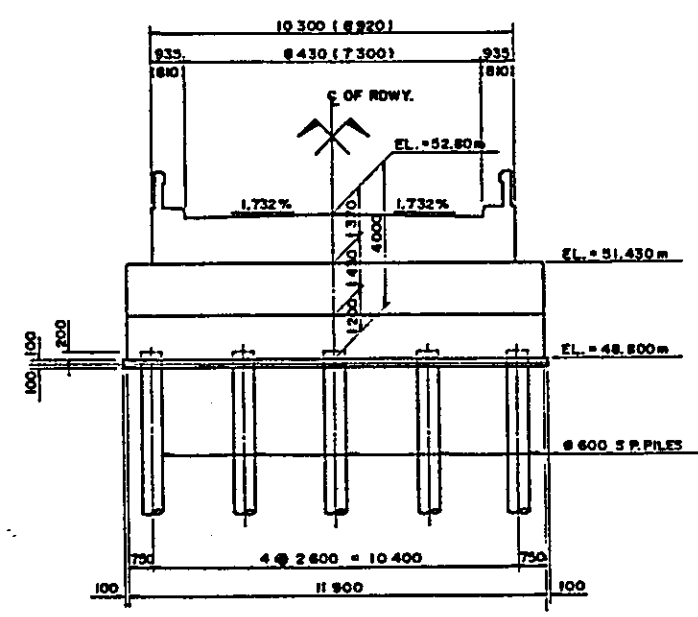
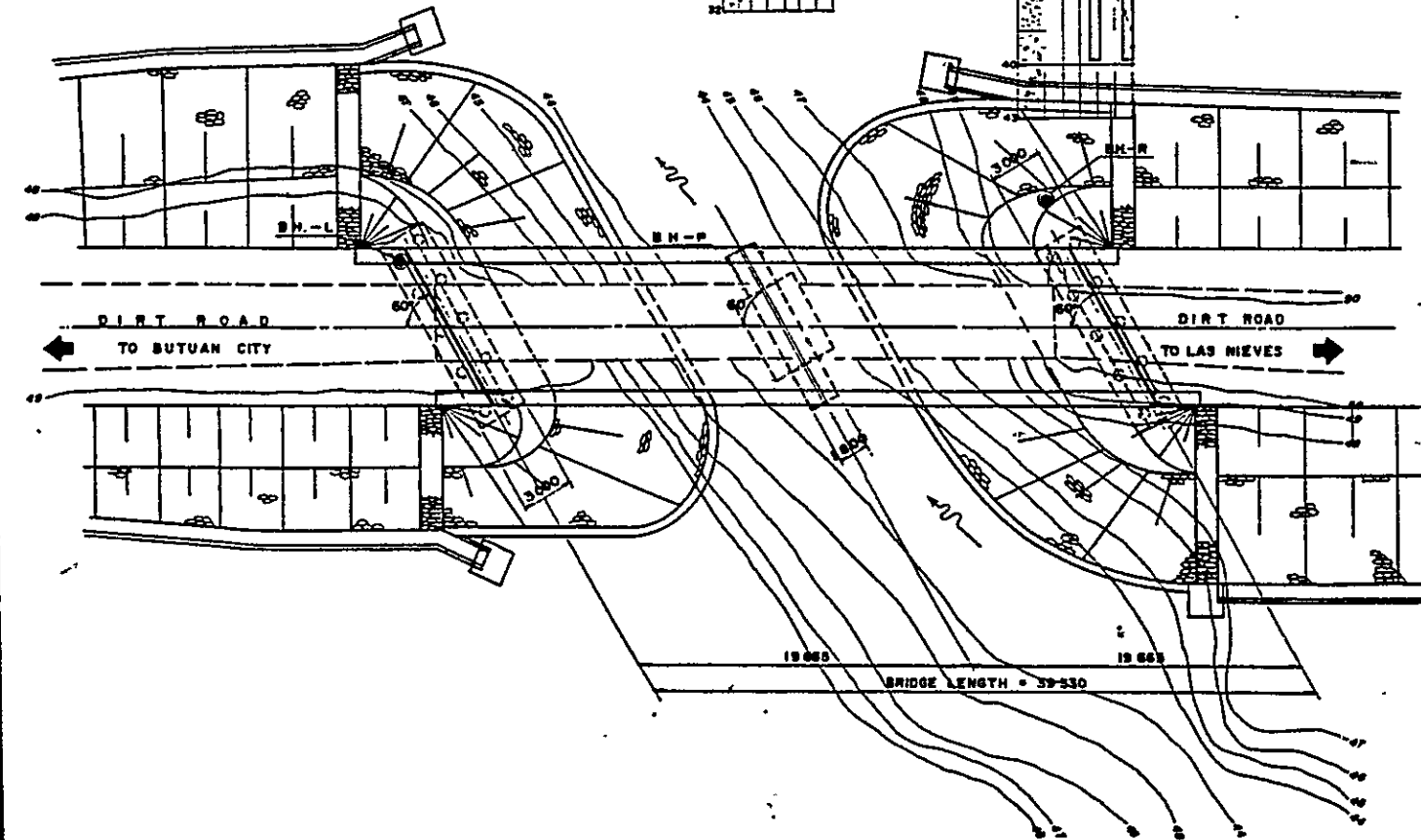
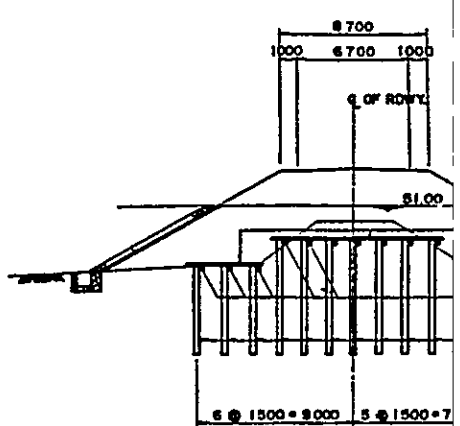
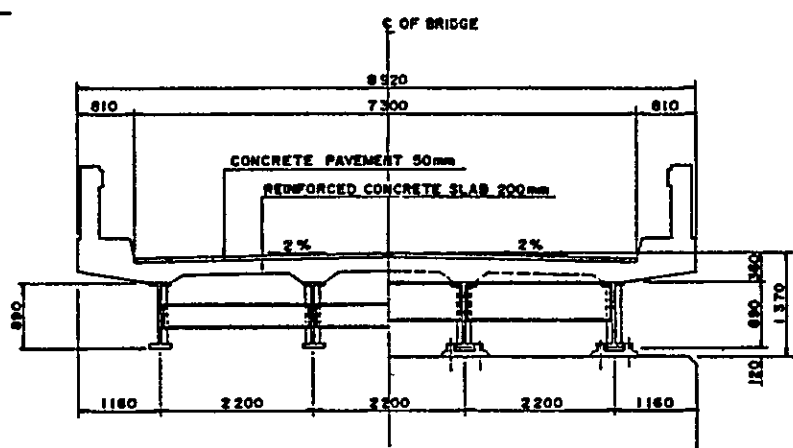
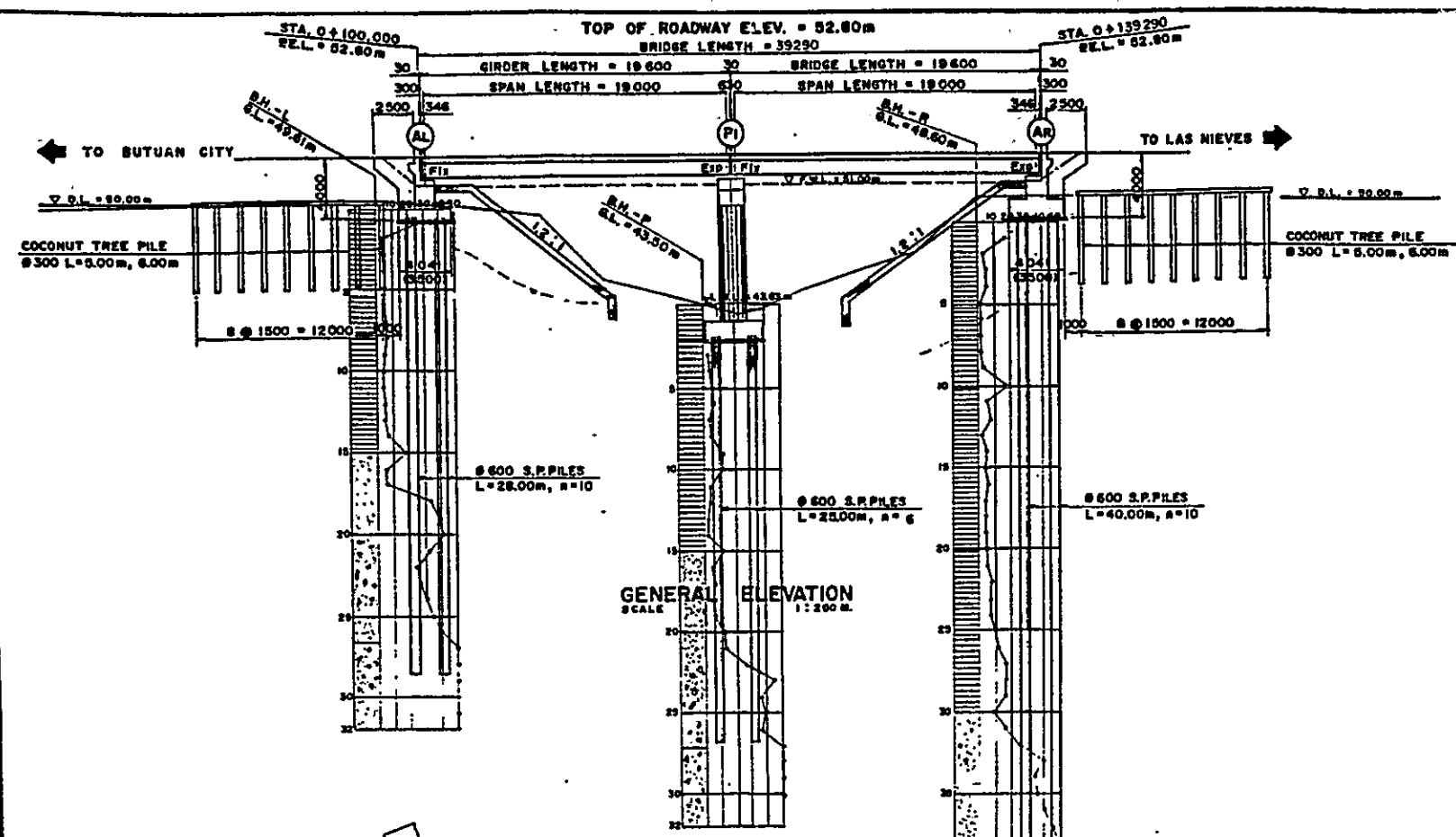
BRIDGE LENGTH = 40.890
 TH = 20.400 30 GIRDER LENGTH = 20.400 30
 I = 20.000 430 SPAN LENGTH = 20.000 200



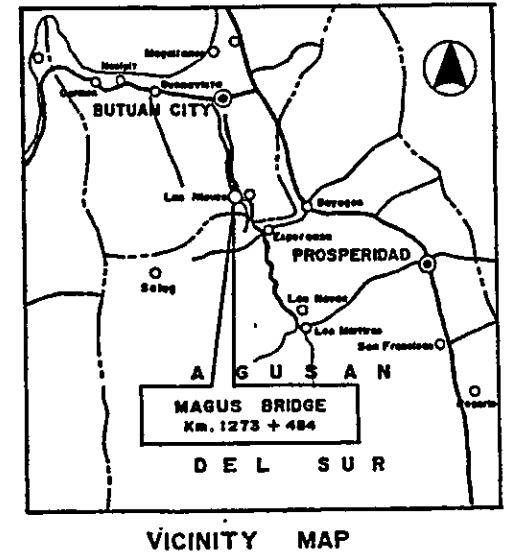
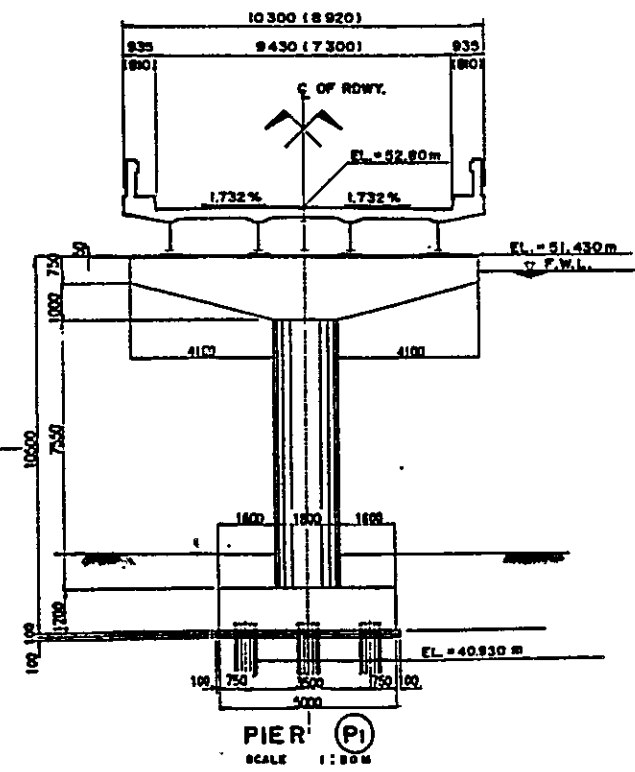
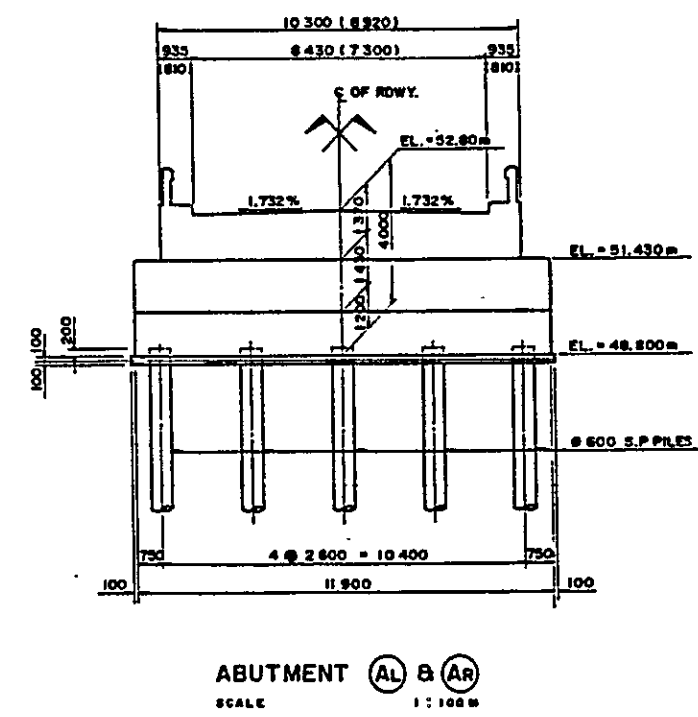
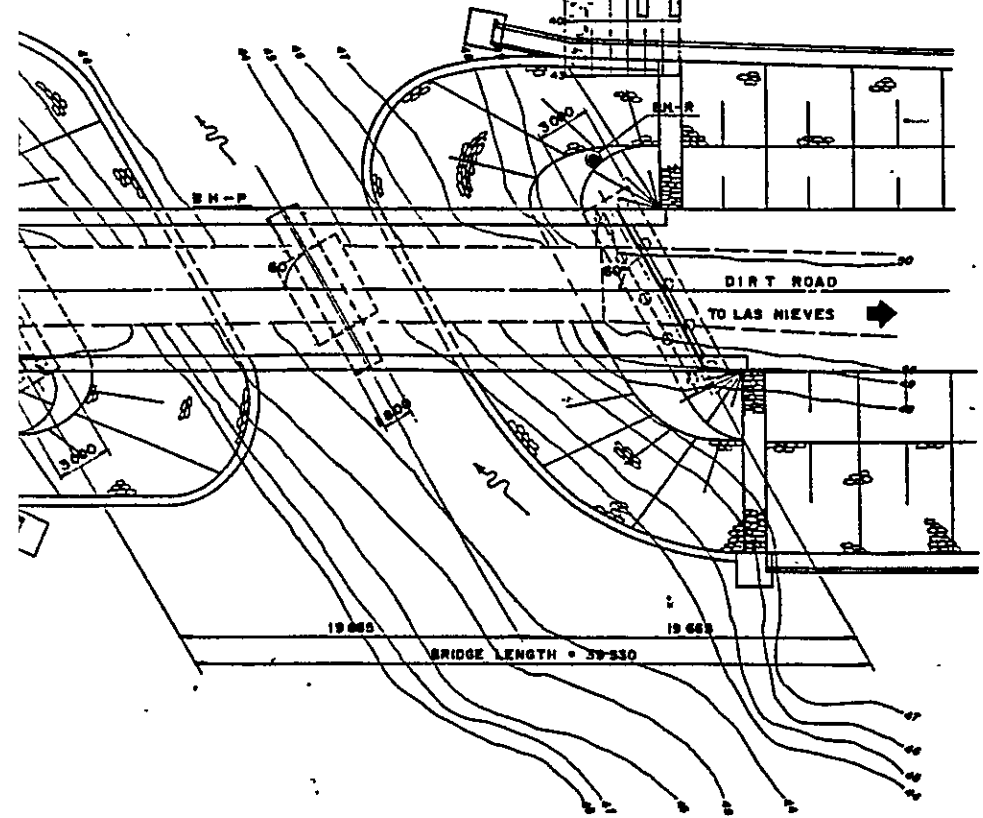
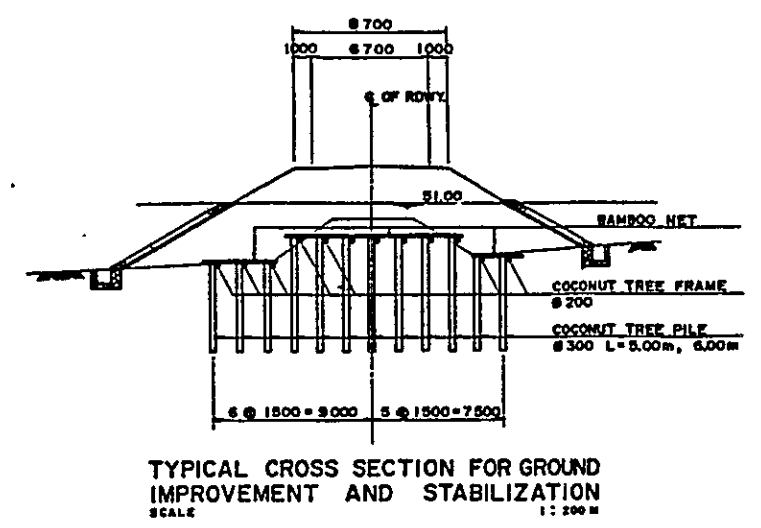
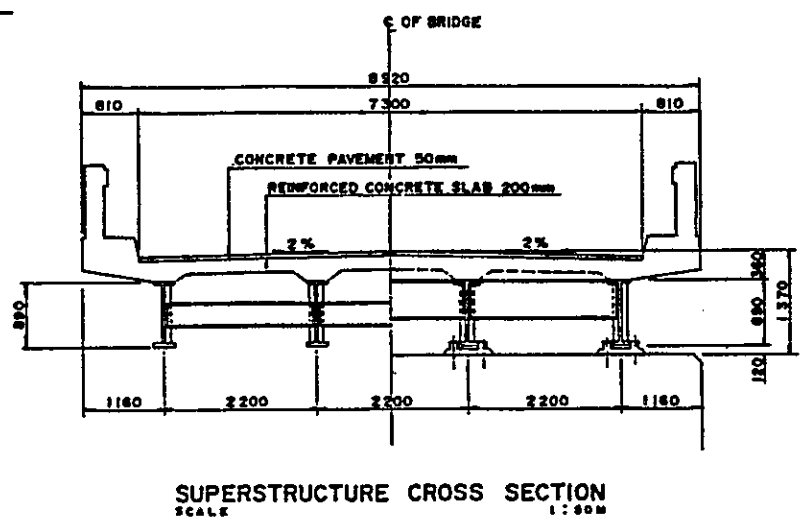
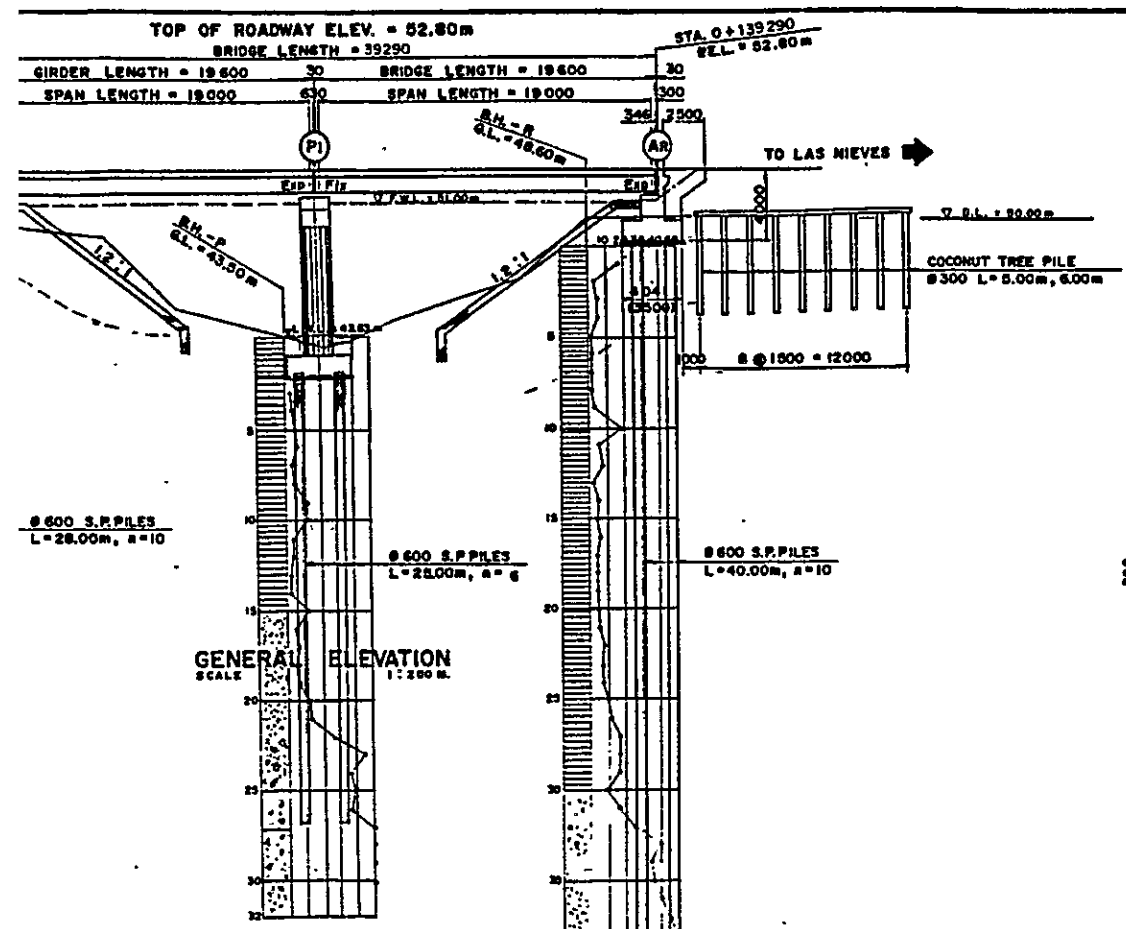
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-01-08	Lingayao	82

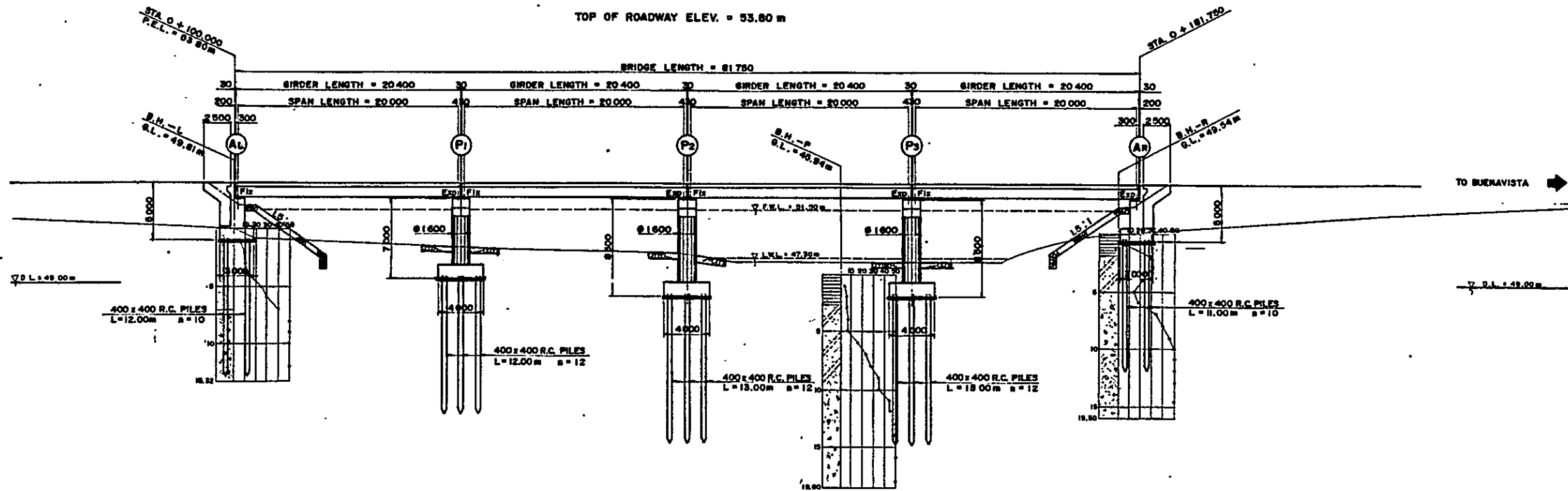


BAS FOR CONSTRUCTION	
BRIDGE NO.	
10-01-09	

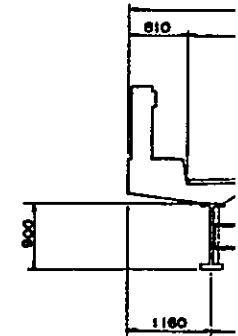


BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN HINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-01-09	Magus	83

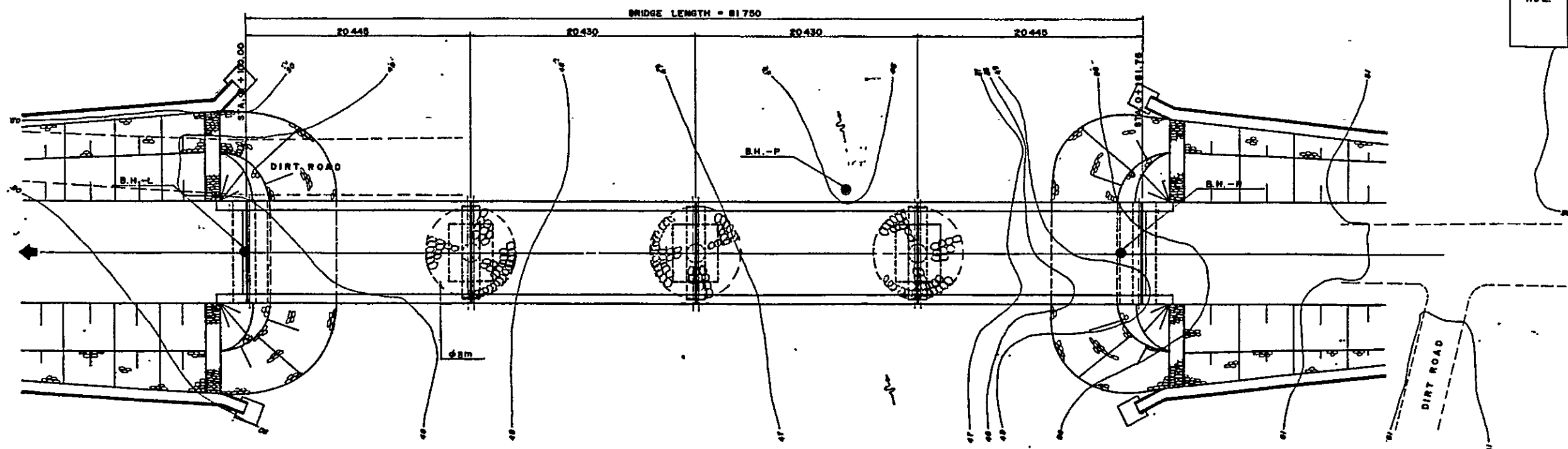




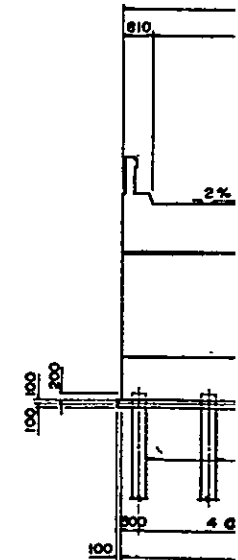
GENERAL ELEVATION
SCALE 1:200 M



St
sc

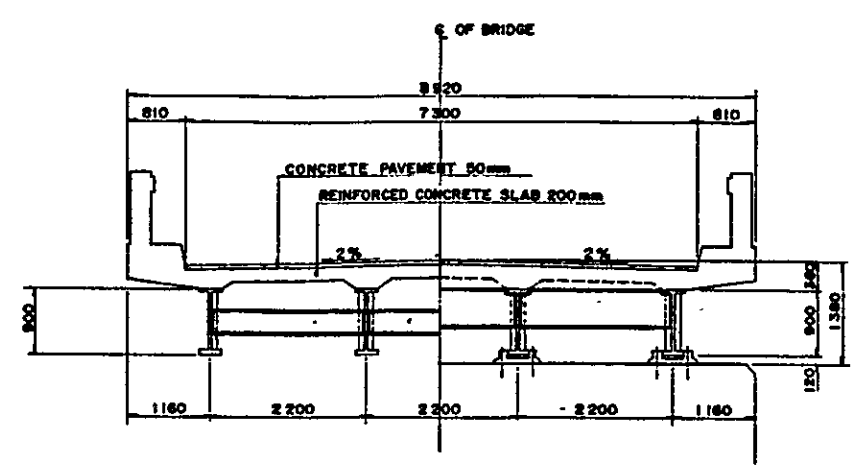
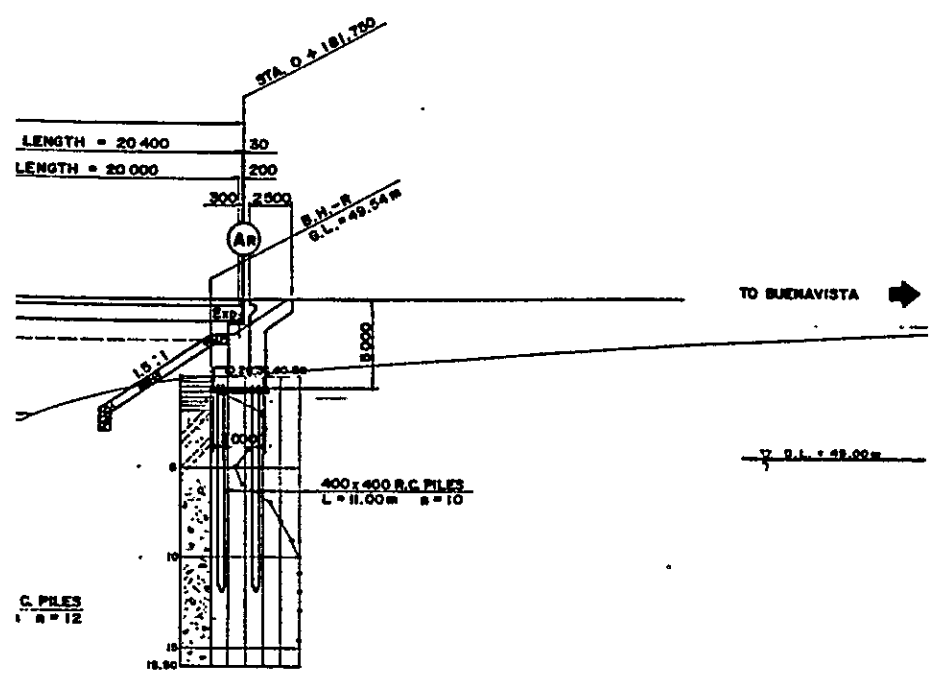


GENERAL PLAN
SCALE 1:200 M

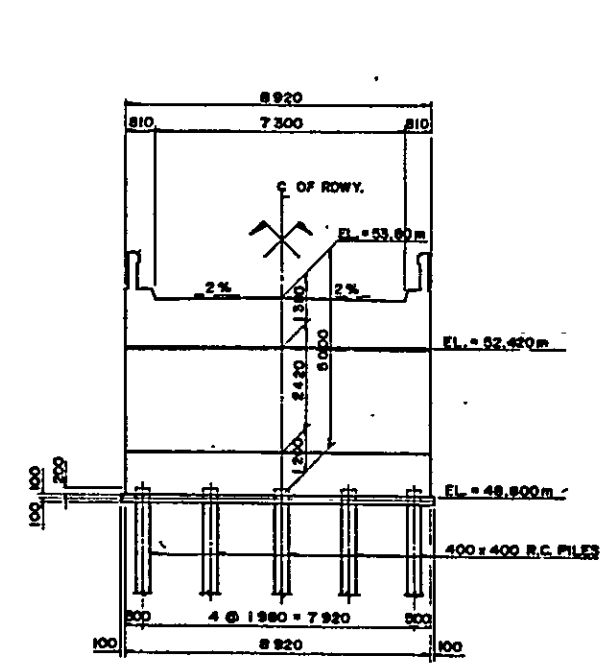
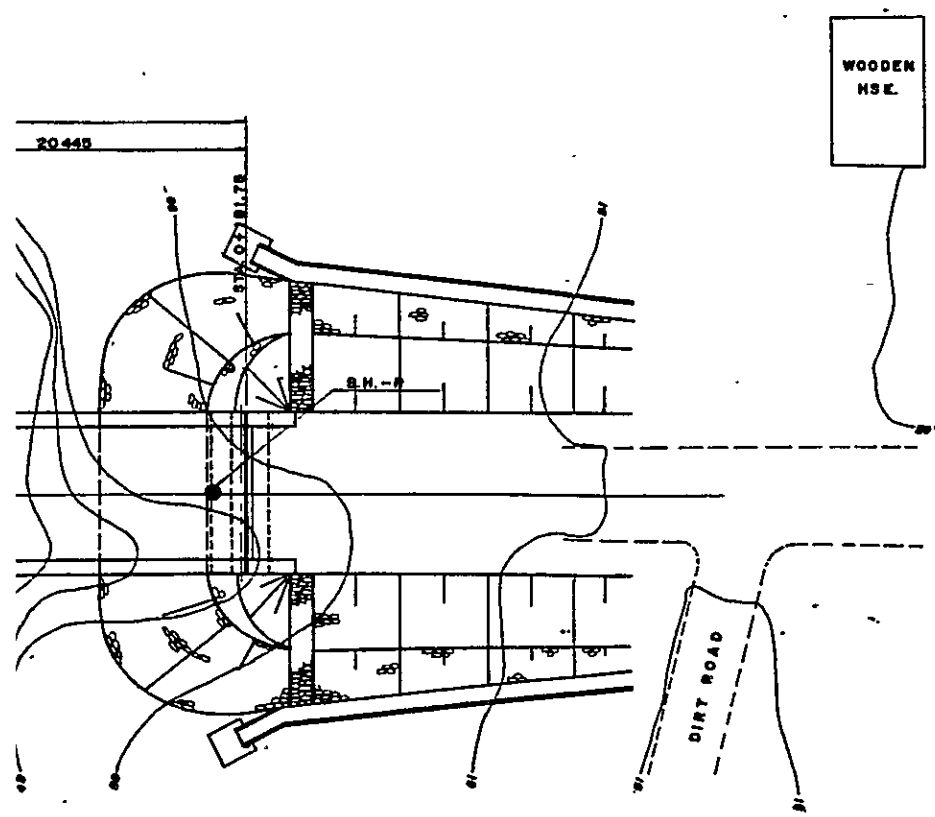


ABUTME
SCALE

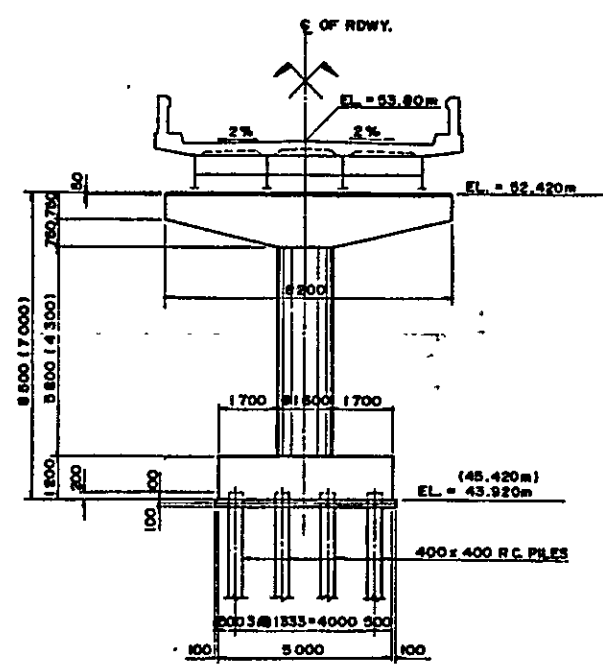
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-01-10	Rizal	84



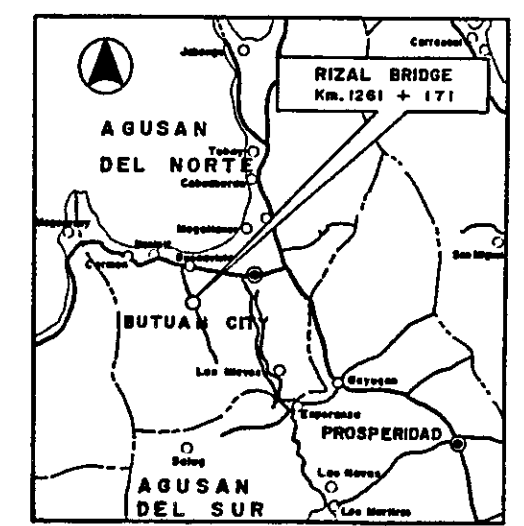
SUPERSTRUCTURE CROSS SECTION
SCALE 1:80M



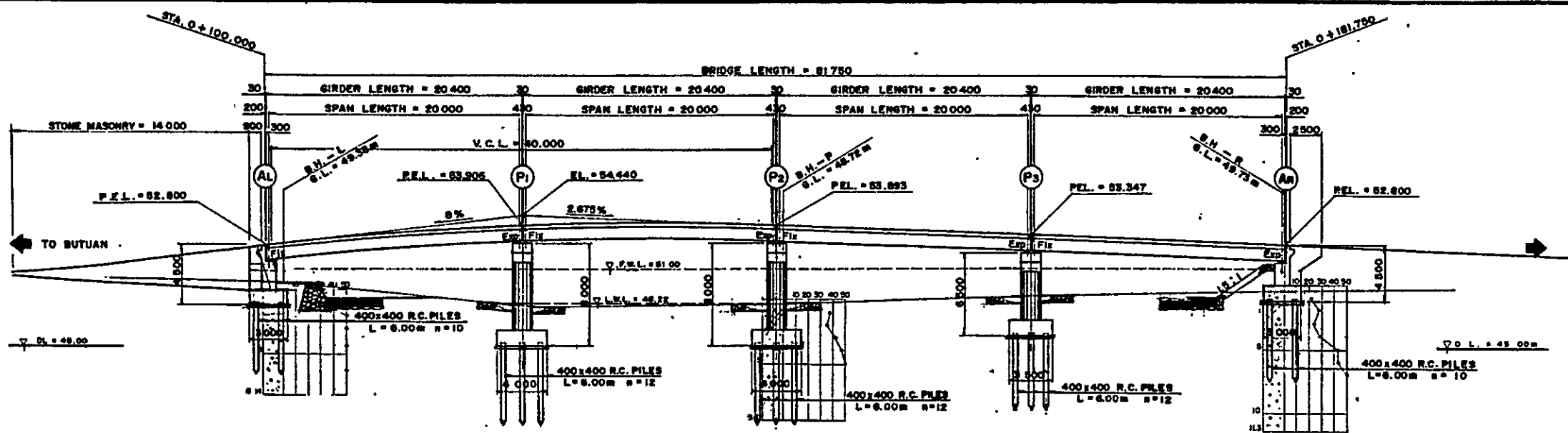
ABUTMENT (AL & AR)
SCALE 1:100M



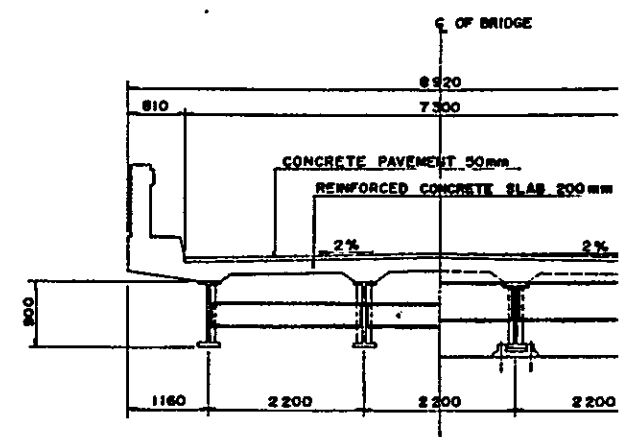
PIER (P2, P3, (P1))
SCALE 1:100M



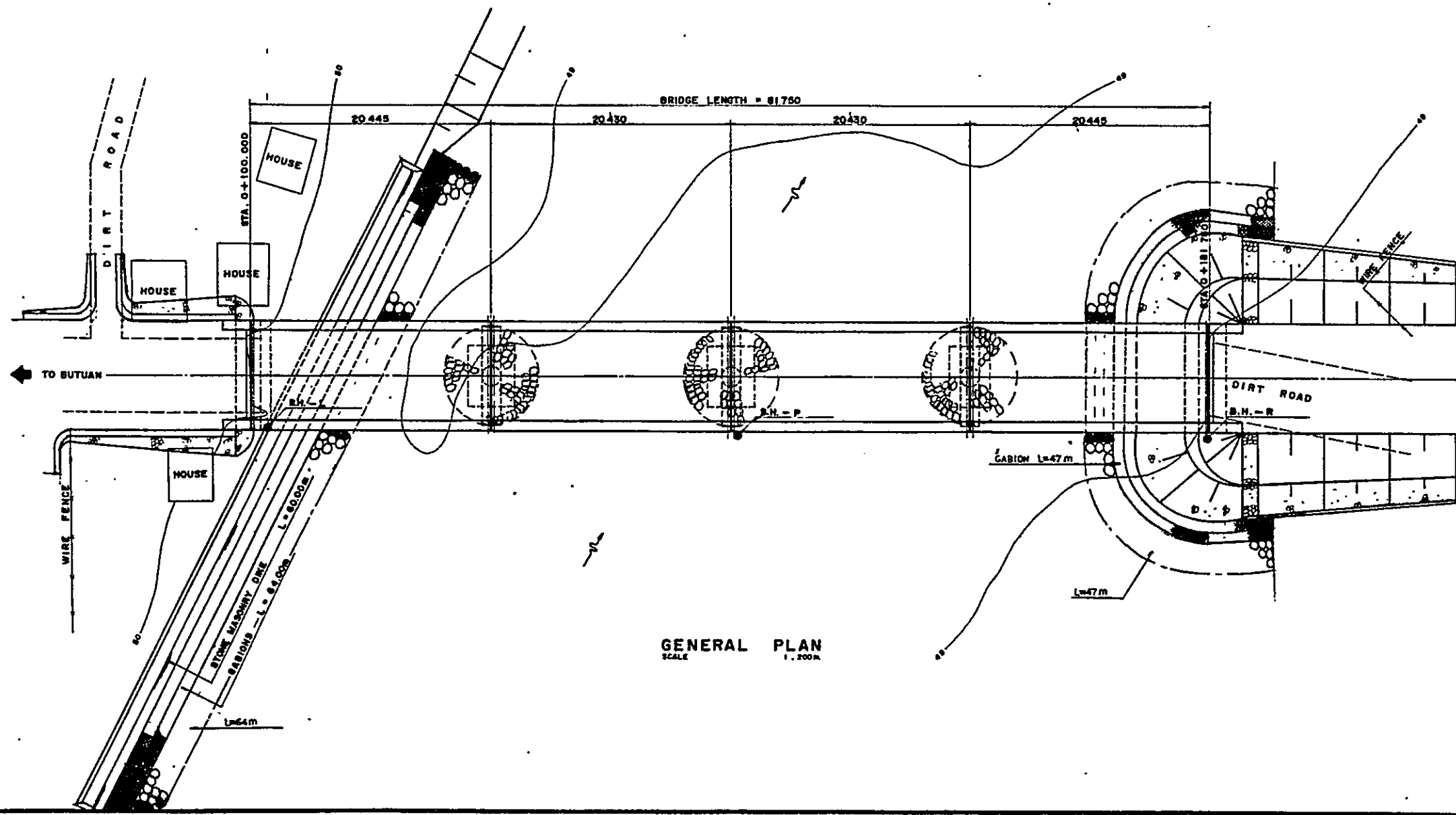
VICINITY MAP



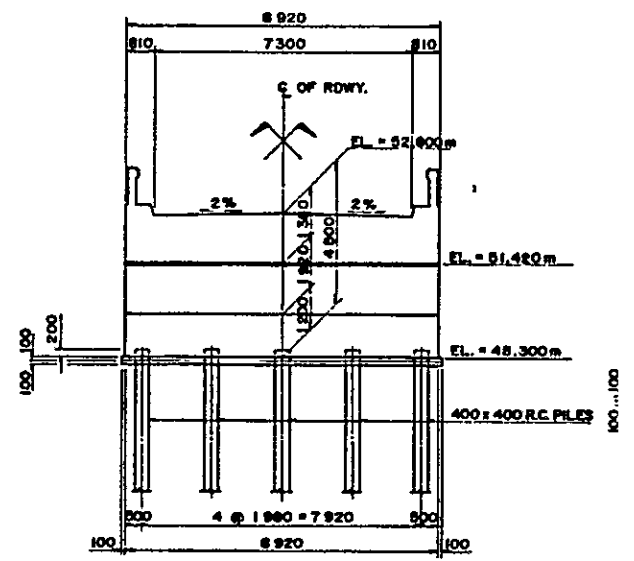
GENERAL ELEVATION
SCALE 1:200M



SUPERSTRUCTURE CROSS SECTION
SCALE 1:100

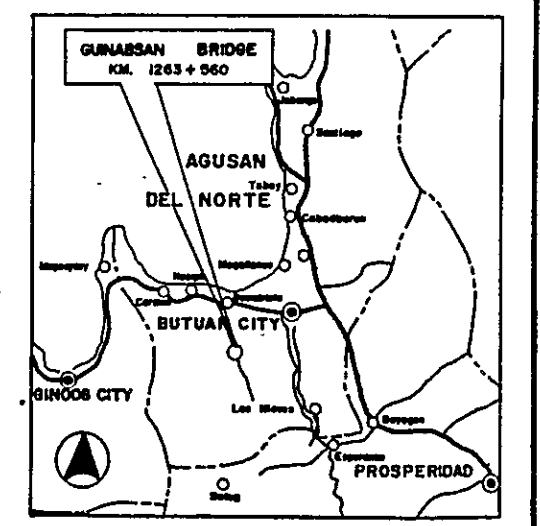
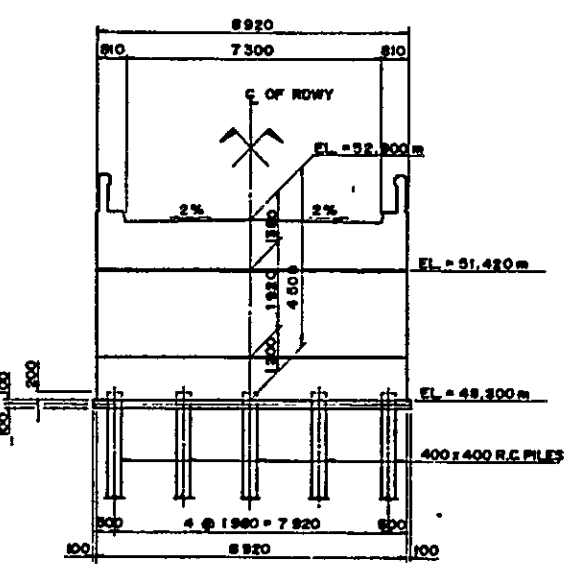
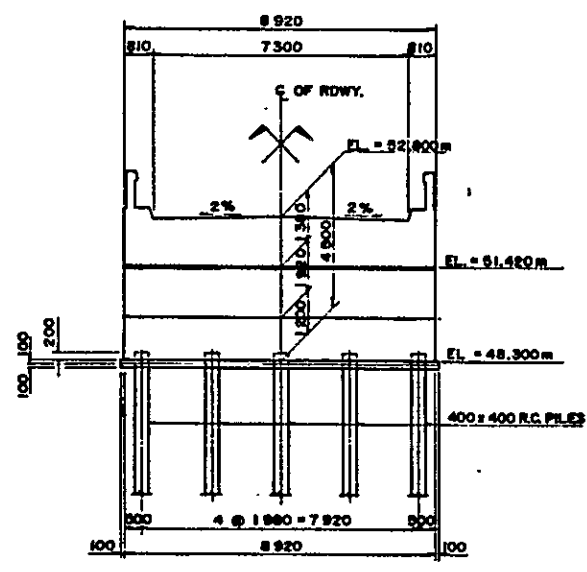
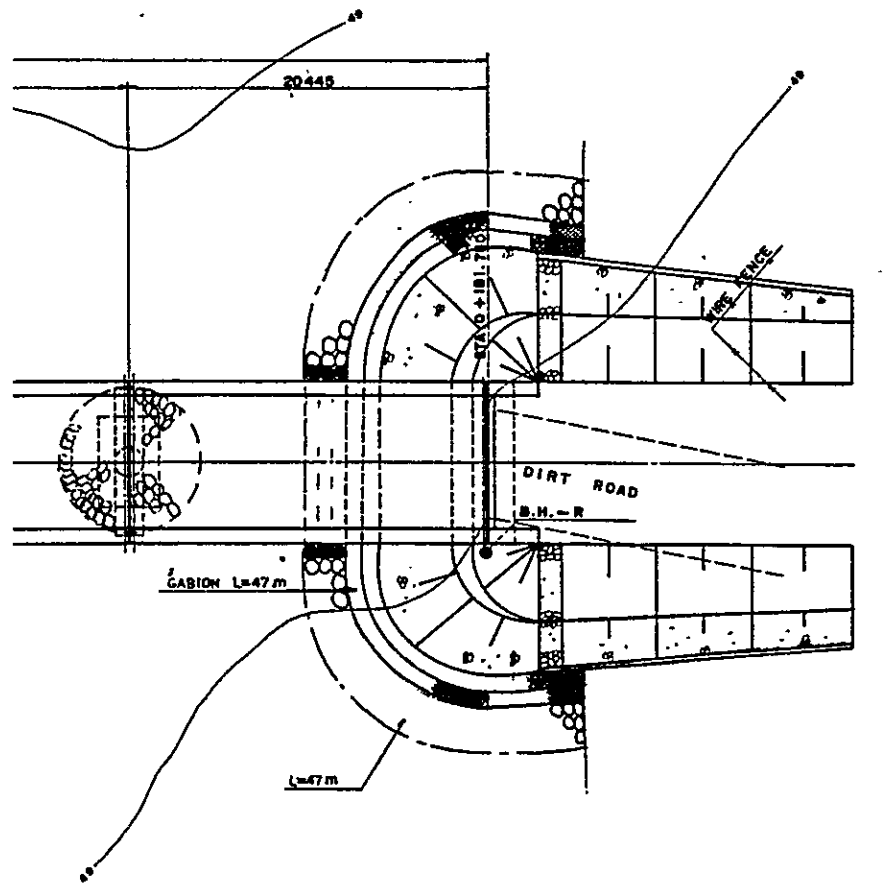
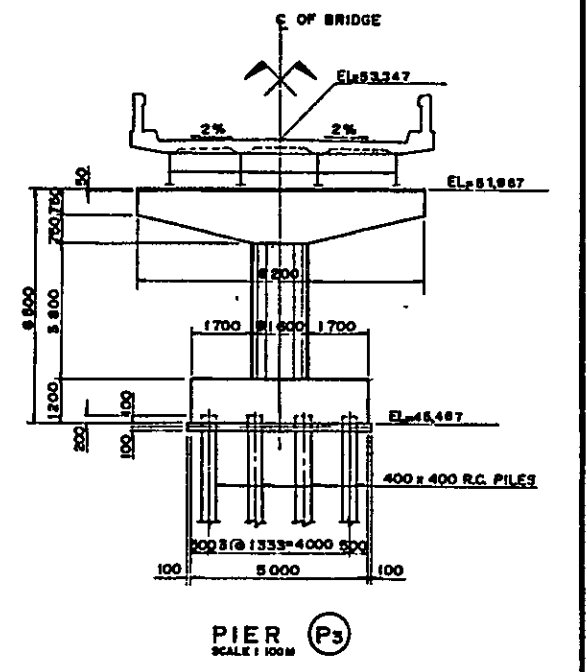
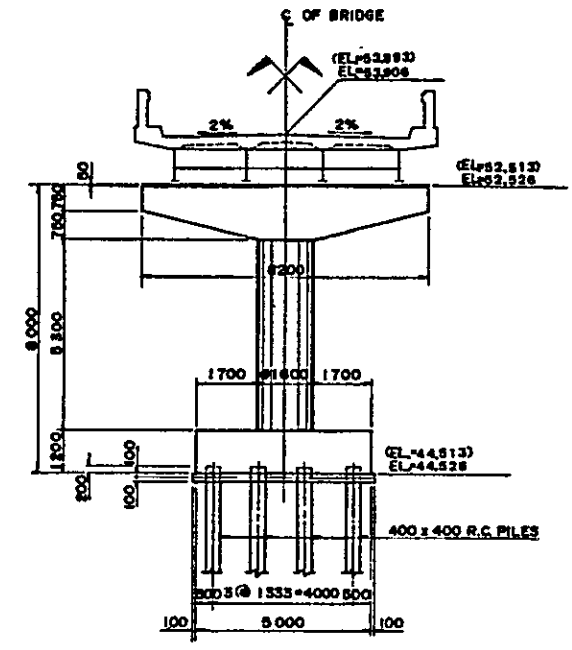
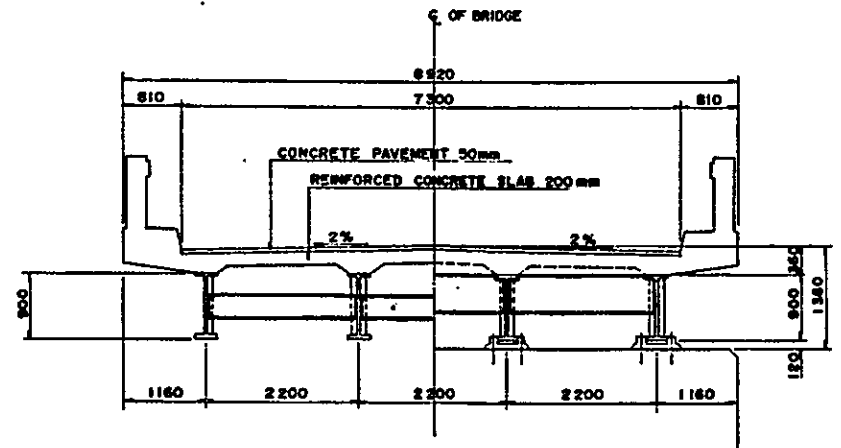
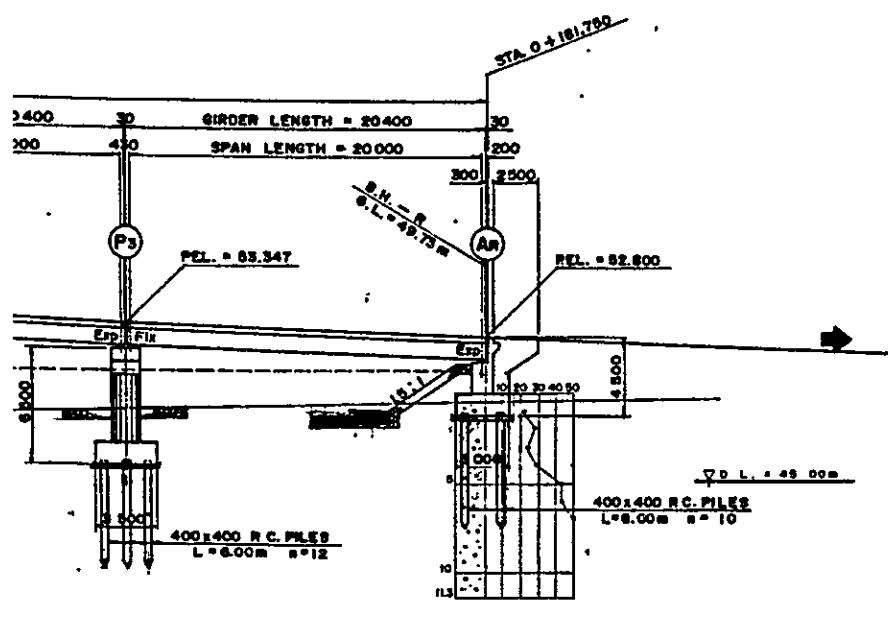


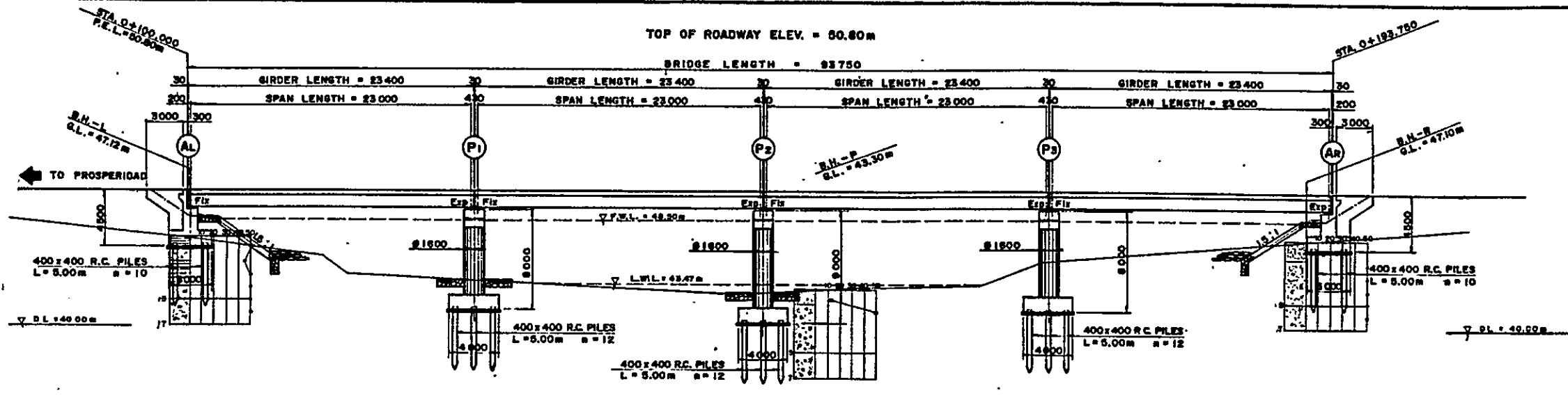
GENERAL PLAN
SCALE 1:200M



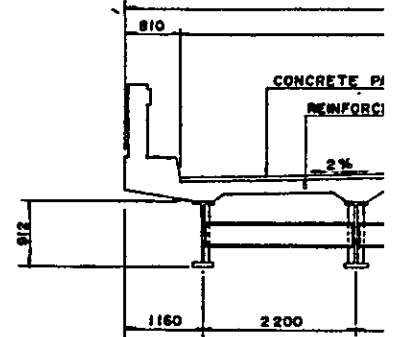
ABUTMENT (A1)
SCALE 1:100M

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-01-12	Guinabsan	85

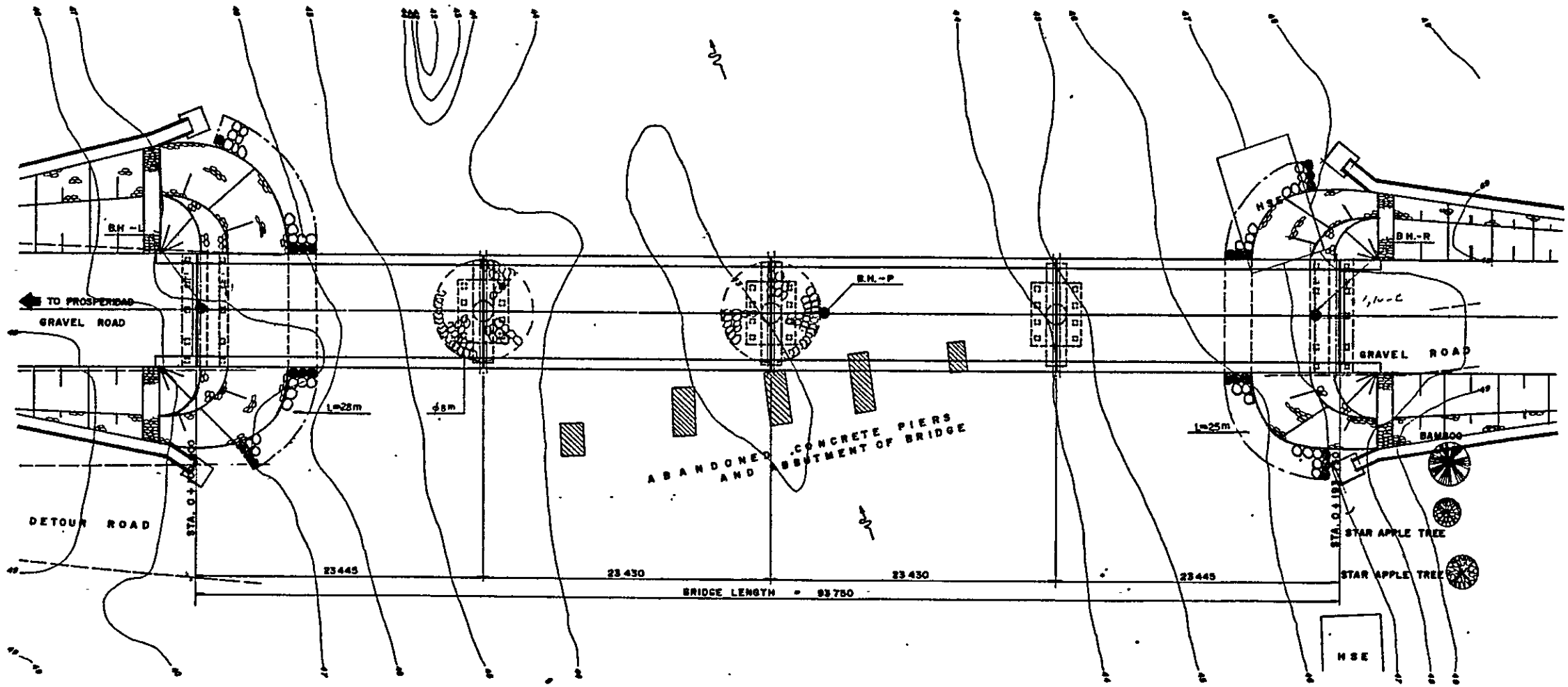




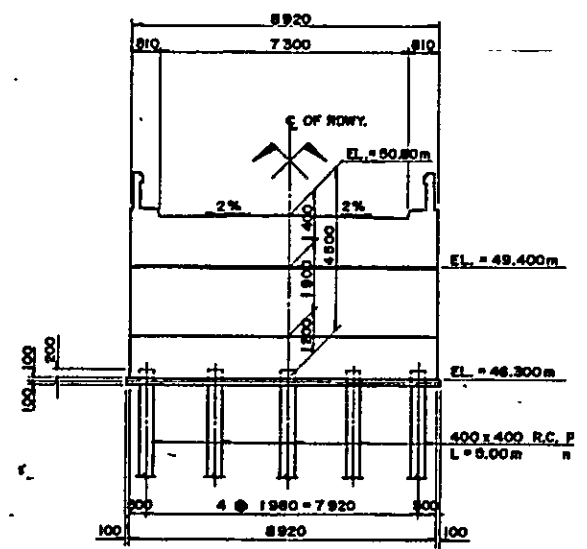
GENERAL ELEVATION
SCALE 1 : 200 M



SUPERSTRUCTURE
SCALE

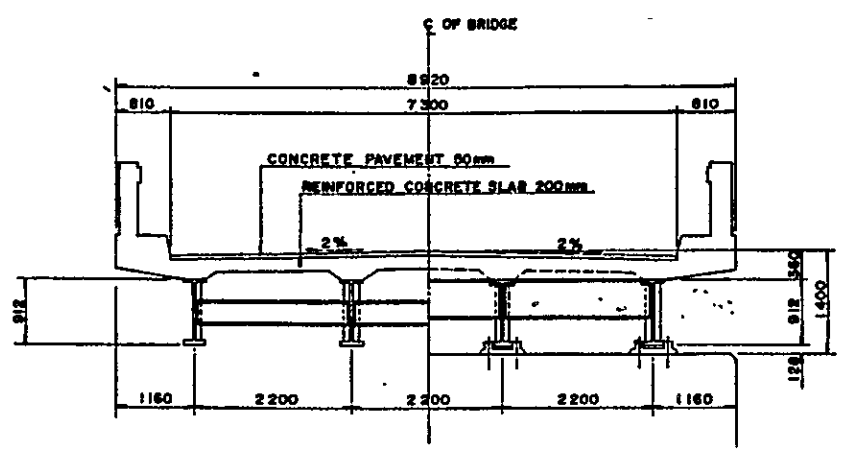
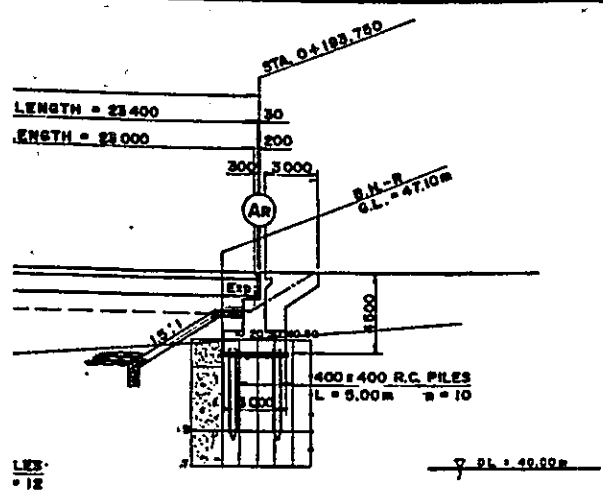


GENERAL PLAN
SCALE 1 : 200 M

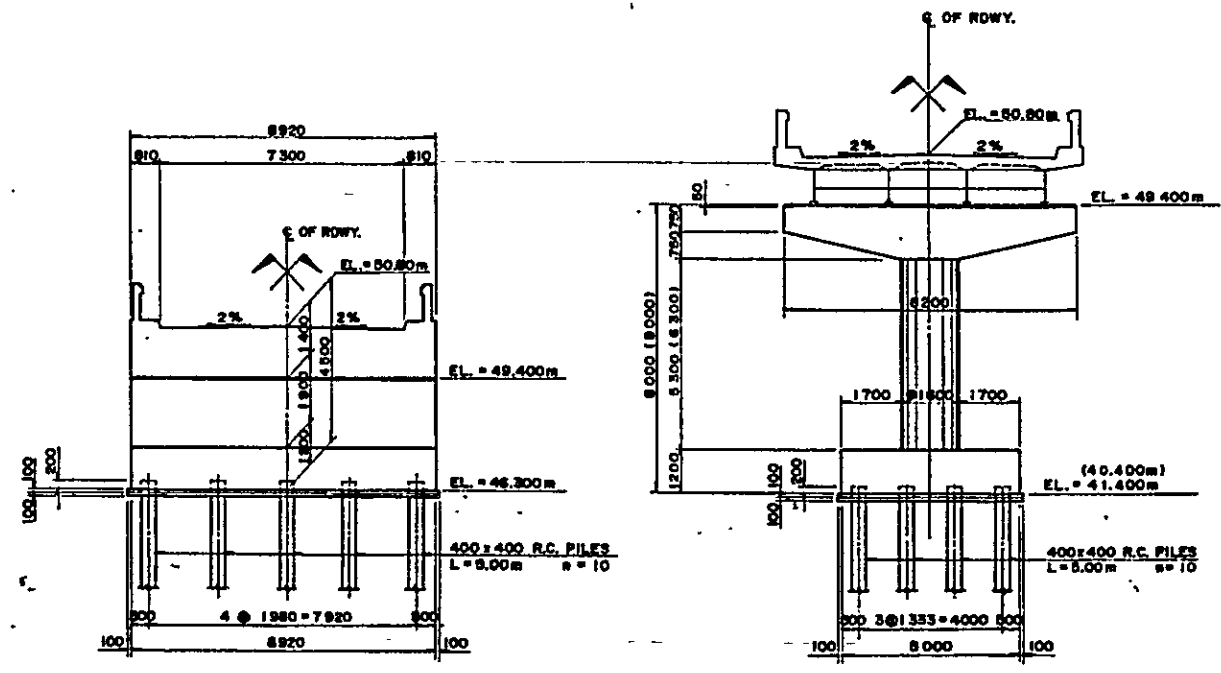
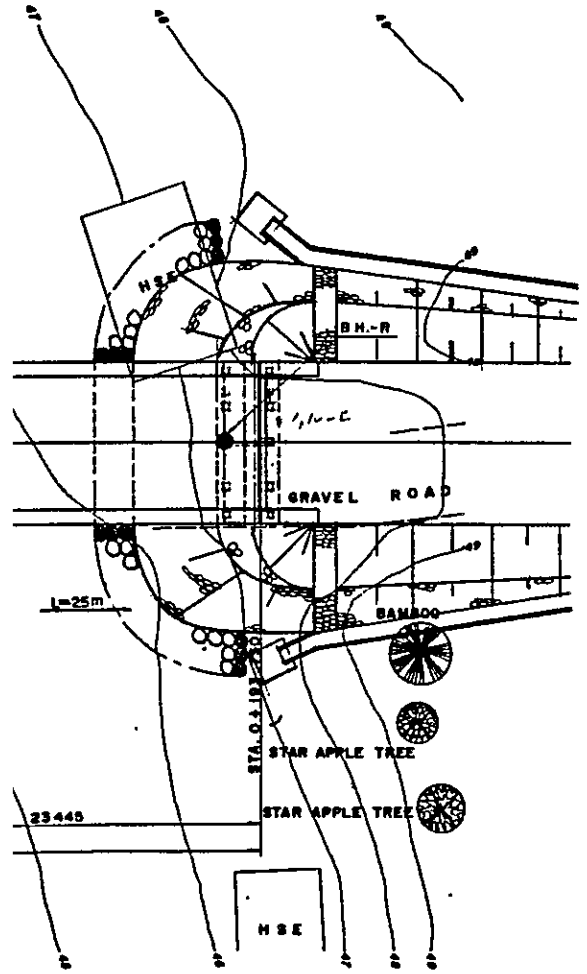


ABUTMENT (AL & AR)
SCALE 1 : 100 M

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-02-04	Maog	86

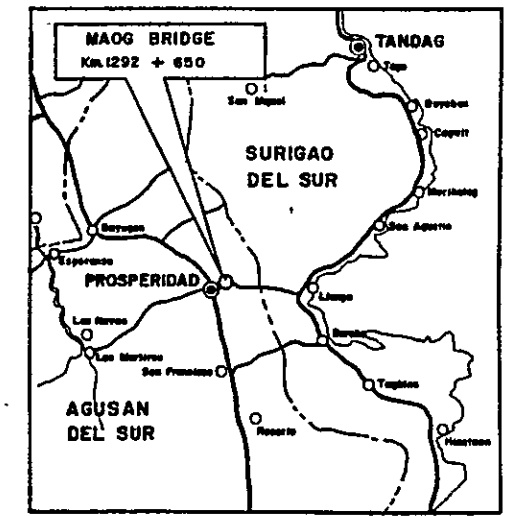


SUPERSTRUCTURE CROSS SECTION
SCALE 1:50 M

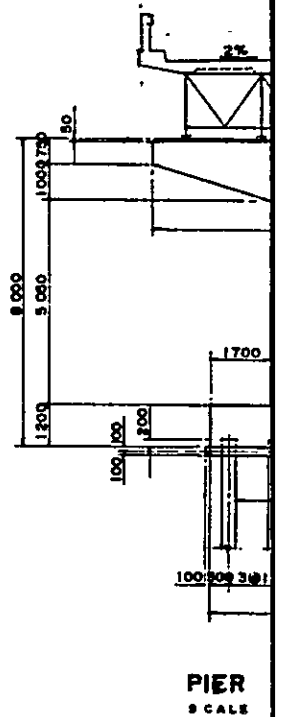
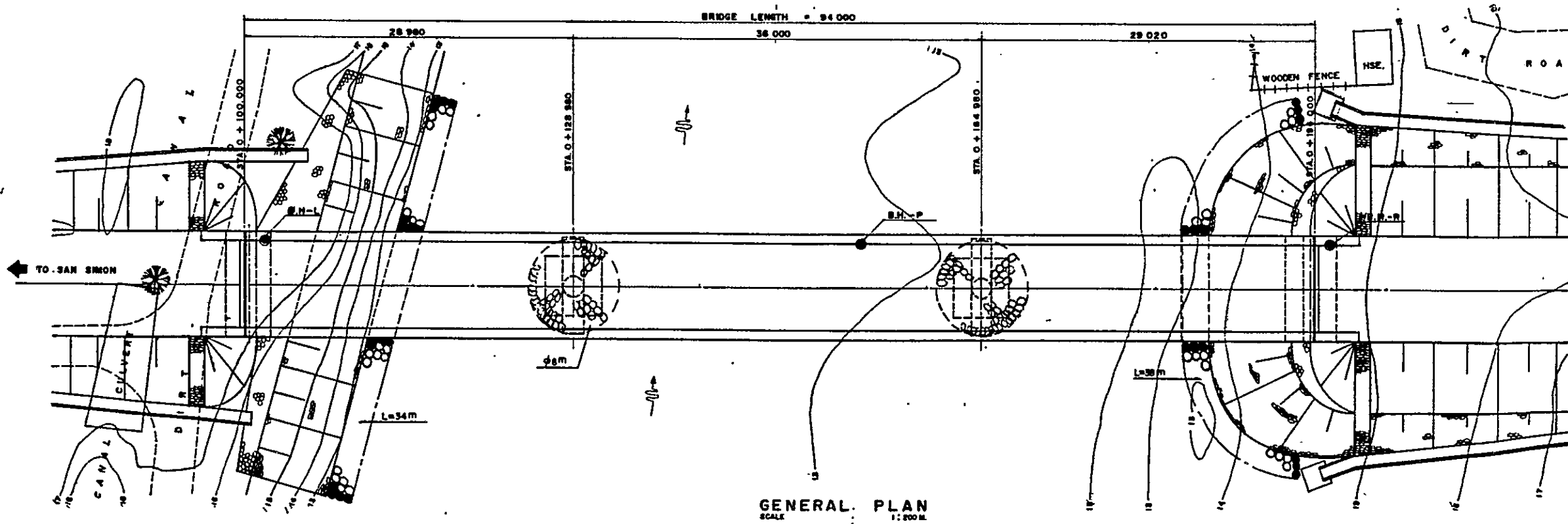
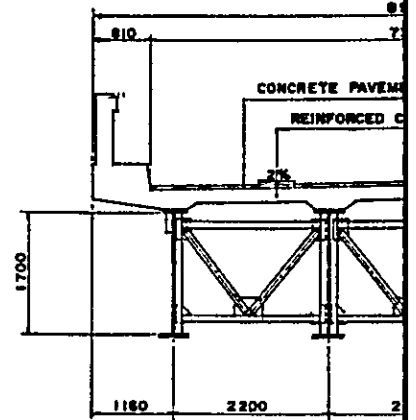
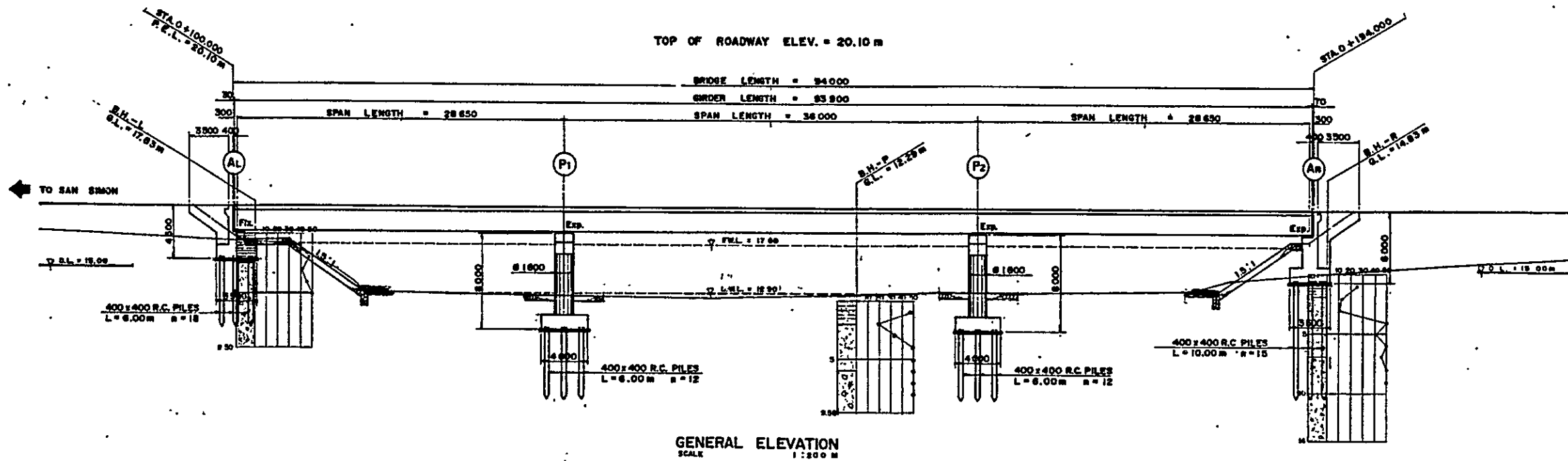


ABUTMENT (AL & AN)
SCALE 1:100 M

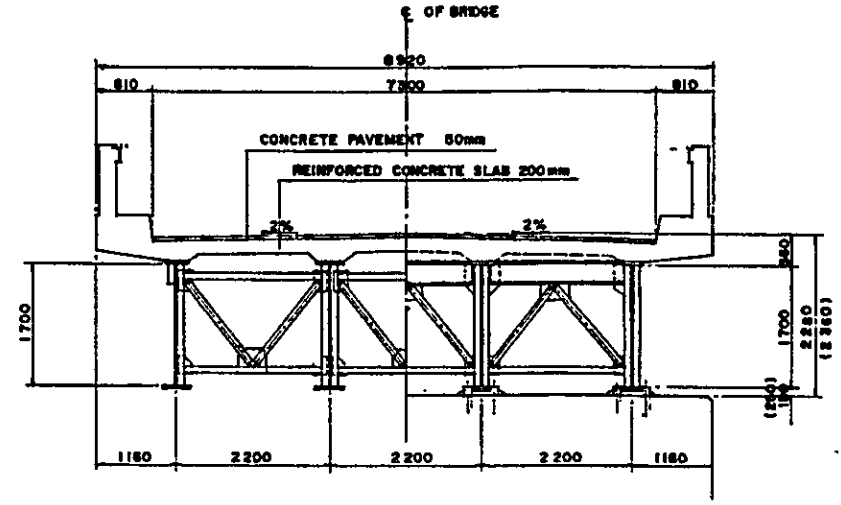
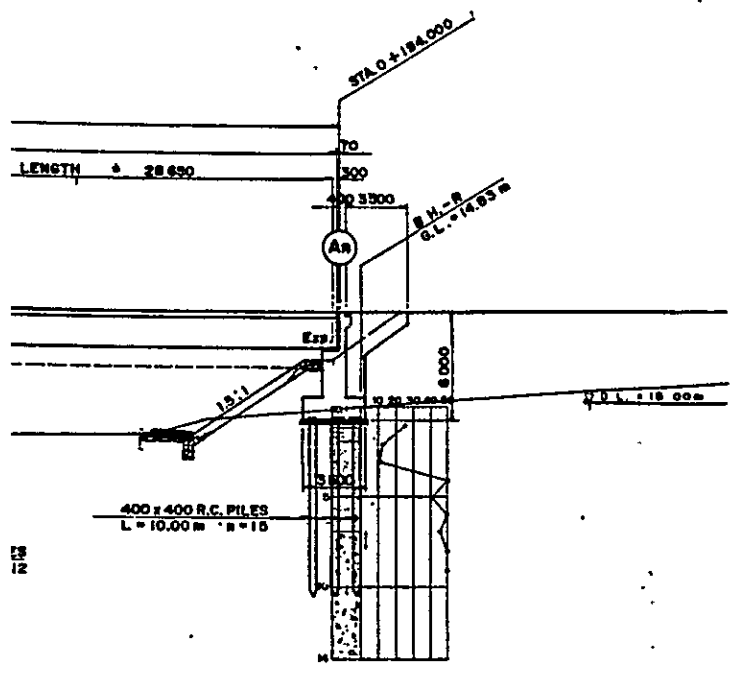
PIER (P1, P3, (P2))
SCALE 1:100 M



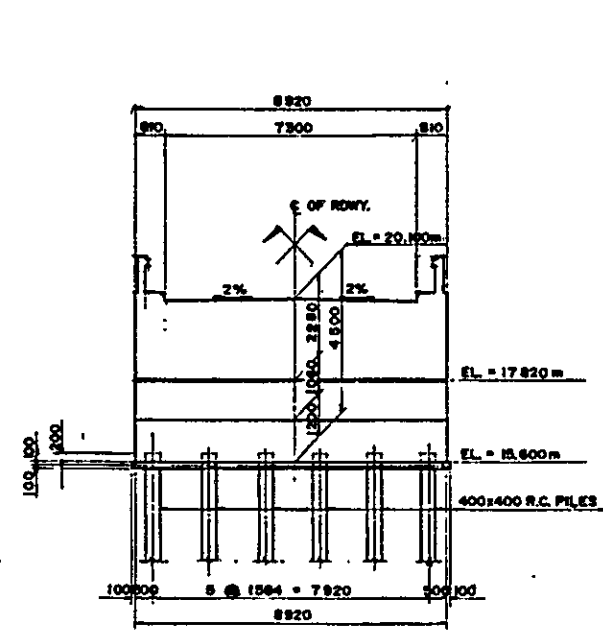
VICINITY MAP



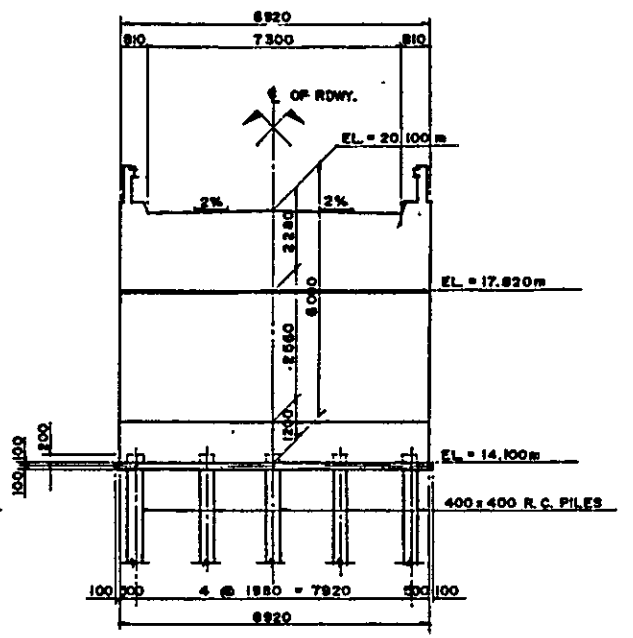
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
10-05-09	Pagatpat-San Simon	87



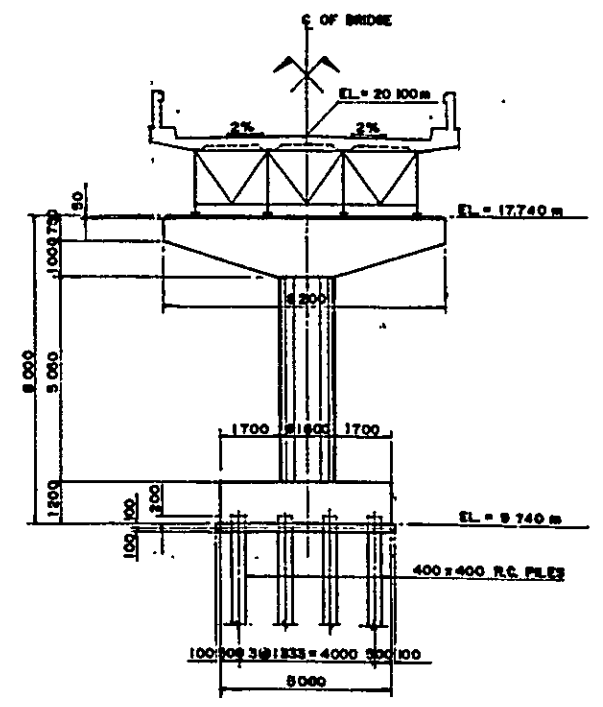
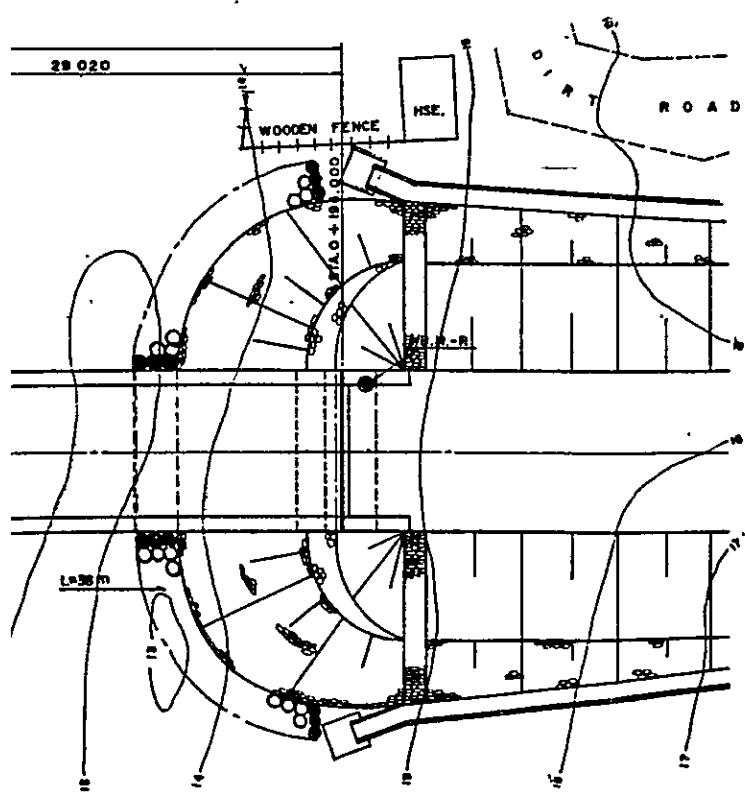
SUPERSTRUCTURE CROSS SECTION
SCALE 1:50 M



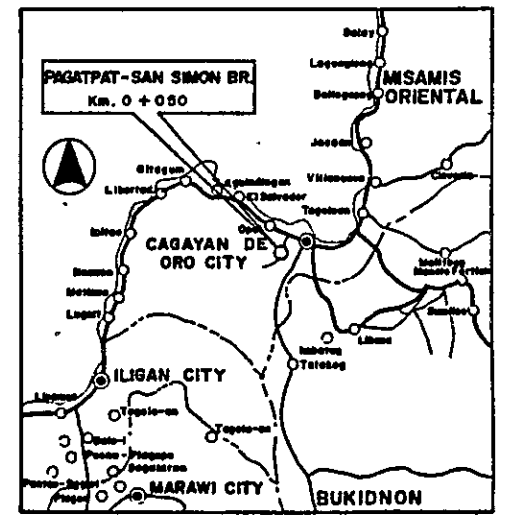
ABUTMENT (AL)
SCALE 1:100 M



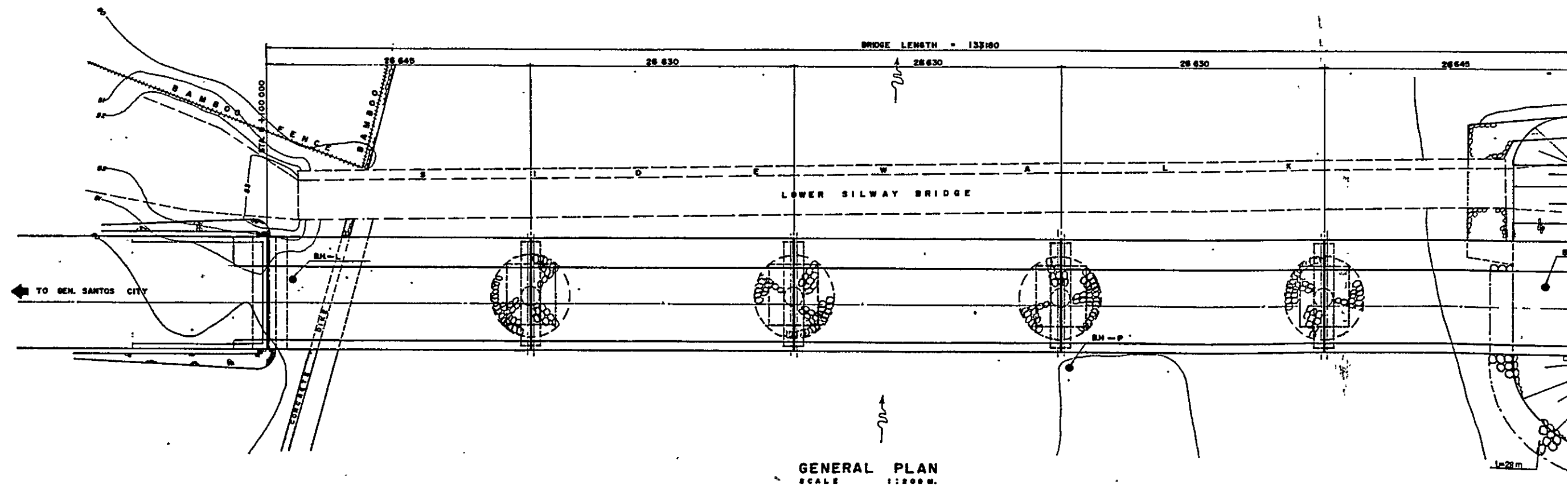
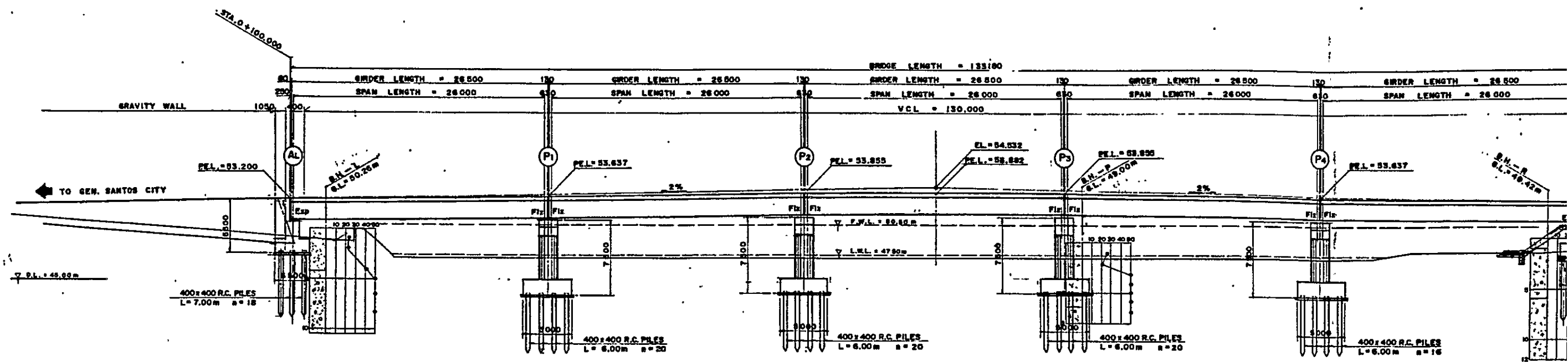
ABUTMENT (AR)
SCALE 1:100 M

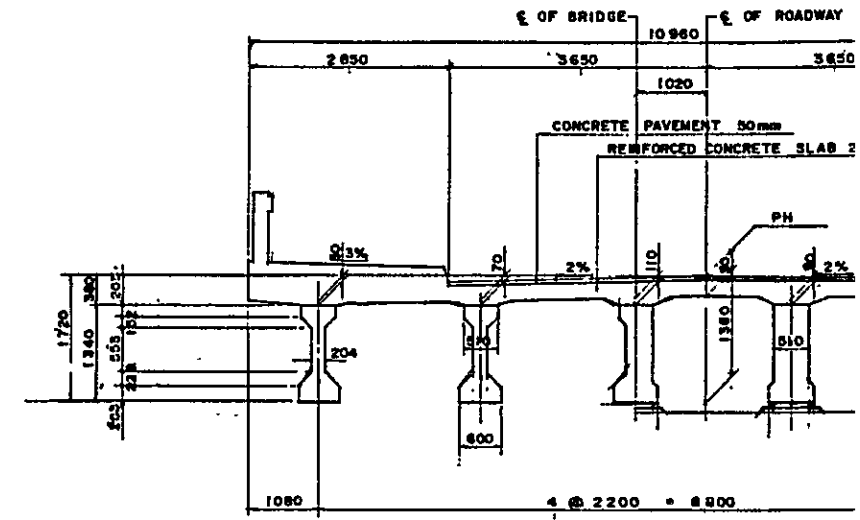
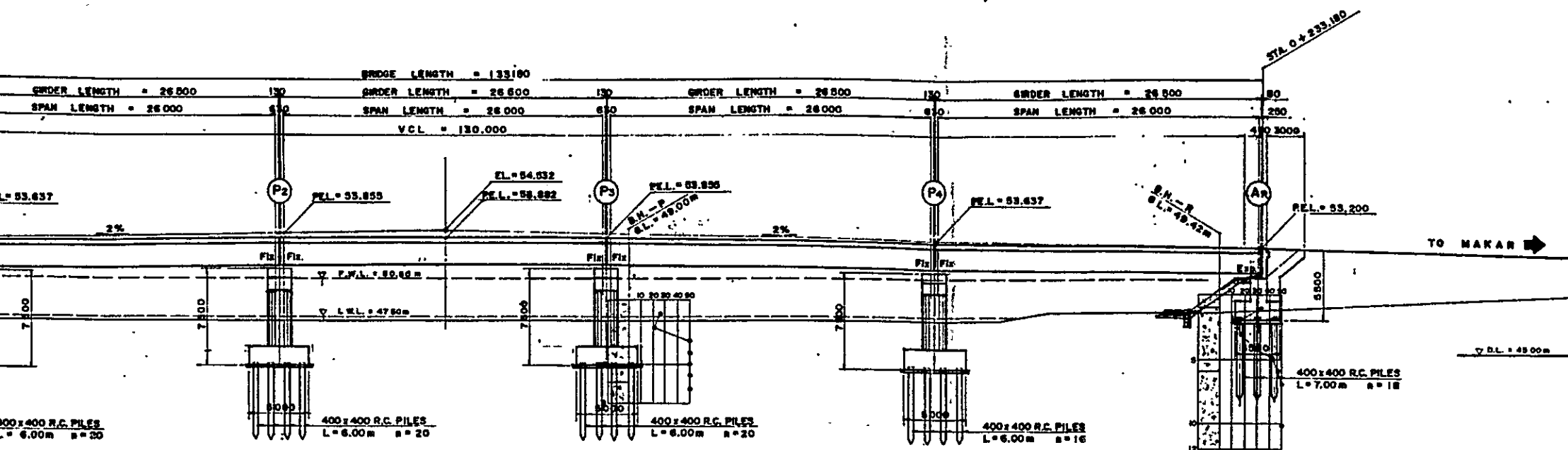


PIER (P1 & P2)
SCALE 1:100 M

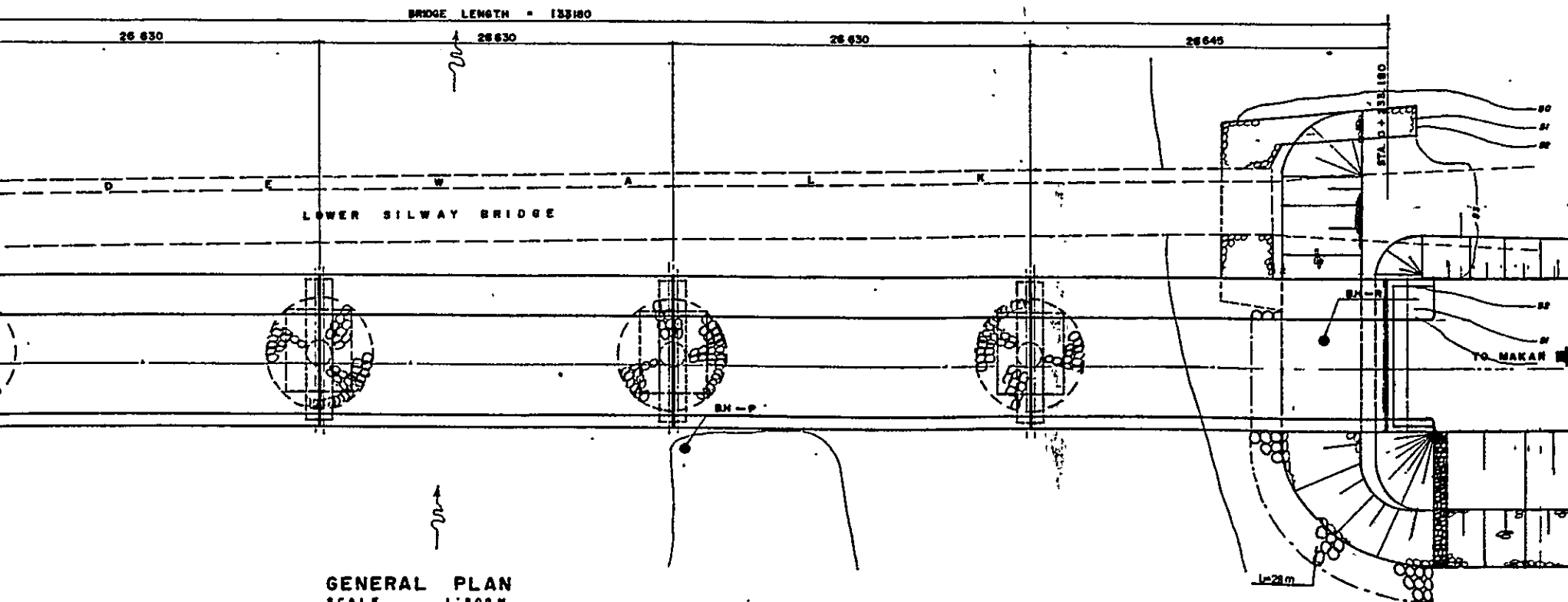


VICINITY MAP

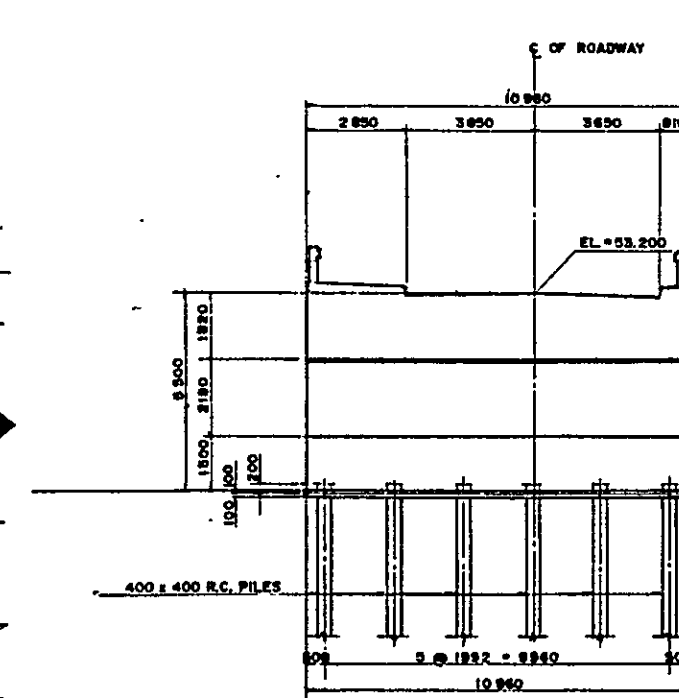




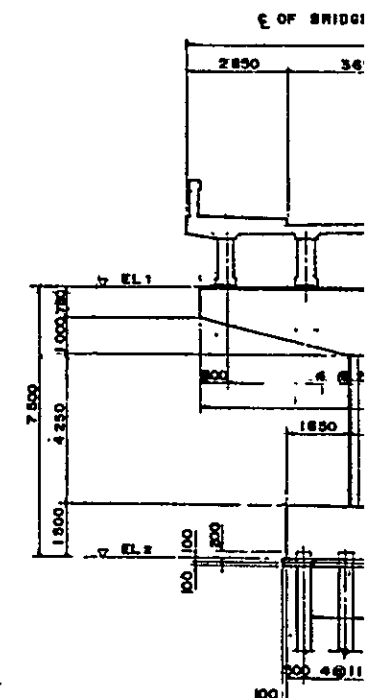
SUPERSTRUCTURE CROSS SECTION
SCALE 1:50 M



GENERAL PLAN
SCALE 1:500 M

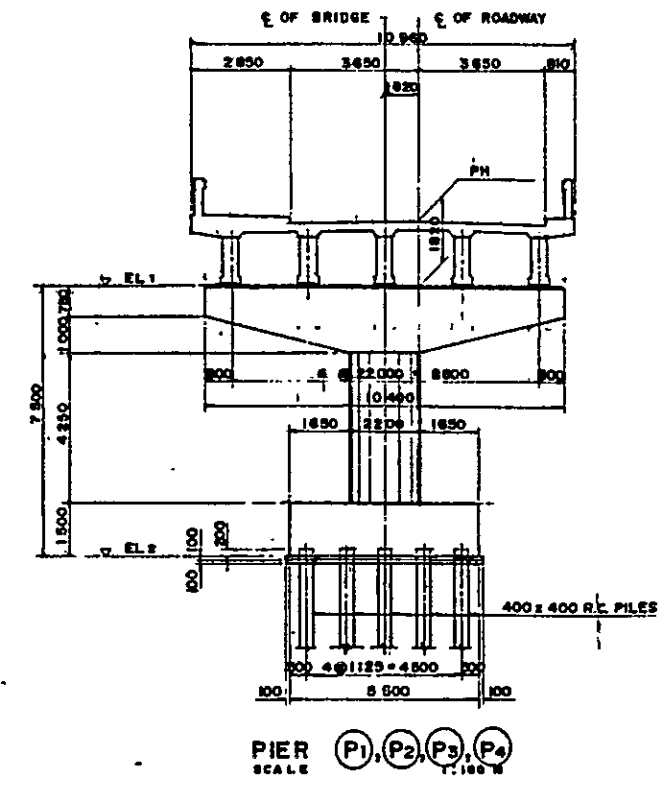
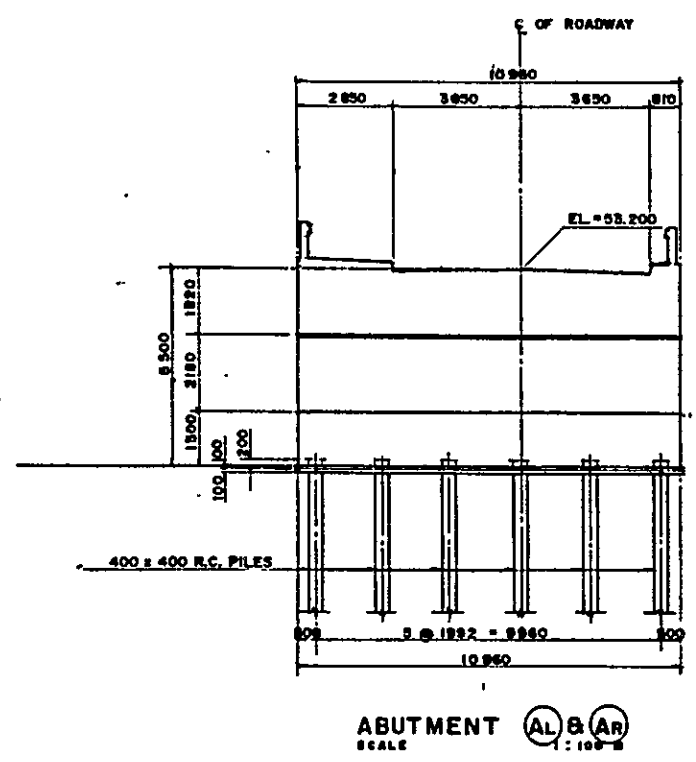
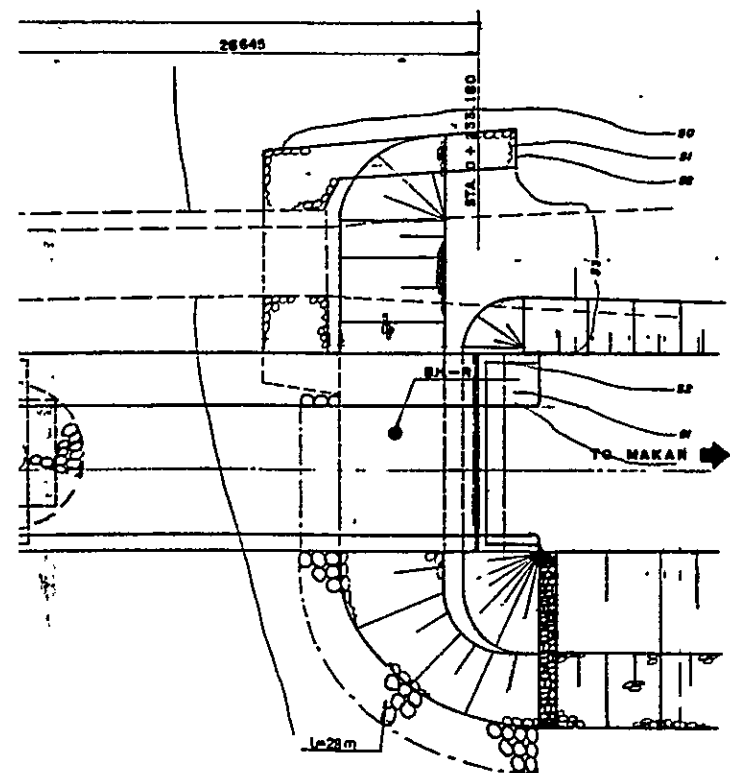
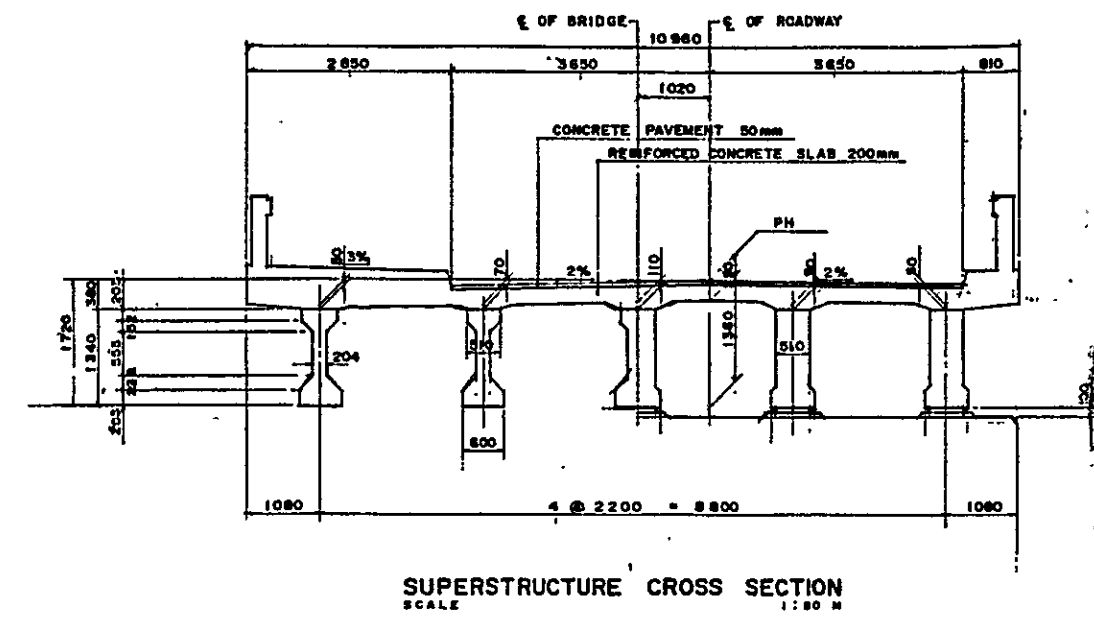
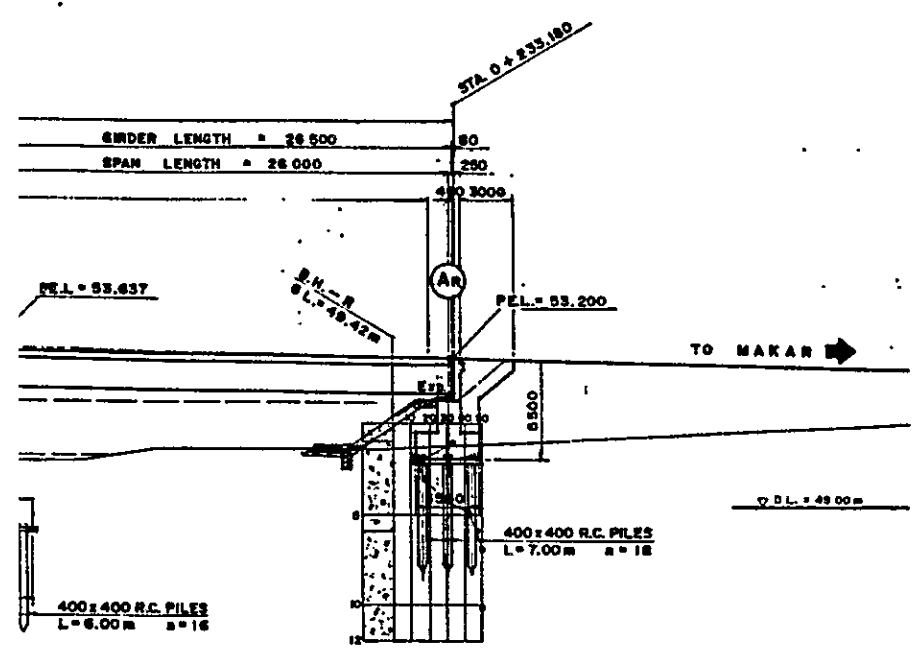


ABUTMENT (AL & AR)
SCALE 1:100 M



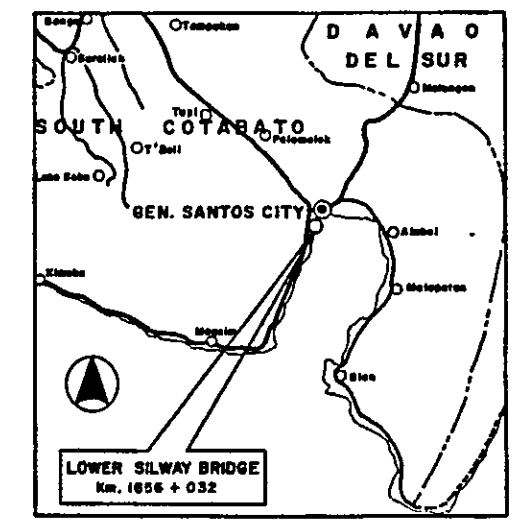
PIER (P1)
SCALE 1:100 M

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
11-02-05	Lower Silway	88

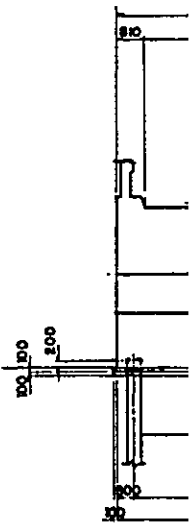
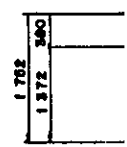
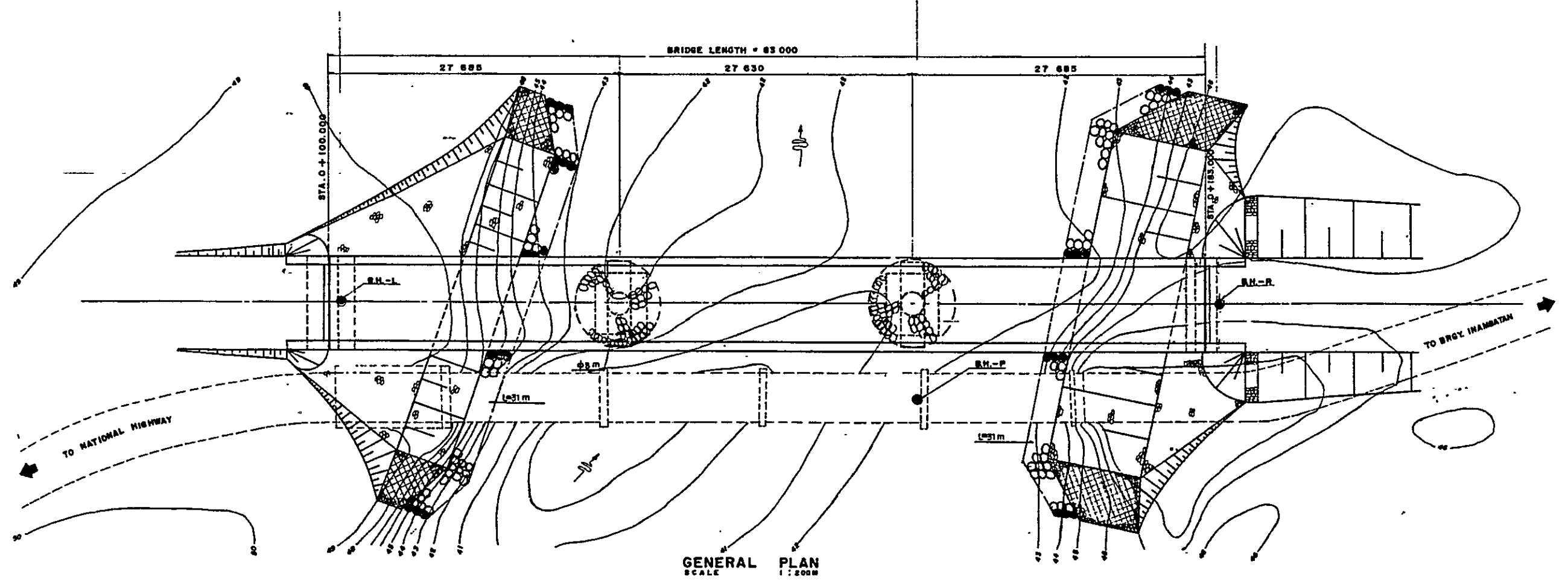
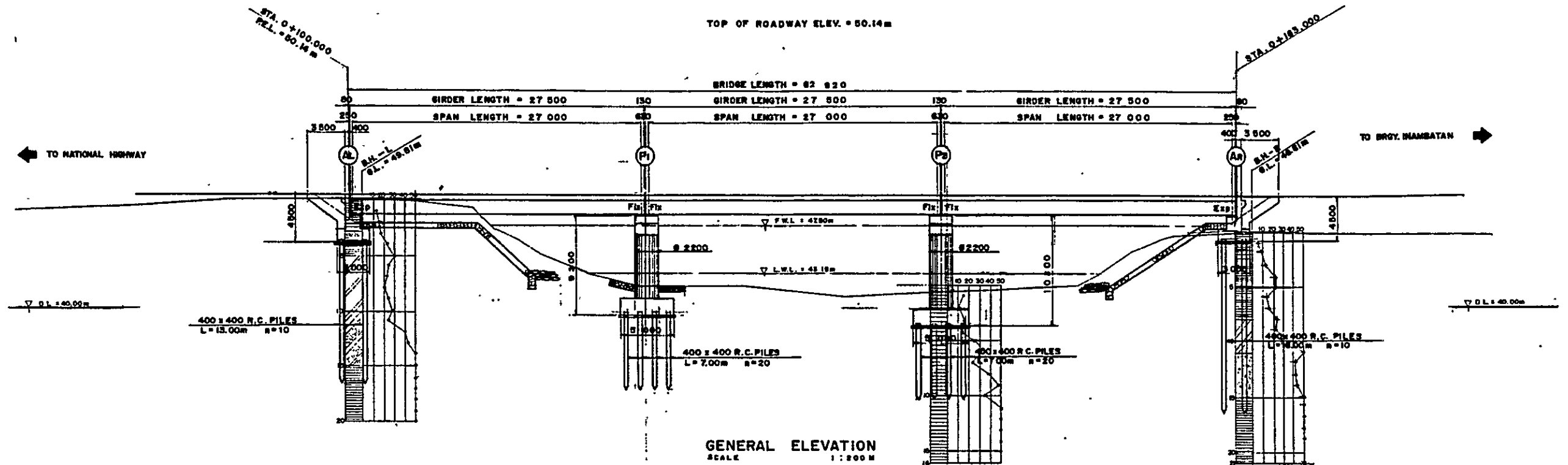


DIMENSION TABLE

	P1 & P4	P2 & P3
PH	53.637	53.655
EL1	51.807	52.035
EL2	44.317	44.535

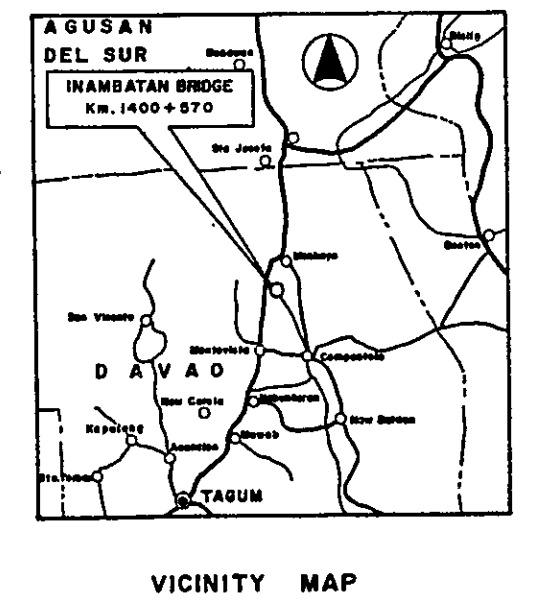
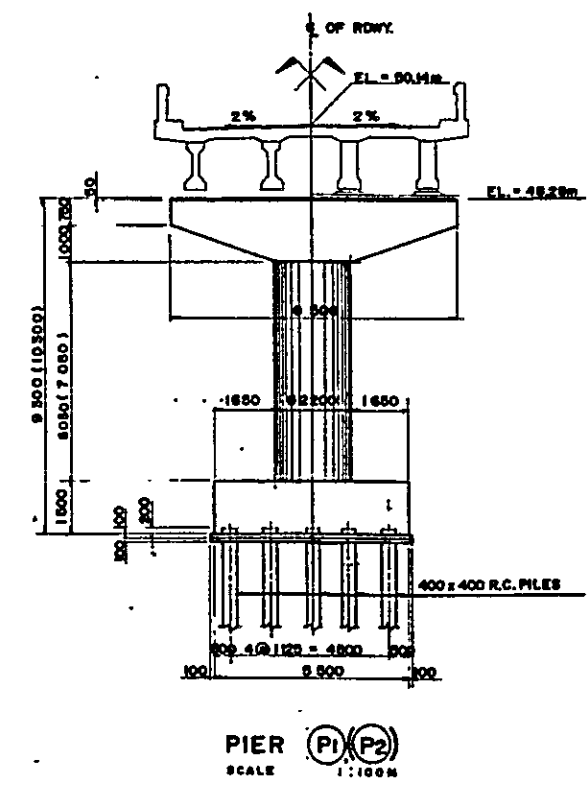
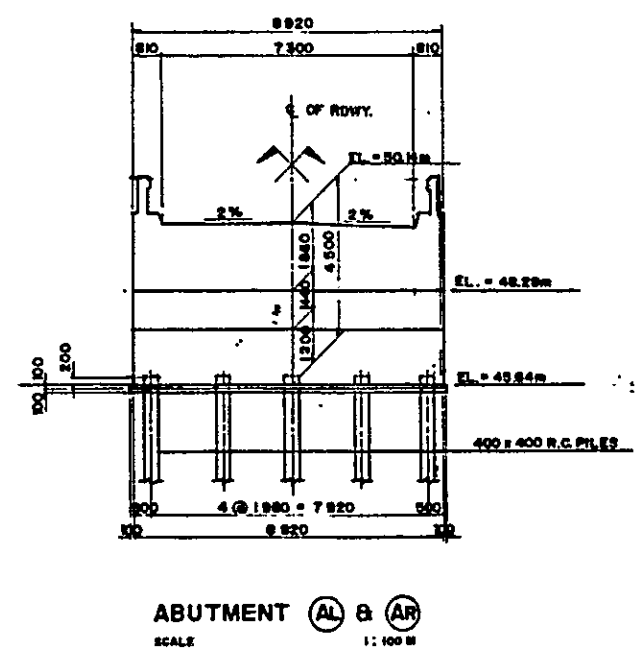
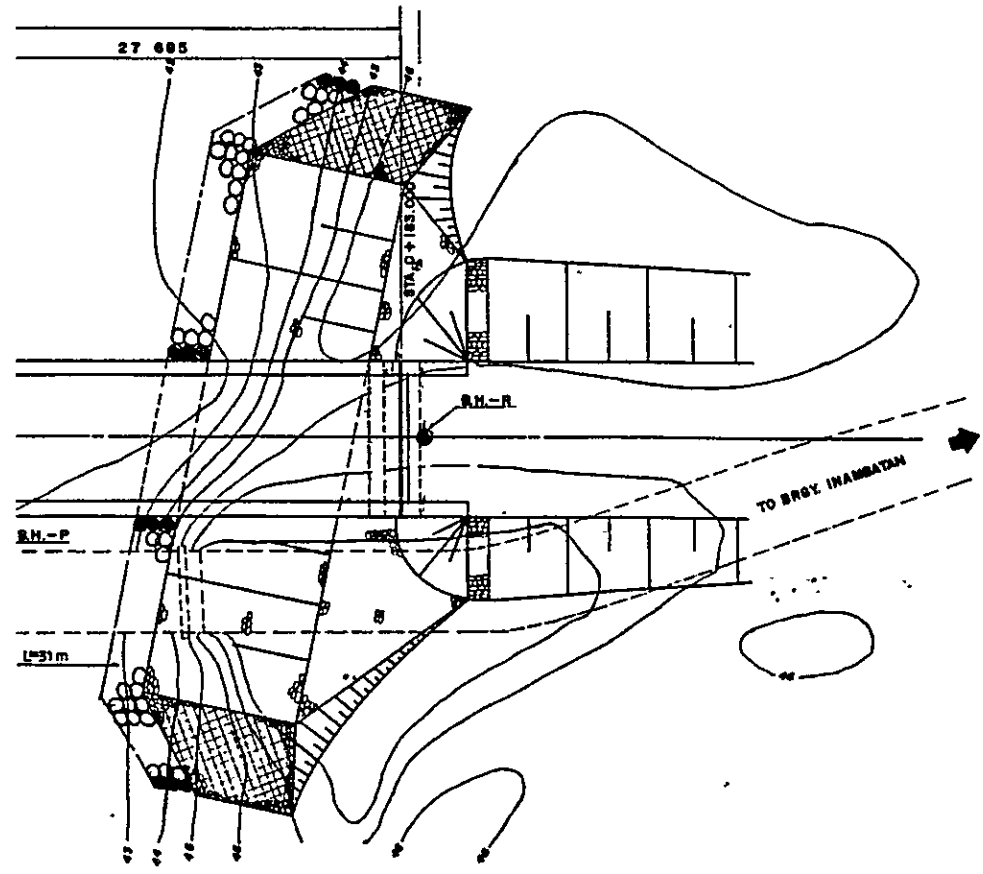
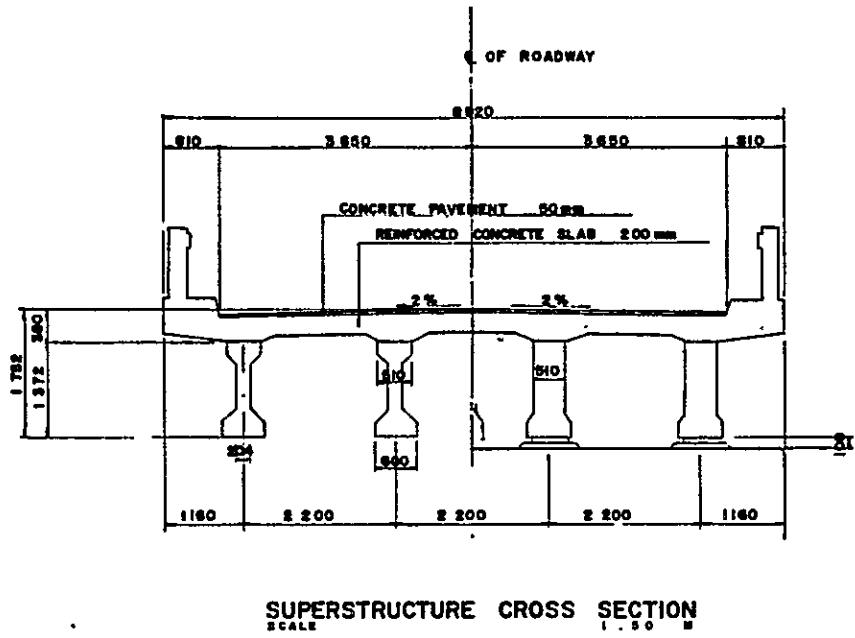
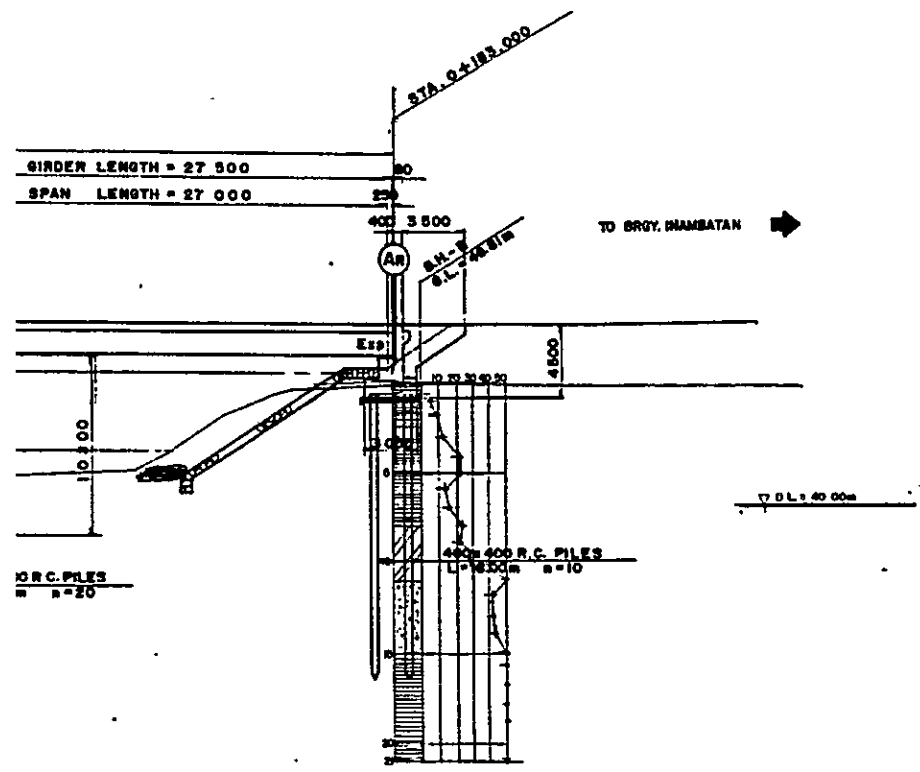


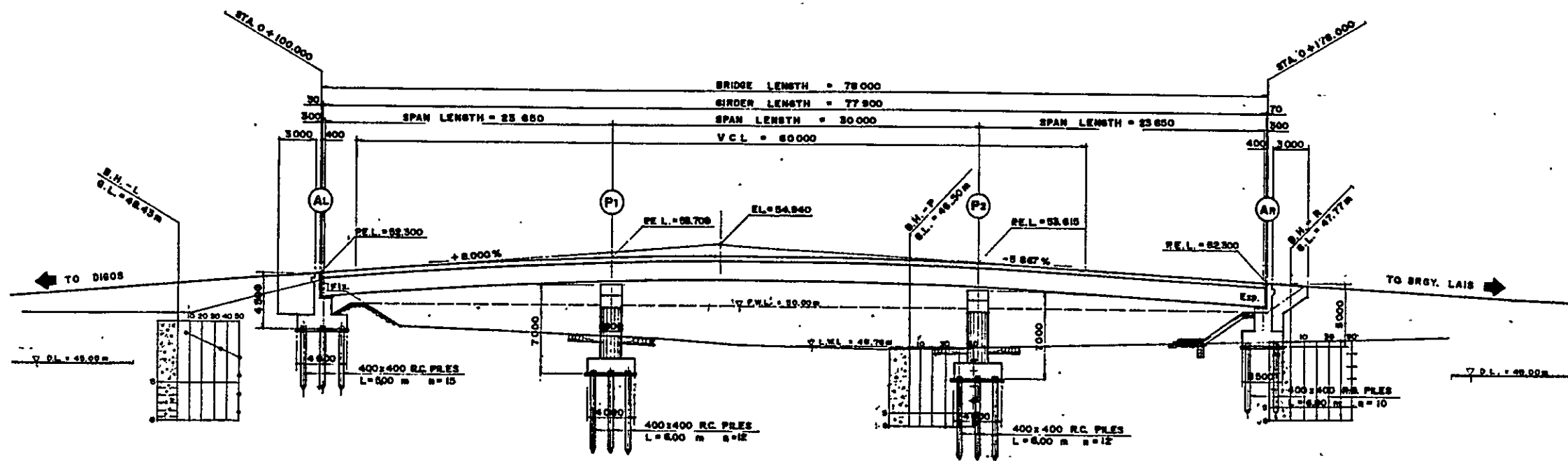
VICINITY MAP



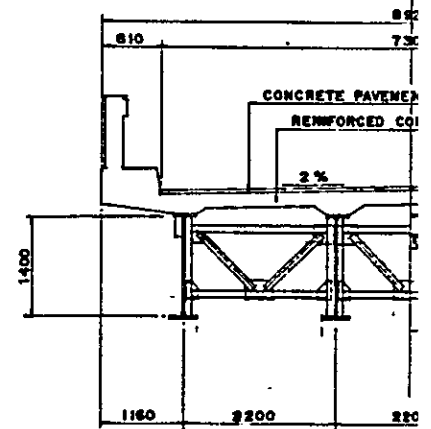
ABU
SCALE

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
11-04-03	INAMBATAN	89

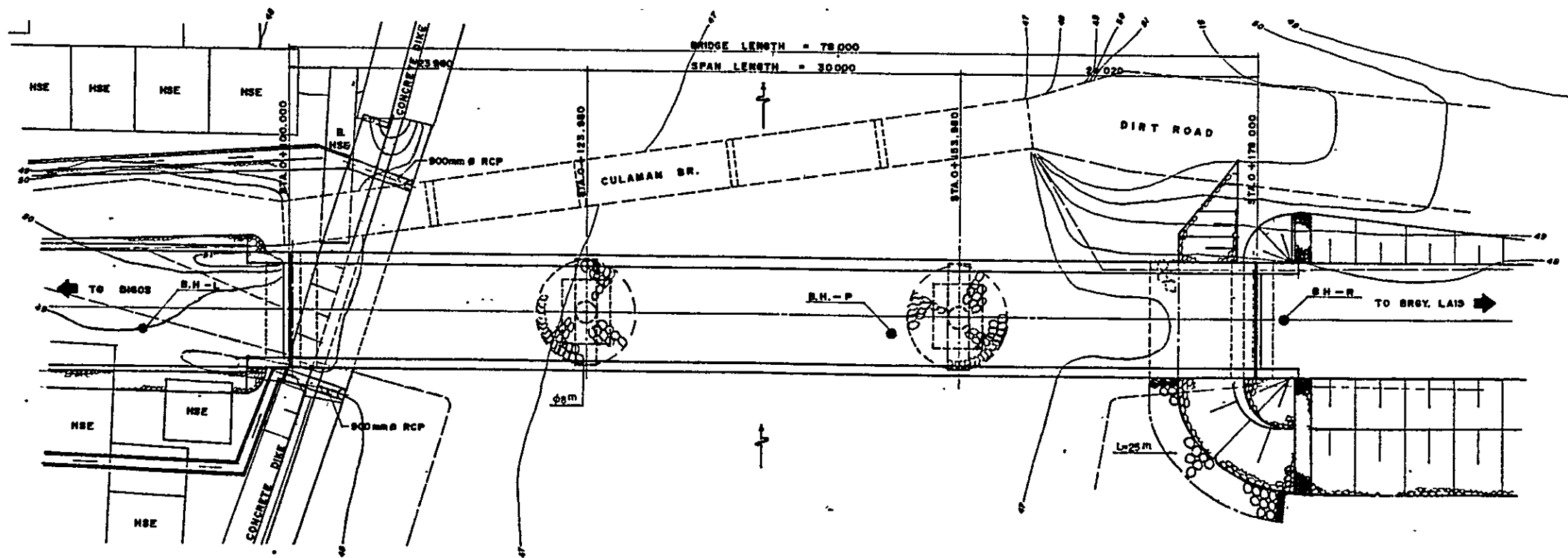




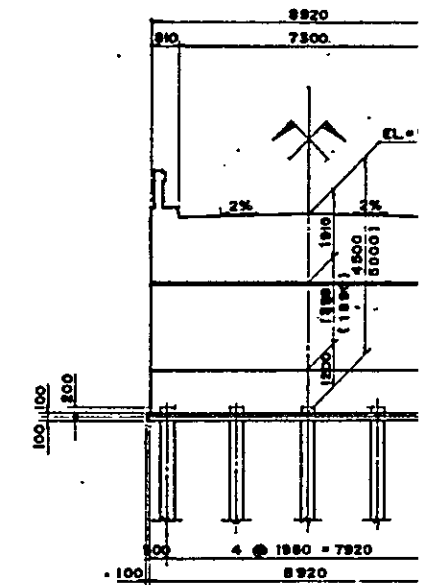
GENERAL ELEVATION
SCALE 1:200 M



SUPERSTRUCTURE
SCALE

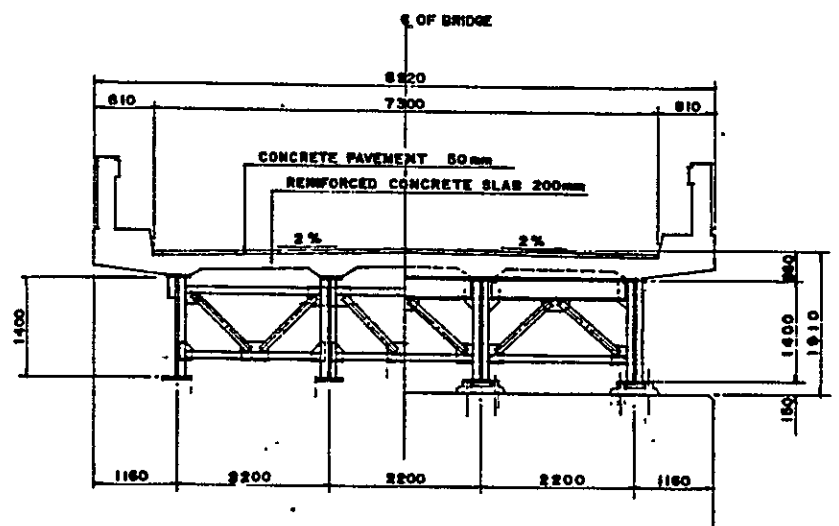
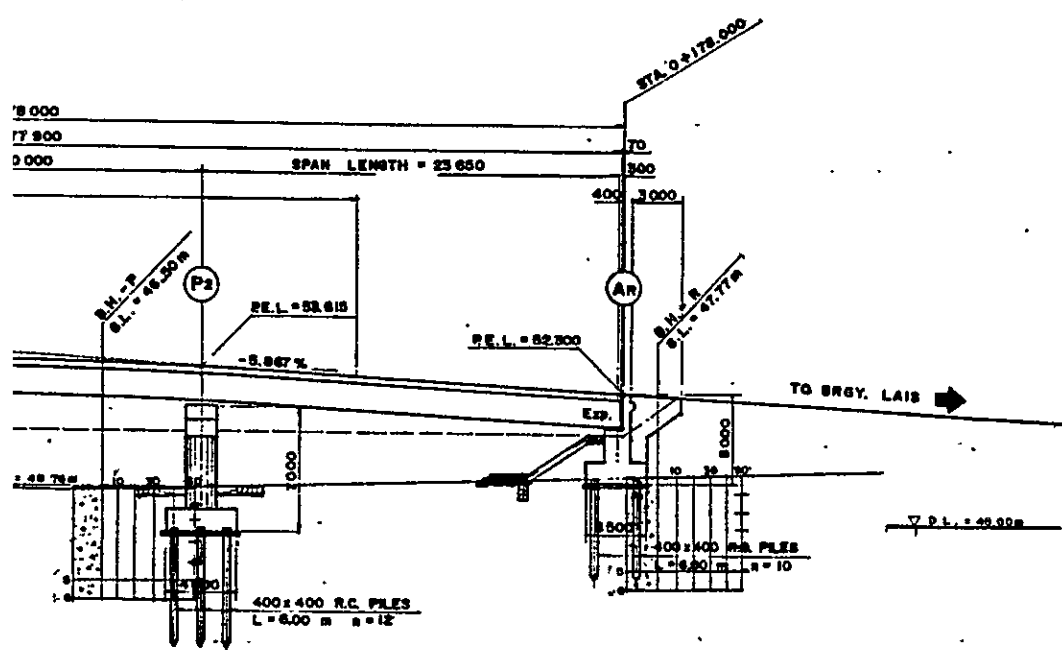


GENERAL PLAN
SCALE 1:200 M

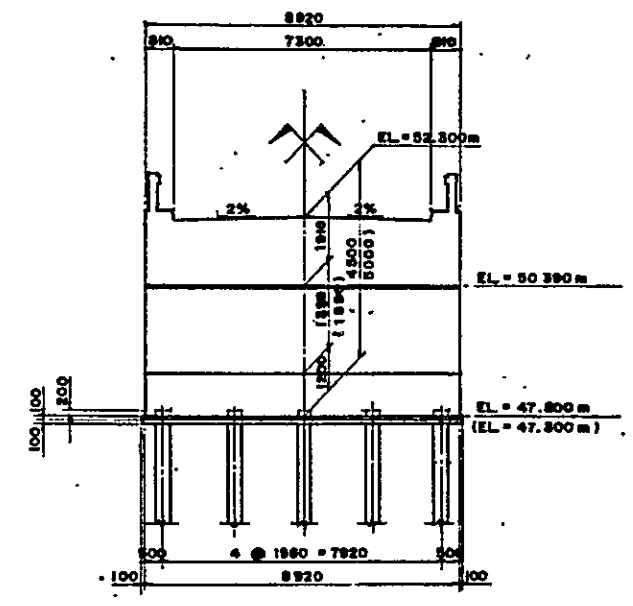
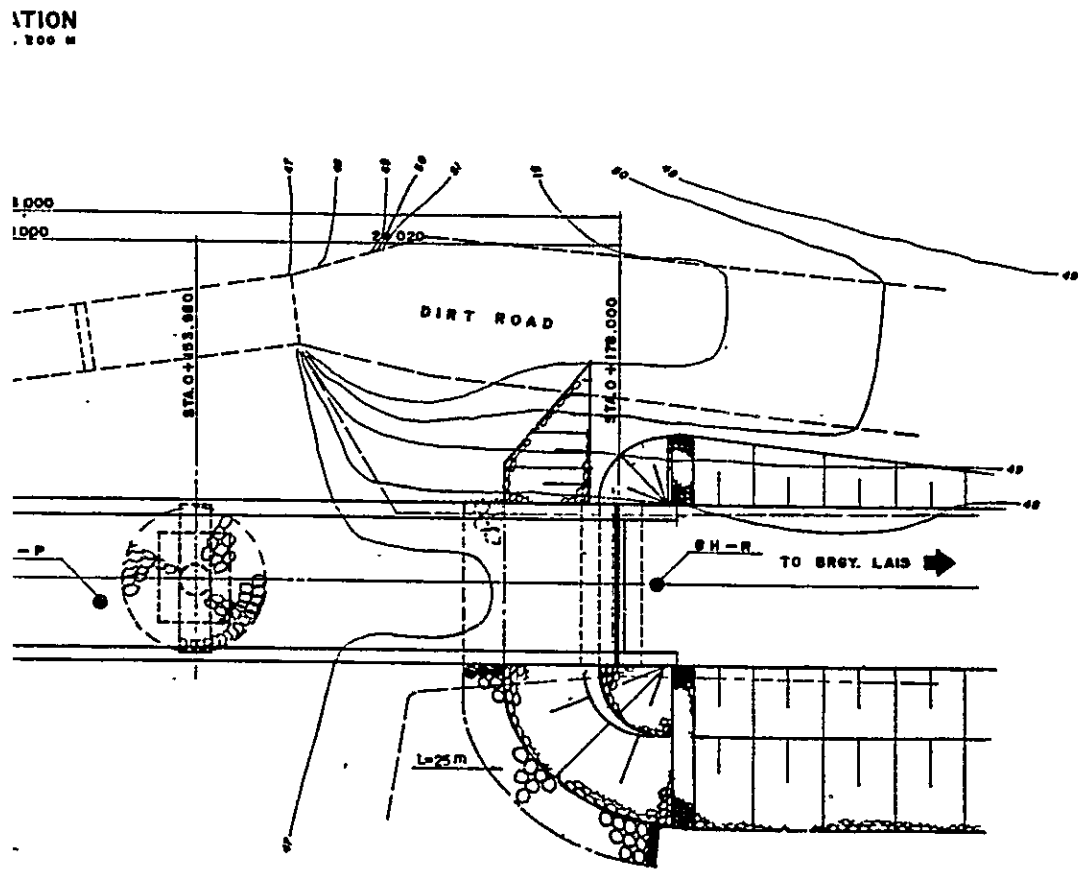


ABUTMENT
SCALE 1:100

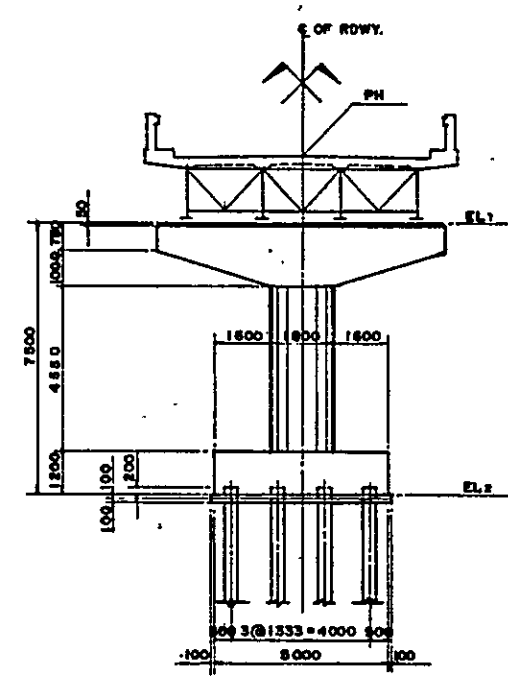
BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
11-05-01	Culaman	90



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50 M



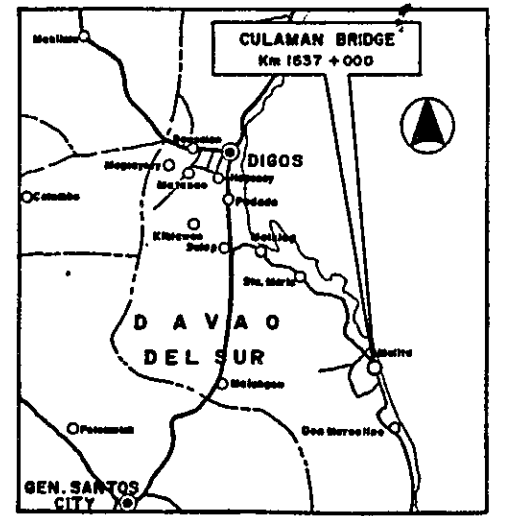
ABUTMENT (AL) & (AR)
SCALE 1:100 M



PIER (P1) & (P2)
SCALE 1:100 M

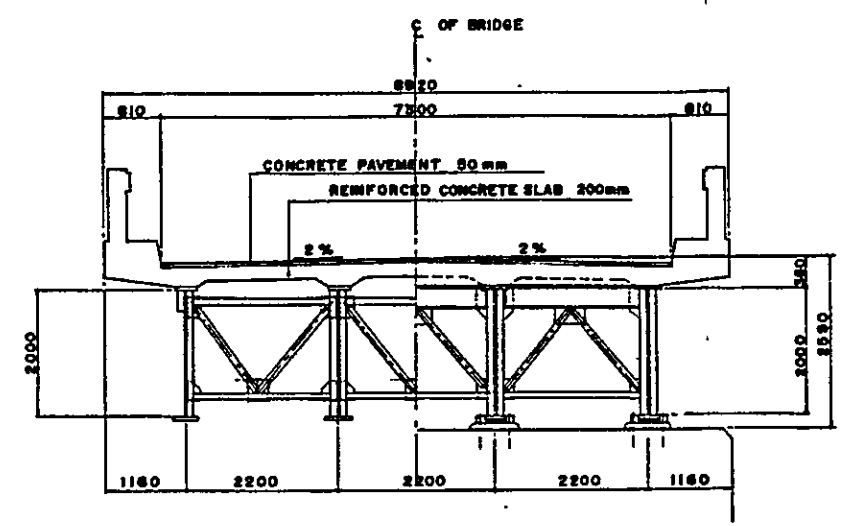
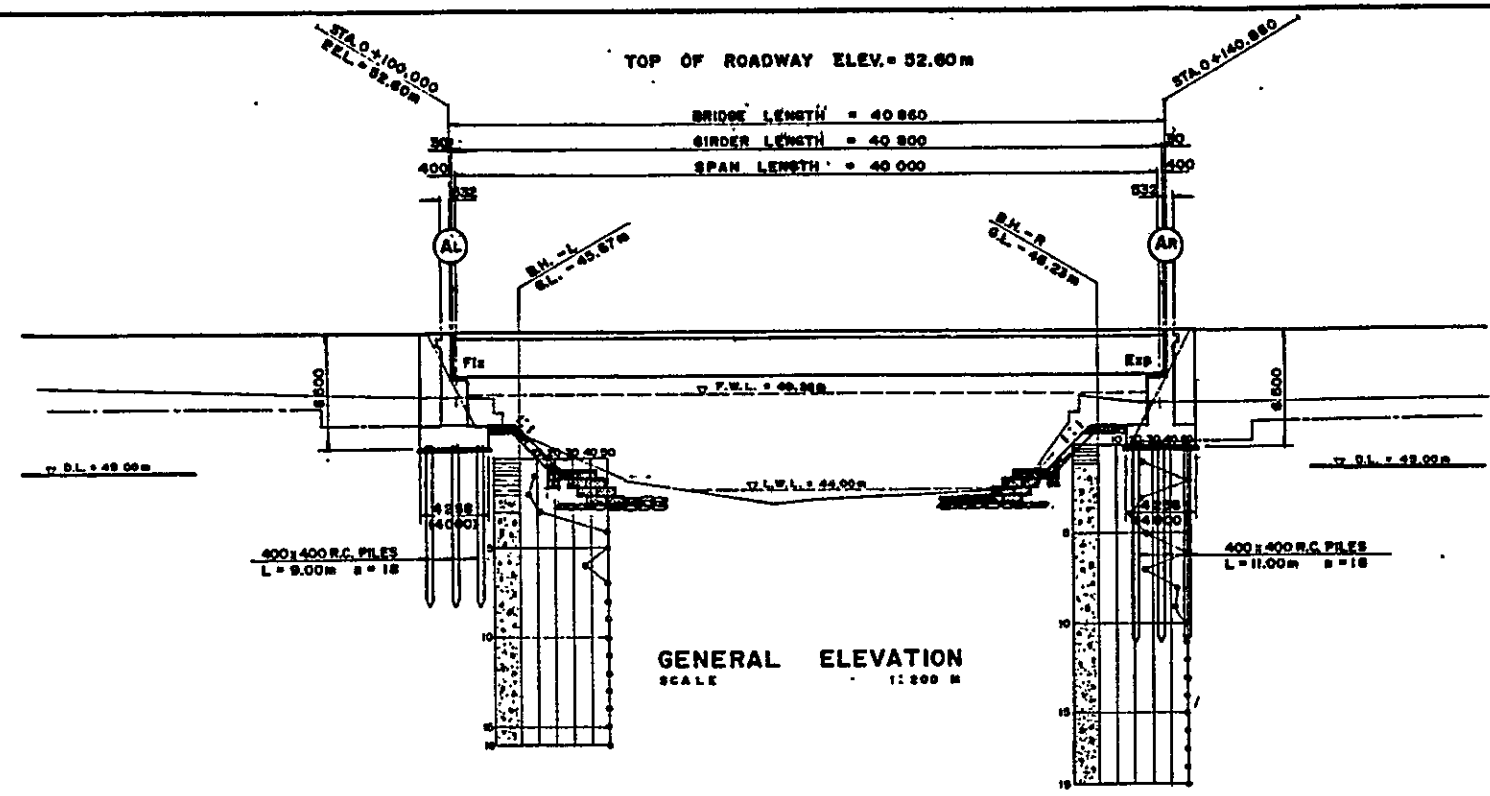
DIMENSION TABLE

	AL	AR	P1	P2
PH	52.300	52.300	53.709	53.615
EL1	50.390	50.390	51.708	51.705
EL2	47.800	47.800	44.289	44.205

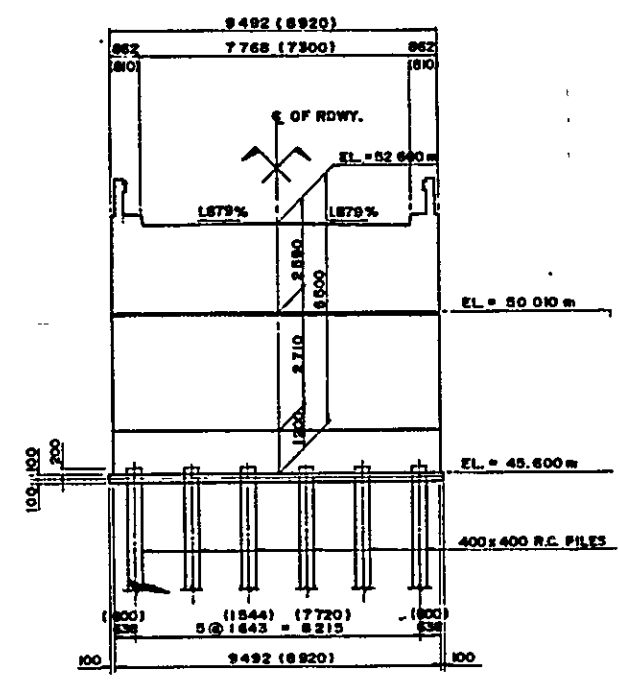
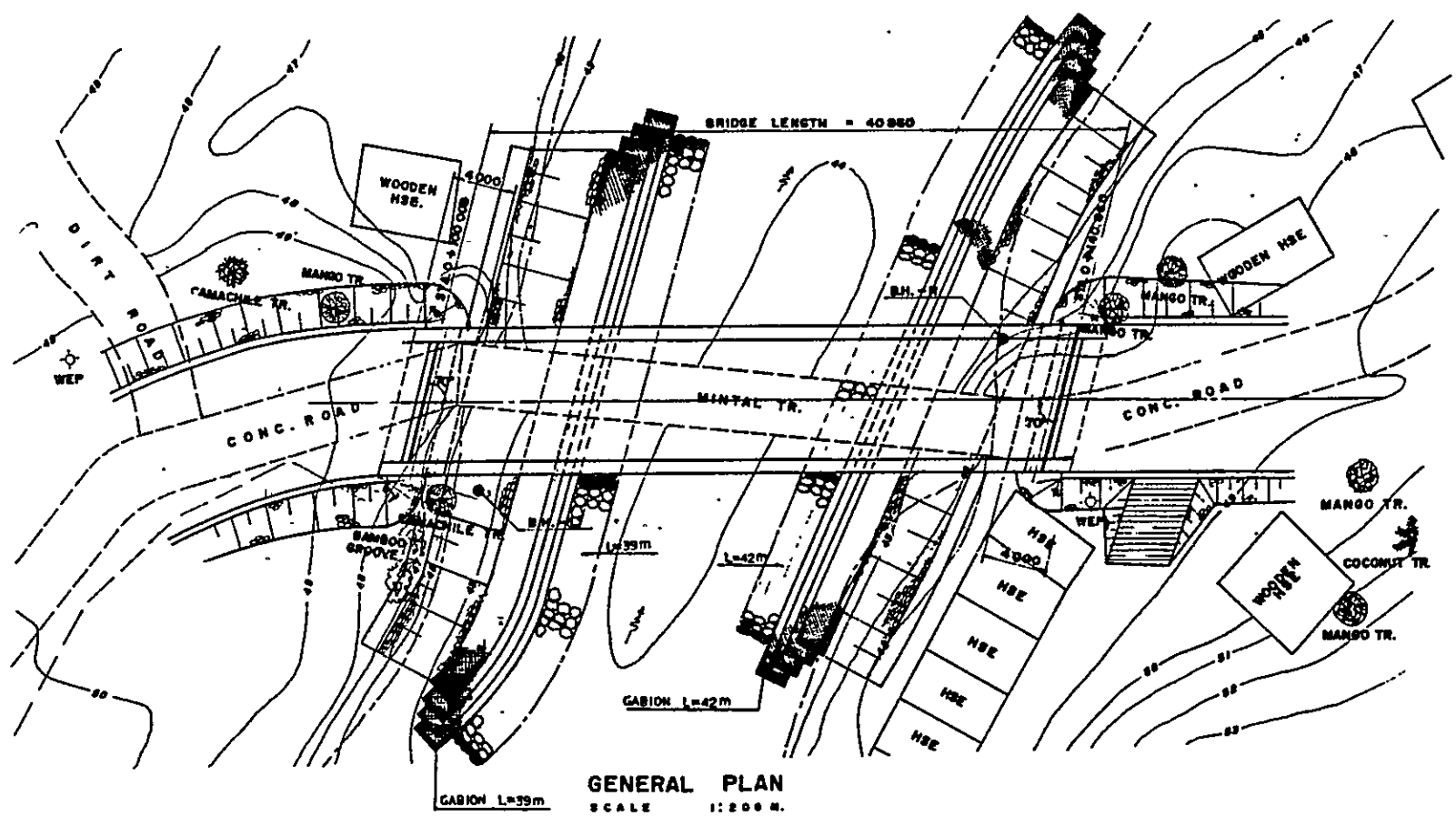


VICINITY MAP

FOR CONSTRUCTION	
BRIDGE NO.	
11-05-03	



SUPERSTRUCTURE CROSS SECTION
SCALE 1:50 M.



ABUTMENT (A) & (B)

BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ALONG RURAL ROADS IN MINDANAO AREA		
BRIDGE NO.	BRIDGE NAME	SHEET NO.
11-05-03	MINTAL	91

