

**ELEMENTS OF CURVES**

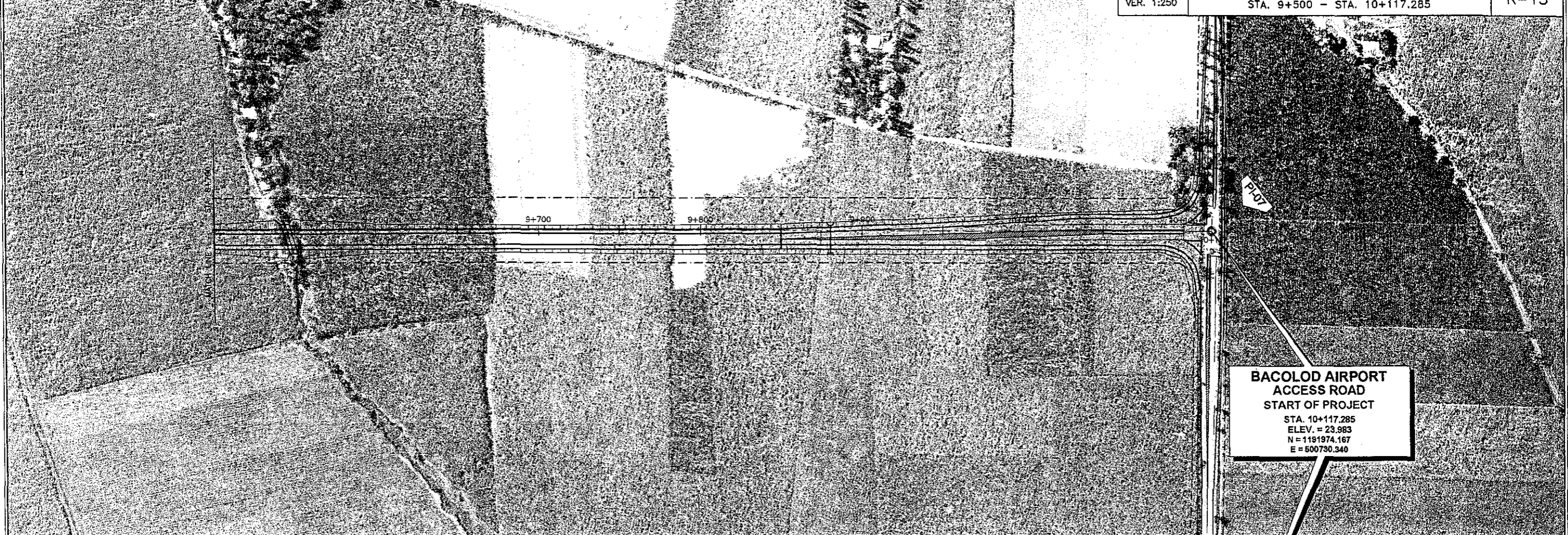
PI NO.	STATION	COORDINATES		I	R	T	Lc	Es	V(kph)
		NORTHING	EASTING						
7	10 + 117.284	1,191,974.167	500,730.340						

THE STUDY ON ROAD NETWORK IMPROVEMENT  
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

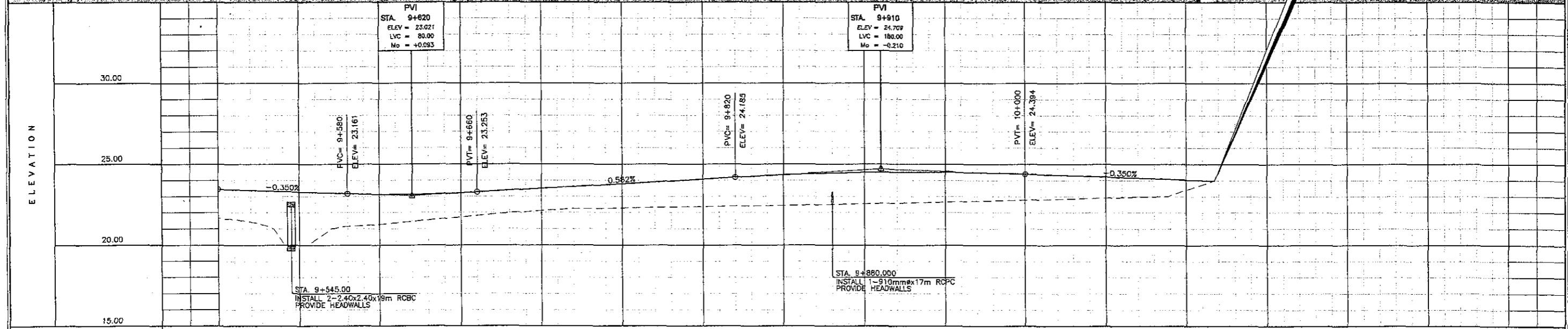
SCALE :  
HOR. 1:2500  
VER. 1:250

BACOLOD AIRPORT ACCESS ROAD  
**PLAN AND PROFILE**  
STA. 9+500 - STA. 10+117.285

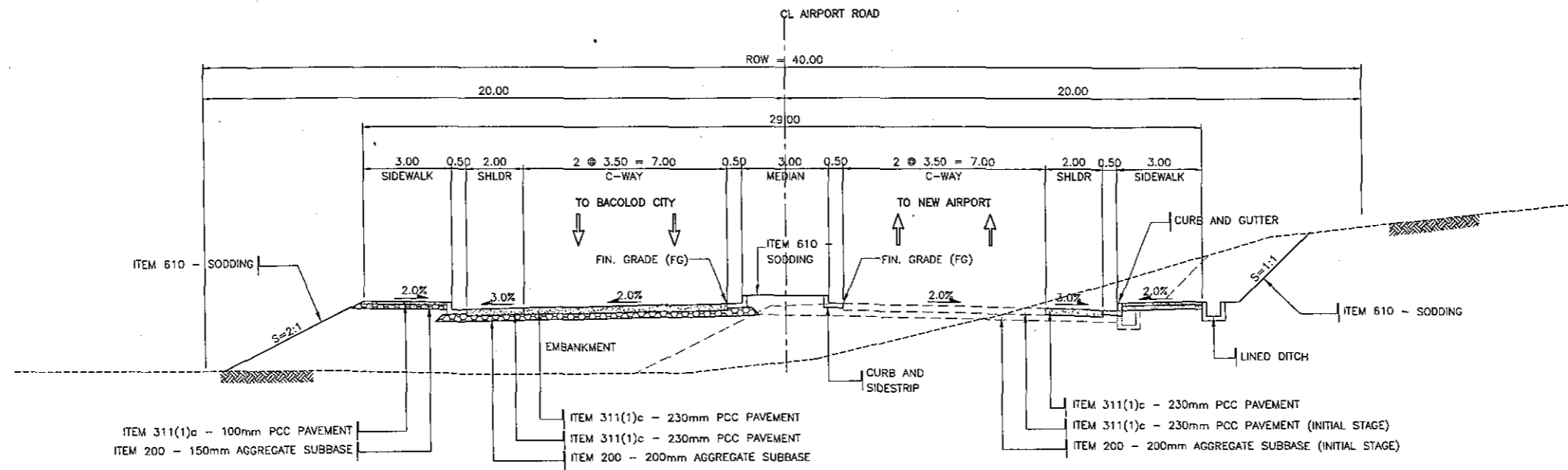
DRAWING NO.  
**R-13**



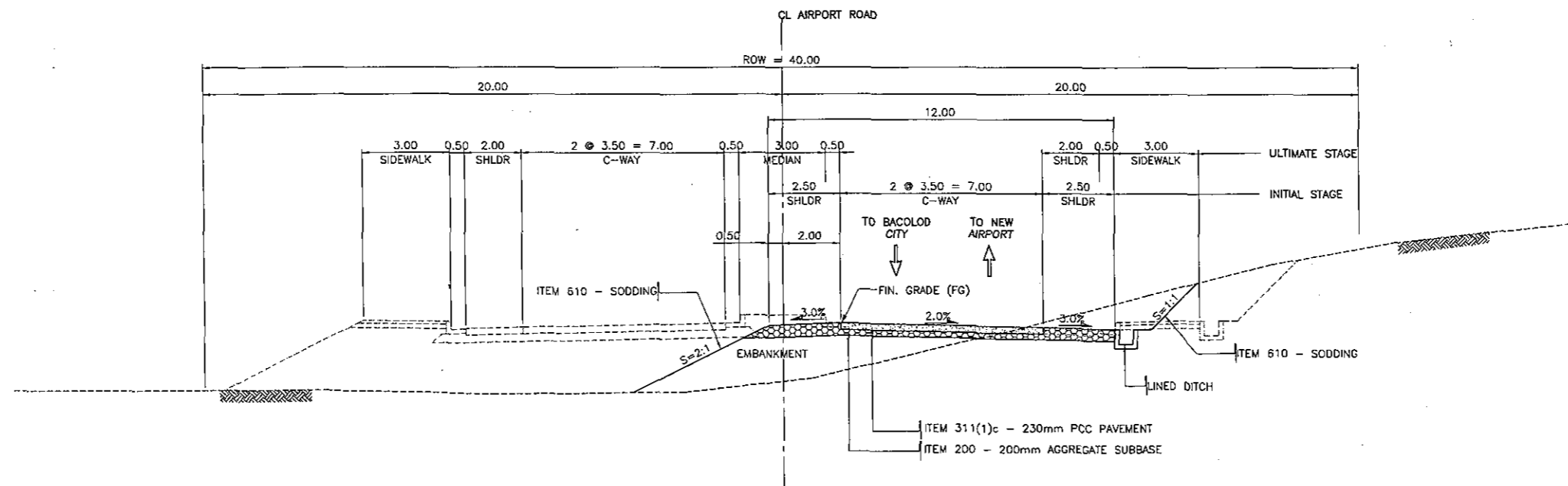
**BACOLOD AIRPORT  
ACCESS ROAD  
START OF PROJECT**  
STA. 10+117.285  
ELEV. = 23.983  
N = 1191974.167  
E = 500730.340



STATION	9+500	9+600	9+700	9+800	9+900	10+000	10+100	10+200
FINISHED GRADE	23.441	23.266	23.114	23.201	23.486	23.777	24.069	24.336
ORIGINAL GROUND	21.66	20.00	21.27	21.72	22.11	22.27	22.36	22.43
HORIZONTAL CURVATURE	R = ∞							
VERTICAL CURVATURE	g = -0.350 % L = 210.00 m		g = +0.582 % L = 290.00 m			g = -0.350 % L = 207.285 m		

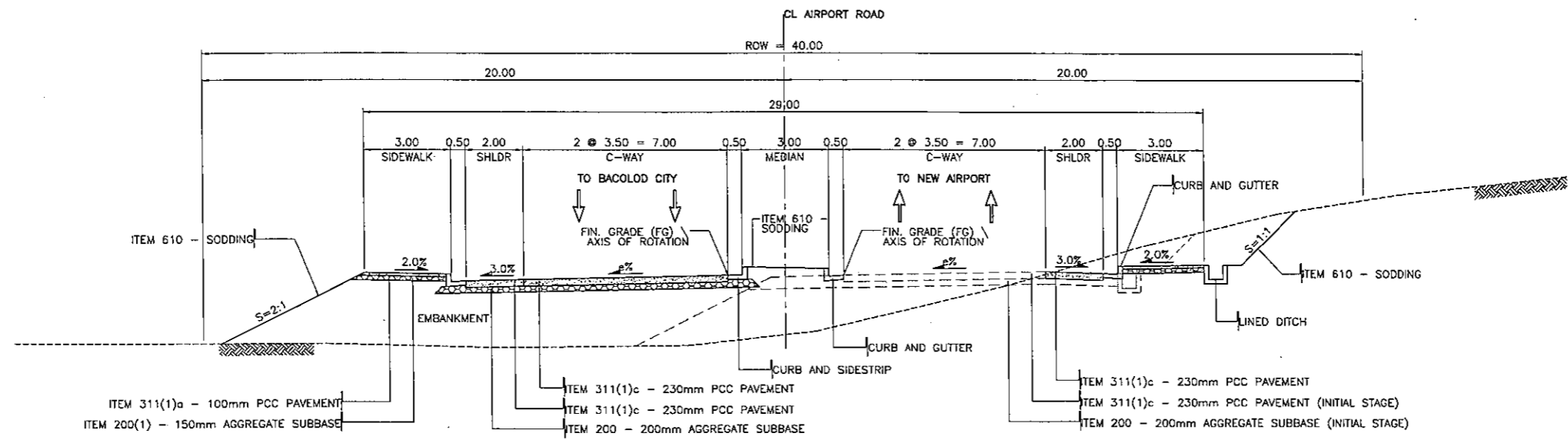


ULTIMATE STAGE - STA. 0+000.000 TO STA. 10+117.284

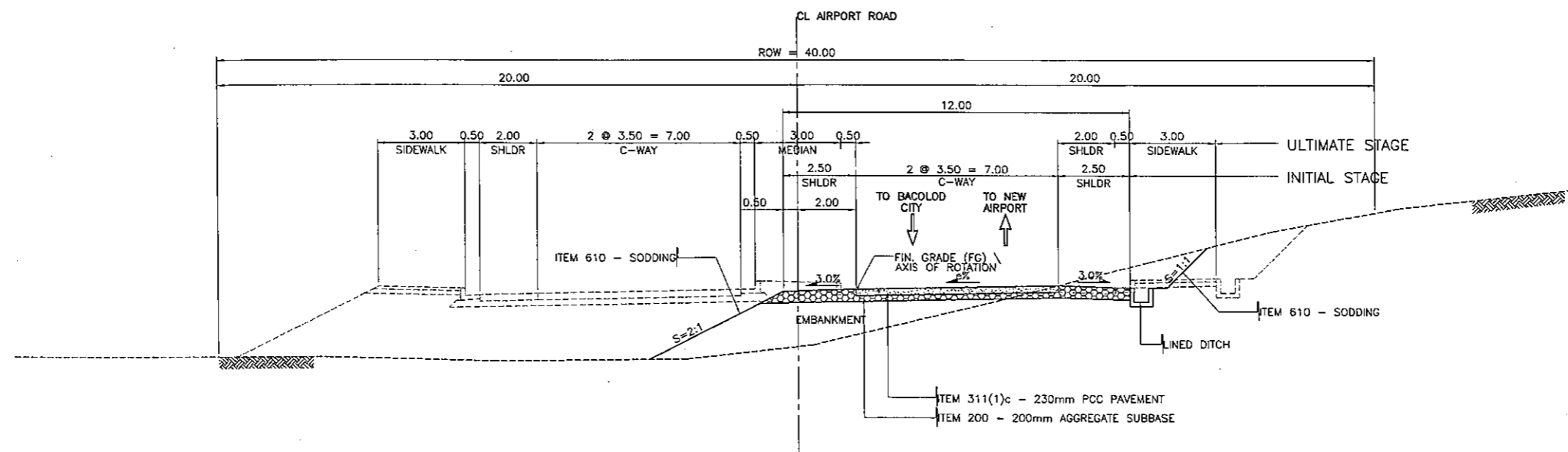


INITIAL STAGE - STA. 0+000.000 TO STA. 10+117.284

TYPICAL ROAD SECTIONS - NORMAL

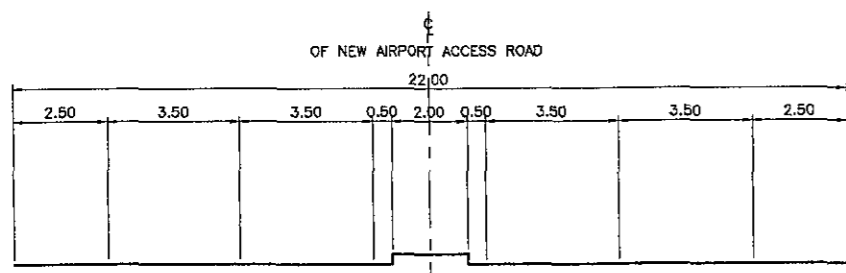


STA. 0+000.000 TO STA. 10+117.284 - ULTIMATE STAGE

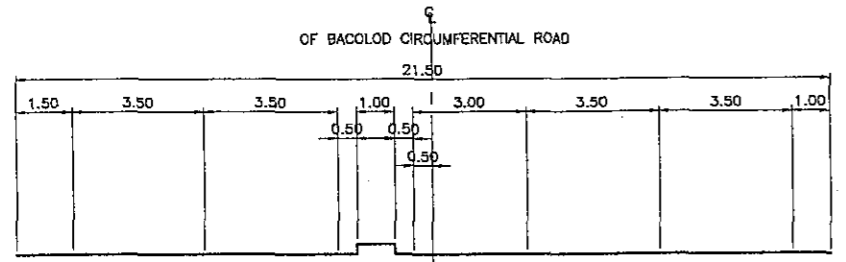


STA. 0+000.000 TO STA. 10+117.284 - INITIAL STAGE

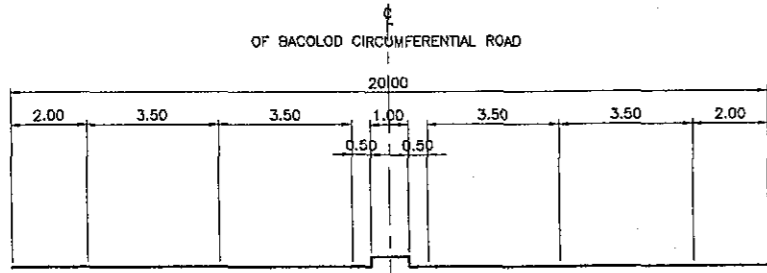
TYPICAL ROAD SECTIONS - SUPERELEVATED



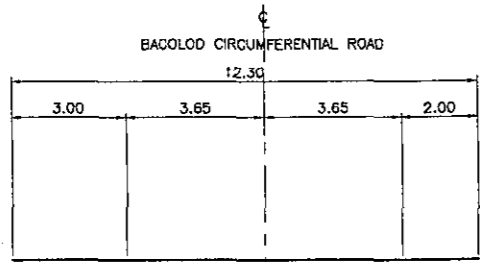
A-A' : NEW AIRPORT ACCESS ROAD



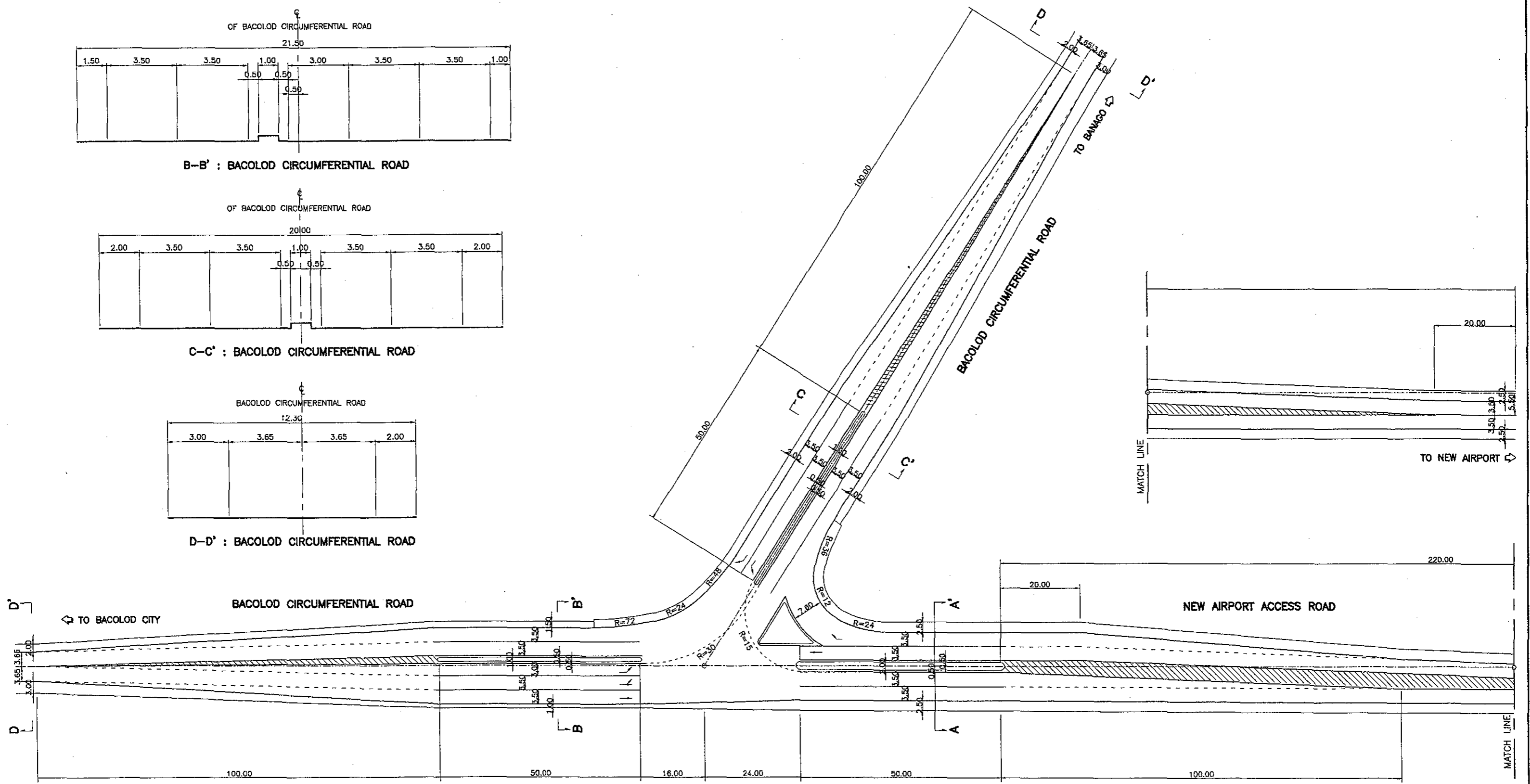
B-B' : BACOLOD CIRCUMFERENTIAL ROAD



C-C' : BACOLOD CIRCUMFERENTIAL ROAD



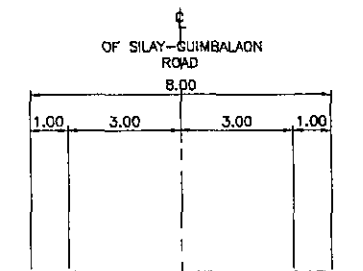
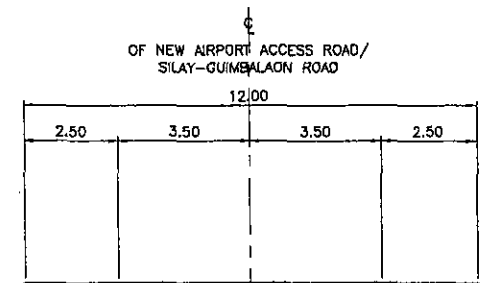
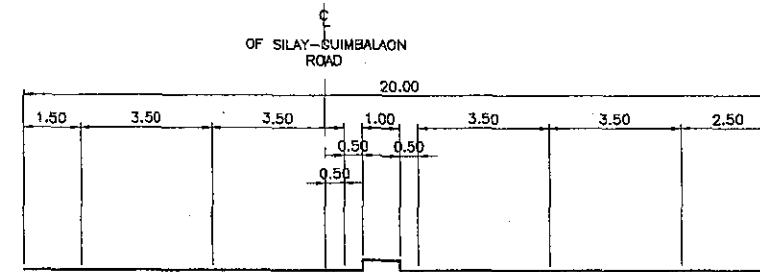
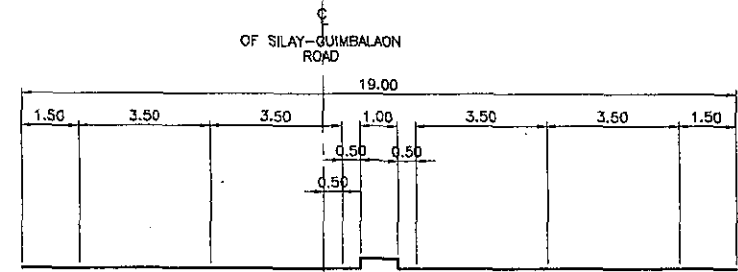
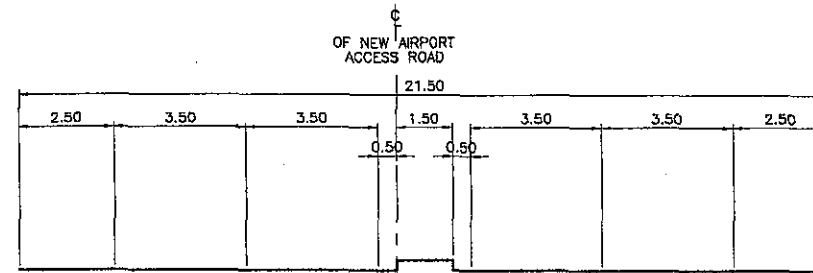
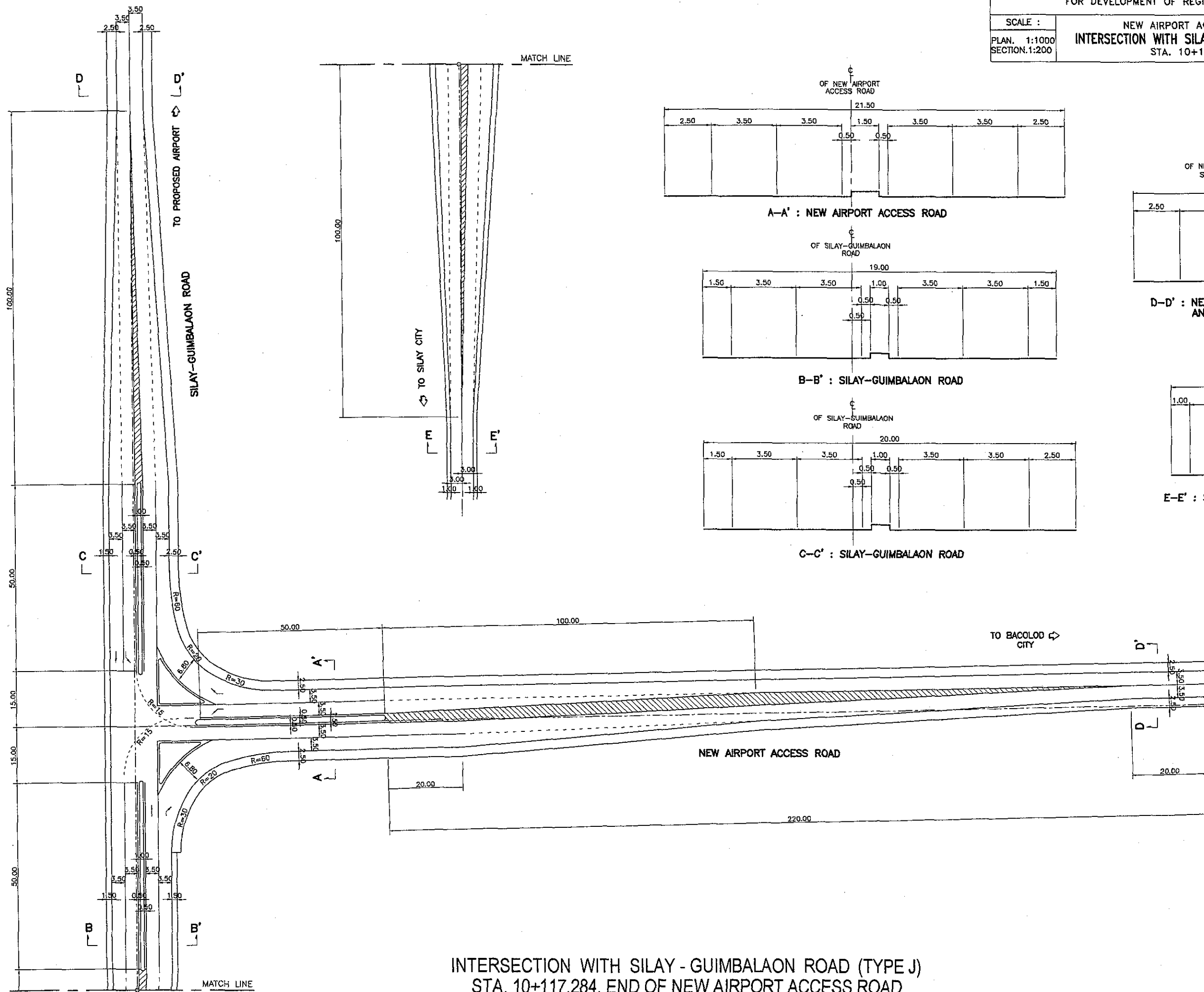
D-D' : BACOLOD CIRCUMFERENTIAL ROAD



SCALE :  
PLAN. 1:1000  
SECTION. 1:200

NEW AIRPORT ACCESS ROAD  
INTERSECTION WITH SILAY-GUMBALAO ROAD  
STA. 10+117.284

DRAWING NO.  
R-17

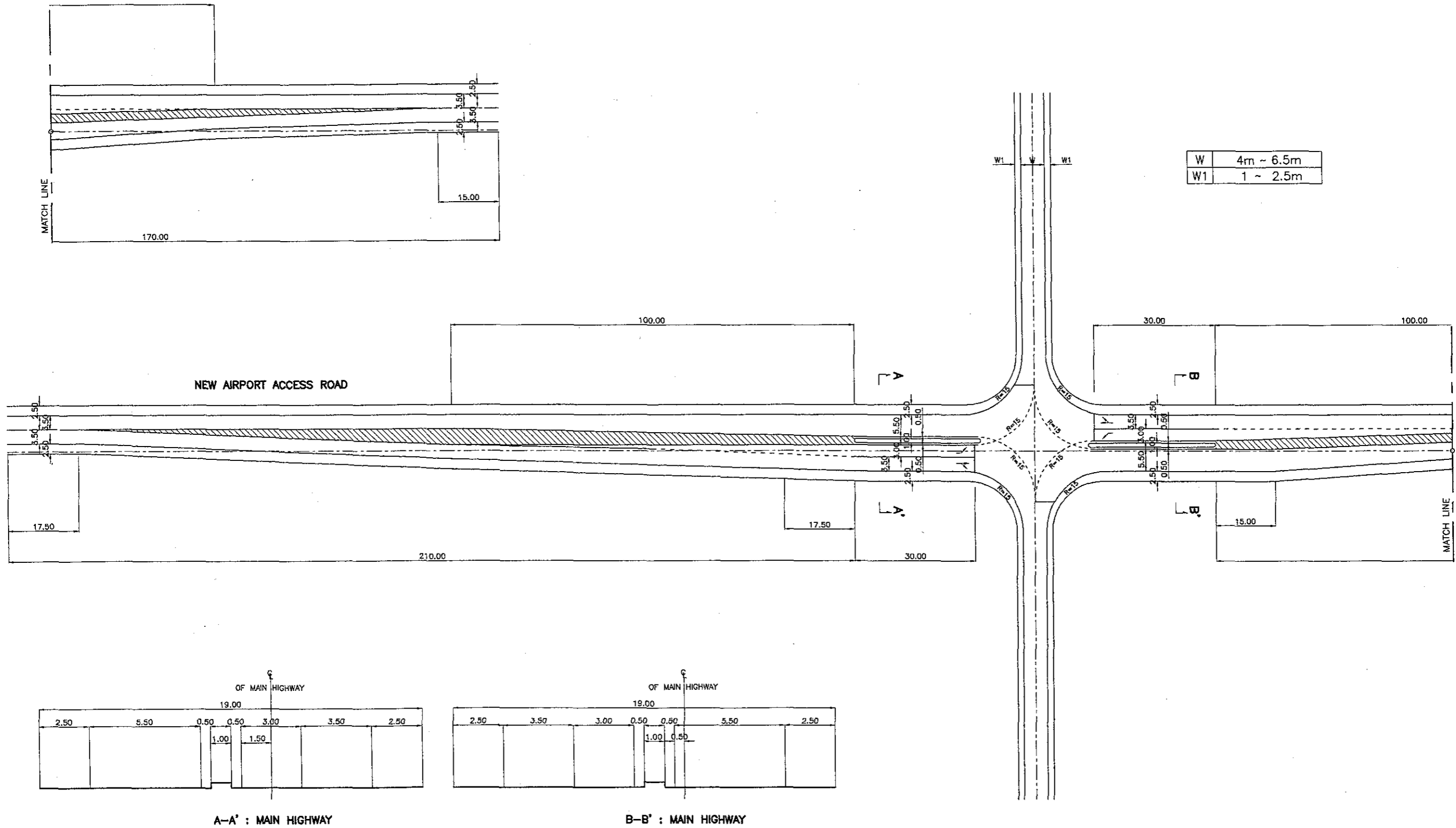


INTERSECTION WITH SILAY - GUMBALAO ROAD (TYPE J)  
STA. 10+117.284, END OF NEW AIRPORT ACCESS ROAD

SCALE :  
PLAN. 1:1000  
SECTION.1:200

NEW AIRPORT ACCESS ROAD  
INTRSECTION DETAILS WITH MINOR ROADS  
( TYPE P )

DRAWING NO.  
R-18



INTERSECTION DETAILS WITH MINOR ROADS (TYPE P)



SCALE :  
1:30000

BACOLOD AIRPORT ACCESS ROAD  
LOCATION PLAN  
AND BRIDGE LIST

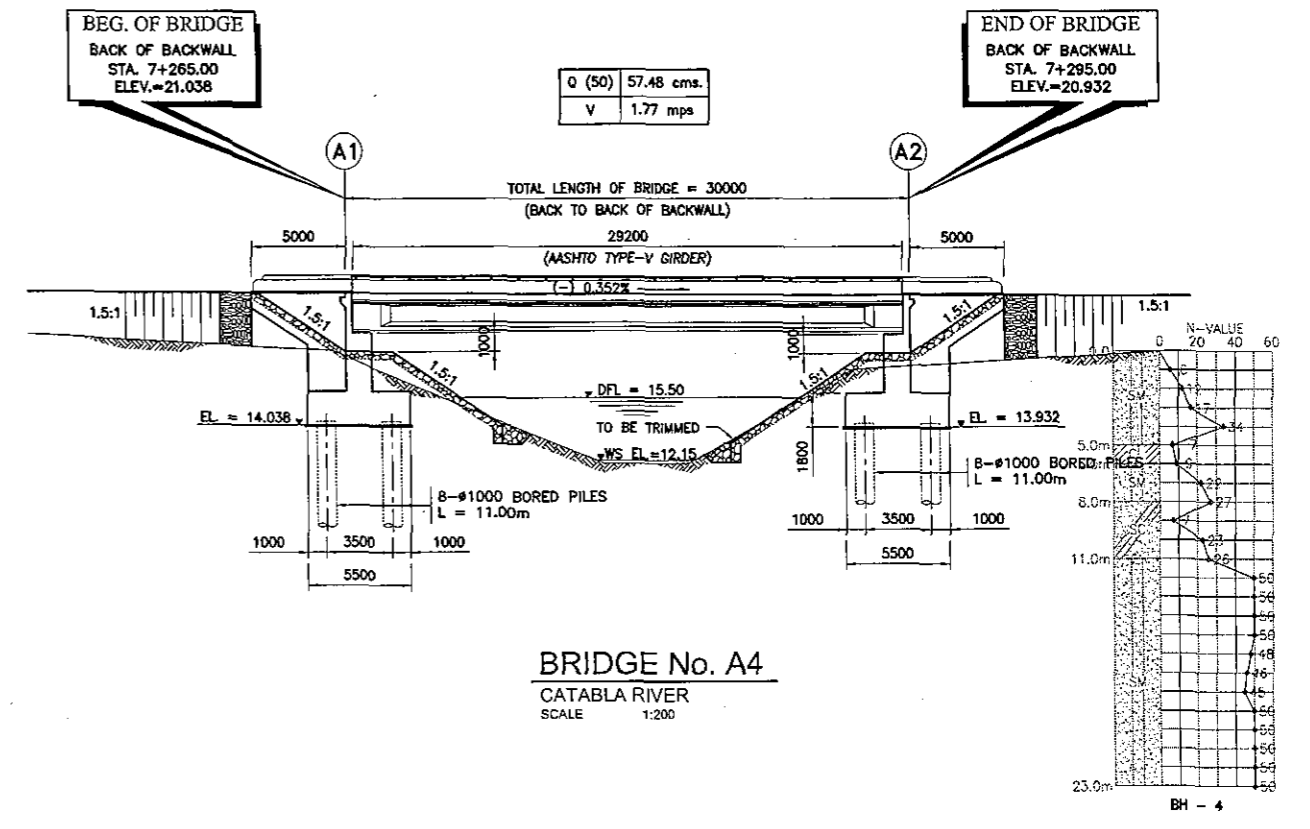
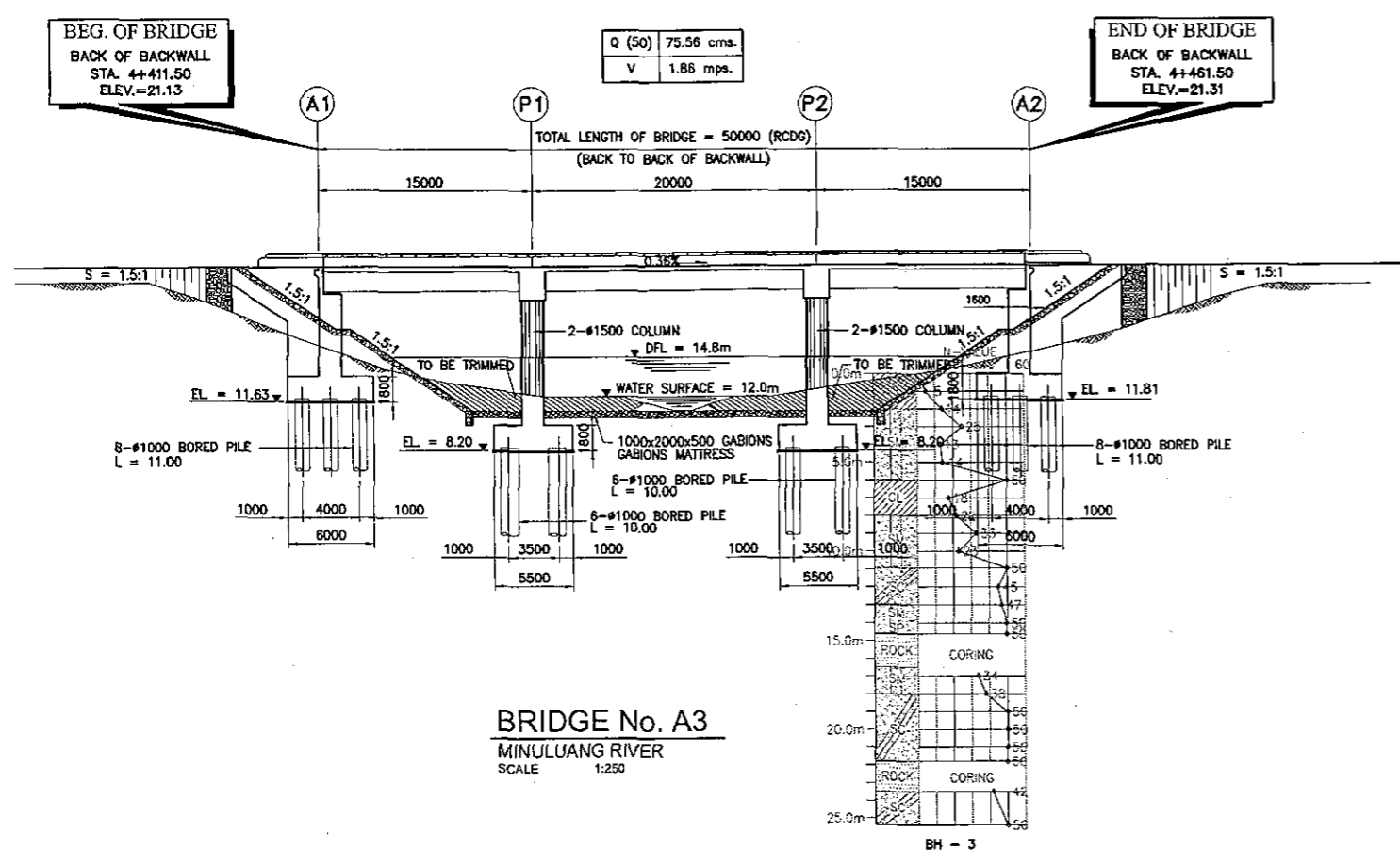
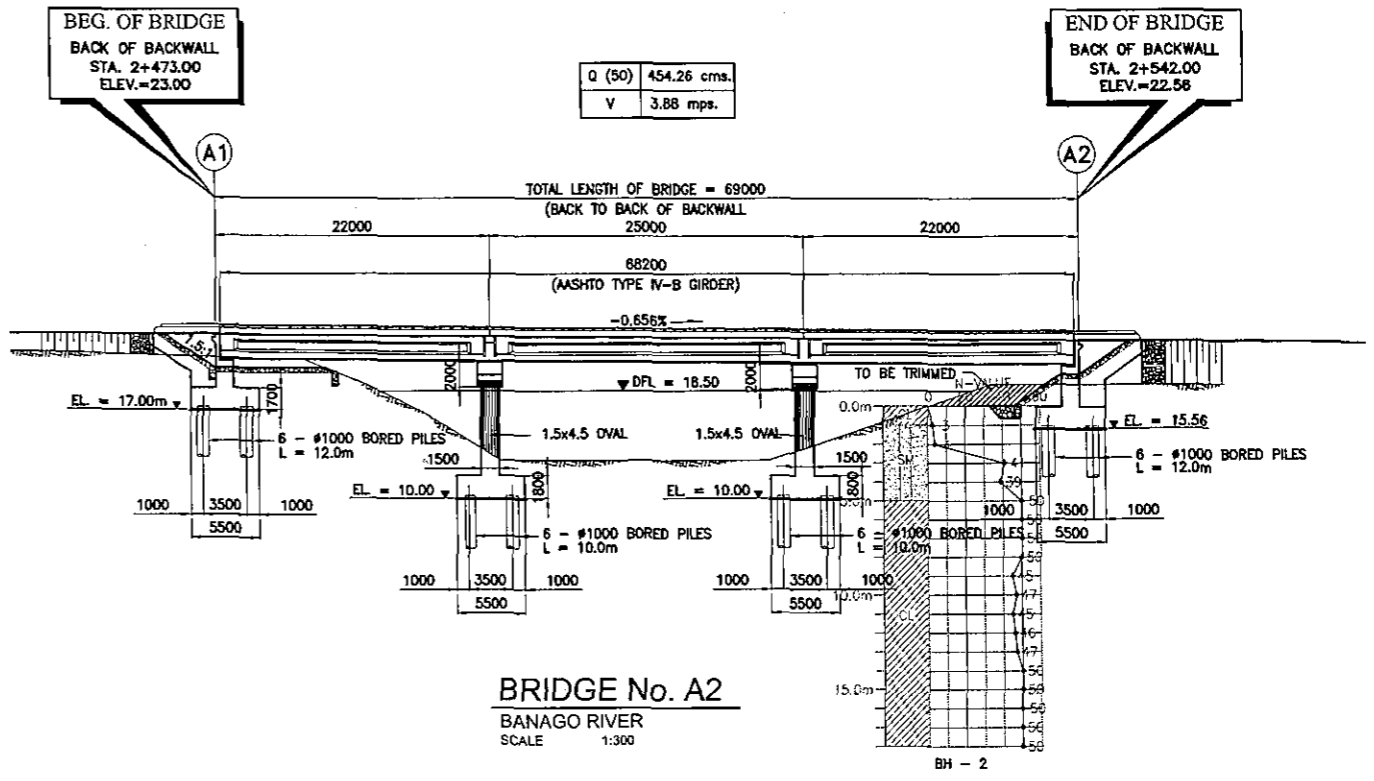
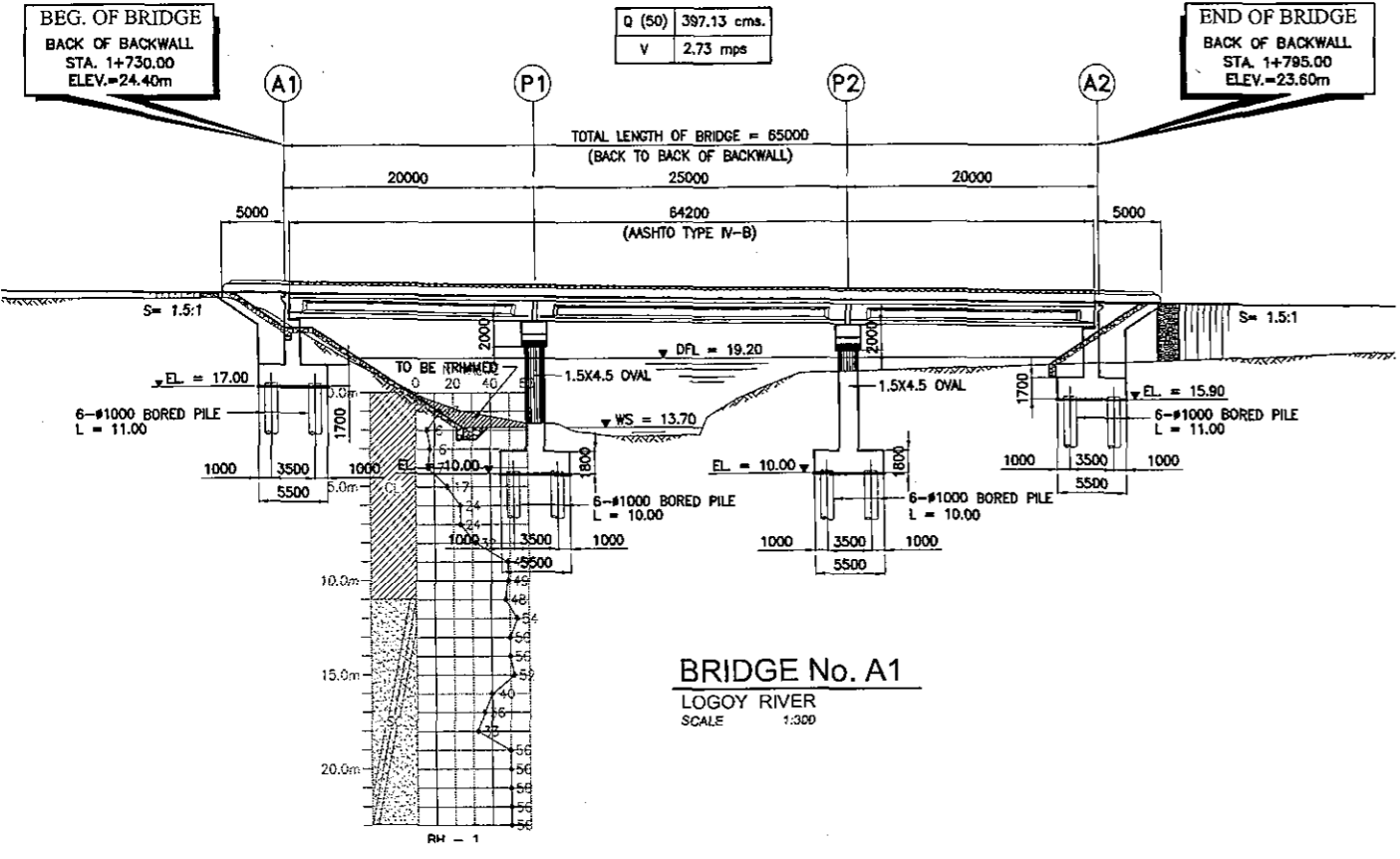
DRAWING NO.  
B-1



Bridge No.	Station		River Name	River Hydraulics			Proposed Bridge				
	Beg	End		Elev. DFL	Q(cms) (50yrs)	Velocity m/s	No. of Span	Span Length(m)	Bridge Length(m)	Skew (deg)	Superstructure Type
A-1	Sta. 1+730	Sta. 1+795	Logoy River	19.20	397.13	2.73	3	20+25+20	65.00	75	PCDG, AASHTO Type IV-B
A-2	Sta. 2+473	Sta. 2+542	Banago River	18.50	454.26	3.88	3	22+25+22	69.00	125	PCDG, AASHTO Type IV-B
A-3	Sta. 4+411.50	Sta. 4+461.50	Minuluang River	14.80	75.56	1.86	3	15+20+15	50.00	125	RCDG
A-4	Sta. 7+265	Sta. 7+295	Catabla River	15.50	57.48	1.77	1	30	30.00	75	PCDG, AASHTO Type V
A-5	Sta. 7+719	Sta. 7+759	Bagacay Creek	15.70	41.48	1.47	1	40	40.00	110	PCDG, AASHTO Type VI
A-6	Sta. 8+916	Sta. 8+946	Guinhalaran River	18.00	40.34	1.60	1	30	30.00	75	PCDG, AASHTO Type V

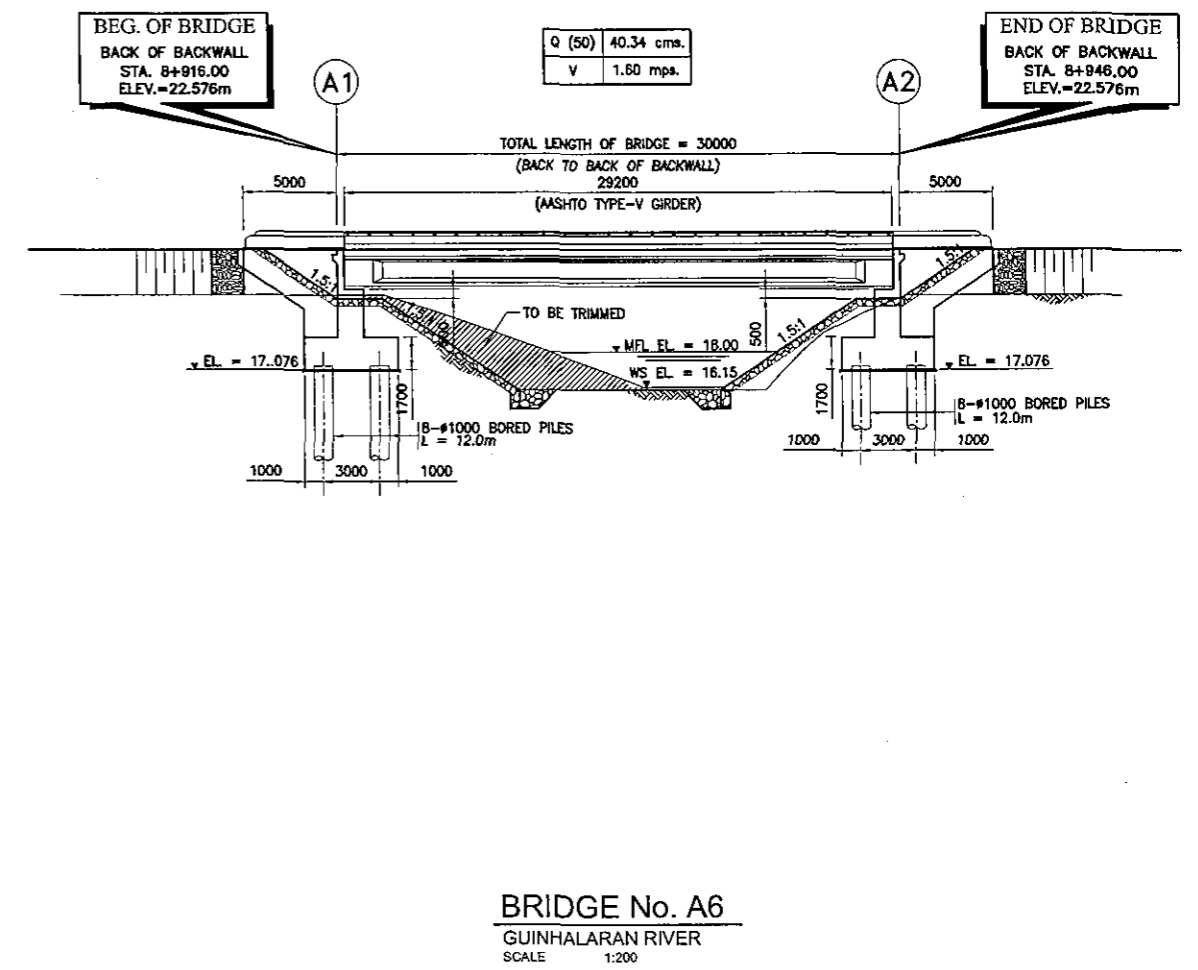
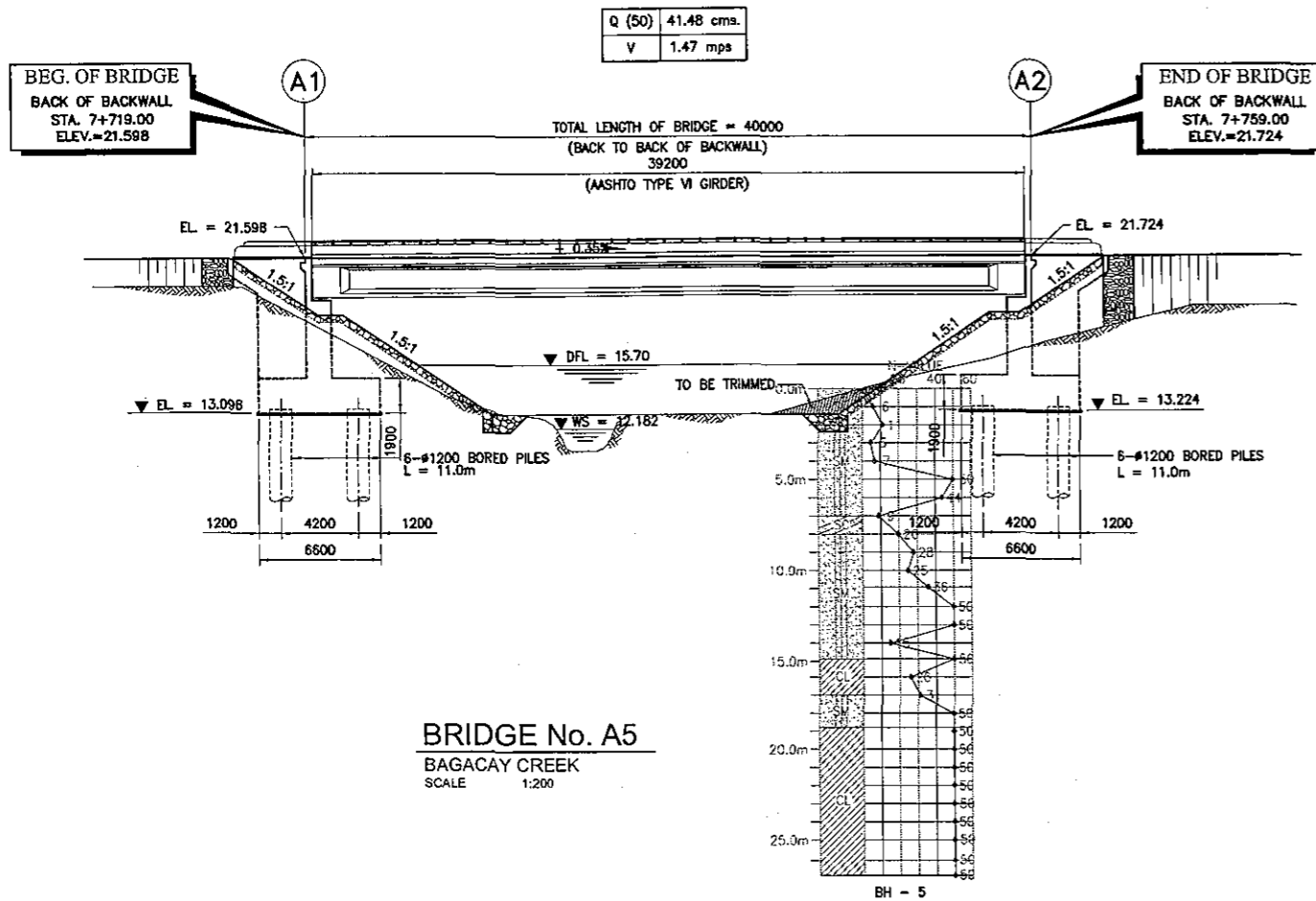
THE STUDY ON ROAD NETWORK IMPROVEMENT  
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE	BACOLOD AIRPORT ACCESS ROAD BRIDGE ELEVATIONS, A1 TO A4	DRAWING NO.
AS SHOWN		B-2



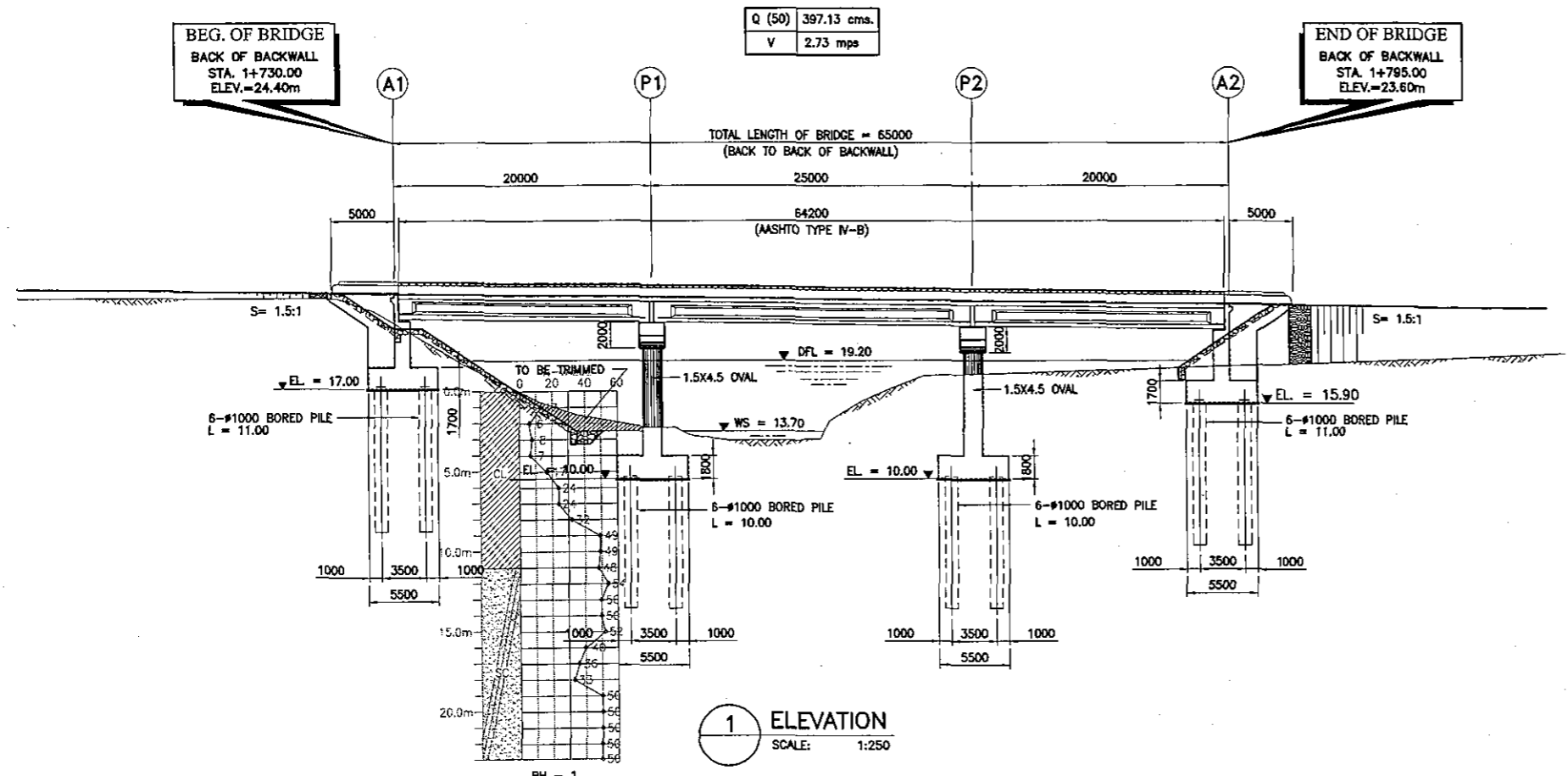


SCALE	BACOLOD AIRPORT ACCESS ROAD BRIDGE ELEVATIONS, A5 & A6	DRAWING NO.
AS SHOWN		B-3

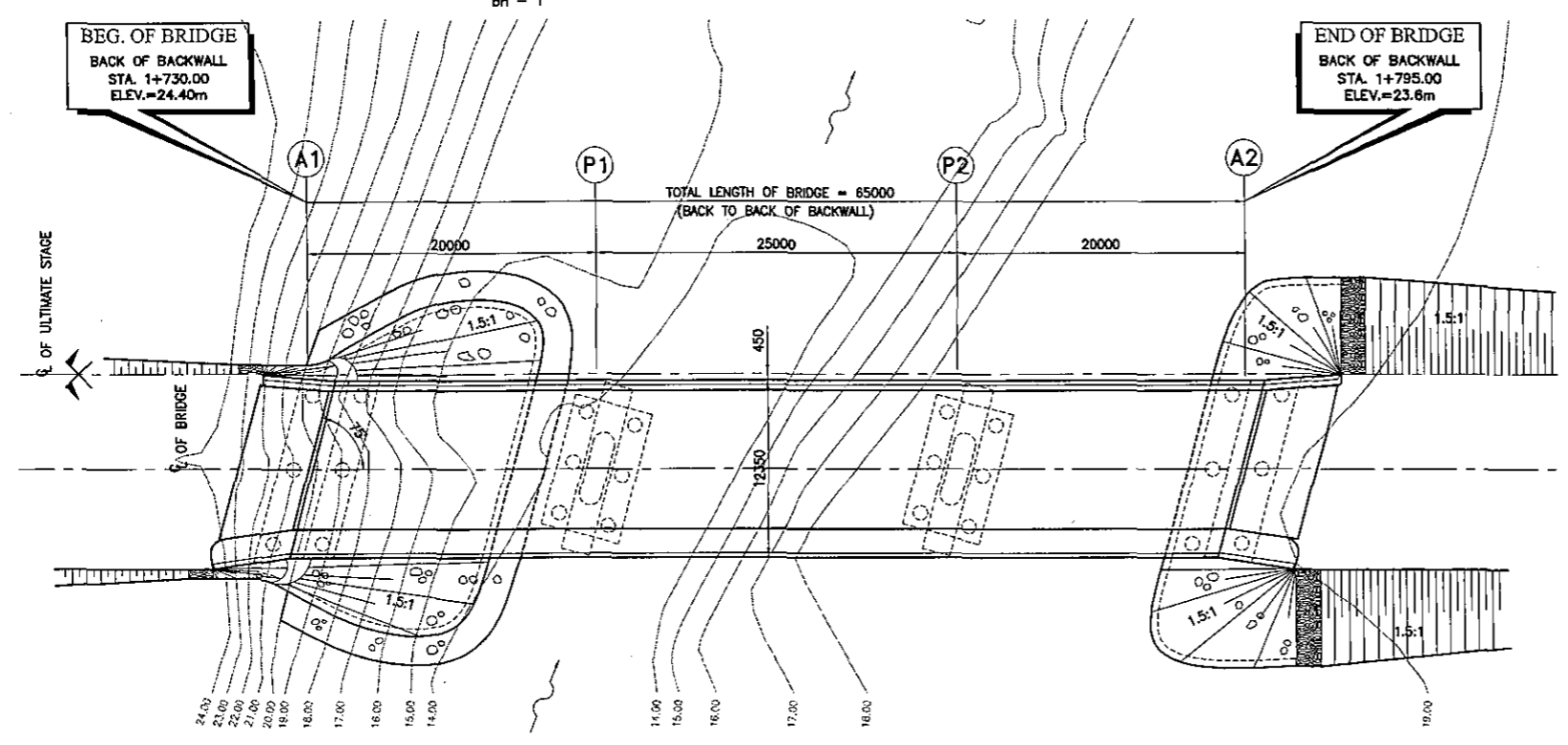


THE STUDY ON ROAD NETWORK IMPROVEMENT  
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

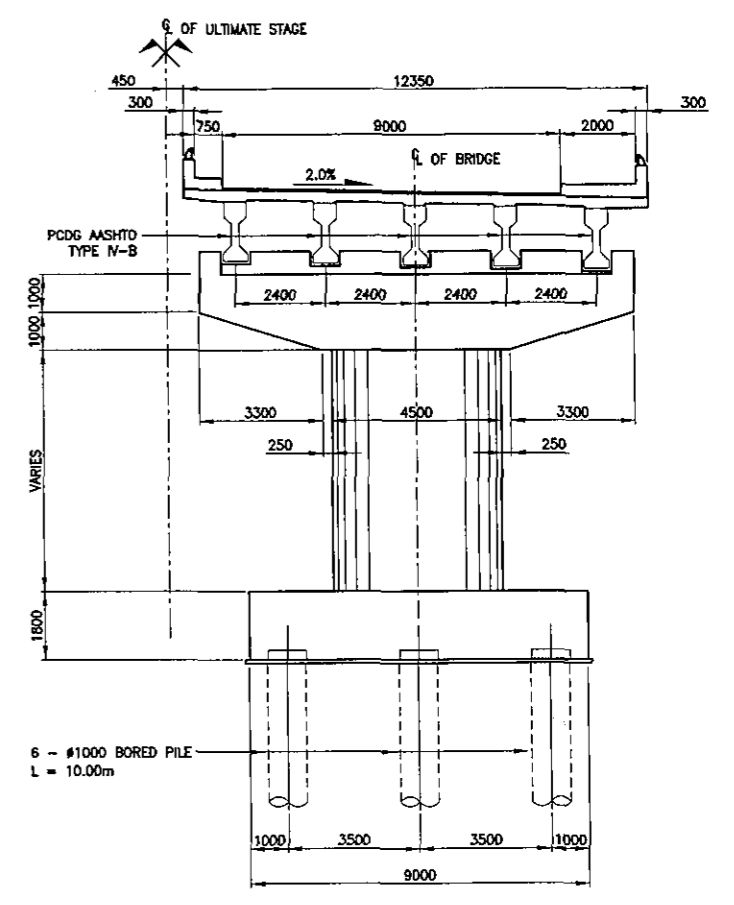
SCALE AS SHOWN	BACOLOD AIRPORT ACCESS ROAD <b>BRIDGE NO. A1 (LOGOY RIVER)</b> STA. 1+730.00 - STA. 1+795.00 GENERAL PLAN, ELEVATION AND SECTIONS	DRAWING NO. <b>B-4</b>
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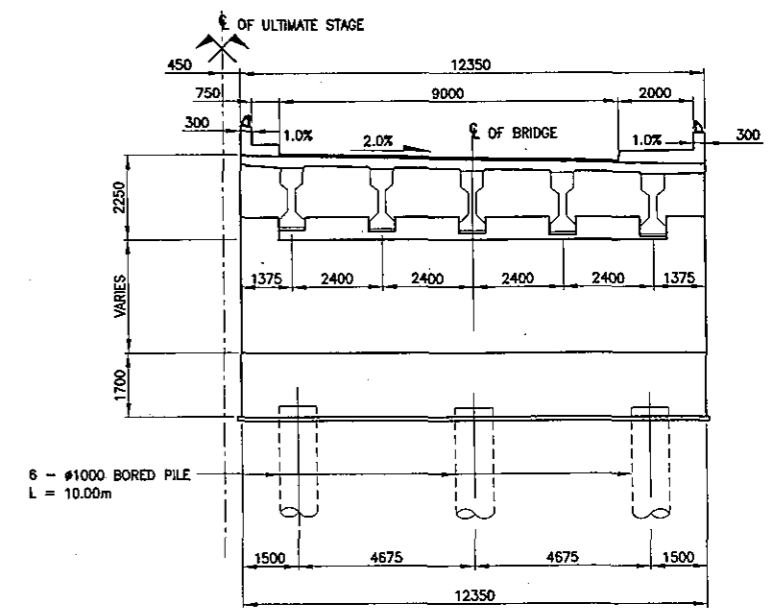
**1 ELEVATION**  
SCALE: 1:250



**2 PLAN**  
SCALE: 1:250



**3 SECTION @ PIER (NORMAL)**  
SCALE: 1:100



**4 SECTION @ ABUTMENT (NORMAL)**  
SCALE: 1:100

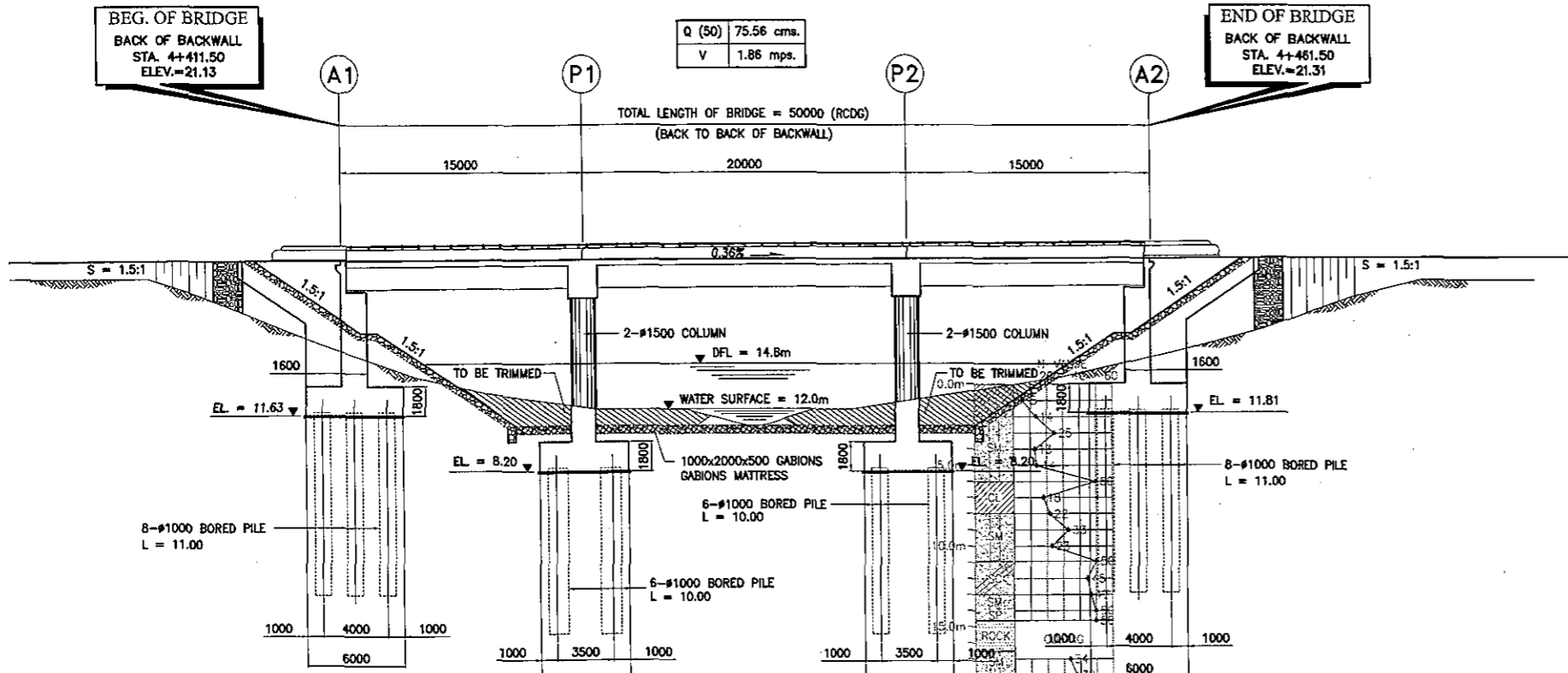
SUMMARY OF ESTIMATED QUANTITIES

ITEM No.	DESCRIPTION	UNIT	QUANTITY
103(2)	BRIDGE EXCAVATION, COMMON, ABOVE OWL	m <sup>3</sup>	948.00
103(2)b	BRIDGE EXCAVATION, COMMON, BELOW OWL	m <sup>3</sup>	540.00
104(1)c	SELECTED BORROW FOR BACKFILLING	m <sup>3</sup>	300.00
311(2)	PCC PAVEMENT(REINFORCED) FOR APPROACH SLAB, t = 300mm	m <sup>2</sup>	90.00
400(16)a	CAST-IN-PLACE BORED PILES, f1000mm	m	252.00
401	CONCRETE RAILINGS	m	130.00
404(2)	REINFORCING STEEL, GRADE 60(#y = 415MPa)	kg	162,200.00
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE(fc' = 24MPa)	m <sup>3</sup>	564.00

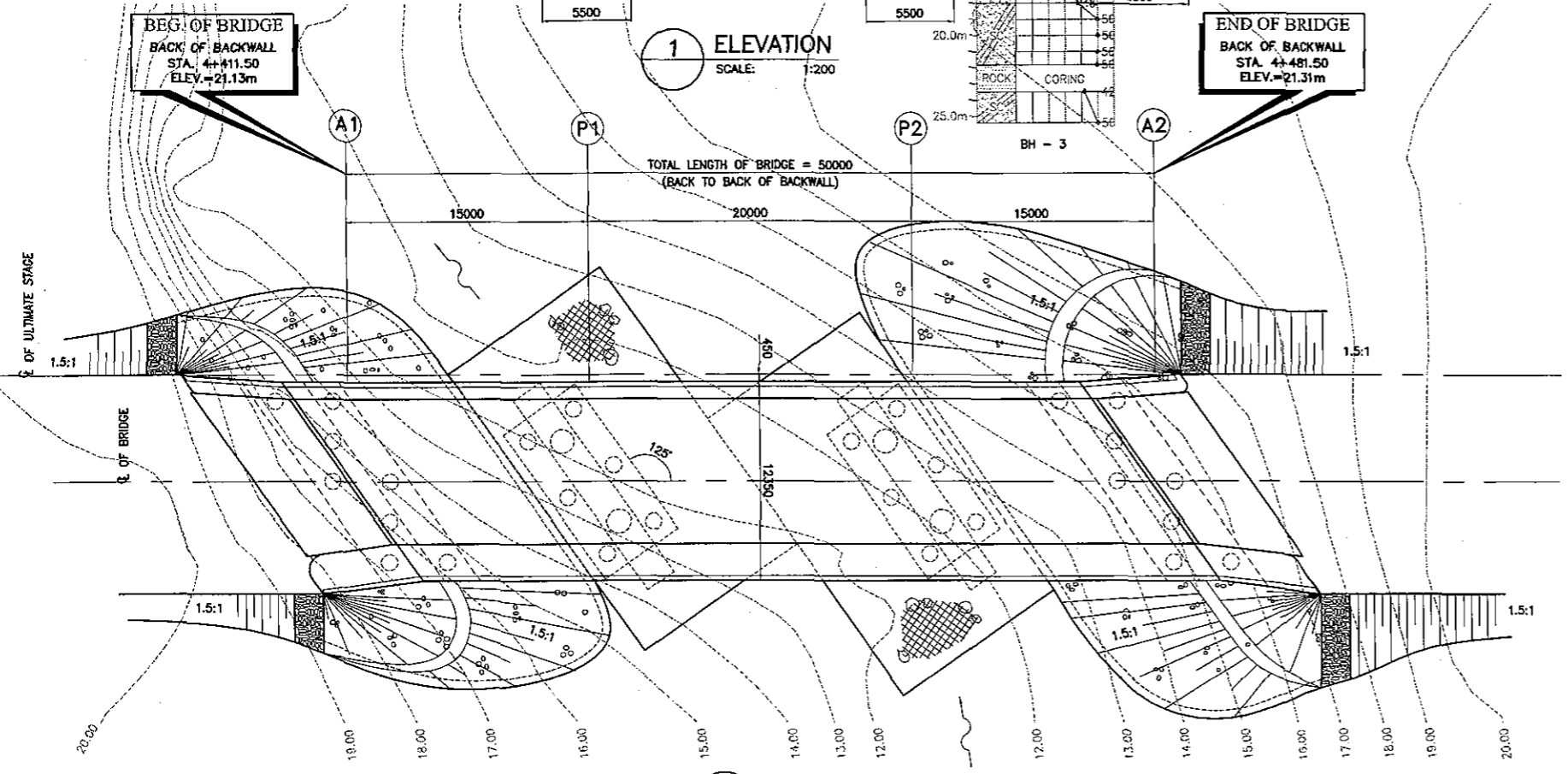
405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE(fc' = 24MPa)	m <sup>3</sup>	441.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (fc' = 17MPa)	m <sup>3</sup>	41.00
406(1)a	PRESTRESSED CONCRETE GIRDER, AASHTO TYPE IV-B, L = 22m	ea	10
406(1)b	PRESTRESSED CONCRETE GIRDER, AASHTO TYPE IV-B, L = 25m	ea	5
407(1)b	ELASTOMERIC BEARING PAD, 550 x 350 x 60(DURO 60)	ea	10
407(2)a	EXPANSION JOINT, MULTIPLEX MBO(± 30mm MOVEMENT)	m	18.00
407(4)	METAL DRAIN (#150mm G.L. DRAIN PIPE)	m	24.00
504	GROUTED RIPRAP SLOPE PROTECTION	m <sup>3</sup>	15.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t = 350mm	m <sup>3</sup>	200.00

THE STUDY ON ROAD NETWORK IMPROVEMENT  
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE AS SHOWN	BACOLOD AIRPORT ACCESS ROAD	DRAWING NO. B-5
	<b>BRIDGE NO. A3 (MINULUANG RIVER)</b>	
	STA. 4+411.50 - STA. 4+461.50 GENERAL PLAN, ELEVATION AND SECTIONS	



**1 ELEVATION**  
SCALE: 1:200

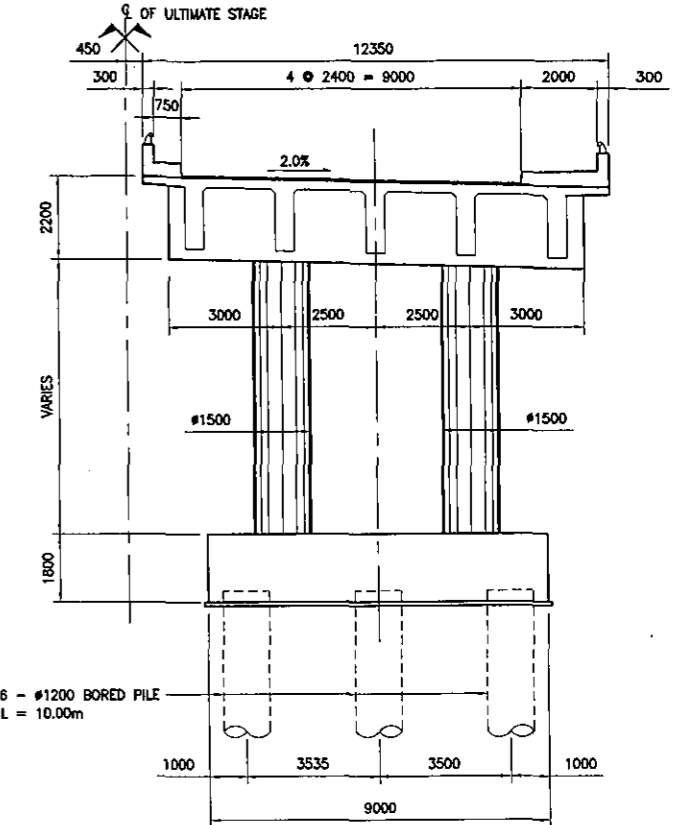


**2 PLAN**  
SCALE: 1:200

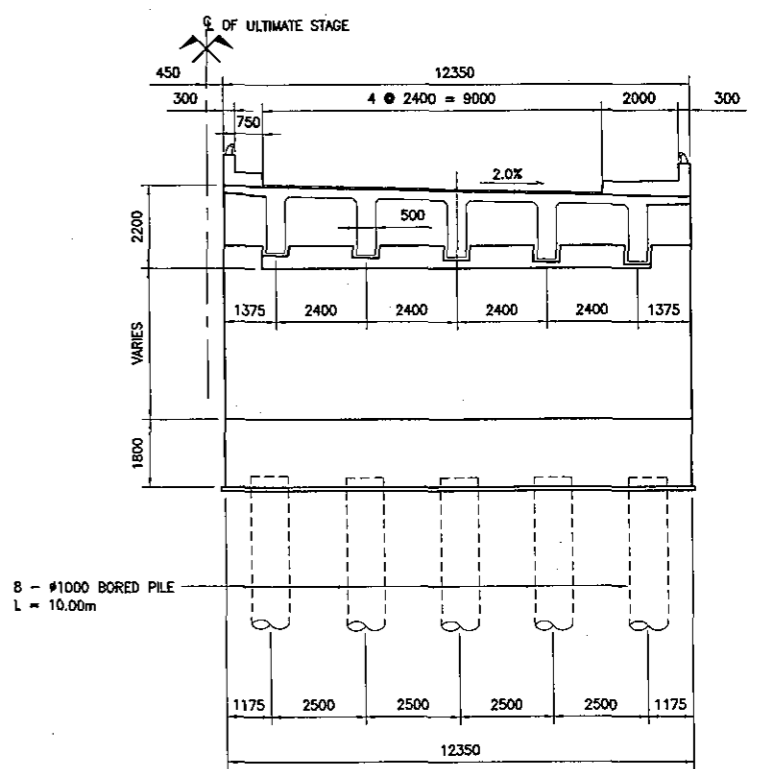
SUMMARY OF ESTIMATED QUANTITIES

ITEM No.	DESCRIPTION	UNIT	QUANTITY
103(2)	BRIDGE EXCAVATION, COMMON, ABOVE OWL	m <sup>3</sup>	664.00
103(2)b	BRIDGE EXCAVATION, COMMON, BELOW OWL	m <sup>3</sup>	423.00
104(1)c	SELECTED BORROW FOR BACKFILLING	m <sup>3</sup>	350.00
311(2)	PCC PAVEMENT(REINFORCED) FOR APPROACH SLAB, t = 300mm	m <sup>3</sup>	90.00
400(16)a	CAST-IN-PLACE BORED PILES. f1000mm	m	296.00
401	CONCRETE RAILINGS	m	100.00
404(2)	REINFORCING STEEL, GRADE 60(fy = 415MPa)	kg	170,600.00
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE(f <sub>c</sub> ' = 24MPa)	m <sup>3</sup>	525.00

405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE(f <sub>c</sub> ' = 24MPa)	m <sup>3</sup>	450.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (f <sub>c</sub> ' = 17MPa)	m <sup>3</sup>	40.00
407(1)a	ELASTOMERIC BEARING PAD, 450 x 350 x 60(DURO 60)	ea	10.00
407(2)a	EXPANSION JOINT, MULTIPLEX M80(± 30mm MOVEMENT) < 30m	m	18.00
407(4)	METAL DRAIN (f150mm G.I. DRAIN PIPE)	m	24.00
504	GROUTED RIPRAP SLOPE PROTECTION	m <sup>3</sup>	12.00
509	GABIIONS	m <sup>3</sup>	441.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t = 350mm	m <sup>3</sup>	200.00



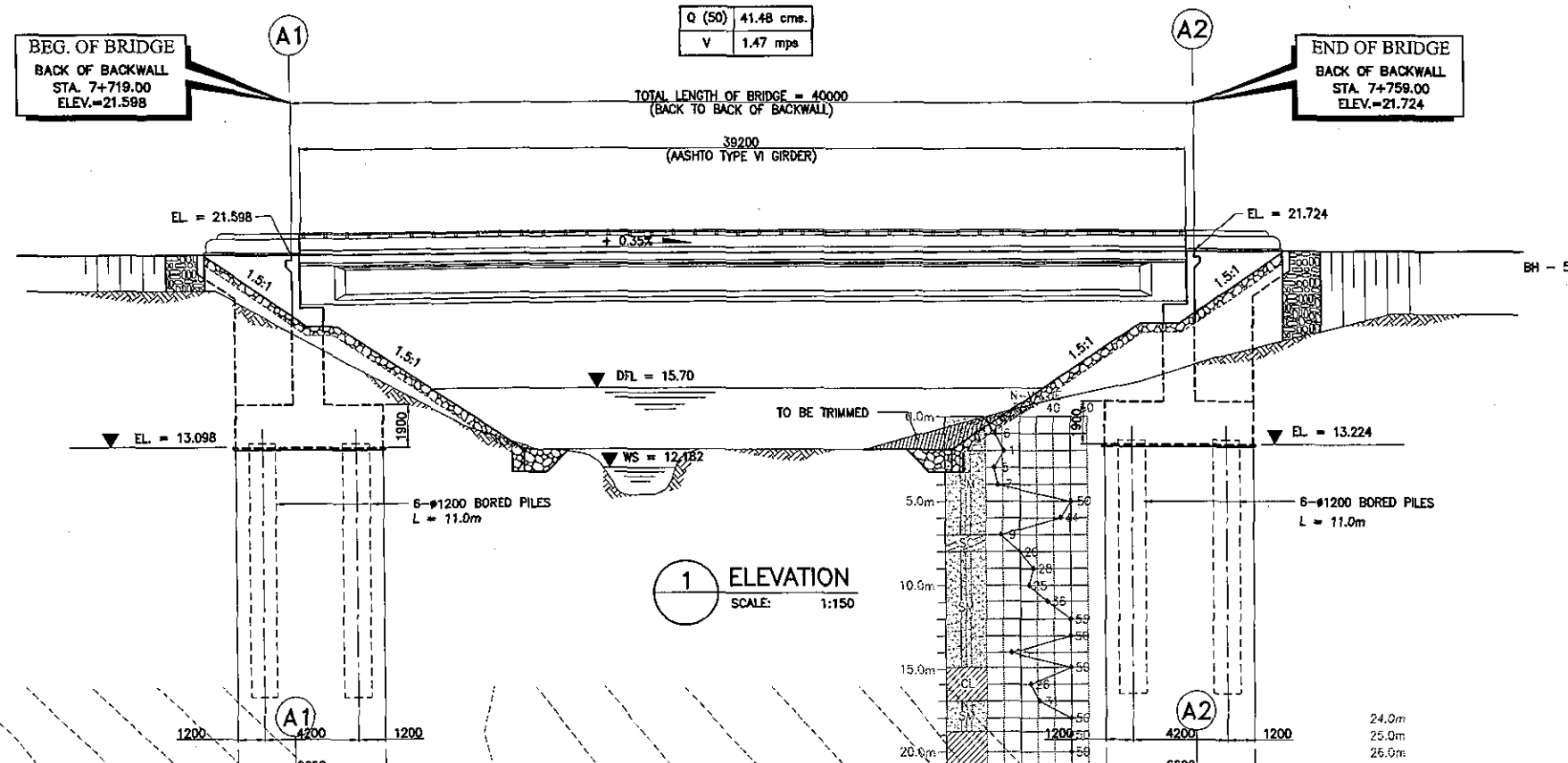
**3 SECTION @ PIER (NORMAL)**  
SCALE: 1:100



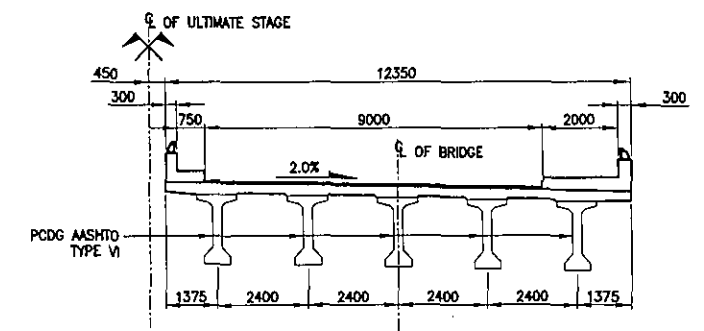
**4 SECTION @ ABUTMENT (NORMAL)**  
SCALE: 1:100

THE STUDY ON ROAD NETWORK IMPROVEMENT  
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

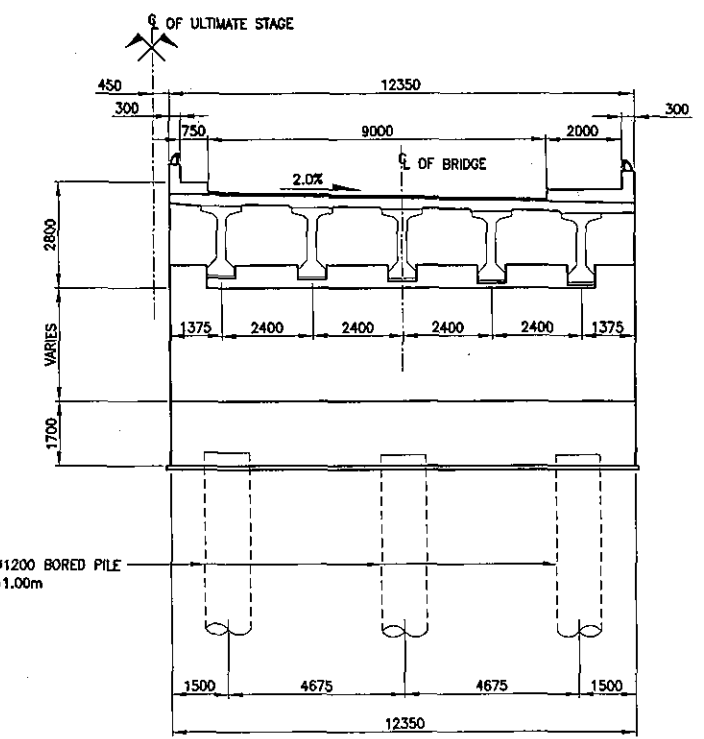
SCALE	BACOLOD AIRPORT ACCESS ROAD <b>BRIDGE NO. A5 (BAGACAY CREEK)</b> STA. 7+719.00 - STA. 7+759.00 GENERAL PLAN, ELEVATION AND SECTIONS	DRAWING NO.
AS SHOWN		B-6



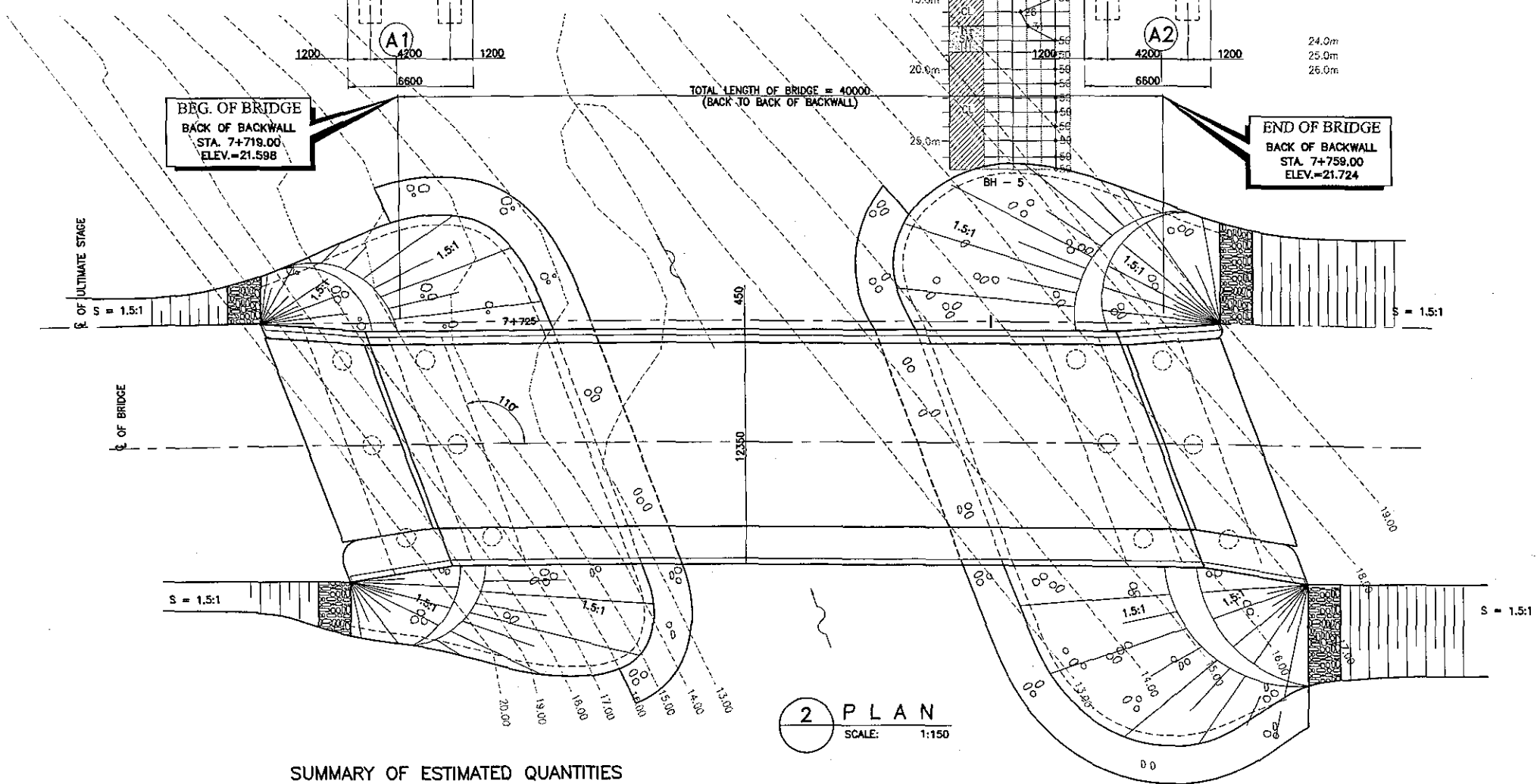
**1 ELEVATION**  
SCALE: 1:150



**3 SECTION @ MID-SPAN (NORMAL)**  
SCALE: 1:100



**4 SECTION @ ABUTMENT (NORMAL)**  
SCALE: 1:100



**2 PLAN**  
SCALE: 1:150

SUMMARY OF ESTIMATED QUANTITIES

ITEM No.	DESCRIPTION	UNIT	QUANTITY
103(2)	BRIDGE EXCAVATION, COMMON, ABOVE OWL	m <sup>3</sup>	1,050.00
103(2)b	BRIDGE EXCAVATION, COMMON, BELOW OWL	m <sup>3</sup>	
104(1)c	SELECTED BORROW FOR BACKFILLING	m <sup>3</sup>	420.00
311(2)	PCC PAVEMENT(REINFORCED) FOR APPROACH SLAB, t = 300mm	m <sup>2</sup>	90.00
400(16)b	CAST-IN-PLACE BORED PILES, #1200mm	m	132.00
401	CONCRETE RAILINGS	m	80.00
404(2)	REINFORCING STEEL, GRADE 60(fy = 415MPa)	kg	56,466.97
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE(f'c = 24MPa)	m <sup>3</sup>	188.00

405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE(f'c = 24MPa)	m <sup>3</sup>	191.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (f'c = 17MPa)	m <sup>3</sup>	24.00
406(1)	PRESTRESSED CONCRETE GIRDER, AASHTO TYPE VI, L = 40m	ea	5
407(1)d	ELASTOMERIC BEARING PAD, 700 x 475 x 60(DURD 60)	ea	10
407(2)b	EXPANSION JOINT, MULTIPLEX M100(± 50mm MOVEMENT)	m	18.00
407(4)	METAL DRAIN (1150mm G.I. DRAIN PIPE)	m	8.00
504	GROUTED RIPRAP SLOPE PROTECTION	m <sup>3</sup>	12.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t = 350mm		291.00