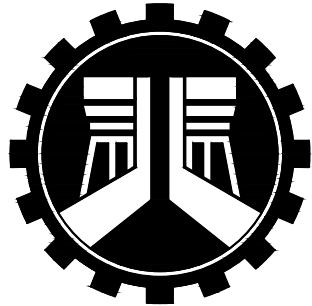




REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
**REHABILITATION AND RE-CONSTRUCTION OF DAMAGED STRUCTURES ALONG TINGLOY
CIRCUMFERENTIAL ROAD, PAPAYA SECTION, BRGY. PAPAYA, TINGLOY, BATANGAS**
TINGLOY, BATANGAS
NET LENGTH = 400.00 L.M.

SUBMITTED:

GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:

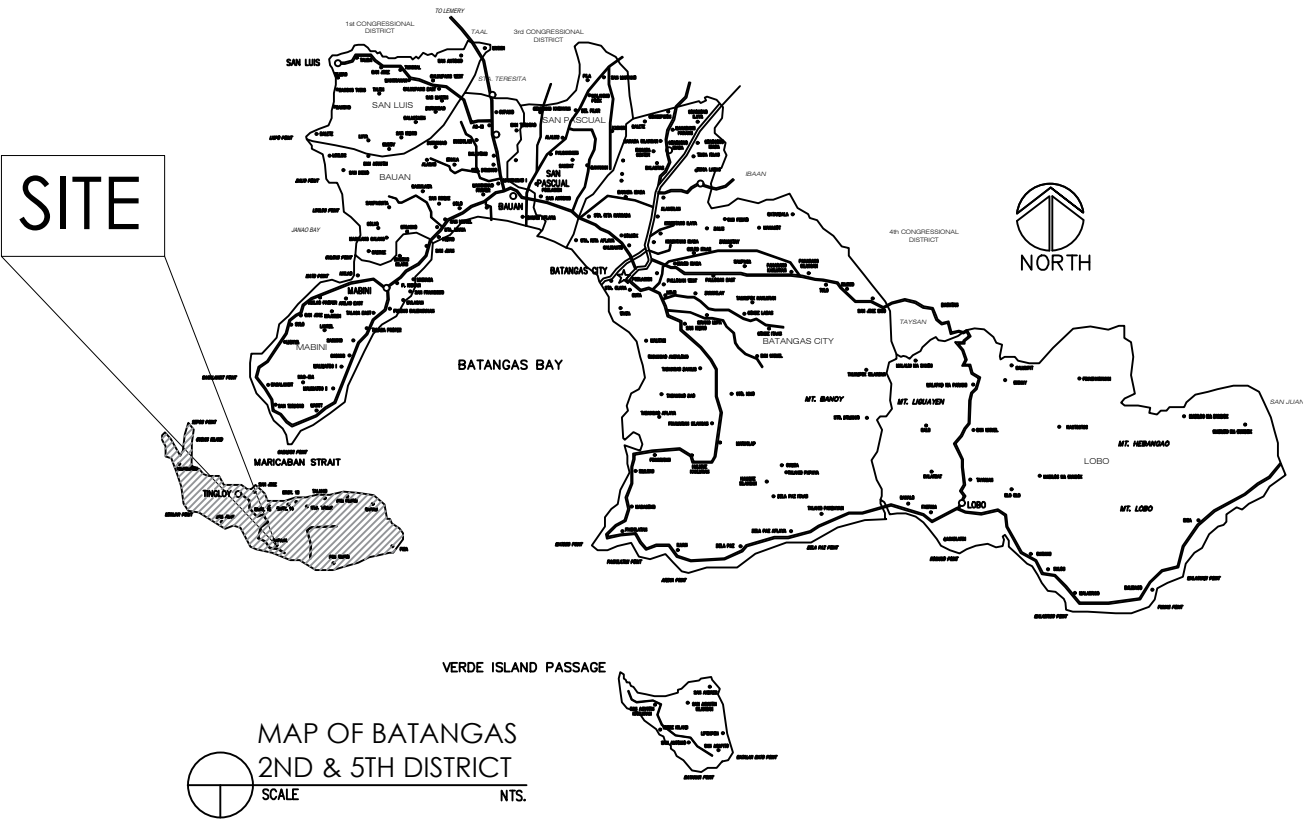
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:

SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

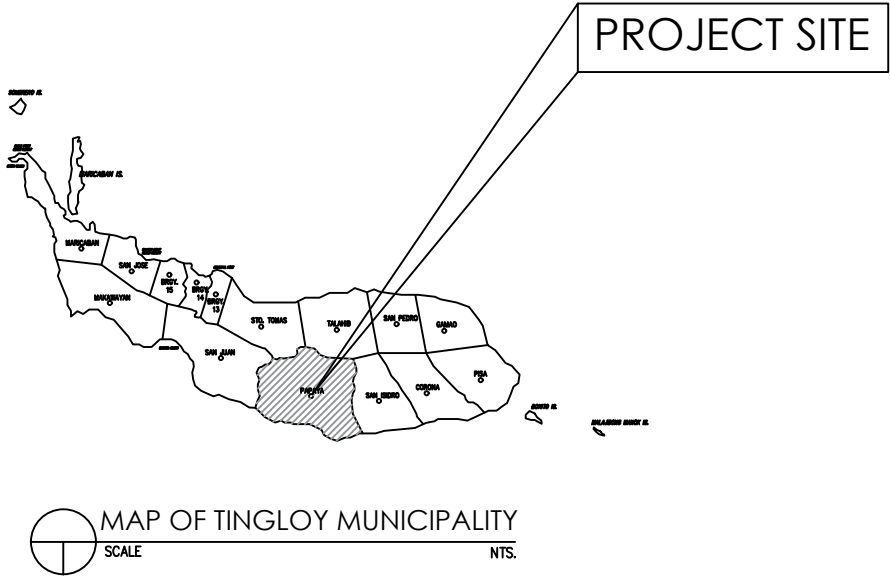
A. GENERAL

G 15	COVER PAGE
G 25	INDEX OF DRAWINGS MAP OF BATANGAS MAP OF TINGLOY MUNICIPALITY
G 35	SUMMARY OF QUANTITIES
G 45	PROJECT BILLBOAR DETAIL
G 55	TRAFFIC MANAGEMENT PLAN



B. FLOOD CONTROL

FC 12	CROSS SECTION OF STEEL SHEET PILE PARAPET DETAIL PILECAP DETAIL
FC 22	TYPICAL ROAD SECTION W/ STONE MASONRY



SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	QTY	UNIT	REMARKS
PART A	FACILITIES FOR THE ENGINEER			
A.1.1 (8)	Provision of Field Office for the Engineer (Rental Basis)	7.70	Month	
A.1.1 (11)	Provision of Fumitures/Fixtures, Equipment & Appliances for the Engineer	1.00	Lump Sum	
A.1.2 (11)	Provision of Motorized Banca for the Engineer (Rental Basis)	7.70	Month	
A.1.4 (1)	Provision of Progress Photographs	7.70	Month	
PART B	OTHER GENERAL REQUIREMENT			
B.5 (1)	Project Billboard / Signboard	2.00	Each	
B.7 (2)	Occupational Safety and Health Program	1.00	Lump Sum	
B.8 (1)	Traffic Management	7.70	Month	
B.9 (1)	Mobilization / Demobilization	1.00	Lump Sum	
PART C	EARTHWORKS			
101 (1)	Removal of Structures and Obstruction	1.00	Lump Sum	
101 (6)	Removal of Structures and Obstruction, Concrete	490.00	cu.m.	
102 (2)	Surplus Common Excavation	978.57	cu.m.	
103 (1) a	Structure Excavation, Common Soil	1,334.80	cu.m.	
104 (1) a	Embankment from roadway/structure excavation, Common Soil	807.30	cu.m.	
104 (2) a	Embankment from borrow, Common Soil	3,170.72	cu.m.	
105 (1) b	Subgrade Preparation, Existing Pavement	1,600.00	sq.m.	
PART D	SUBBASE AND BASE COURSE			
200 (1)	Aggregate Subbase Course	520.00	cu.m.	
PART E	SURFACE COURSES			
311(1)b1	Portland Cement Concrete Pavement (Unreinforced), 0.20	1,600.00	sq.m	
PART L-B	BANK AND SLOPE PROTECTION WORKS			
1711 (1)	Stone Masonry	4,066.80	cu.m.	
1712 (1)	Concrete Slope Protection	140.00	cu.m.	
1717 (2) a	Sheet Piles, Steel, Slope Protection	9,063.00	m.	



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PAPAYA SECTION, BRGY. PAPAYA, TINGLOY, BATANGAS
TINGLOY, BATANGAS

SHEET CONTENT:

SUMMARY OF QUANTITIES

DRAFTED:

JAIRUS DAREN M. AGBAY
ENGINEER II

PREPARED:

JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED:

BRYAN EDWARD R. ANDAL
ENGINEER II

DATE:

SUBMITTED:

GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION

DATE:

RECOMMENDED:

ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

SONIA D. PAGLICAUAN
DISTRICT ENGINEER

DATE:

SET NO.

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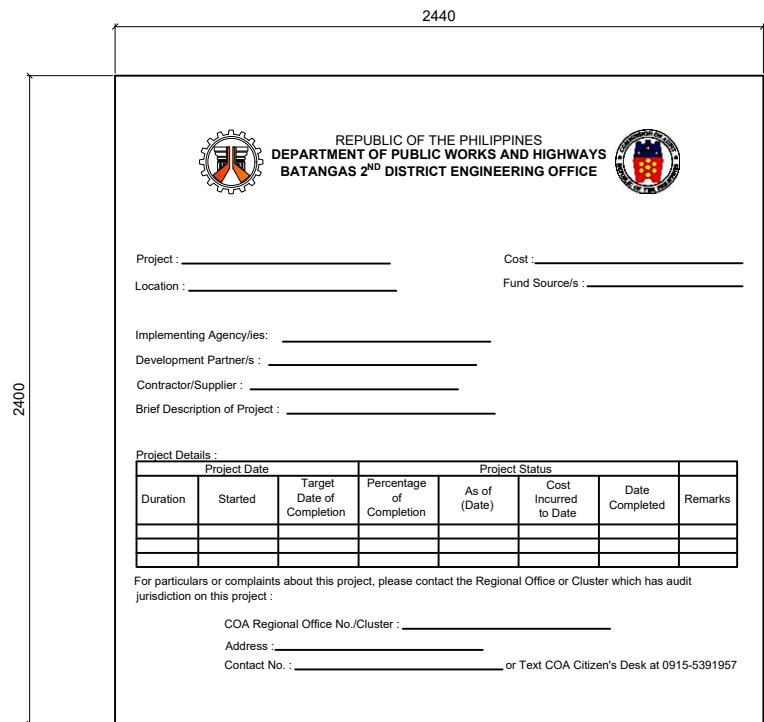
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NOTES:

AS PER DEPARTMENT ORDER NO. 021 SERIES OF 2017

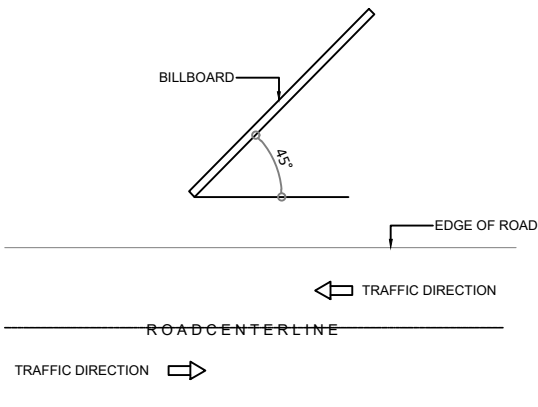
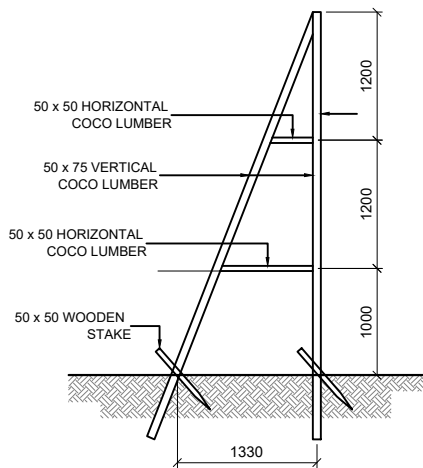
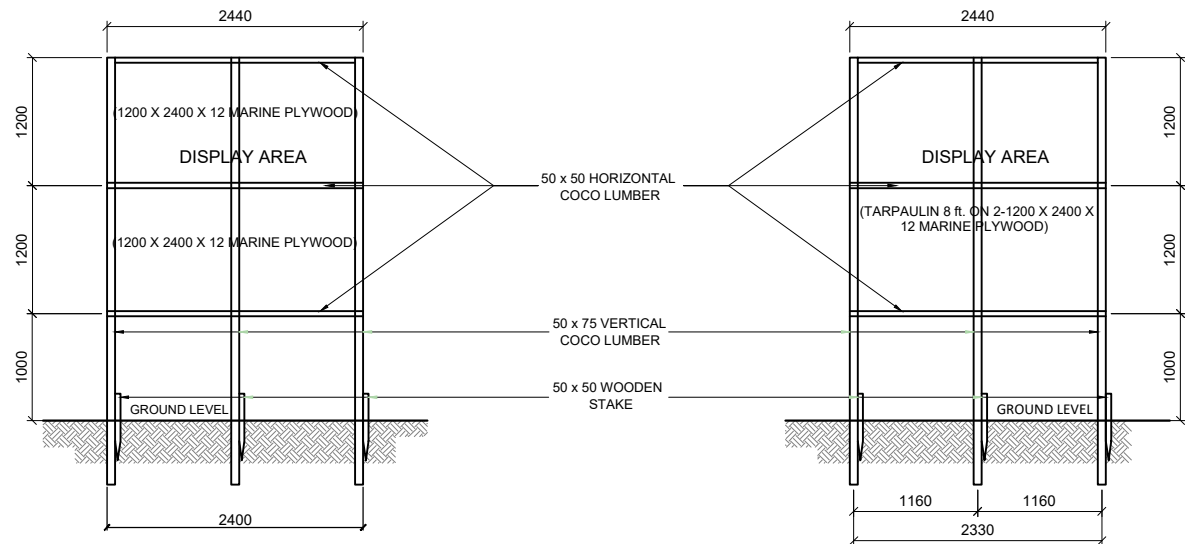
1. THE NEW BILLBOARD DESIGN LAYOUT AND DIMENSION (SEE DRAWING) SHALL BE INSTALLED ON A STANDARD BILLBOARD MEASURING 1220mm. x 2440mm. USING 12mm. (1/2 inch) THICK MARINE PLYWOOD OR TARPAULIN POSTED ON 5mm. (3/16 inch) MARINE PLYWOOD.
2. FOR EACH BUILDING PROJECT, THE BILLBOARD SHALL BE INSTALLED IN FRONT OF THE PROJECT SITE.
3. FOR EACH ROAD/BRIDGE/FLOOD CONTROL PROJECT, TWO BILLBOARDS SHALL BE INSTALLED, I.E., ONE AT THE BEGINNING AND ONE AT THE END OF THE PROJECT.
4. FOR ROAD PROJECTS WITH LENGTH OF 10 KILOMETERS OR MORE, BILLBOARD(S) SHALL ALSO BE INSTALLED AT EVERY 5 KILOMETERS INTERVAL.
5. NAME(S) AND/OR PICTURE(S) OF ANY PERSONAGES SHOULD NOT APPEAR IN THE BILLBOARD.
6. NO POLITICAL BILLBOARDS SHALL BE ALLOWED TO BE INSTALLED 100 METERS BEFORE AND 100 METERS AFTER ALL DPWH PROJECTS AND IN BETWEEN THE PROJECT LIMITS OR WITHIN THE ROAD RIGHT-OF-WAY.
7. DPWH CONTRACTORS SHALL NOT BE ALLOWED TO PLACE NAMES OF POLITICIANS ON THEIR EQUIPMENT OR CARRY POLITICAL BILLBOARD ON THEIR EQUIPMENT.



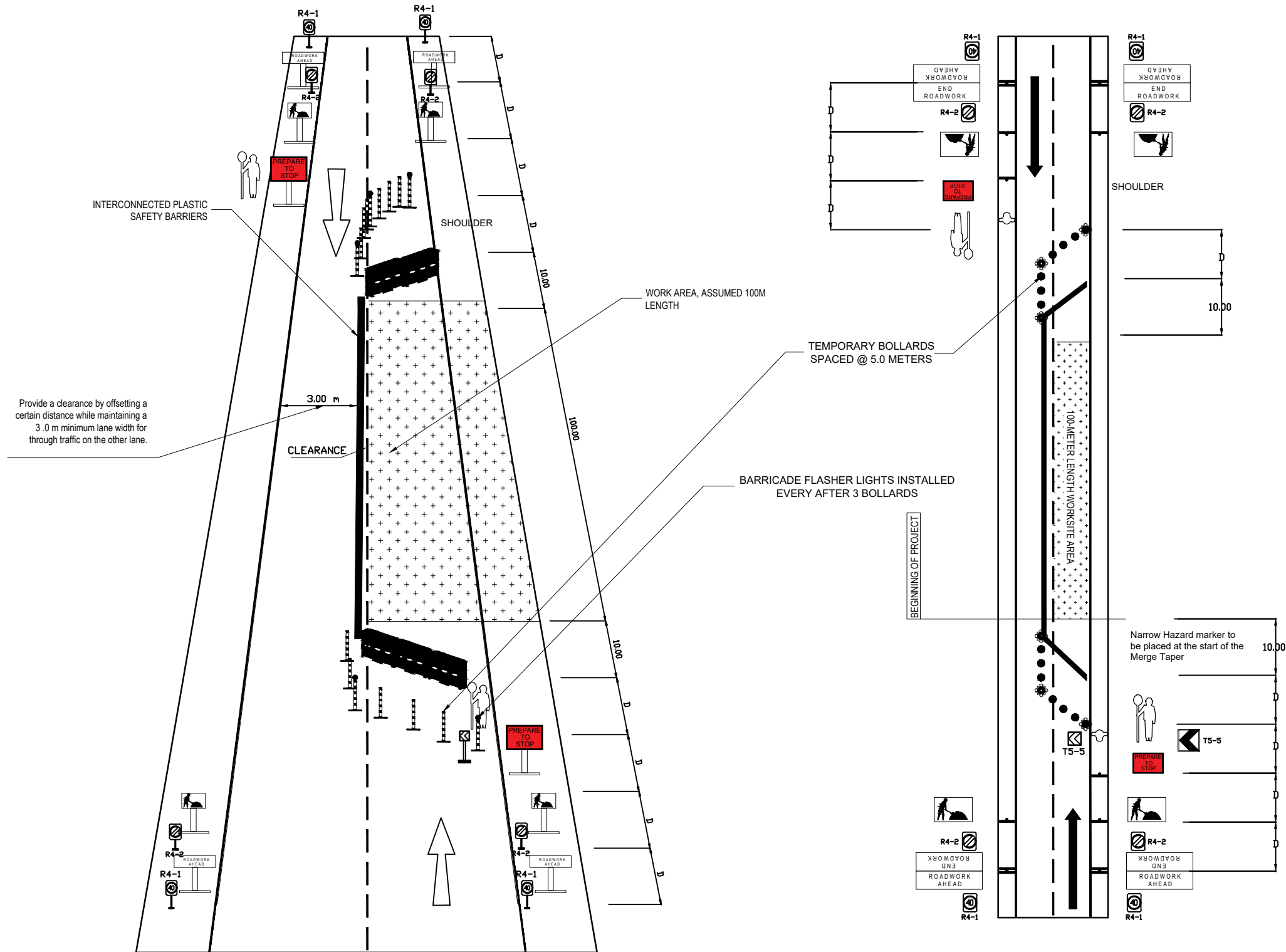
SPECIFICATIONS :

TARPAULIN, WHITE, 8 ft x 8 ft
RESOLUTION : 70 DPI
FONT : HELVETICA
FONT SIZE : MAIN INFORMATION - 3"
FONT COLOR : BLACK

COA STANDARD PROJECT BILLBOARD



 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. IV-A BATANGAS 2ND DISTRICT ENGINEERING OFFICE KUMINTANG ILAYA, BATANGAS CITY	PROJECT NAME AND LOCATION: REHABILITATION AND RE-CONSTRUCTION OF DAMAGED STRUCTURES ALONG TINGLOY CIRCUMFERENTIAL ROAD, PAPAYA SECTION, BRGY. PAPAYA, TINGLOY, BATANGAS TINGLOY, BATANGAS	SHEET CONTENT: PROJECT BILLBOARD DETAIL	DRAFTED: <u>JAIRUS DAREN M. AGBAY</u> ENGINEER II PREPARED: <u>JUNEIL RAY M. CHAVEZ</u> ENGINEER II	REVIEWED: <u>BRYAN EDWARD R. ANDAL</u> ENGINEER II DATE:	SUBMITTED: <u>GEMMA L. OLAN</u> CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED: <u>ARIEL V. ARMEDILLA</u> ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: <u>SONIA D. PAGLICAUAN</u> DISTRICT ENGINEER DATE:	SET NO. 	SHEET NO. 
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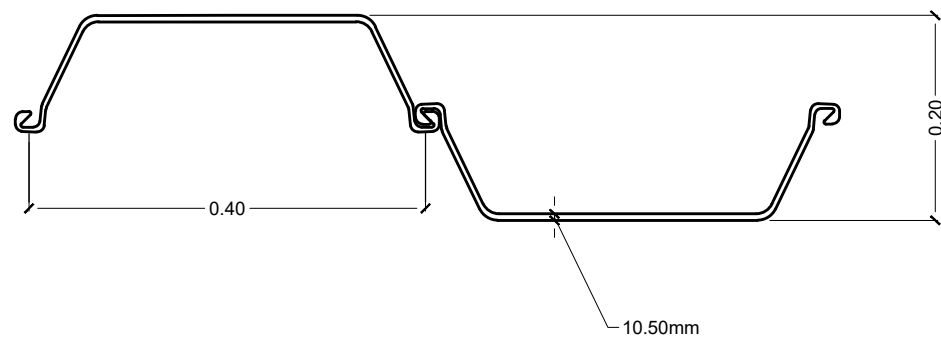
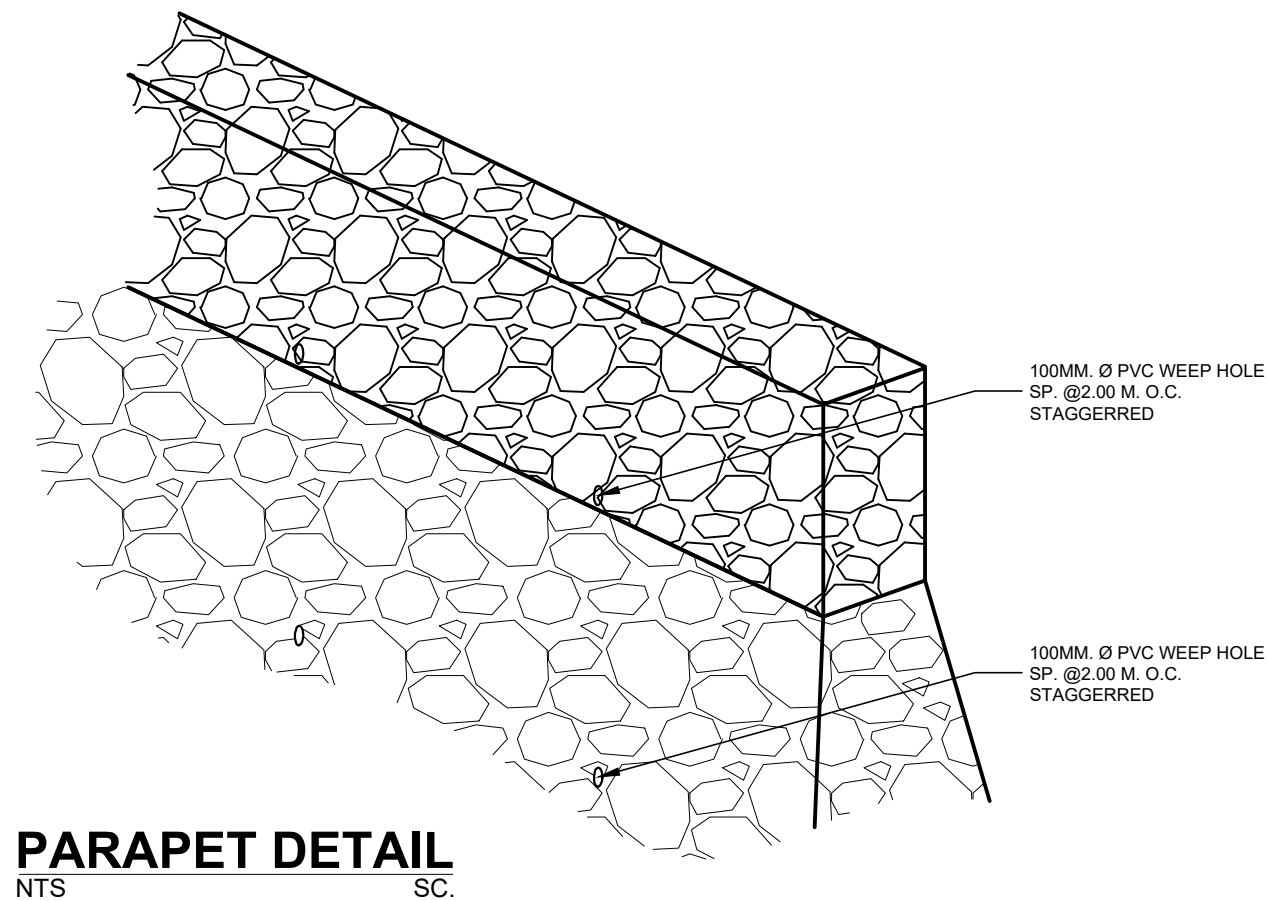
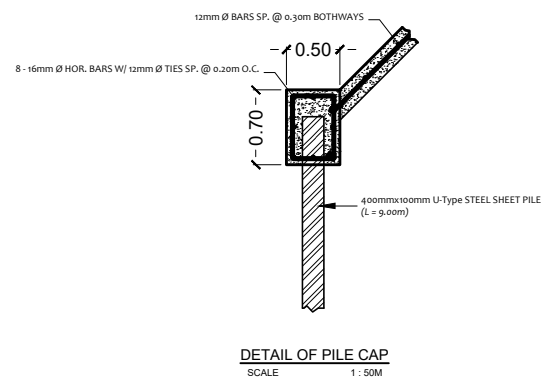


ROAD AND BRIDGE WORK SITE TEMPORARY SIGNAGE	SIGNAGE DESCRIPTION			
	SIGN NO.	SIZE (mm) (WIDTH x HEIGHT)	LETTER / SYMBOLS	BACKGROUND
ROADWORK AHEAD	T1-1	1800 X 600	LINE 1 - BLACK 200 DM	YELLOW REFLECTORIZED
			LINE 2 - BLACK 160 DM	
	T1-5	900 X 600	BLACK	REFLECTORIZED FOR NIGHT USE (LONG TERM)
				FLOURESCENT FOR DAY USE (SHORT TERM)
PREPARE TO STOP	T1-18	900 X 600	LINE 1 - WHITE 120 DM LINE 2 - WHITE 120 DM LINE 3 - WHITE 120 EM REFLECTORIZED	RED REFLECTORIZED
END ROADWORK	T2-16	1800 X 600	LINE 1 - BLACK 200 EN	YELLOW REFLECTORIZED
			LINE 2 - BLACK 160 DN	
	T5-5	600 X 600	BLACK 194 WIDE AT 45°	YELLOW REFLECTORIZED
	R4-1	600 X 800 SIZE B	BLACK 240 DN CIRCLE - 600 DIA. RED	WHITE REFLECTORIZED RED CIRCLE - RELECTORIZED
	R4-2	600 X 800 SIZE B	SYMBOL - 600 DIA. BLACK	WHITE REFLECTORIZED

DIMENSION "D"
A distance expressed in meters equal to
the approach speed of traffic in kilometers
per hour, SET D = 40 meters length.

FLOOD CONTROL STRUCTURE

COMPONENTS OF TRAFFIC MANAGEMENT PLAN



CROSS SECTION OF STEEL SHEET PILE
SCALE : NTS



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TINGLOY, BATANGAS

CROSS SECTION OF STEEL SHEET PILE
DETAIL OF PILE CAP
PARAPET DETAIL

DRAFTED:

JAIRUS DAREN M. AGBAY
ENGINEER II

PREPARED:

JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED:

BRYAN EDWARD R. ANDAL
ENGINEER II

DATE:

SUBMITTED:

GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION

DATE:

RECOMMENDED:

ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

SONIA D. PAGLICAUAN
DISTRICT ENGINEER

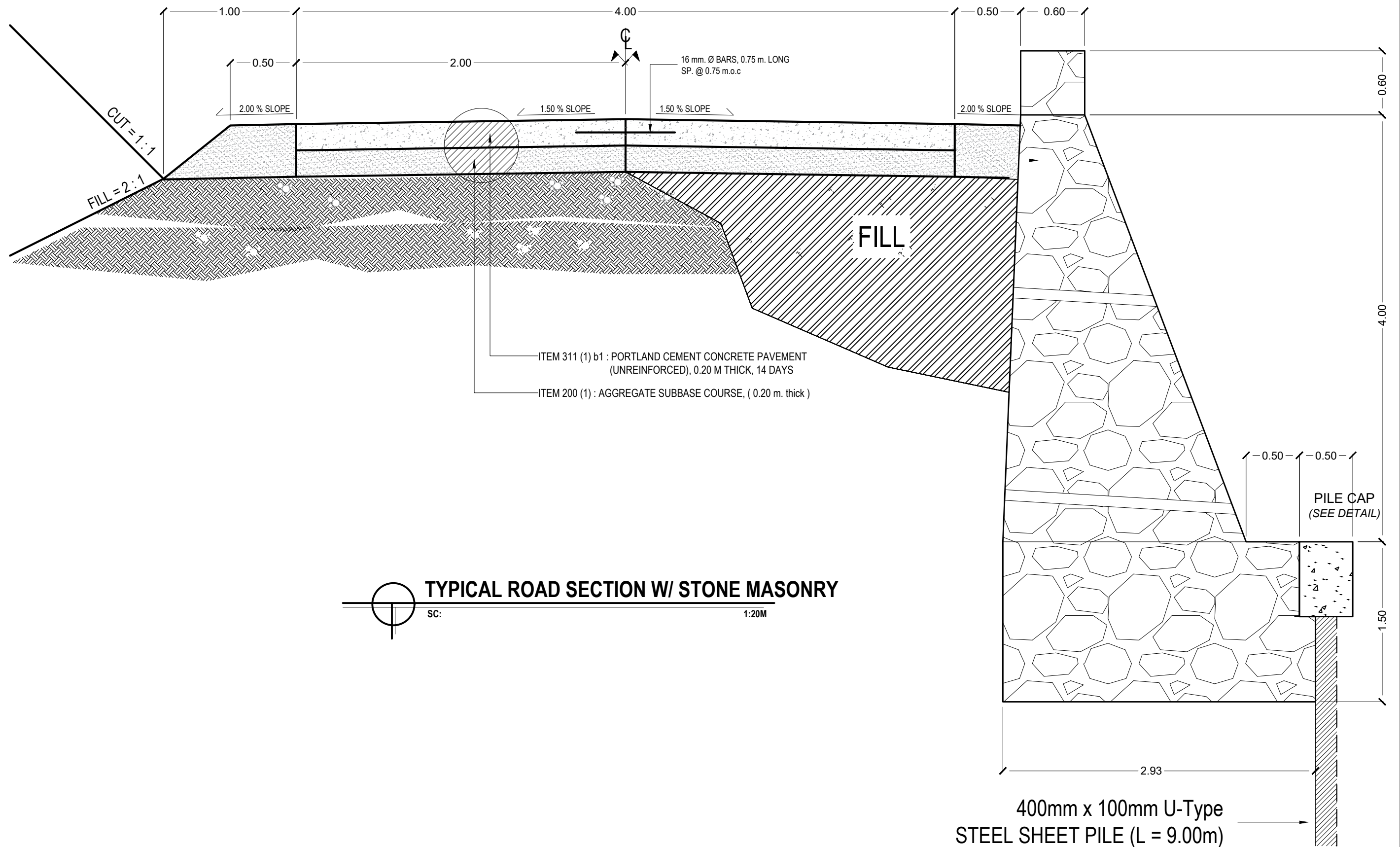
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TINGLOY, BATANGAS

TYPICAL ROAD SECTION
W/ STONE MASONRY

DRAFTED:

JAIRUS DAREN M. AGBAY
ENGINEER II

PREPARED:

JUNEIL RAY M. CHAVEZ
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DATE:

SET NO.

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SHEET NO.

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