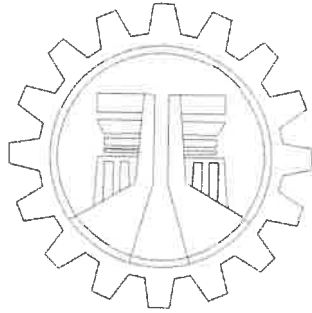




REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND DISTRICT ENGINEERING OFFICE
Brgy. Burabud, Laoang Northern Samar

C.Y. 2024 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
**REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG
PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPINIG ROAD, K0828+500.00 - K0828+540.00 (6 BLOCKS),
K0828+980.00 - 828+990.00 (1 BLOCK), K0830+230.00 - K0830+265.00 (4 BLOCKS), K0830+350.00 -
K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY,
NORTHERN SAMAR**

SUBMITTED:

FRANCIS Y. TANALA
CHIEF, MAINTENANCE SECTION

DATE:

RECOMMENDED:

ATTY. ARTHUR ERIC L. SABONG
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

CHARLITO S. CARLOS
DISTRICT ENGINEER

DATE:

GENERAL NOTES

DIMENSIONS

- a. STATIONS ARE GIVEN IN KILOMETERS WITH OR WITHOUT DECIMALS.
- b. RADII, ELEVATIONS, FLOOD LEVELS, ETC, ARE GIVEN IN METERS WITH OR WITHOUT DECIMALS.
- c. UNLESS OTHERWISE SHOWN, ALL DISTANCES ARE IN METERS.

STATIONING

- a. THE ROAD STATIONS ARE RELATIVE TO THE CENTERLINE OF THE ROAD.
- b. ALL STATIONS ALONG ROAD CENTERLINE ARE RECKONED FROM NATIONAL ROADS

REMOVAL OF EXISTING PAVEMENT, SIDEWALKS, CURBS, ETC.

All concrete pavements, base course, sidewalks, curbs, gutters, etc., designated for removal, shall be:

- (1) Broken into pieces and used for riprap on the project, or
- (2) Broken into pieces, the size of which shall not exceed 300mm (12 inches) in any dimension and stockpiled at designated locations on the project for use by the Government, or
- (3) Otherwise demolished and disposed off as directed by the Engineer. When specified, ballast, gravel, bituminous materials or other surfacing or pavement materials shall be removed and stockpiled as required in Subsection 101.2.1, otherwise such materials shall be disposed off as directed.

There will be no separate payment for excavating for removal of structures and obstructions or for backfilling and compacting the remaining cavity.

SUBGRADE PREPARATION

This item shall consist of the preparation of the subgrade for the support of overlying structural layers. It shall extend to full width of the roadway. Unless authorized by the Engineer, subgrade preparation shall not be done unless the Contractor is able to start immediately the construction of the pavement structure.

AGGREGATE SUBBASE COURSE

This item shall consist of furnishing, placing and compacting an aggregate subbase course on a prepared subgrade in accordance with this Specification and the lines, grades and cross-sections shown on the Plans, or as directed by the Engineer.

PORTLAND CEMENT CONCRETE PAVEMENT

This item shall consist of pavement of Portland Cement Concrete, with or without reinforcement, constructed on the prepared base in accordance with this Specification and in conformity with lines, grades, thickness and typical cross-section shown on the Plans.

DPWH STANDARD BILLBOARD :

DPWH STANDARD BILLBOARD MUST BE FABRICATED AND INSTALLED PRIOR TO COMMENCEMENT OF WORK AND MUST CONTAIN INFORMATION REGARDING THE PROJECT AND INSTALLED AT THE START AND END OF THE PROJECT.

THIS PLAN WILL SERVE ONLY AS GUIDE IN THE IMPLEMENTATION PARTICULARLY IN THE PRE-CONSTRUCTION STAGE. IT IS ALSO SUBJECTED TO AN AS-STAKED SURVEY TO BE CONDUCTED JOINTLY BY THE DIRECT IMPLEMENTING OFFICE AND THE CONTRACTOR AND SUBSEQUENTLY PLAN SHALL BE PREPARED AND SUBMITTED FOR APPROVAL.

SUMMARY OF QUANTITIES

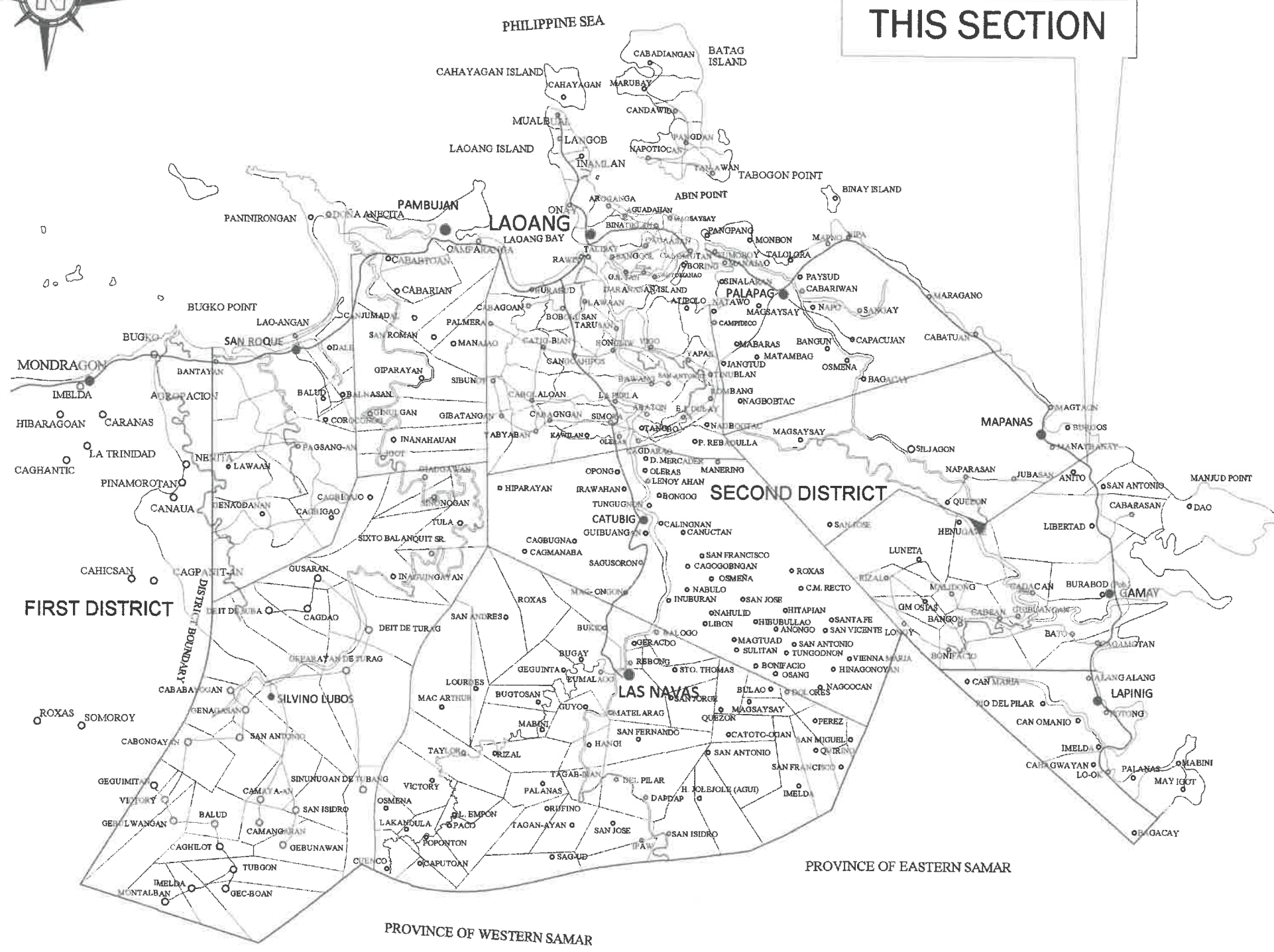
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	
PART B OTHER GENERAL REQUIREMENT				
B.5	PROJECT BILLBOARD/ SIGNBOARD	2.00	Each	
B.8(2)	TRAFFIC MANAGEMENT	1.00	L.S.	
PART C EARTHWORK				
101(3)b3	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (0.23m thk PCCP)	272.00	Sq.M.	
105(1)a	SUBGRADE PREPARATION (COMMON MATERIALS)	272.00	Sq.M.	
PART D SUBBASE & BASE COURSE				
200(1)	AGGREGATE SUBBASE COURSE	41.00	Cu.M.	
PART E SURFACE COURSES				
311(1)e1	PORTLAND CEMENT CONCRETE PAVEMENT, 0.28m thk, 14 DAYS	272.00	Sq.M.	

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VIII NORTHERN SAMAR SECOND DISTRICT ENGINEERING OFFICE Brgy. Burabud, Lioang Northern Samar	PROJECT NAME AND LOCATION: REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD, K0828+000.00 - K0828+540.00 (6 BLOCKS), K0829+000.00 - K0829+000.00 (1 BLOCK), K0830+230.00 - K0830+285.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+015.00 - K0831+030.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR	SHEET CONTENTS: GENERAL NOTES SUMMARY OF QUANTITIES	DRAFTED/ PREPARED: AIVAN KEIR C. SALAZAR ENGINEER DATE:	REVIEWED: NICANOR L. MEJOS, JR. ENGINEER DATE:	SUBMITTED: FRANCISCO Y. TAÑALA CHIEF PLANNING SECTION DATE:	RECOMMENDED: ATTY. ARTHUR ERIC L. SABONG ASSISTANT DISTRICT ENGINEER	APPROVED: CHARLITO S. CARLOS DISTRICT ENGINEER DATE:	SET NO. A 1 1	SHEET NO. 2 10



LEGEND :

THIS SECTION



Length:	
BANTAYAN (BNDRY.)-RAWIS ROAD	23.771 km.
SAN ROQUE-CABABTOAN OLD ROAD	7.378 km.
RAWIS-CATUBIG ROAD	18.987 km.
CATUBIG-LAS NAVAS ROAD	11.557 km.
LAOANG-CALOMOTAN ROAD	6.487 km.
PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPINIG-ARTECHE (BNDRY) ROAD	73.50 km.
Pangpang-Palapag	5.5 km.
Palapag-Mapanas	27 km.
Mapanas-Gamay	15 km.
Gamay-Lapinig	9 km.
Lapinig-Arteche (Bndry), Eastern Samar	17 km.
Total	73.50 km.
Total Length of National Road	141.68 km.

- CONGRESSIONAL DISTRICT BOUNDARY
- SECONDARY ROADS (FMR)
- MUNICIPAL BOUNDARY
- BARANGAY BOUNDARY
- RIVERS/CREEKS
- MUNICIPALITY
- BARANGAY

MAP OF NORTHERN SAMAR SECOND ENGINEERING DISTRICT

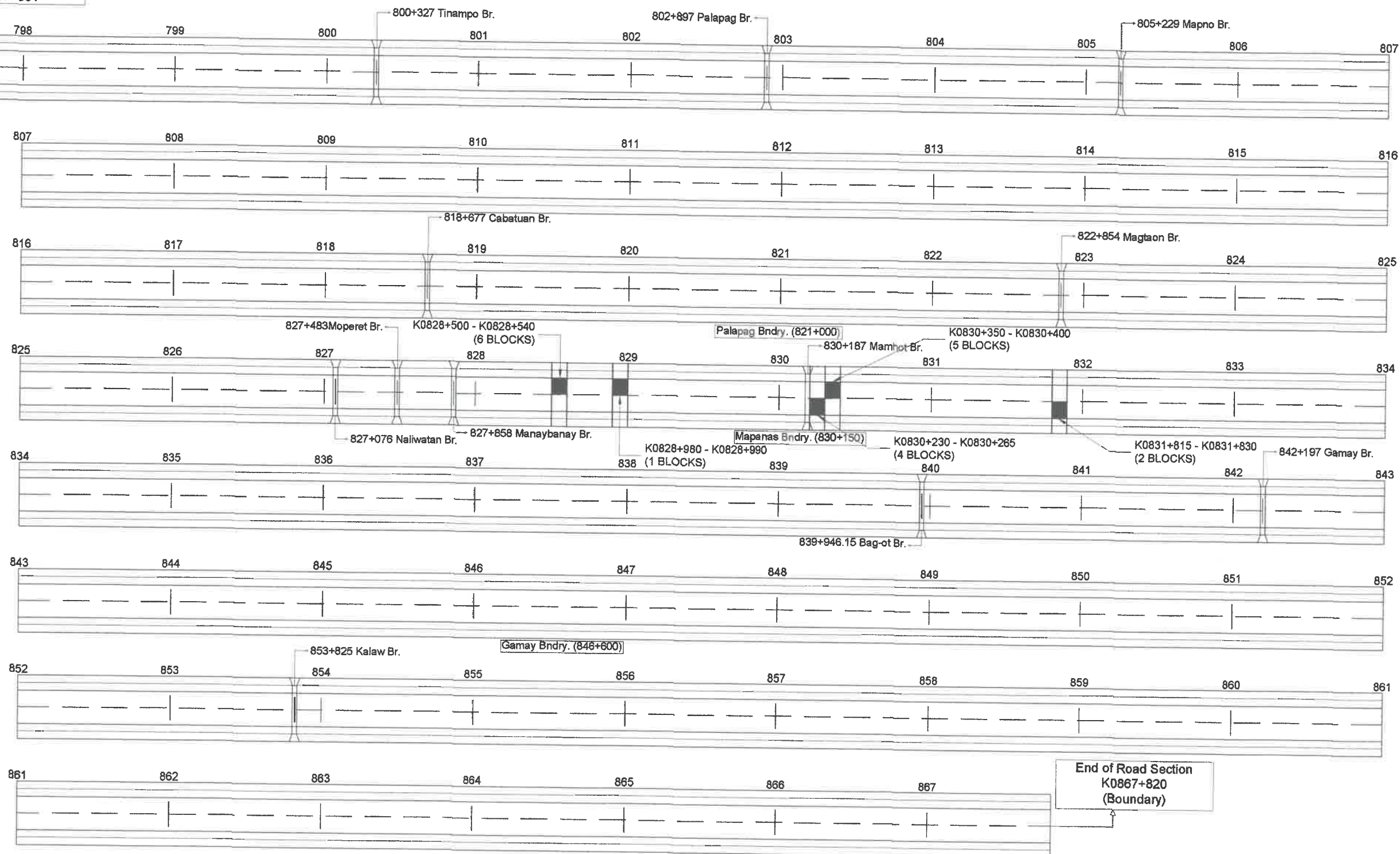
	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VIII	PROJECT NAME AND LOCATION: REHABILITATION/REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPINIG ROAD, K0828+500.00 - K0828+540.00 (6 BLOCKS), K0828+680.00 - K0828+720.00 (1 BLOCK), K0830+230.00 - K0830+250.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+850.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR	SHEET CONTENTS: LOCATION MAP	DRAFTED/ PREPARED: AIVAN KEIR C. SALAZAR ENGINEER II DATE:	REVIEWED: NICANOR L. MEJES, JR. ENGINEER III DATE:	SUBMITTED: FRANCISCO E. TAYALA CHIEF MAINTENANCE SECTION DATE:	RECOMMENDED: ATTY. ARTUR ERIC L. SABONG ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: CHARLITO S. CARLOS DISTRICT ENGINEER DATE:	SET NO. B 1 2	SHEET NO. 3 10
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Road Name: 1. Pangpang-Palapag-Mapanas-Gamay-Lapinig-Arteche (Bndry.) Road
2. San Policarpo-Arteche-Lapinig Road

Station Limit From: 1. K0797+381 To K0850+610 (S00037SM)
2 K0851+376 To K0867+820 (S00060SM)

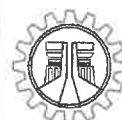
TOTAL LENGTH: 53.285 Km.
TOTAL LENGTH: 17.260 Km.

Beginning of Road Section
K0797+381



End of Road Section
K0867+820
(Boundary)

1 STRAIGHT LINE DIAGRAM
S 4 NOT TO SCALE



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND
DISTRICT ENGINEERING OFFICE
Brgy. Burebud, Laoang Northern Samar

PROJECT NAME AND LOCATION:

REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG
PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPINIG ROAD,
K0828+500.00 - K0828+540.00 (6 BLOCKS), K0828+890.00 -
K0828+980.00 (1 BLOCK), K0830+230.00 - K0830+265.00 (4
BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND
K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY,
NORTHERN SAMAR

SHEET CONTENTS:

STRAIGHT LINE DIAGRAM

DRAFTED/ PREPARED:

AIVAN KEIR C. SALAZAR
ENGINEER
DATE:

REVIEWED:

NICANOR L. MEJOS, JR.
ENGINEER II
DATE:

SUBMITTED:

FRANCISCO S. PAÑALA
CHIEF, MAP SERVICE SECTION
DATE:

RECOMMENDED:

ATTY. ARTHUR ERIC L. SABONG
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:

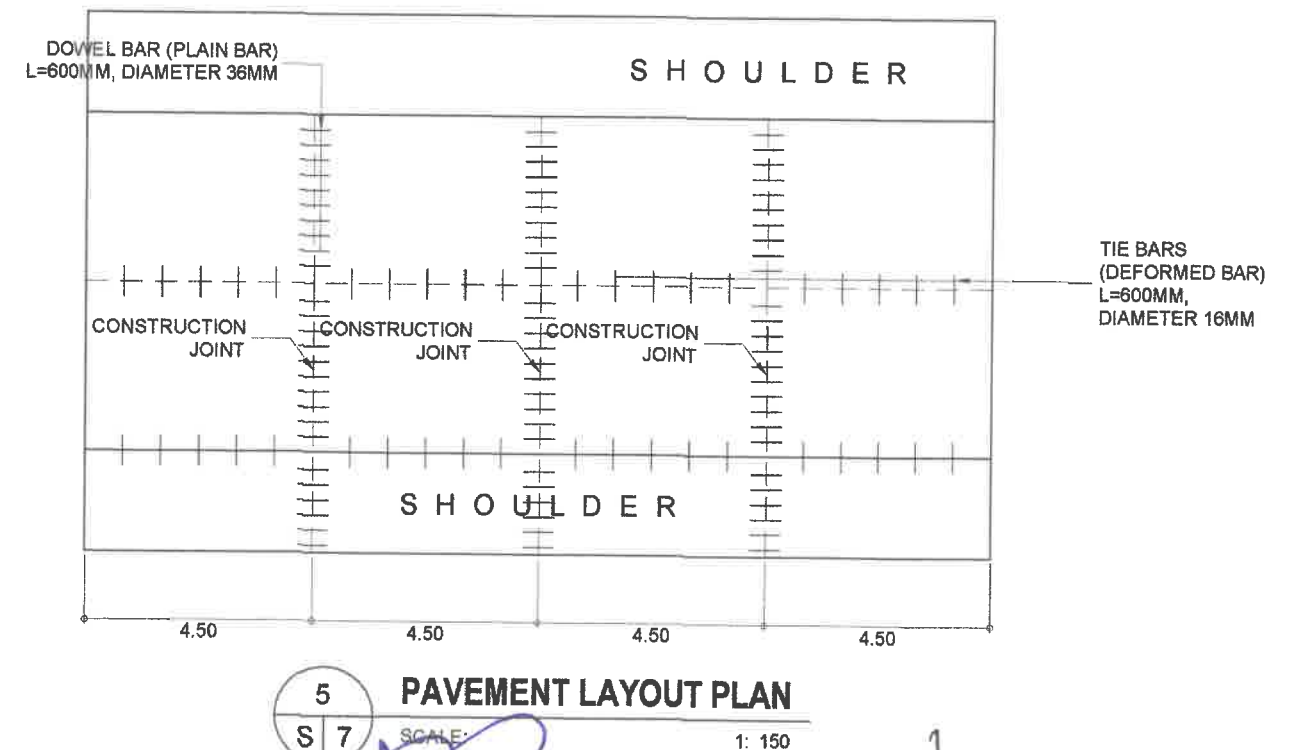
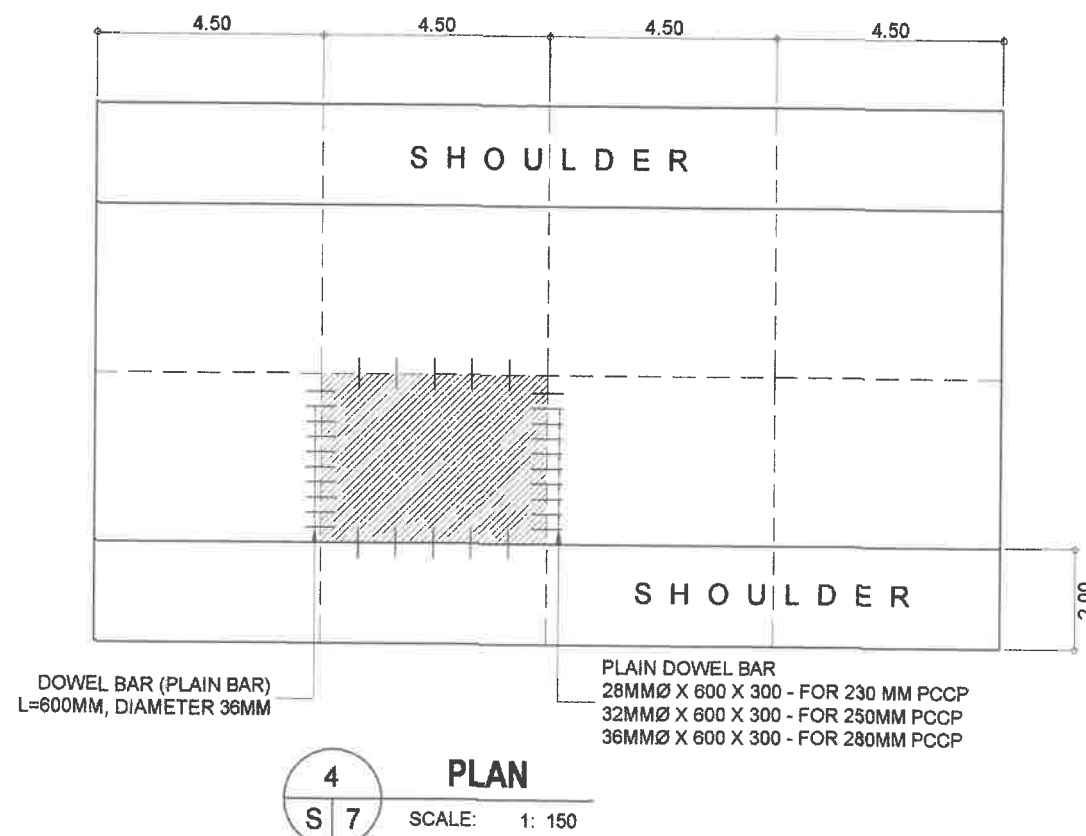
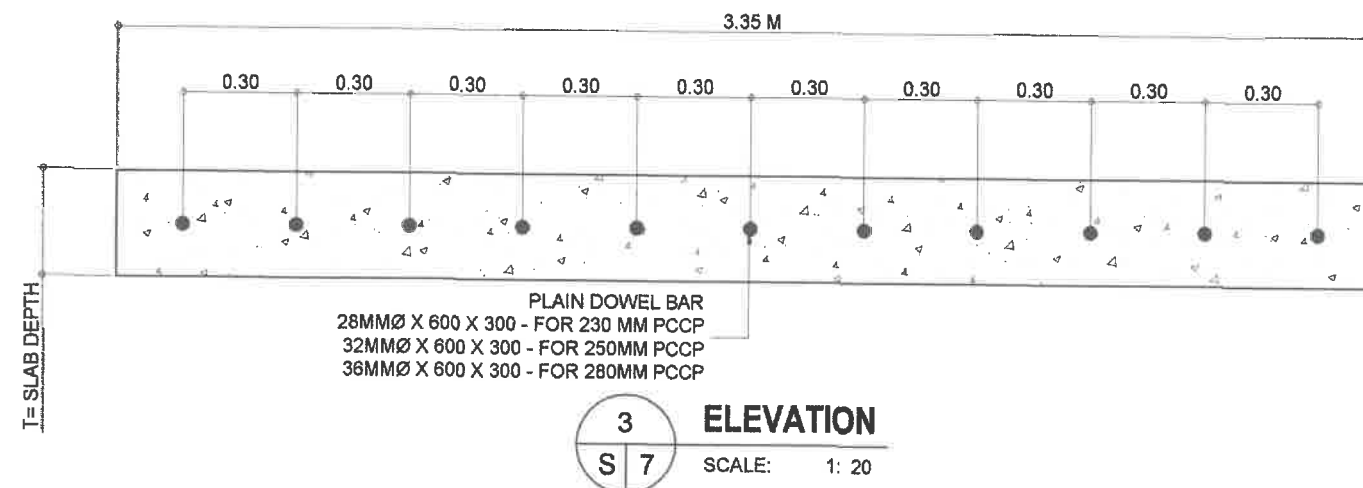
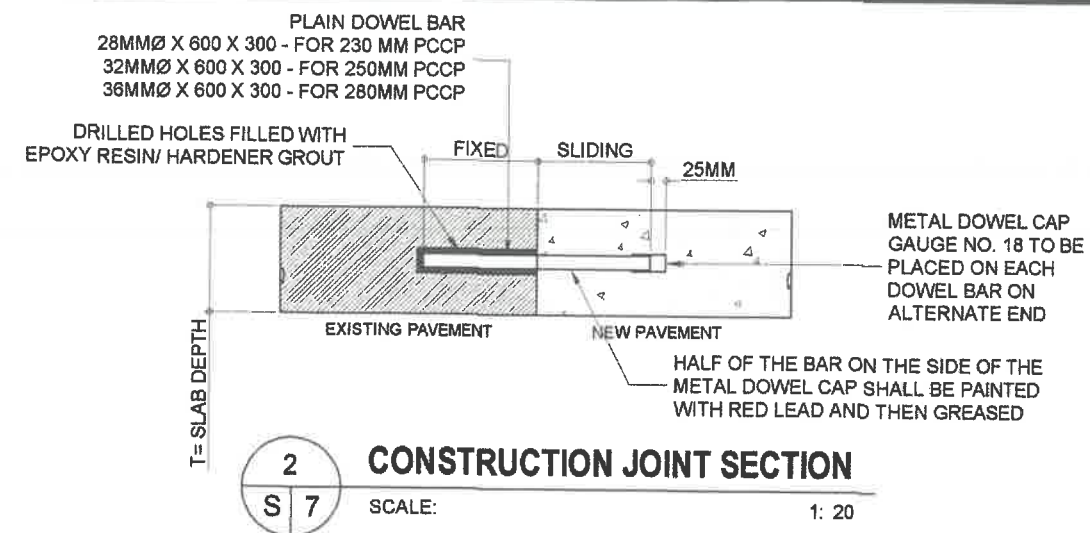
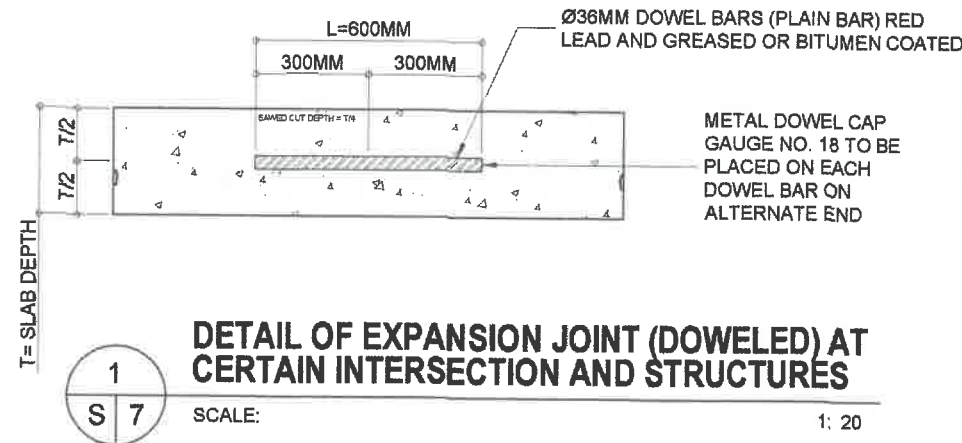
CHARITO S. CARLOS
DISTRICT ENGINEER
DATE:

SET NO.

B
2 2

SHEET NO.

4
10



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND
DISTRICT ENGINEERING OFFICE
Brgy. Burebud, Lasing Northern Samar

PROJECT NAME AND LOCATION:
REHABILITATION/REBLOCKING OF NATIONAL ROAD ALONG
PANOPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD,
K0228+00.00 - K0228+540.00 (5 BLOCKS), K0228+800.00 -
K0228+900.00 (1 BLOCK), K0228+930.00 - K0228+950.00 (4
BLOCKS), K0228+950.00 - K0228+1000.00 (5 BLOCKS) AND
K0228+1015.00 - K0228+1030.00 (2 BLOCKS), MAPANAS & GAMAY,
NORTHERN SAMAR

SHEET CONTENTS:
DETAIL OF EXPANSION JOINT AT CERTAIN
INTERSECTIONS AND STRUCTURES
CONSTRUCTION JOINT SECTION
PAVEMENT LAYOUT PLAN

DRAFTED/PREPARED:
AIVAN KEIR O. SALAZAR
ENGINEER
DATE:

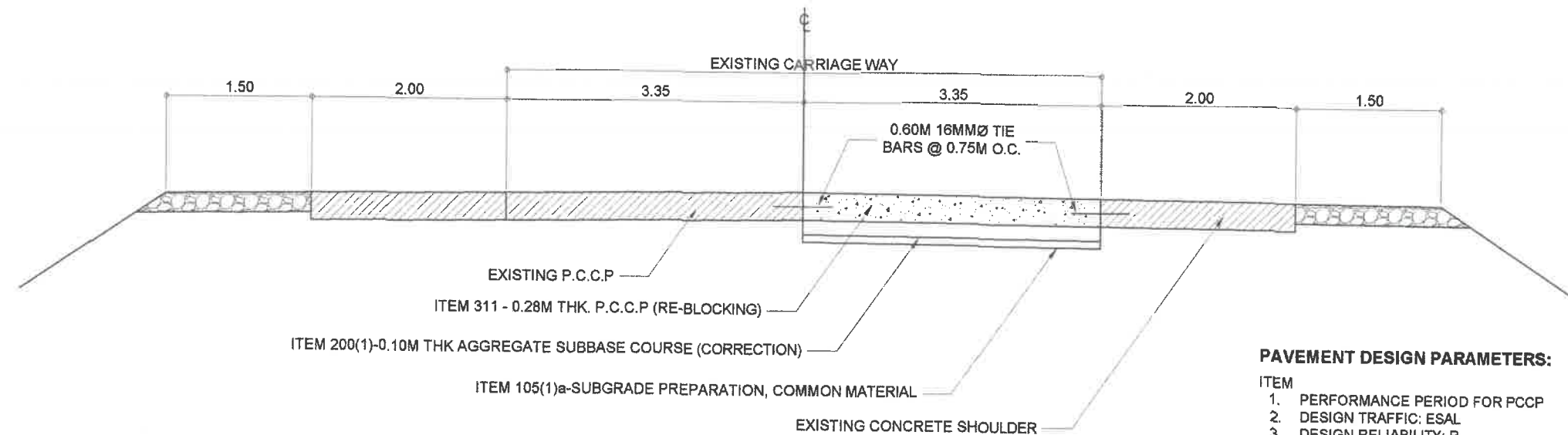
REVIEWED:
NICANOR L. MEJOS, JR.
ENGINEER
DATE:

SUBMITTED:
FRANCISCO Y. TANALA
CHIEF MAINTENANCE SECTION
DATE:

RECOMMENDED:
ATTY. ARTHUR ERIC L. SABONG
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
CHARLITO S. CARLOS
DISTRICT ENGINEER
DATE:

SET NO. SHEET NO.
D 5
1 4 10



1
S 5
TYPICAL ROADWAY SECTION
SCALE: 1: 60MTS

PAVEMENT DESIGN PARAMETERS:

- ITEM
1. PERFORMANCE PERIOD FOR PCCP
 2. DESIGN TRAFFIC: ESAL
 3. DESIGN RELIABILITY: R
 4. STANDARD DEVIATION: S_o
 5. DESIGN SERVICEABILITY LOSS: APSI
 6. PCCP MODULUS OF RUPTURE: S_c
 7. PCCP MODULUS OF ELASTICITY: E_c
 8. SUBGRADE DESIGN CBR
 9. EFFECTIVE ROADBED RESILIENT MODULUS: MR
 10. SUBBASE ELASTIC MODULUS: ESB
 11. SUBBASE THICKNESS
 12. EFFECTIVE MODULUS AT SUBGRADE REACTION: K (pci)
 13. DRAINAGE COEFFICIENT: Cd
 14. LOAD TRANSFER COEFFICIENT: J
 15. LOSS OF SUPPORT: L_s
 16. K (corrected)

DESIGN REQUIREMENTS

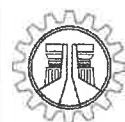
- 20 years
- 8,566 x 10
- 85%
- 0.35
- 2.50
- 635.55 psi
- 3,360 x 10⁶
- 22.63
- 33937.74
- 15000psi
- 8" (200mm)
- 20 years
- 1.00
- 3.90
- 1.00
- 215.00

AS PER D.O. 189, s. 2022			SUBSTITUTE	
Thickness of PCCP (mm)	Size of Dowel Bar (mm)	Spacing (mm)	Size of Dowel Bar (mm)	Spacing (mm)
280	36	300	32	250
			28	190
			25	150
290	36	295	32	230
			28	170
			25	140
300	36	274	32	210
			28	160
			25	130
310	36	255	32	200
			28	150
			25	120
320	36	238	32	190
			28	140
			25	110
330	36	223	32	180
			28	130
			25	110
340	36	209	32	170
			28	130
			25	100

TABLE FOR SPACING OF TIE BARS (L=600mm)

SLAB THICKNESS (mm)	SPACING, S1 (mm)	
	12mm Ø	16mm Ø
230	600	750
240	600	750
250	600	750
260	500	750
270	500	750
280	500	750
290	500	750
300	500	750
310	400	750
320	400	750
330	400	750
340	400	750

Based on AASHTO Pavement Design 1993



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND
DISTRICT ENGINEERING OFFICE
Brgy. Burabud, Laoang Northern Samar

PROJECT NAME AND LOCATION:

REHABILITATION/REBLOCKING OF NATIONAL ROAD ALONG
PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD,
K0828+800.00 - K0828+540.00 (6 BLOCKS), K0828+380.00 -
K0828+120.00 (1 BLOCK), K0830+230.00 - K0830+280.00 (4
BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND
K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY,
NORTHERN SAMAR

SHEET CONTENTS:

TYPICAL ROADWAY SECTION
PCCP DESIGN PARAMETERS

DRAFTED/ PREPARED:

AIVAN KEIR C. SALAZAR
ENGINEER
DATE:

REVIEWED:

NICANOR L. MEJOS, JR.
ENGINEER II
DATE:

SUBMITTED:

FRANCIS X. TAÑALA
CHIEF MAINTENANCE SECTION
DATE:

RECOMMENDED:

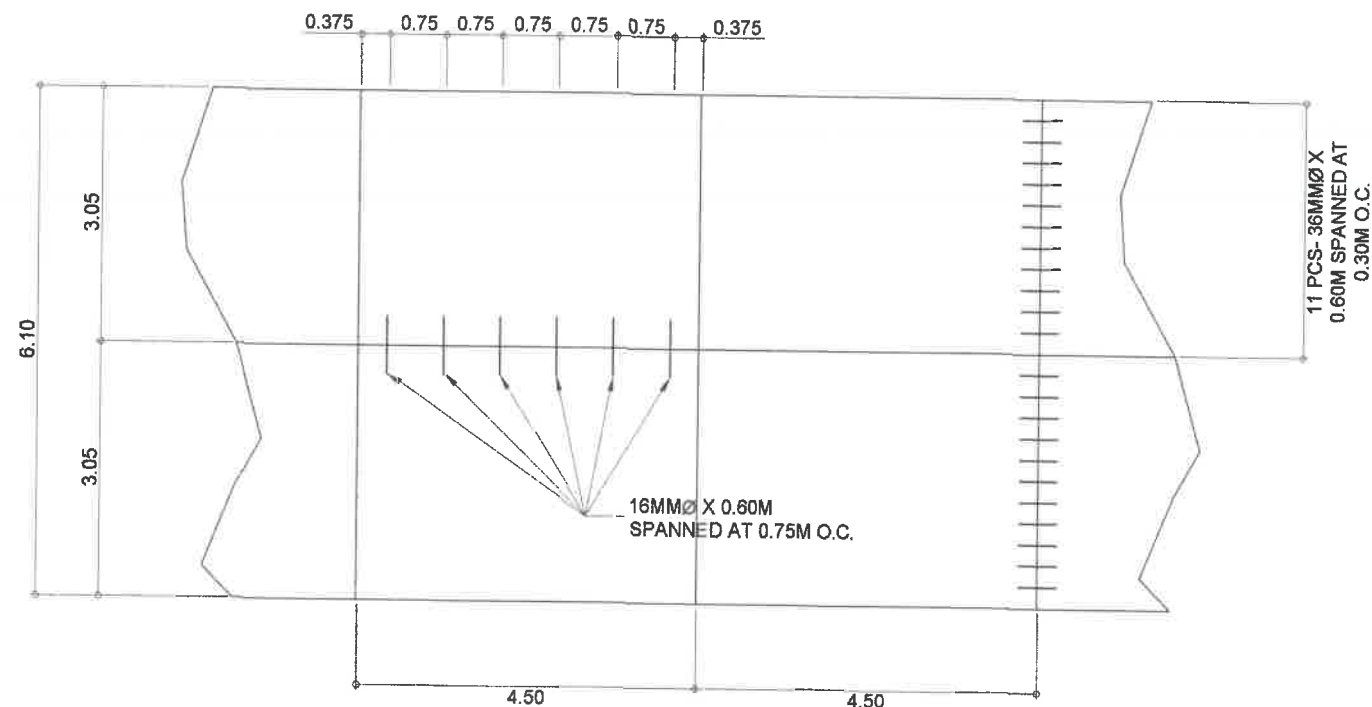
ATTY. ARTHUR ERIC L. SABONG
CONSULTANT DISTRICT ENGINEER
DATE:

APPROVED:

CHARLITO S. CARLOS
DISTRICT ENGINEER
DATE:

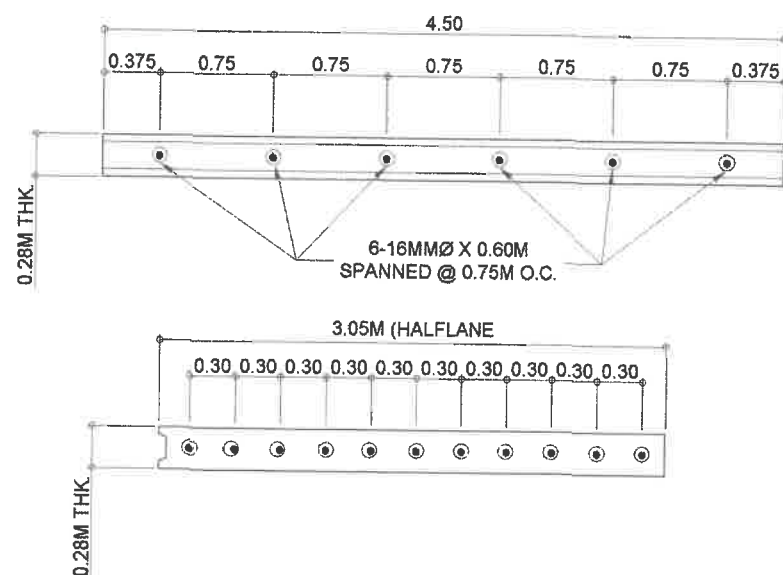
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D 6
2 4 10

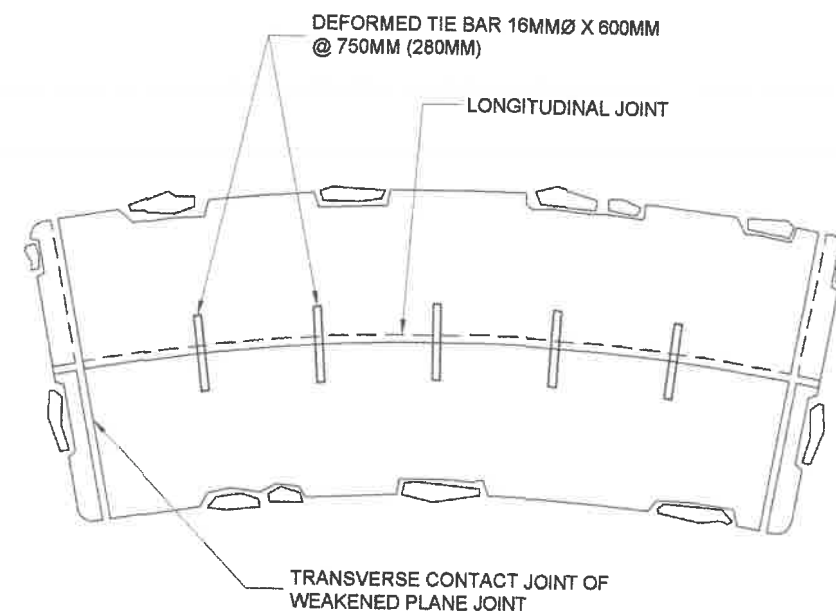


1A
S 9
STANDARD PLAN FOR PCCP 0.28M THK & 6.10M WIDE
SCALE: 1: 50MTS

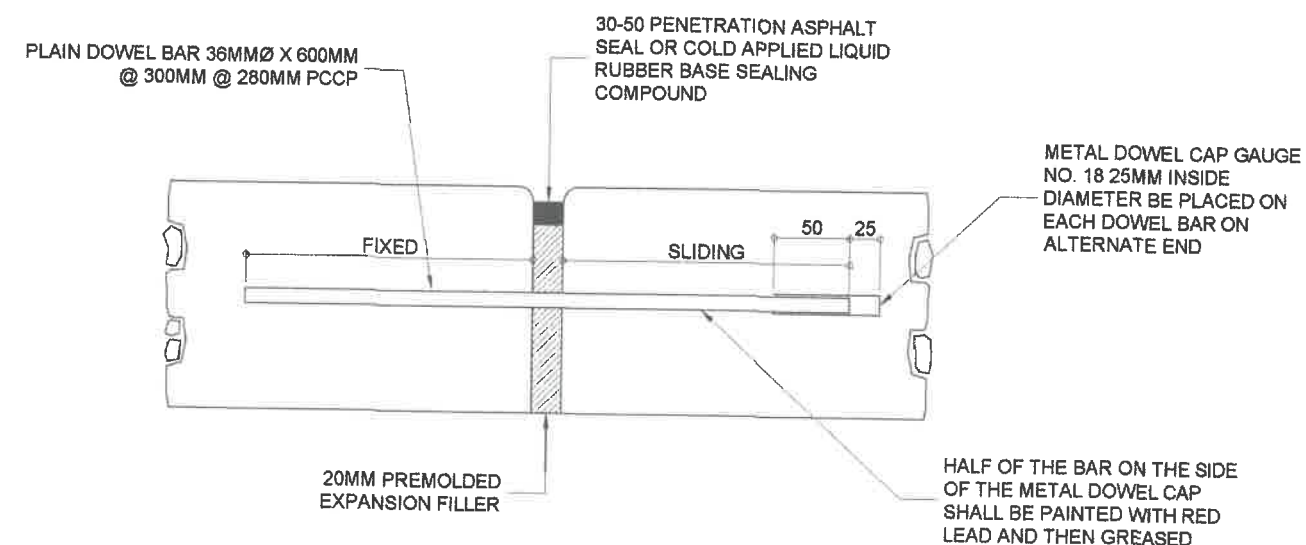
SPANNING = 4.50 m
TIE BARS DIAMETER = 16mmØ
LENGTH OF TIE BARS = 0.60 m
SPANNING OF TIE BARS = 0.75 m O.C./ 6 PCS.
DISTANCE OF TIE BARS FROM THE END OF SPAN = 0.375 m
DIAMETER OF DOWELS = 36mmØ
LENGTH OF DOWELS = 0.60 m
SPANNING OF DOWELS = 0.30 m / 11 PCS. HALF LANE



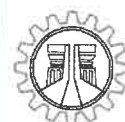
1B
S 9
DETAIL OF JOINTS
SCALE: 1: 50MTS



1C
S 9
DETAIL OF BAR SPACING ALONG CURVES
NOT TO SCALE



1D
S 9
DETAIL OF EXPANSION JOINT (DOWELLED) AT CERTAIN INTERSECTIONS AND STRUCTURES
NOT TO SCALE



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND DISTRICT ENGINEERING OFFICE
Brgy. Burebud, Laoang Northern Samar

PROJECT NAME AND LOCATION:
REHABILITATION/REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD, K0828+500.00 - K0828+540.00 (5 BLOCKS), K0828+580.00 - K0828+620.00 (1 BLOCK), K0830+230.00 - K0830+265.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+850.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR

SHEET CONTENTS:
STANDARD CONCRETE PAVEMENT JOINTS

DRAFTED/ PREPARED:
AIVAN KEIR C. SALAZAR
ENGINEER II
DATE:

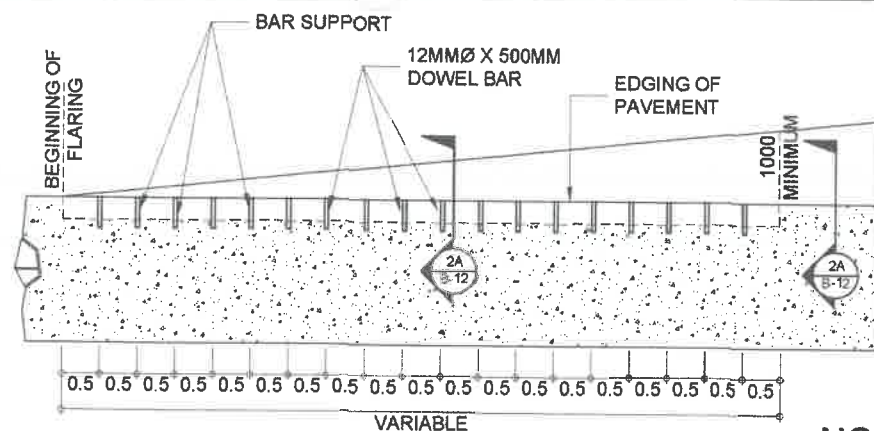
REVIEWED:
NICANOR L. MEJES, JR.
ENGINEER III
DATE:

SUBMITTED:
FRANCIS Y. TAÑALA
CHIEF ENGINEERING SECTION
DATE:

RECOMMENDED:
ATTY. ARTHUR ERIC L. SABONG
DISTRICT ENGINEER
DATE:

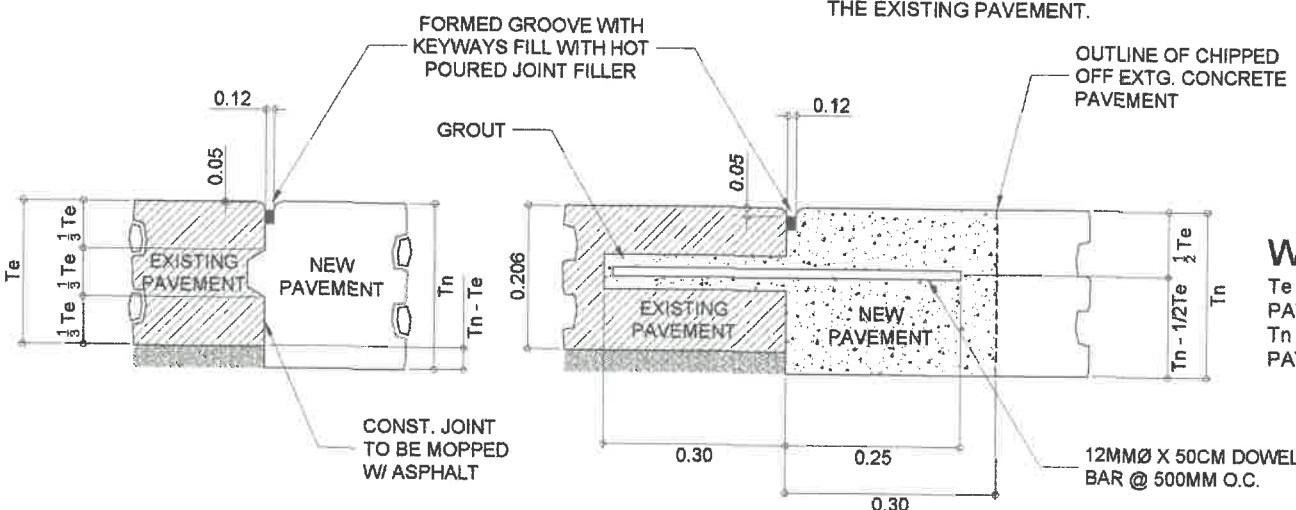
APPROVED:
CHARLITO S. CARLOS
DISTRICT ENGINEER
DATE:

SET NO. SHEET NO.
D 7
3 4 10



1E PLAN
(SHOWING FLARING OF EXISTING PAVEMENT)
SCALE: 1: 50MTS

NOTE:
THE EXISTING CONCRETE PAVEMENT SHALL BE CHIPPED OFF PERPENDICULARLY TO THE EXISTING BASE ABOUT 300 mm WIDE TO A DISTANCE WHERE THE FLARE IS LESS THAN 1000 mm AND NECESSARY DOWEL BARS SHALL BE PROVIDED TO CONNECT THE NEW PAVEMENT WITH THE EXISTING PAVEMENT.

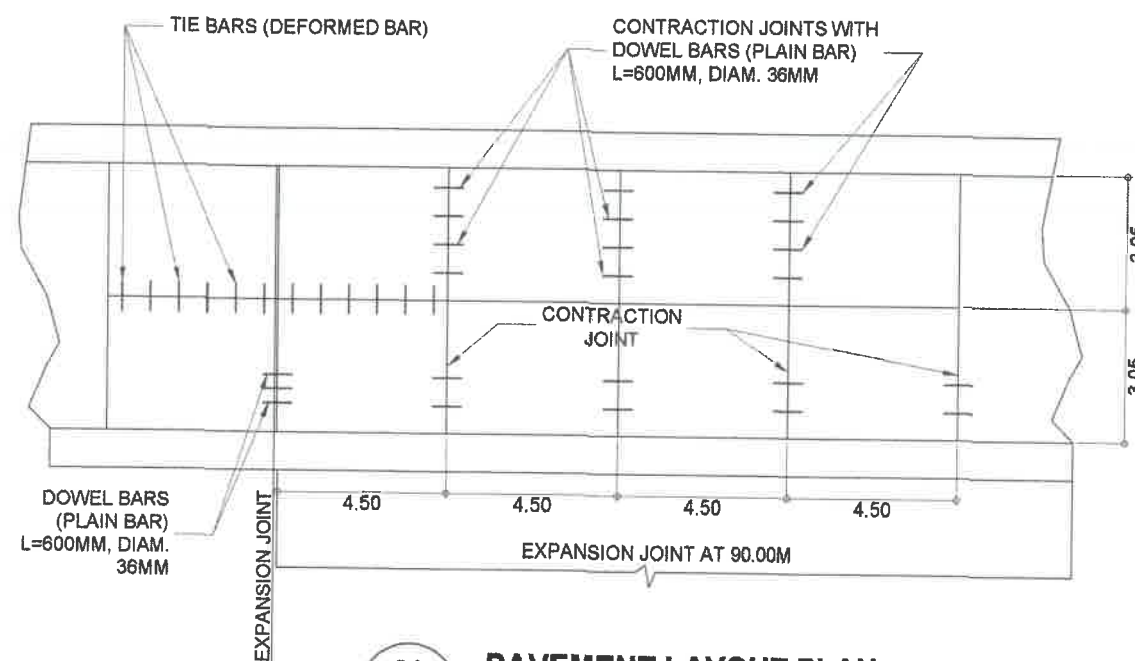


1F SECTION
SCALE: NTS

1G SECTION
SCALE: NTS

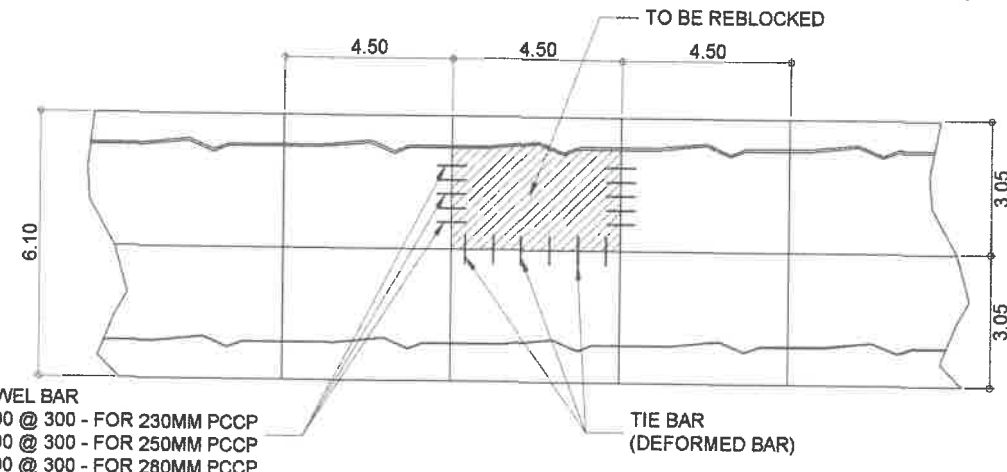
WHERE:
 T_e = THICKNESS OF EXISTING PAVEMENT
 T_n = THICKNESS OF NEW PAVEMENT

- GENERAL NOTES:**
1. MATERIALS AND WORKMANSHIP SHALL CONFIRM WITH THE "DPWH STANDARD SPECIFICATIONS FOR HIGHWAYS, BRIDGES AND AIRPORTS, 2015"
 2. CONSTRUCTION (CONTACT JOINTS ARE FORMED WHEN CONCRETE ON ONE SIDE OF THE JOINT IS POURED AHEAD AND ALLOWED TO SET BEFORE POURING ON THE OTHER SIDE.
 3. AT CONSTRUCTION JOINTS (LONGITUDINAL OR TRAVERSE) CARE SHOULD BE TAKEN THAT NO CONCRETE FROM THE LAST SLAB PLACED OVERHANGS ANY PORTION OF THE FIRST SLAB.
 4. THE BARS SHOULD BE DEFORMED STEEL BARS, ALL DOWEL BARS SHALL BE SMOOTH ROUND STEEL BAR FREE FROM RUST AND OTHER DEFECTS WHICH MIGHT RESTRICT THEIR MOVEMENT.
 5. TYPE OF WEAKENED PLANE JOINT TO BE USE SHALL BE AS SPECIFIED IN THE PLANS AND ONLY ONE TYPE SHALL BE USED FOR THE WHOLE PROJECT.
 6. MATERIAL FOR THE METAL SIDE FORM SHALL BE BRAND NEW SHEET METAL GAUGE NO. 18 OF BLACK IRON FREE FROM RUST AND LINKS.
 7. AT LEAST SIX (6) SUCCESSIVE DOWELED BUTT JOINTS AT NORMAL JOINT SPACING SHALL BE PROVIDED BEFORE OR AFTER AN EXTENSION JOINT.
 8. THE GROOVE OR CRACK ABOVE JOINTS (LONGITUDINAL OR TRAVERSE) SHALL BE SEALED WITH 30 - 50 PENETRATION ASPHALT SEAL OR COLD APPLIED LIQUID RUBBER COMPOUND AFTER THE CONCRETE HAD BEEN CURED AND BEFORE OPENING PAVEMENT TO TRAFFIC. PENETRATION ASPHALT SEAL ON CONCRETE JOINT SHOULD BE POURED IN SUCH MANNER THAT SPILLING WILL BE ELIMINATED. THUS, PROVIDE A SMOOTH RIDING SURFACE.
 9. ALL TRAVERSE JOINTS, EXCEPT CONSTRUCTION JOINT SHALL BE CONTINUOUS FROM EDGE TO EDGE.
 10. ALL LONGITUDINAL JOINTS SHALL MEET AT INTERSECTIONS WITH NO GAPS OR OFFSET.
 11. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 12. AVOID STOPPAGE OF FORMWORKS ALONG CURVES.
 13. DRILLING OF HOLES ON EXISTING PCCP AN OTHER STRUCTURES SHALL BE PERFORMED USING POWER TOOLS. THE HOLES SHALL BE PROPERLY CLEANED BEFORE GROUT/EPOXY INJECTION AND INSTALLATION OF DOWELS OR TIE BARS.



2A PAVEMENT LAYOUT PLAN
SCALE: NTS

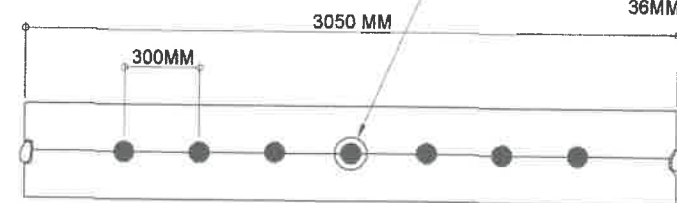
SPACING OF DOWEL BAR (Diameter 36mm/L=600mm)	
SLAB DEPTH, (T) (mm)	SPACING (mm)
280	300
290	295
300	274
310	255
320	238
330	223
340	209



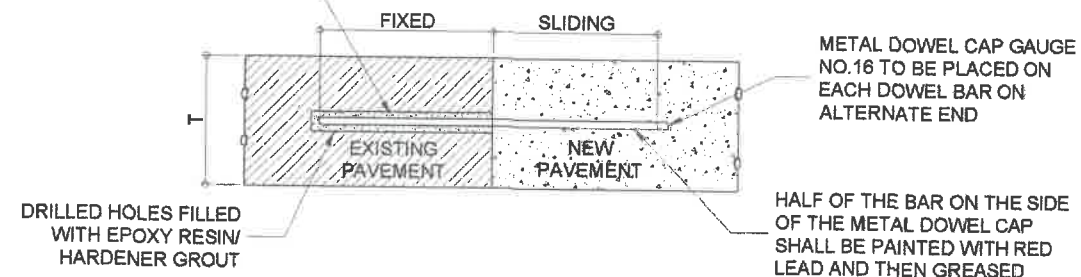
PLAIN DOWEL BAR
28MM X 600 @ 300 - FOR 230MM PCCP
32MM X 600 @ 300 - FOR 250MM PCCP
36MM X 600 @ 300 - FOR 280MM PCCP

PLAIN DOWEL BAR
28MM X 600 @ 300 - FOR 230MM PCCP
32MM X 600 @ 300 - FOR 250MM PCCP
36MM X 600 @ 300 - FOR 280MM PCCP

3A PLAN
SCALE: NTS

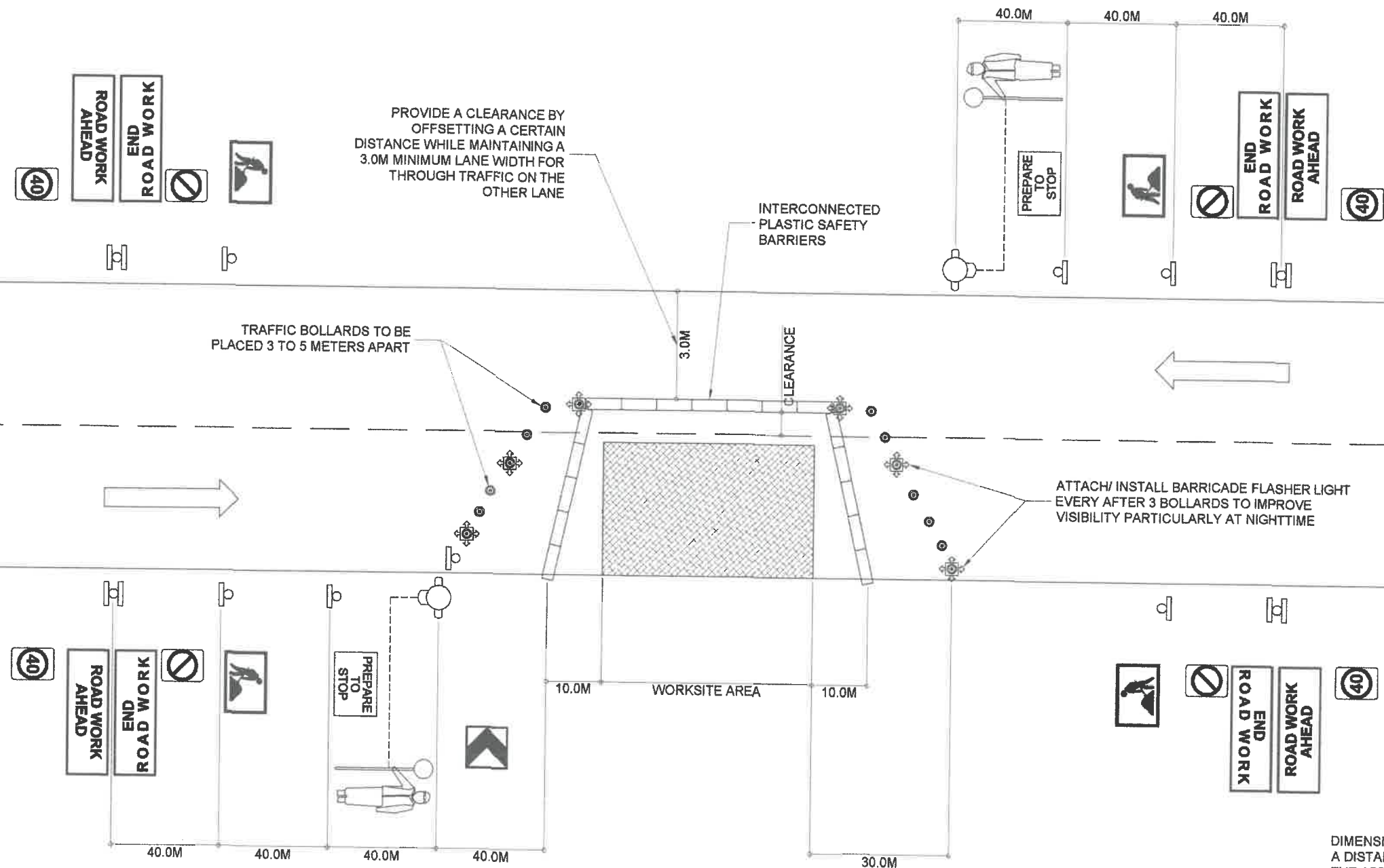


3B ELEVATION
SCALE: NTS



3C SECTION
DETAIL OF EXPANSION JOINT (DOWELED) AT CERTAIN INTERSECTION AND STRUCTURES
SCALE: 1: 50MTS

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VIII NORTHERN SAMAR SECOND DISTRICT ENGINEERING OFFICE Brgy. Buraud, Laoang Northern Samar	PROJECT NAME AND LOCATION: REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD, K0828+500.00 - K0828+540.00 (8 BLOCKS), K0828+580.00 - K0828+620.00 (4 BLOCKS), K0830+230.00 - K0830+255.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR	SHEET CONTENTS: STANDARD CONCRETE PAVEMENT JOINTS	DRAFTED/ PREPARED: AIVAN KEIR C. SALAZAR ENGINEER II DATE:	REVIEWED: NICANOR L. MEJOS, JR. ENGINEER II DATE:	SUBMITTED: FRANCIS M. TAÑALA CHIEF, MAINTENANCE SECTION DATE:	RECOMMENDED: ATTY. ARTHUR ERIC L. SABONG ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: CHARLITO S. CARLOS DISTRICT ENGINEER DATE:	SET NO. D 4	SHEET NO. 8 10
	REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD, K0828+500.00 - K0828+540.00 (8 BLOCKS), K0828+580.00 - K0828+620.00 (4 BLOCKS), K0830+230.00 - K0830+255.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR								



DIMENSION "D"
A DISTANCE EXPRESSED IN METERS EQUAL TO
THE APPROACH SPEED OF TRAFFIC IN
KILOMETERS PER HOUR WORKSITE

E
S 10 **TRAFFIC MANAGEMENT LAYOUT**
SCALE: AS SHOWN



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VIII
NORTHERN SAMAR SECOND
DISTRICT ENGINEERING OFFICE
Brgy. Burebud, Laoang Northern Samar

PROJECT NAME AND LOCATION:
REHABILITATION/ REBLOCKING OF NATIONAL ROAD ALONG
PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD,
K0828+600.00 - K0828+540.00 (6 BLOCKS), K0828+600.00 -
K0829+900.00 (1 BLOCK), K0830+230.00 - K0830+265.00 (4
BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND
K0831+815.00 - K0831+830.00 (2 BLOCKS), MAPANAS & GAMAY,
NORTHERN SAMAR

SHEET CONTENTS:
TRAFFIC MANAGEMENT LAYOUT

DRAFTED/ PREPARED:

AIVAN KEIR C. SALAZAR
ENGINEER
DATE:

REVIEWED:

NICANOR L. MEJOS, JR.
ENGINEER II
DATE:

SUBMITTED:

FRANCIS J. CANALA
CHIEF, MAINTENANCE SECTION
DATE:

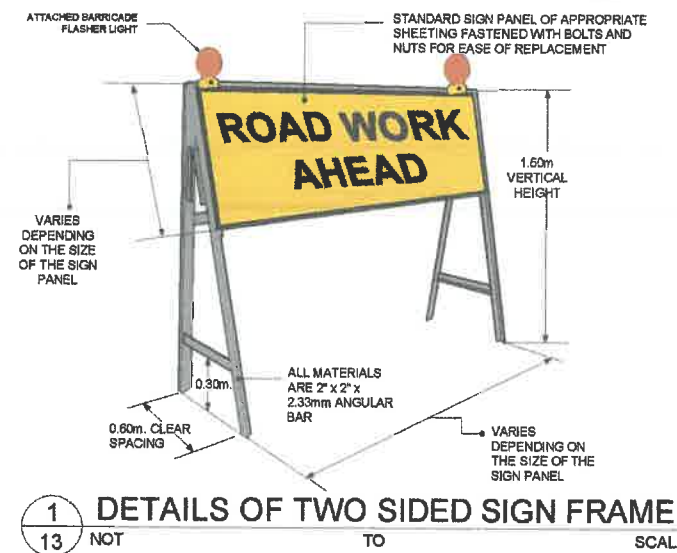
RECOMMENDED:

ATTY. ARTHUR ERIC L. SABONG
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:

CHARLITO S. CARLOS
DISTRICT ENGINEER
DATE:

SET NO.	SHEET NO.
E 1 1	9 10



2440mm (8 ft)

1220 (4 ft)

THIS IS WHERE YOUR TAXES GO

NAME OF PROJECT :
 LOCATION :
 NAME OF CONTRACTOR :
 DATE STARTED :
 CONTRACT COMPLETION DATE :
 CONTRACT COST :
 IMPLEMENTING OFFICE :
 SOURCE OF FUND :

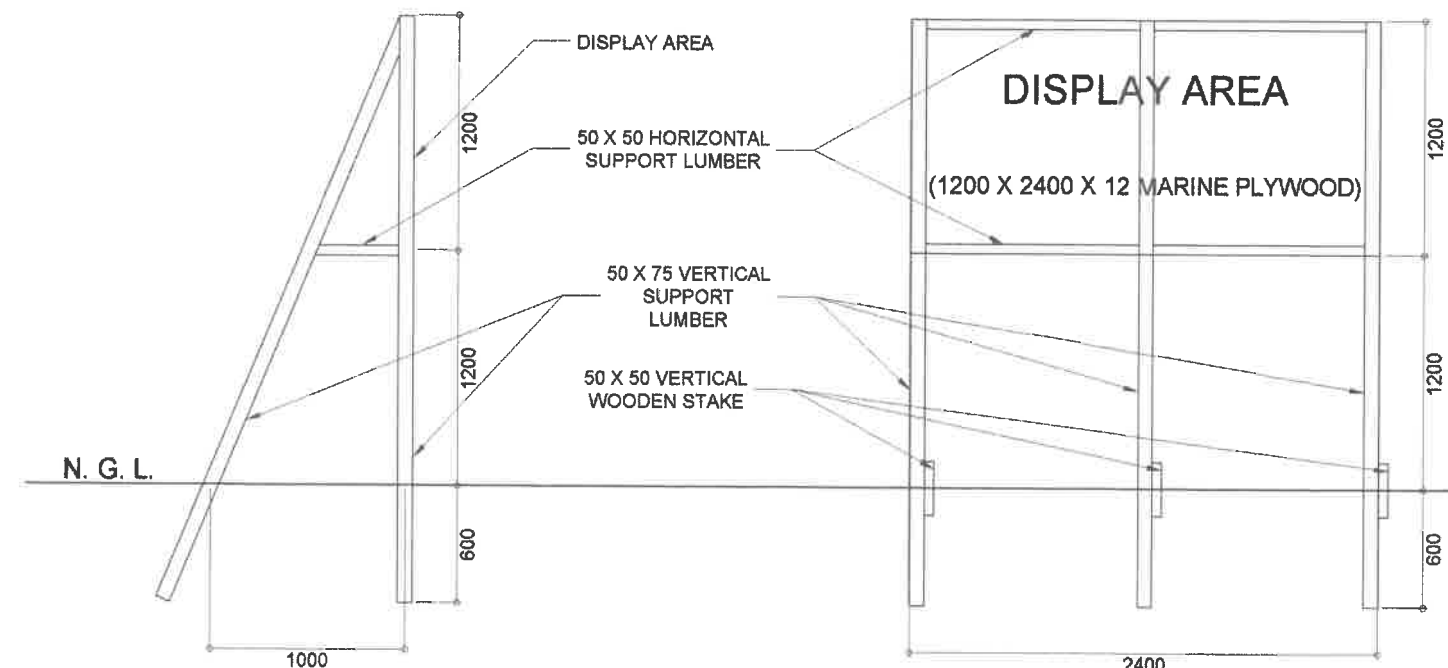
Department of Public Works and Highways
 TEXT 2020 or CALL (02) 885-02 for any concern on this project
 www.dph.gov.ph

DPWH STANDARD PROJECT BILLBOARD

NOTE :
 INSTALLATION OF BILLBOARD SHALL CONFORM WITH DEPARTMENT ORDER NO. 11, SERIES OF 2022, REVISED GUIDELINES ON THE INSTALLATION OF PROJECT BILLBOARDS.

ROAD WORK SITE TEMPORARY SIGNAGE		SIGNAGE DESCRIPTION			
		SIGN NO.	SIZE (mm) (WIDTH X HEIGHT)	LETTERS/SYMBOLS	BACKGROUND
ADVANCE WARNING SIGN					
	ROADWORK AHEAD (T1-2)	T1-2	1800 x 600	LINE 1-BLACK 200 DM LINE 2-BLACK 160 DM	YELLOW REFLECTORIZED
	END ROADWORK (T2-16, T2-17)	T2-16	1800 x 600	LINE 1-BLACK 200 DM LINE 2-BLACK 160 DM	YELLOW REFLECTORIZED
	WORKMEN AHEAD (Symbolic) (T1-5)	T1-5	900 x 600	BLACK	RED / ORANGE REFLECTORIZED
REGULATORY SIGN					
	SPEED RESTRICTION (R4-1)	R4-1	600 x 800	BLACK 240 DN CIRCLE 600 DIA. RED	WHITE REFLECTORIZED
	PREPARE TO STOP (T1-18)	T1-18	900 x 600	LINE 1-WHITE 120 DM LINE 2-WHITE 120 DM LINE 3-WHITE 120 DM REFLECTORIZED	RED REFLECTORIZED
TEMPORARY HAZARD MARKER					
	TEMPORARY HAZARD MARKER (T5-5)	T5-5	600 x 600	CHEVRONS BLACK 194 WIDE AT 45°	YELLOW REFLECTORIZED
	TRAFFIC CONE	TC			ORANGE WHITE REFLECTORIZED
	TRAFFIC CONE W/ FLASHER LIGHT	TCL			ORANGE WHITE REFLECTORIZED

STANDARD TEMPORARY SIGNAGE DETAIL



TYPICAL FRAME ELEVATION

FRONT ELEVATION

BILLBOARD FRAME

3B
S 12
SCALE: AS SHOWN

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VIII NORTHERN SAMAR SECOND DISTRICT ENGINEERING OFFICE Brgy. Burebud, Laoang Northern Samar		PROJECT NAME AND LOCATION: REHABILITATION/REBLOCKING OF NATIONAL ROAD ALONG PANGPANG-PALAPAG-MAPANAS-GAMAY-LAPING ROAD, K0828+500.00 - K0828+540.00 (5 BLOCKS), K0828+580.00 - K0828+600.00 (1 BLOCK), K0830+230.00 - K0830+265.00 (4 BLOCKS), K0830+350.00 - K0830+400.00 (5 BLOCKS) AND K0831+815.00 - K0831+850.00 (2 BLOCKS), MAPANAS & GAMAY, NORTHERN SAMAR	SHEET CONTENTS: STANDARD TEMPORARY SIGNAGE DETAIL STANDARD DETAIL OF PROJECT BILLBOARD	DRAFTED/ PREPARED: AVAN KEIR C. SALAZAR ENGINEER DATE:	REVIEWED: NICANOR L. MEJOS, JR. ENGINEER II DATE:	SUBMITTED: FRANCIS F. TAÑALA CHIEF NORTH DISTRICT SECTION DATE:	RECOMMENDED: ATTY. ARTHUR ERIC L. SABONG ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: CHARLITO S. CARLOS DISTRICT ENGINEER DATE:	SET NO. F 1 1	SHEET NO. 10 10
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