

SCALE: 1:1250 MTS.

BENCHMARK 1 (BM - 1)  
NAIL OF CONCRETE  
MONUMENT  
N = 1,571,274.12  
E = 494,348.39  
ELEV = 351.43m

**LEGEND:**

 PROPOSED CONCRETE PAVEMENT

— — — EXISTING STRUCTURES

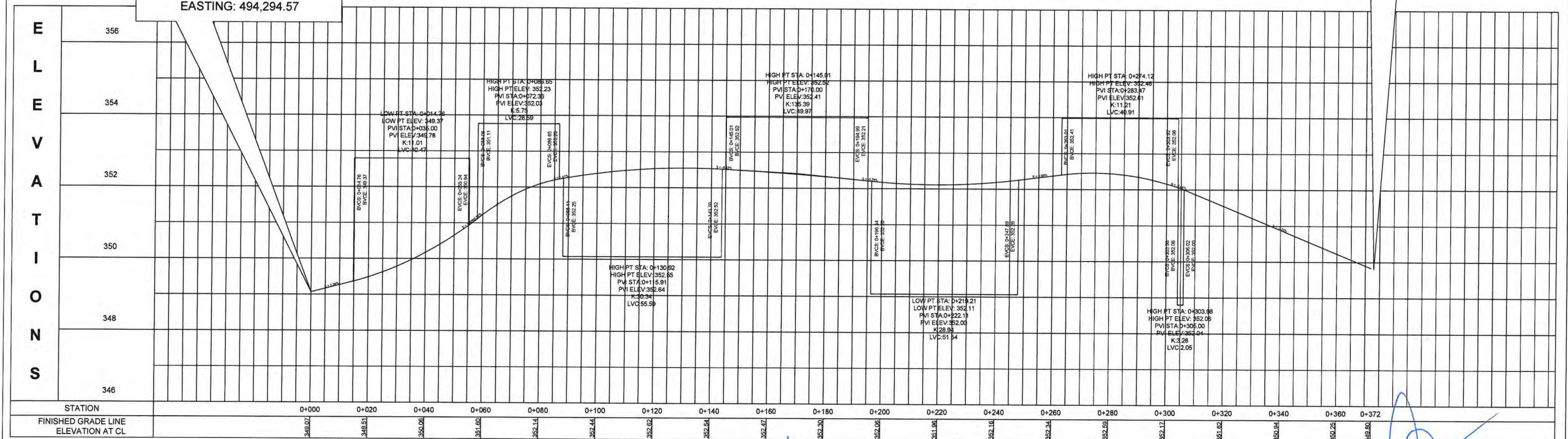
NOTES:

1. HORIZONTAL CONTROLS SHOWN ON THIS PLAN WERE TRUE COORDINATES IN PHILIPPINE REFERENCE SYSTEM OF 1992 (PRS92) FORM AS SHOWN.
2. VERTICAL CONTROLS WERE BASED FROM THE SEA LEVEL DATUM.

ALIGNMENT 1  
END OF PROJECT  
STA. 0 + 372.00  
NORTHING : 1,571,377.820  
EASTING: 494,645.03

SCALE: V = 1:125 MTS  
H = 1:1000 MTS

ALIGNMENT 1  
BEGINNING OF PROJECT  
STA. 0 + 000.00  
NORTHING : 1,571,254.42  
EASTING: 494,294.57



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE IV-A  
CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE  
CARMONA CITY, CAVITE

|                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROJECT NAME AND LOCATION:                                                                                                                                                                                                                                                          |
| DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROADS LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD BARANGAY KALUBOK, SILANG, CAVITE |

SHEET CONTENTS:

PLAN AND PROFILE  
ALIGNMENT 1: STA. 0 + 000.00 - STA. 0 + 372.00

DRAFTED: AARON JAY F. FABELLA  
ENGINEERING ASSISTANT

SUBMITTED BY: JOED MICHAEL F. BENEGAS  
ENGINEER

REVIEWED:

**ISAAC EMANUEL C. MOJICA**  
ENGINEER II

DATE: 9/27/24

|                                    |                                                                                       |
|------------------------------------|---------------------------------------------------------------------------------------|
| SUBMITTED:                         |  |
| <b>REIMART REGIN P. BAUTISTA</b>   |                                                                                       |
| CHIEF, PLANNING AND DESIGN SECTION |                                                                                       |
| DATE:                              | 9/27/29                                                                               |

RECOMMENDED:

*Jennifer F. Almanzor*  
**JENNIFER F. ALMANZOR**  
ASSISTANT DISTRICT ENGINEER

DATE: 9/30/24

APPROVED:   
**DONNIE D. CUNA**  
DISTRICT ENGINEER  
DATE: 9/10/20

|                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SET NO.                                                                               | SHEET NO.                                                                             |
|  |  |

| ELEMENTS OF CURVE |          |           |           |         |        |        |         |          |          |               |                      |
|-------------------|----------|-----------|-----------|---------|--------|--------|---------|----------|----------|---------------|----------------------|
| P.I. NUMBER       | STATION  | I         | D         | R (m.)  | T (m.) | E (m.) | LC (m.) | PC       | PT       | DISTANCE (m.) | AZIMUTH (FROM SOUTH) |
| L11               |          |           |           |         |        |        |         |          |          | 26.402        | 88°47'56"            |
| P.I. 1-10         | 0+032.25 | 15°24'39" | 26°45'10" | 43.225  | 5.848  | 0.394  | 11.591  | 0+026.40 | 0+038.03 |               |                      |
| L12               |          |           |           |         |        |        |         |          |          | 5.287         | 73°23'17"            |
| P.I. 1-11         | 0+046.80 | 1°59'49"  | 5°43'55"  | 200.000 | 3.466  | 0.030  | 6.970   | 0+043.32 | 0+050.29 |               |                      |
| L13               |          |           |           |         |        |        |         |          |          | 21.579        | 71°23'28"            |
| P.I. 1-12         | 0+076.04 | 6°52'58"  | 16°33'22" | 69.455  | 4.177  | 0.125  | 8.338   | 0+071.86 | 0+080.21 |               |                      |
| L14               |          |           |           |         |        |        |         |          |          | 1.541         | 64°30'30"            |
| P.I. 1-13         | 0+086.47 | 2°42'23"  | 5°43'55"  | 200.000 | 4.724  | 0.056  | 9.446   | 0+081.75 | 0+091.20 |               |                      |
| L15               |          |           |           |         |        |        |         |          |          | 13.906        | 61°48'07"            |
| P.I. 1-14         | 0+105.18 | 0°02'50"  | 5°43'55"  | 200.000 | 0.062  | 0.000  | 0.165   | 0+105.10 | 0+105.27 |               |                      |
| L16               |          |           |           |         |        |        |         |          |          | 6.059         | 61°50'57"            |
| P.I. 1-15         | 0+113.65 | 1°19'59"  | 5°43'55"  | 200.000 | 2.327  | 0.014  | 4.653   | 0+111.33 | 0+115.98 |               |                      |
| L17               |          |           |           |         |        |        |         |          |          | 44.969        | 63°10'56"            |

## PLAN

SCALE: 1:1250 MTS.

LEGEND:

PROPOSED CONCRETE PAVEMENT

EXISTING STRUCTURES

### NOTES:

- HORIZONTAL CONTROLS SHOWN ON THIS PLAN WERE TRUE COORDINATES IN PHILIPPINE REFERENCE SYSTEM OF 1992(PRS92) FORM AS SHOWN.
- VERTICAL CONTROLS WERE BASED FROM THE SEA LEVEL DATUM.

BENCHMARK 1 (BM - 1)  
NAIL OF CONCRETE  
MONUMENT  
N = 1,571,274.12  
E = 494,348.39  
ELEV = 351.43m

ALIGNMENT 2  
BEGINNING OF PROJECT  
STA. 0 + 000.00  
NORTHING :1,571,607.32  
EASTING: 495,097.26

## PROFILE

SCALE: V = 1:125 MTS  
H = 1:1000 MTS

ALIGNMENT 2  
END OF PROJECT  
STA. 0 + 144.00  
NORTHING :1,571,563.92  
EASTING: 494,966.39

LEGEND:

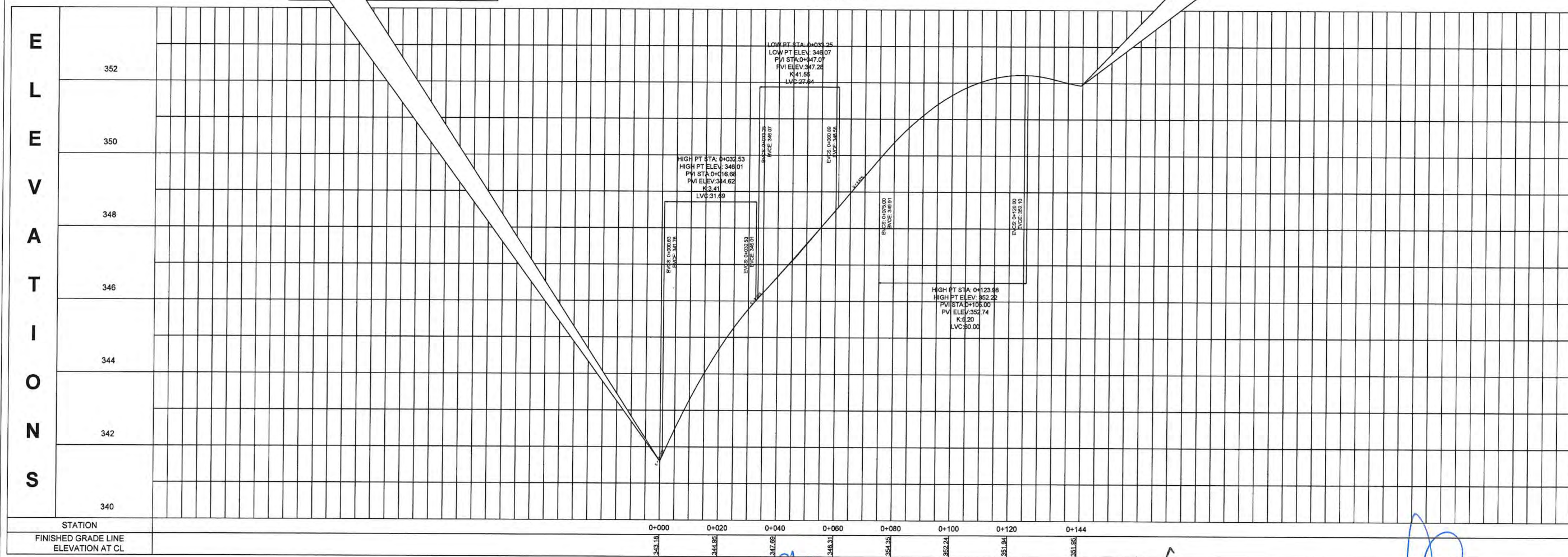
PVI POINT OF VERTICAL INTERSECTION

K K VALUE

LVC LENGTH OF VERTICAL CURVE

BVCS BEGINNING VERTICAL CURVE STATION

EVCS END VERTICAL CURVE STATION



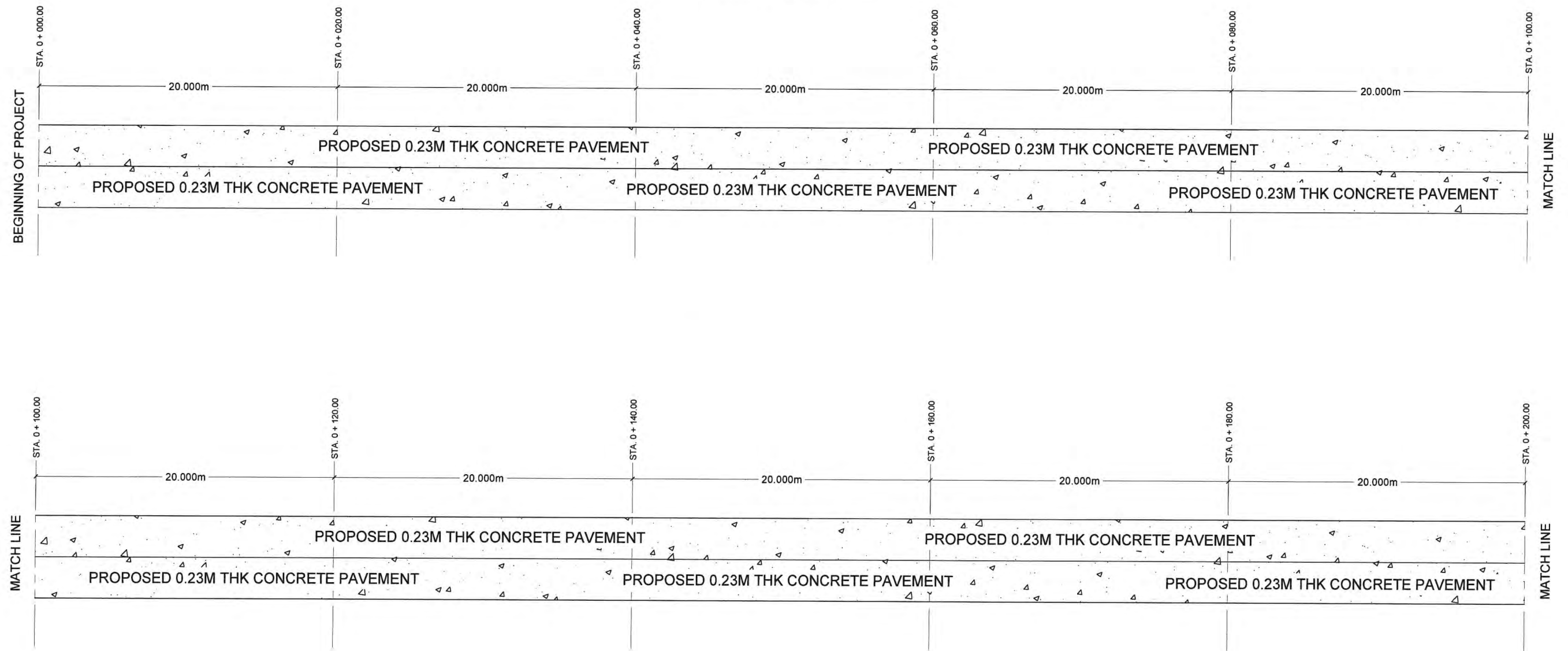
|                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                                       |                                                                                                                        |                                                             |                                             |           |           |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------|-----------|-----------|-----------|
| <p>REPUBLIC OF THE PHILIPPINES<br/>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS<br/>REGIONAL OFFICE IV-A<br/>CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE<br/>CARMONA CITY, CAVITE</p> | PROJECT NAME AND LOCATION:                                                                                                                                                                                                                                                                    | SHEET CONTENTS:                                                            | DRAFTED:                                                                                                              | REVIEWED:                                                                                                              | SUBMITTED:                                                  | RECOMMENDED:                                | APPROVED: | SET NO.   | SHEET NO. |
|                                                                                                                                                                                        | <p>DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE</p> | <p>PLAN AND PROFILE<br/>ALIGNMENT 2: STA. 0 + 000.00 - STA. 0 + 144.00</p> | <p>AARON JAY F. FABELLA<br/>ENGINEERING ASSISTANT</p> <p>SUBMITTED BY:<br/>JOED MICHAEL F. BENEGAS<br/>ENGINEER I</p> | <p>ISAAC EMANUEL C. MOJICA<br/>ENGINEER II</p> <p>REIMART REGIN P. BAUTISTA<br/>CHIEF, PLANNING AND DESIGN SECTION</p> | <p>JENNIFER F. ALMANZOR<br/>ASSISTANT DISTRICT ENGINEER</p> | <p>DONNIE D. CUNA<br/>DISTRICT ENGINEER</p> | <p>2</p>  | <p>13</p> |           |

# STRAIGHT LINE DIAGRAM

SCALE:

1:200 MTS.

## ALIGNMENT 1



### LEGEND:

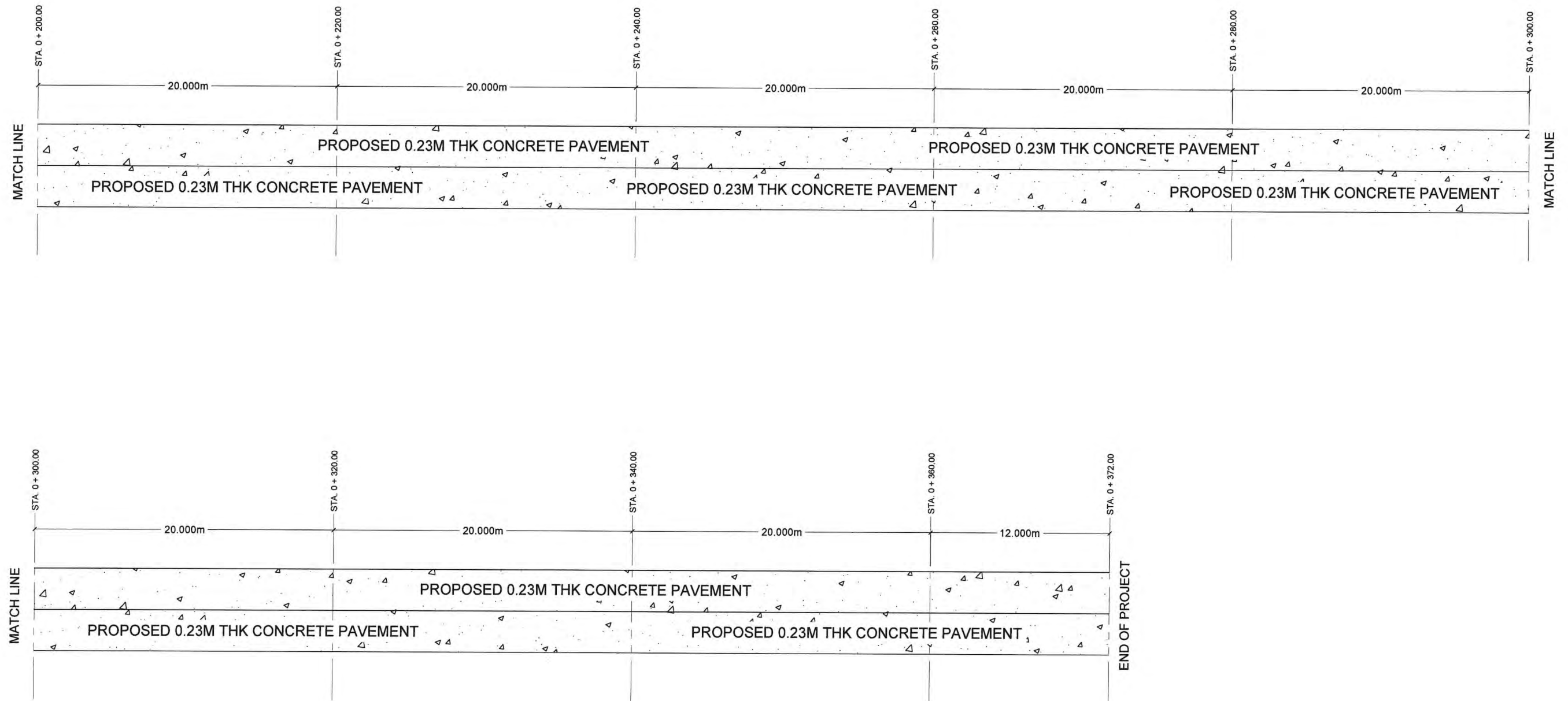
- PROPOSED CONCRETE PAVEMENT
- EXISTING STRUCTURES

|                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                      |                                                                                        |                                                                                                                   |                                                                      |                                                                                                |                                                                                      |                                                                   |                     |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|-----------------------|
| <br>REPUBLIC OF THE PHILIPPINES<br>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS<br>REGIONAL OFFICE IV-A<br>CAVITE 3 <sup>RD</sup> DISTRICT ENGINEERING OFFICE<br>CARMONA CITY, CAVITE | PROJECT NAME AND LOCATION:<br>DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE | SHEET CONTENTS:<br>STRAIGHT LINE DIAGRAM<br>ALIGNMENT 1: STA. 0+000.00 - STA. 0+200.00 | DRAFTED:<br>AARON JAY F.ABELLA<br>ENGINEERING ASSISTANT<br>SUBMITTED BY:<br>JOEL MICHAEL F. BENEGAS<br>ENGINEER I | REVIEWED:<br>ISAAC EMANUEL C. MOJICA<br>ENGINEER II<br>DATE: 9/27/24 | SUBMITTED:<br>REIMART REGIN P. BAUTISTA<br>CHIEF, PLANNING AND DESIGN SECTION<br>DATE: 9/27/24 | RECOMMENDED:<br>JENNIFER F. ALMANZOR<br>ASSISTANT DISTRICT ENGINEER<br>DATE: 9/30/24 | APPROVED:<br>DONNIE D. CUNA<br>DISTRICT ENGINEER<br>DATE: 9/30/24 | SET NO.<br>L<br>1 3 | SHEET NO.<br>14<br>25 |
|                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                      |                                                                                        |                                                                                                                   |                                                                      |                                                                                                |                                                                                      |                                                                   |                     |                       |

# STRAIGHT LINE DIAGRAM

SCALE:

1:200 MTS.



## LEGEND:

- PROPOSED CONCRETE PAVEMENT
- EXISTING STRUCTURES



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE IV-A  
CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE  
CARMONA CITY, CAVITE

PROJECT NAME AND LOCATION:  
DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE

SHEET CONTENTS:  
STRAIGHT LINE DIAGRAM  
ALIGNMENT 1: STA. 0+200.00 - STA. 0+372.00

DRAFTED:  
AARON JAY F. FABELLA  
ENGINEERING ASSISTANT  
SUBMITTED BY:  
JOED MICHAEL F. BENEGAS  
ENGINEER I

REVIEWED:  
ISAAC EMANUEL C. MOJICA  
ENGINEER II  
DATE: 9/27/24

SUBMITTED:  
REIMAR LREGIN P. BAUTISTA  
CHIEF, PLANNING AND DESIGN SECTION  
DATE: 9/27/24

RECOMMENDED:  
JENNIFER F. ALMANZOR  
ASSISTANT DISTRICT ENGINEER  
DATE: 9/30/24

APPROVED:  
DONNIE D. CUNA  
DISTRICT ENGINEER  
DATE: 9/30/24

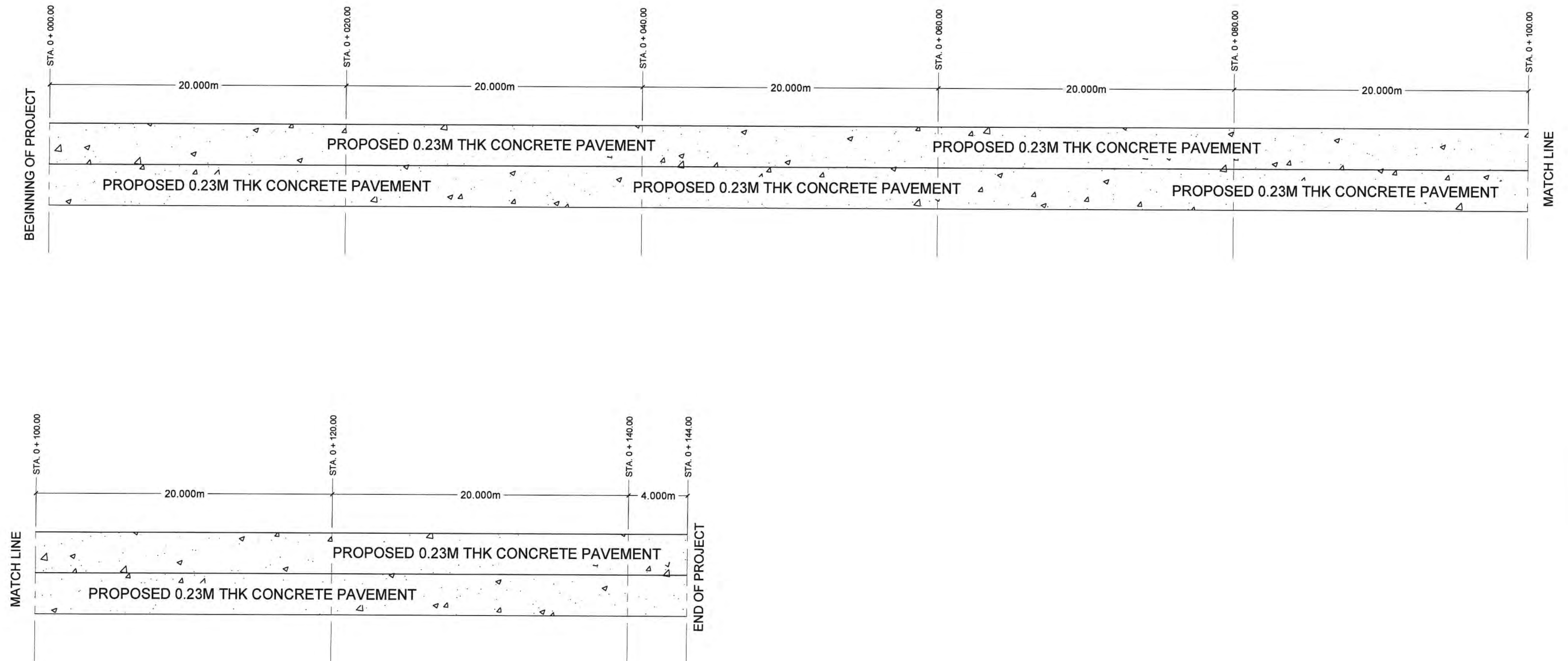
SET NO. SHEET NO.  
L 15  
2 3 25

# STRAIGHT LINE DIAGRAM

SCALE:

1:200 MTS.

## ALIGNMENT 2



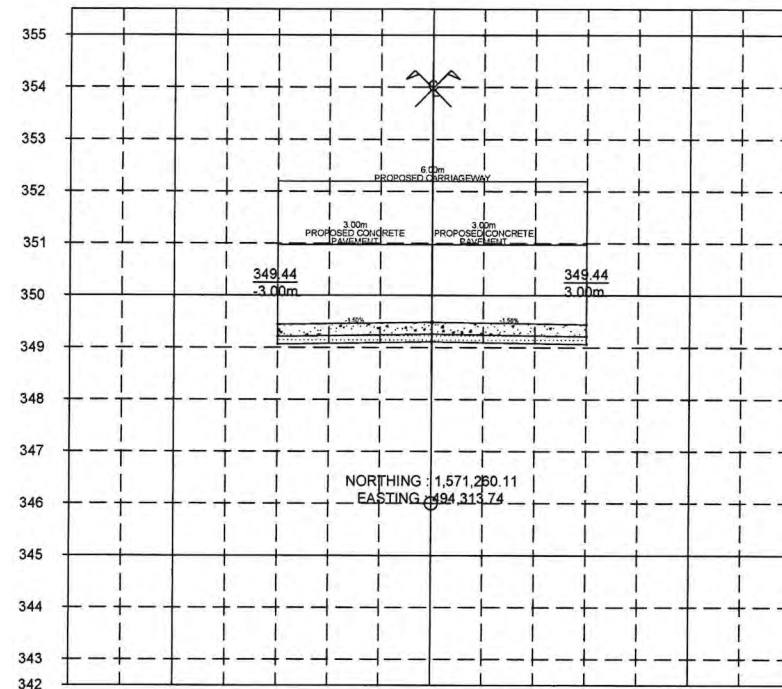
| LEGEND: |                            |
|---------|----------------------------|
|         | PROPOSED CONCRETE PAVEMENT |
|         | EXISTING STRUCTURES        |

|                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                        |                                                         |                                                                                  |                                                                      |                                                      |          |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------|----------|-----------|
| <br>REPUBLIC OF THE PHILIPPINES<br>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS<br>REGIONAL OFFICE IV-A<br>CAVITE 3 <sup>RD</sup> DISTRICT ENGINEERING OFFICE<br>CARMONA CITY, CAVITE | PROJECT NAME AND LOCATION:                                                                                                                                                                                                                                                             | SHEET CONTENTS:                                                     | DRAFTED:                                                                                               | REVIEWED:                                               | SUBMITTED:                                                                       | RECOMMENDED:                                                         | APPROVED:                                            | SET NO.  | SHEET NO. |
|                                                                                                                                                                                  | DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE | STRAIGHT LINE DIAGRAM<br>ALIGNMENT 2: STA. 0+000.00 - STA. 0+144.00 | AARON JAY F. ABELLA<br>ENGINEERING ASSISTANT<br>SUBMITTED BY:<br>JOED MICHAEL F. BENEGAS<br>ENGINEER I | ISAAC EMANUEL G. MOJICA<br>ENGINEER II<br>DATE: 9/27/24 | REIMART REGIN P. BAUTISTA<br>CHIEF, PLANNING AND DESIGN SECTION<br>DATE: 9/27/24 | JENNIFER F. ALMANZOR<br>ASSISTANT DISTRICT ENGINEER<br>DATE: 9/20/24 | DONNIE D. CUNA<br>DISTRICT ENGINEER<br>DATE: 9/27/24 | L<br>3 3 | 16<br>25  |

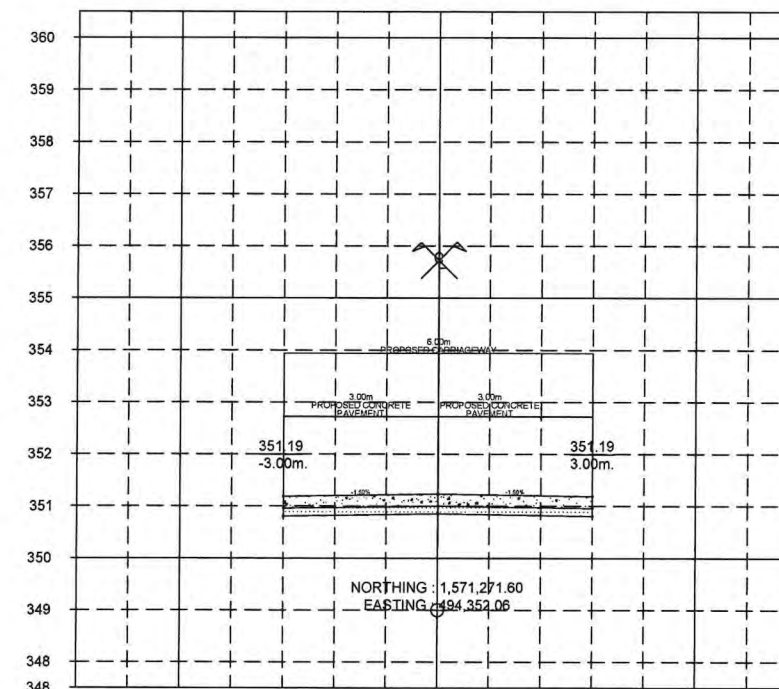
# ROADWAY CROSS-SECTION

SCALE:

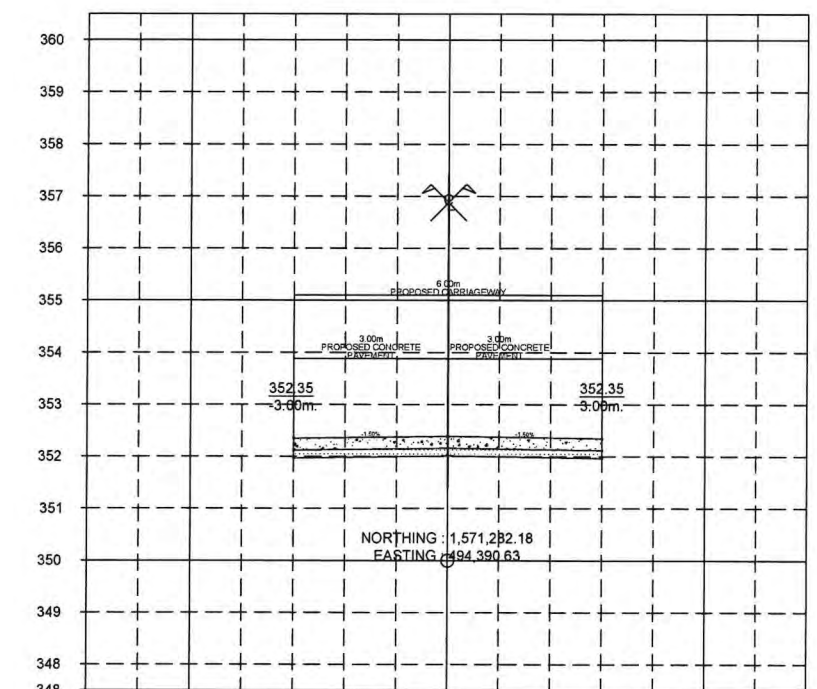
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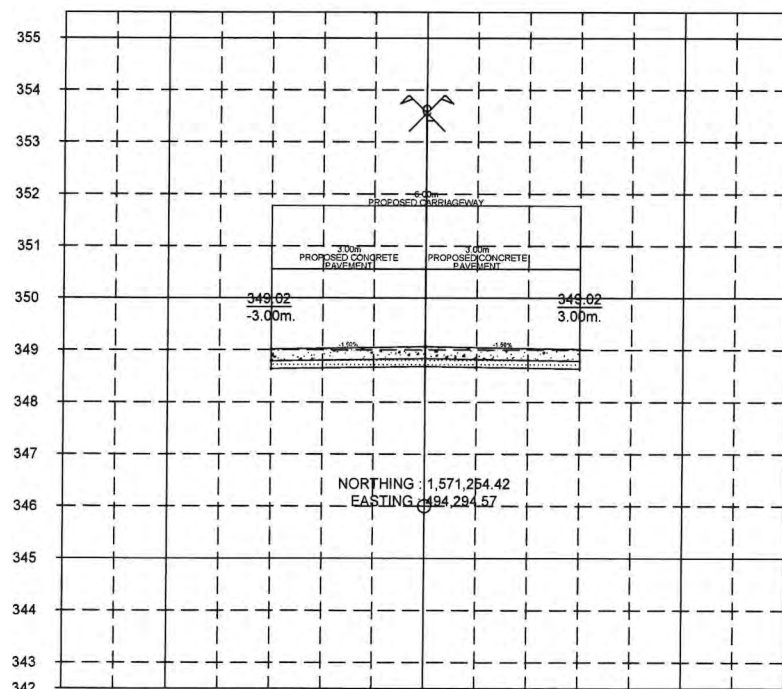
ALIGNMENT 1: STA. 0+020.00



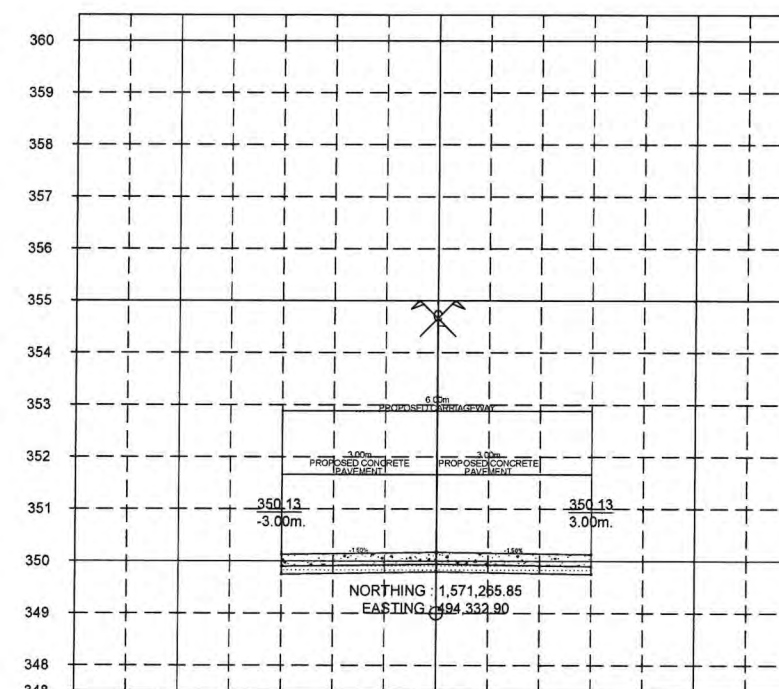
ALIGNMENT 1: STA. 0+060.00



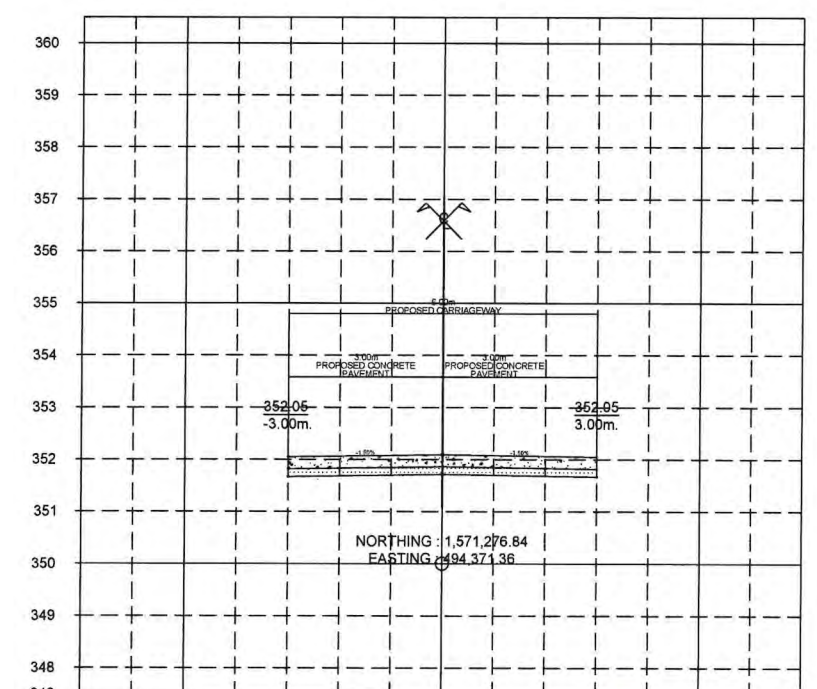
ALIGNMENT 1: STA. 0+100.00



ALIGNMENT 1: STA. 0+000.00



ALIGNMENT 1: STA. 0+040.00



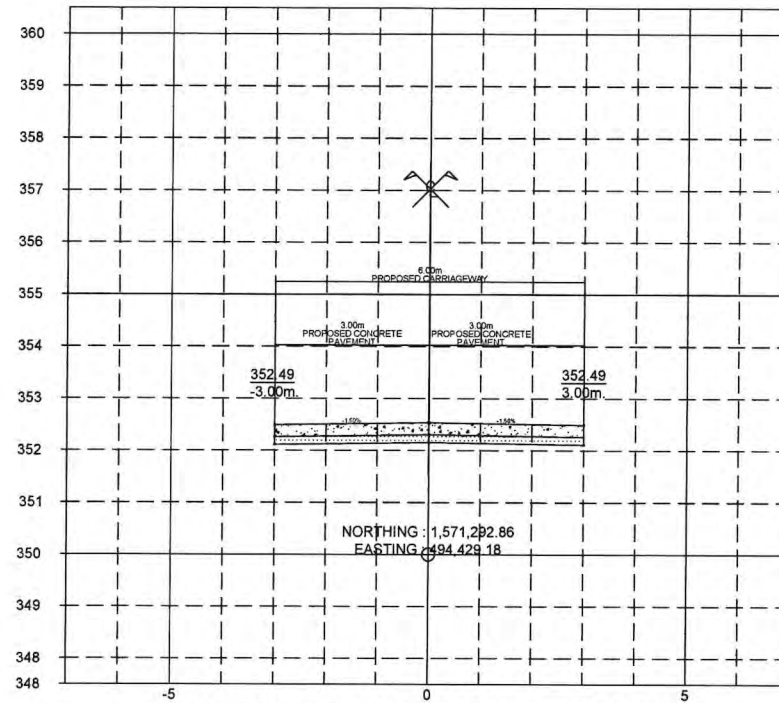
ALIGNMENT 1: STA. 0+080.00

|                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |                                                                               |                                                                                                                       |                                                                                                                        |                                                             |                                             |                  |                  |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------|------------------|------------------|-----------|
| <p>REPUBLIC OF THE PHILIPPINES<br/>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS<br/>REGIONAL OFFICE IV-A<br/>CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE<br/>CARMONA CITY, CAVITE</p> | PROJECT NAME AND LOCATION                                                                                                                                                                                                                                                                     | SHEET CONTENTS:                                                               | DRAFTED:                                                                                                              | REVIEWED:                                                                                                              | SUBMITTED:                                                  | RECOMMENDED:                                | APPROVED:        | SET NO.          | SHEET NO. |
|                                                                                                                                                                                        | <p>DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE</p> | <p>ROADWAY CROSS-SECTION<br/>(ALIGNMENT 1: STA. 0+000.00 - STA. 0+100.00)</p> | <p>AARON JAY F. FABELLA<br/>ENGINEERING ASSISTANT</p> <p>SUBMITTED BY:<br/>JOEL MICHAEL F. BENEGAS<br/>ENGINEER I</p> | <p>ISAAC EMANUEL C. MOJICA<br/>ENGINEER II</p> <p>REIMART REGIN P. BAUTISTA<br/>CHIEF, PLANNING AND DESIGN SECTION</p> | <p>JENNIFER F. ALMANZOR<br/>ASSISTANT DISTRICT ENGINEER</p> | <p>DONNIE D. CUNA<br/>DISTRICT ENGINEER</p> | <p>M<br/>1 5</p> | <p>17<br/>25</p> |           |

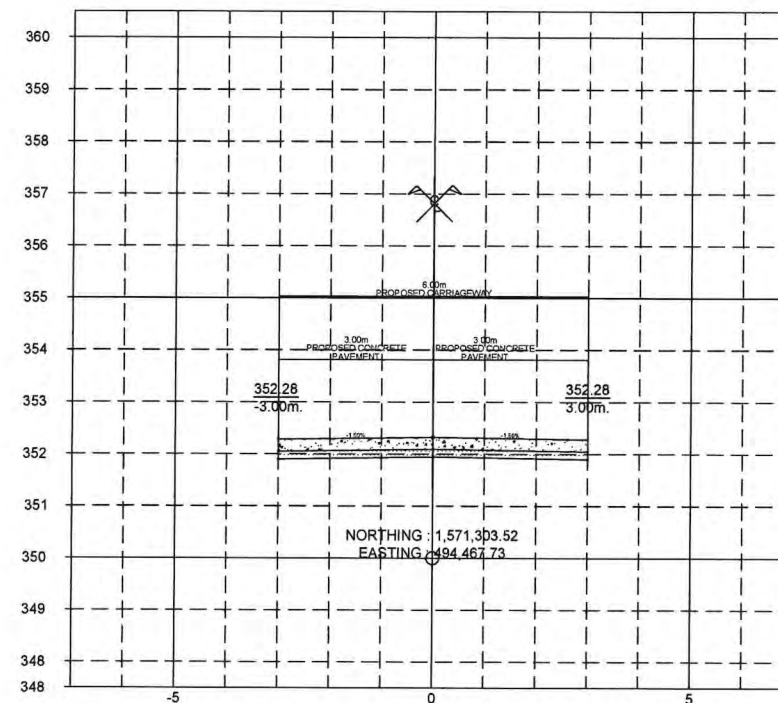
# ROADWAY CROSS-SECTION

SCALE:

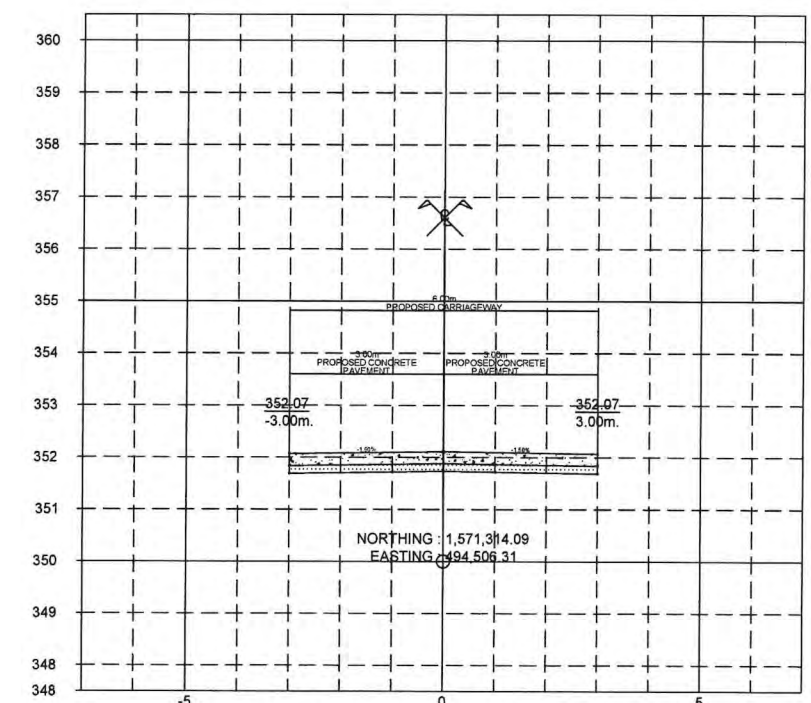
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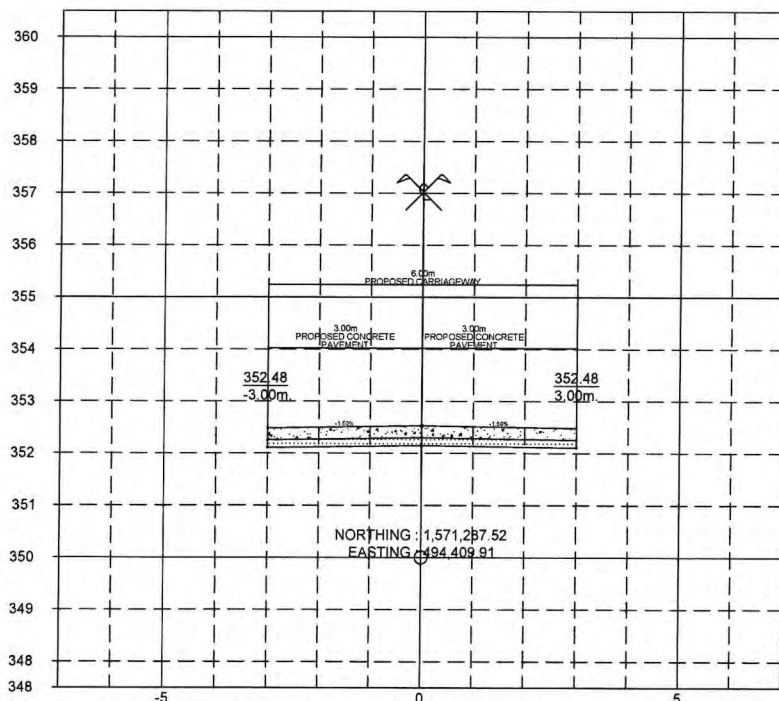
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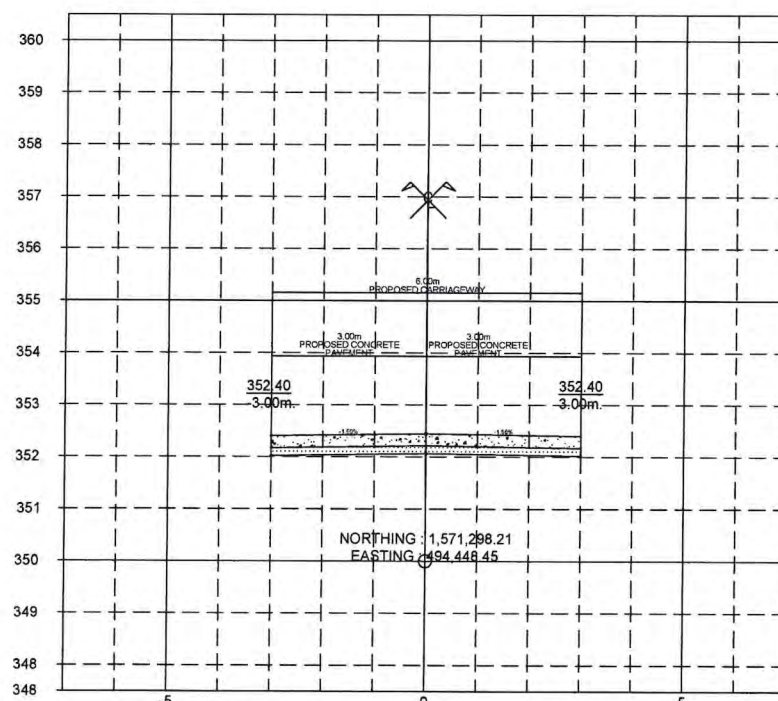
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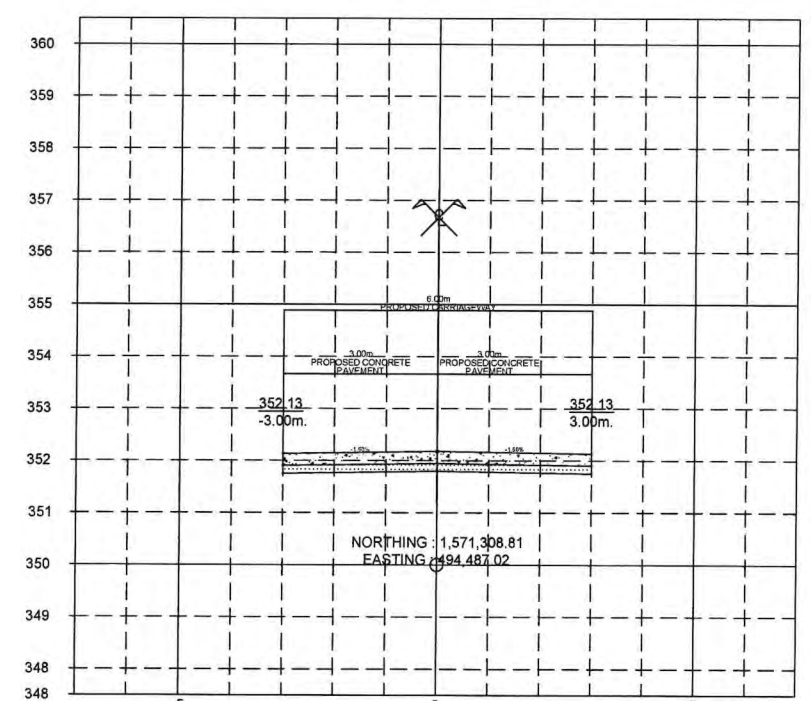
ALIGNMENT 1: STA. 0+220.00



ALIGNMENT 1: STA. 0+120.00



ALIGNMENT 1: STA. 0+160.00



ALIGNMENT 1: STA. 0+200.00



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE IV-A  
CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE  
CARMONA CITY, CAVITE

PROJECT NAME AND LOCATION:  
DETAILED ENGINEERING PLAN FOR CONVERGENCE AND  
SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE  
PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM  
THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC  
PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD,  
BARANGAY KALUBKOB, SILANG, CAVITE

SHEET CONTENTS:  
ROADWAY CROSS-SECTION  
(ALIGNMENT 1: STA. 0+120.00 - STA. 0+220.00)

DRAFTED:  
AARON JAY F. FABELLA  
ENGINEERING ASSISTANT  
SUBMITTED BY:  
JOED MICHAEL F. BENEGAS  
ENGINEER I

REVIEWED:  
ISAAC EMANUEL C. MOJICA  
ENGINEER II  
DATE: 9/20/24

SUBMITTED:  
REIMART REGIN P. BAUTISTA  
CHIEF, PLANNING AND DESIGN SECTION  
DATE: 9/22/24

RECOMMENDED:  
JENNIFER F. ALMANZOR  
ASSISTANT DISTRICT ENGINEER  
DATE: 9/30/24

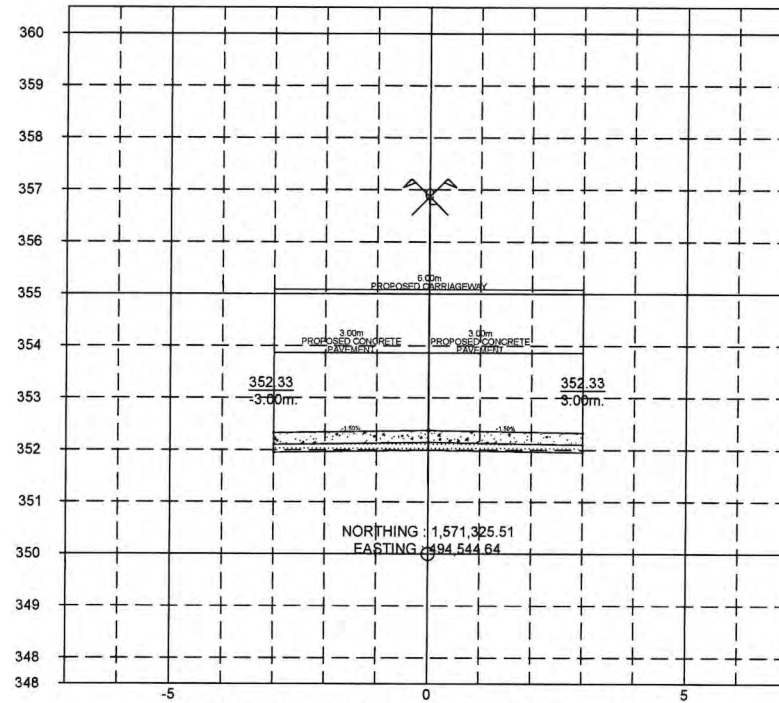
APPROVED:  
DONNIE D. GUNA  
DISTRICT ENGINEER  
DATE: 9/30/24

SET NO. SHEET NO.  
M 18  
2 5 25

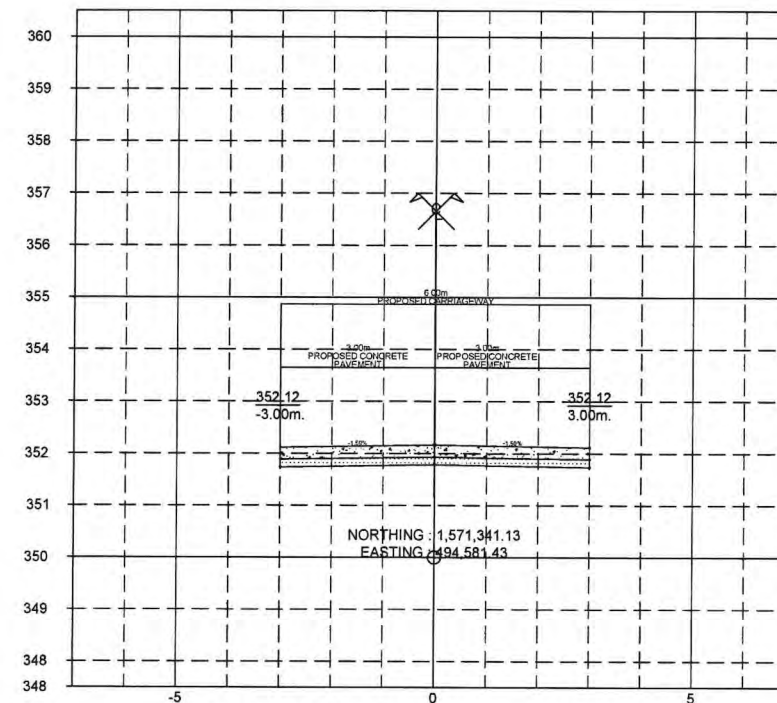
# ROADWAY CROSS-SECTION

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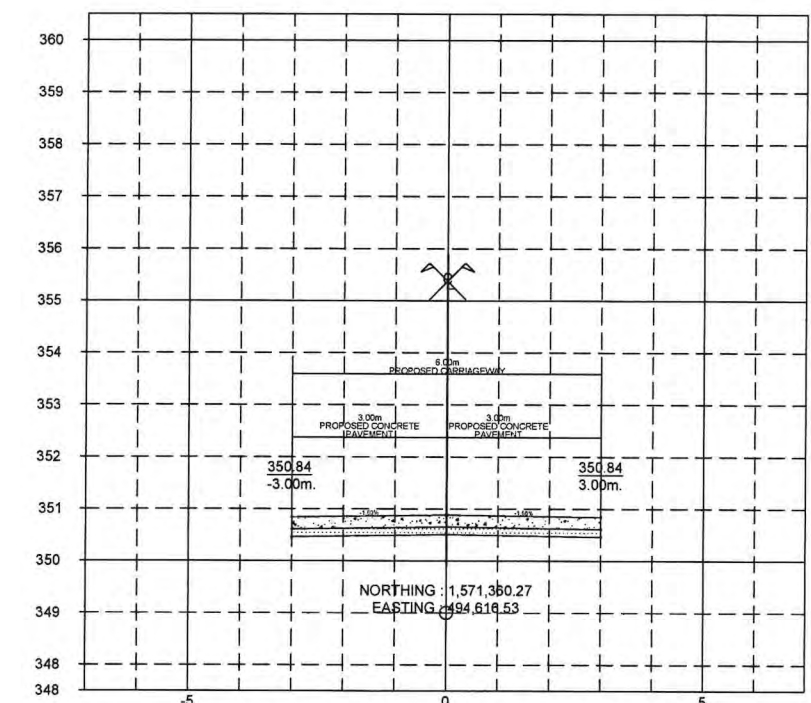
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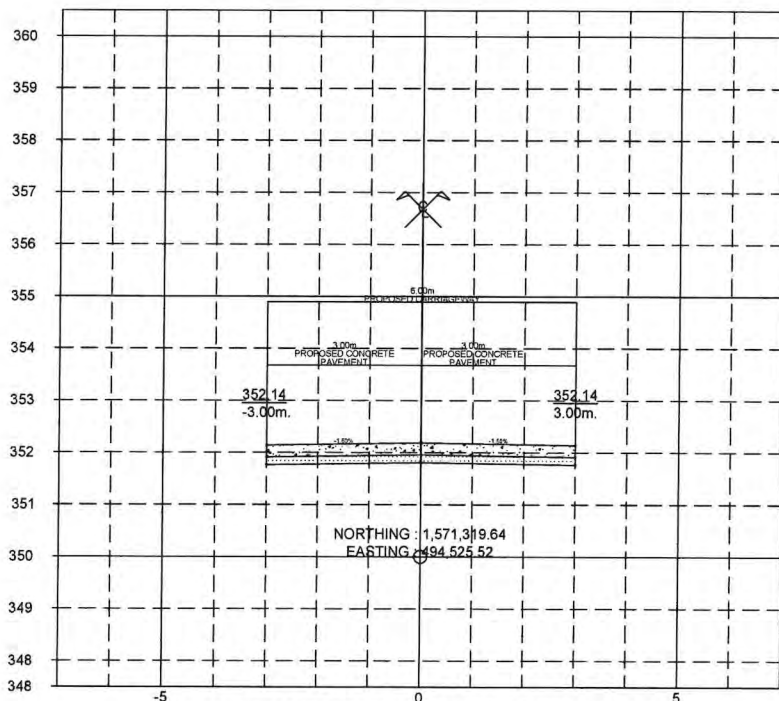
ALIGNMENT 1: STA. 0+260.00



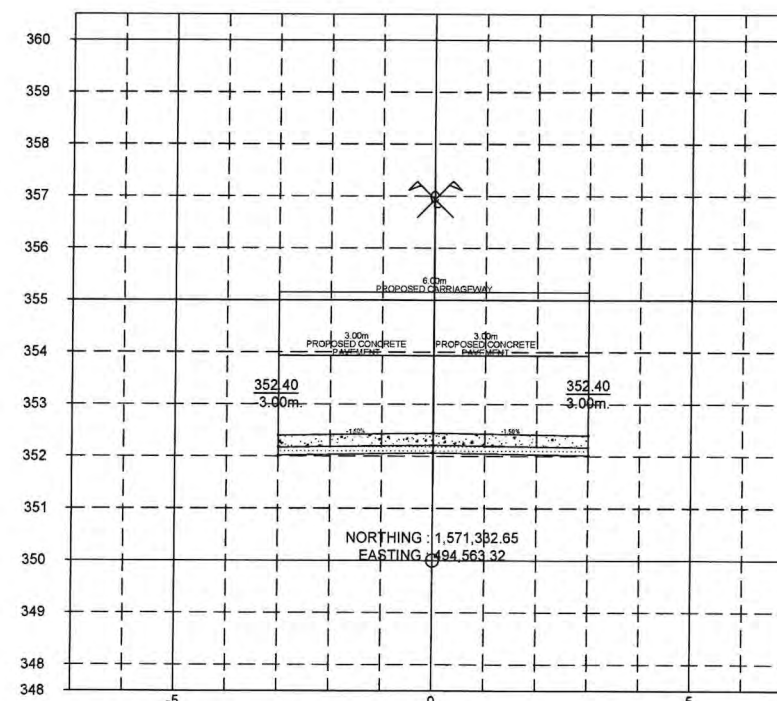
ALIGNMENT 1: STA. 0+300.00



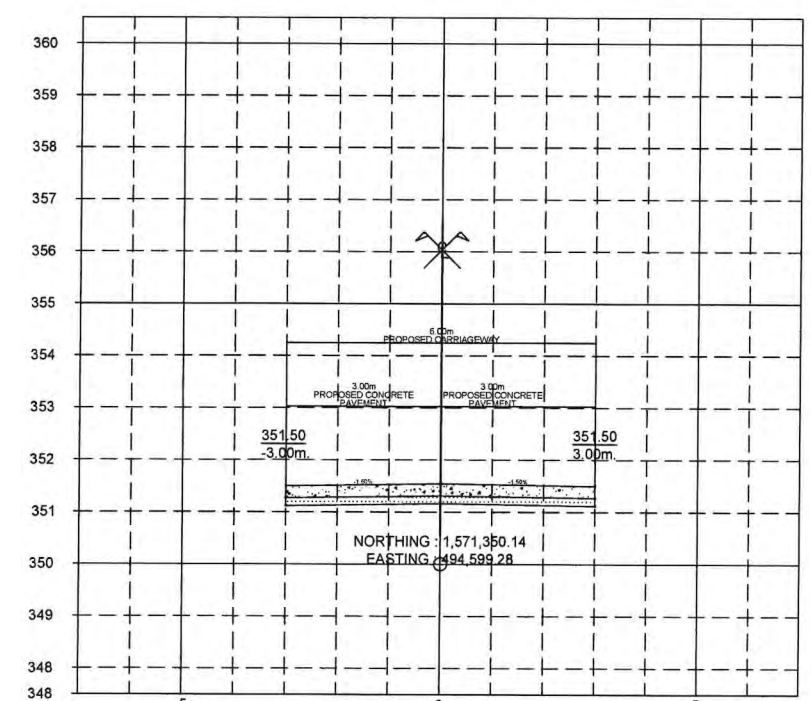
ALIGNMENT 1: STA. 0+340.00



ALIGNMENT 1: STA. 0+240.00



ALIGNMENT 1: STA. 0+280.00



ALIGNMENT 1: STA. 0+320.00



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE IV-A  
CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE  
CARMONA CITY, CAVITE

PROJECT NAME AND LOCATION:  
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SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE  
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THE NATIONAL ROAD/IS LEADING TO MAJOR/ STRATEGIC  
PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD,  
BARANGAY KALUBKOB, SILANG, CAVITE

SHEET CONTENTS:  
ROADWAY CROSS-SECTION  
(ALIGNMENT 1: STA. 240.00 - STA. 0+340.00)

DRAFTED:  
AARON JAY F. ABELLA  
ENGINEERING ASSISTANT  
SUBMITTED BY:  
JOEL MICHAEL F. BENEGAS  
ENGINEER I

REVIEWED:  
ISAAC EMANUEL C. MOJICA  
ENGINEER II  
DATE: 9/27/24

SUBMITTED:  
REIMART REGIN P. BAUTISTA  
CHIEF, PLANNING AND DESIGN SECTION  
DATE: 9/27/24

RECOMMENDED:  
JENNIFER F. ALMANZOR  
ASSISTANT DISTRICT ENGINEER  
DATE: 9/30/24

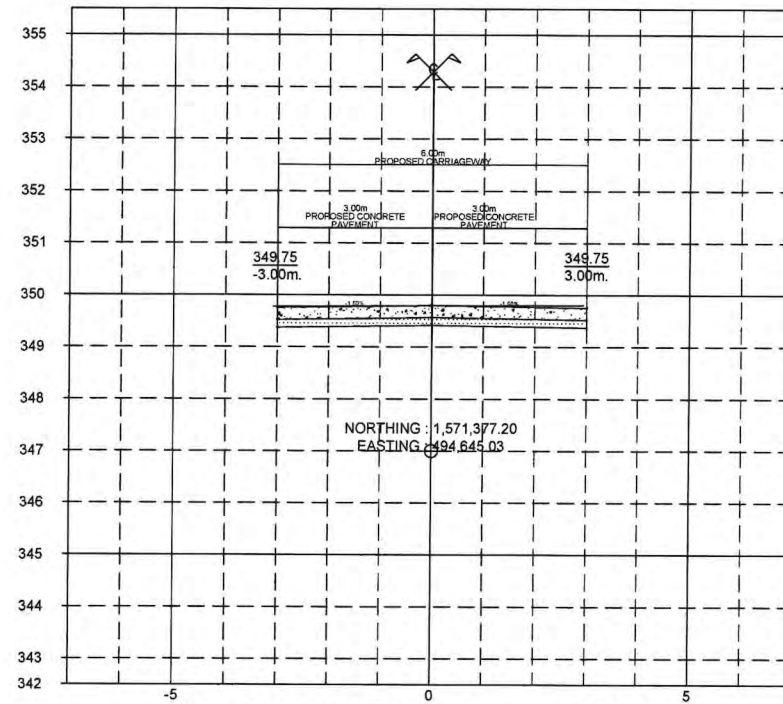
APPROVED:  
DONNIE D. CUNA  
DISTRICT ENGINEER  
DATE: 9/30/24

SET NO. 3 5 SHEET NO. 19 25

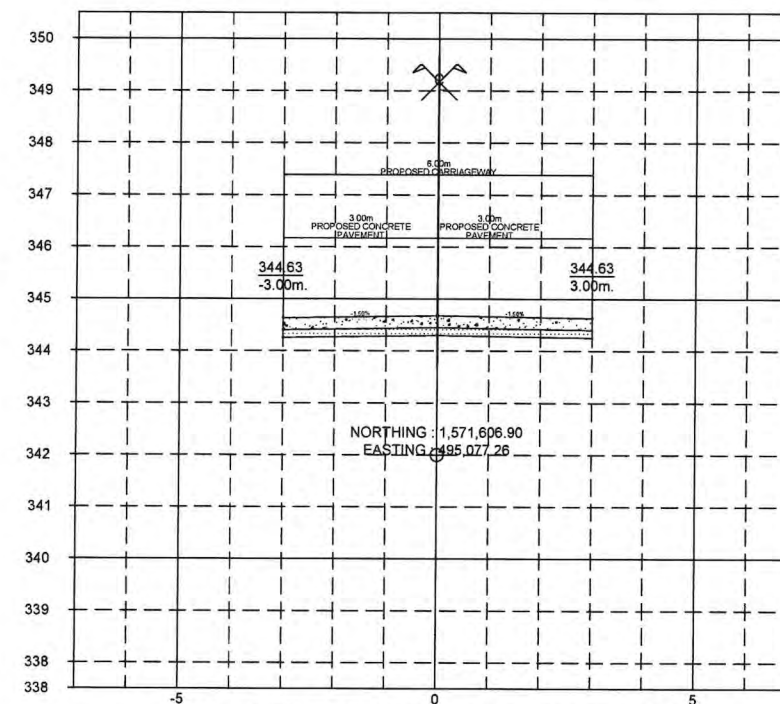
# ROADWAY CROSS-SECTION

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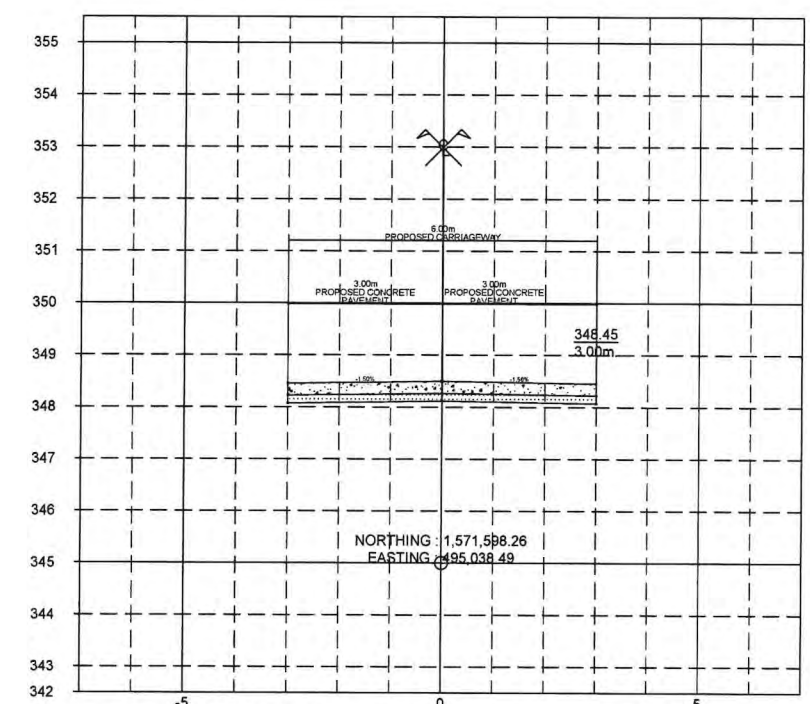
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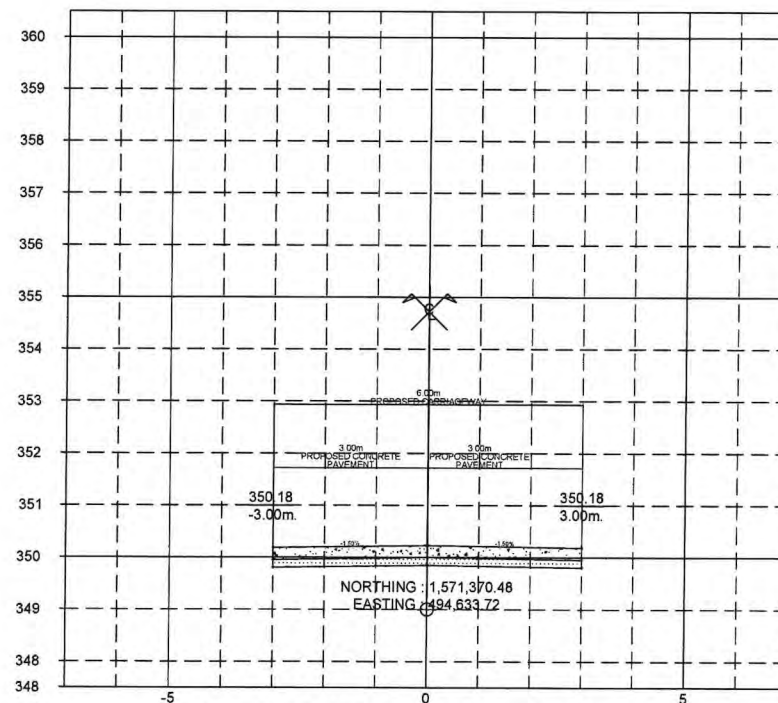
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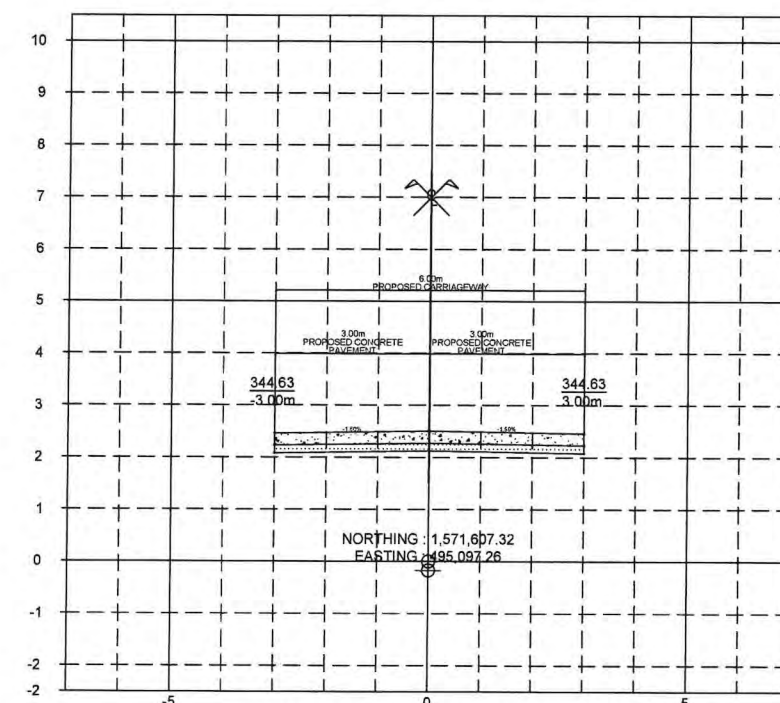
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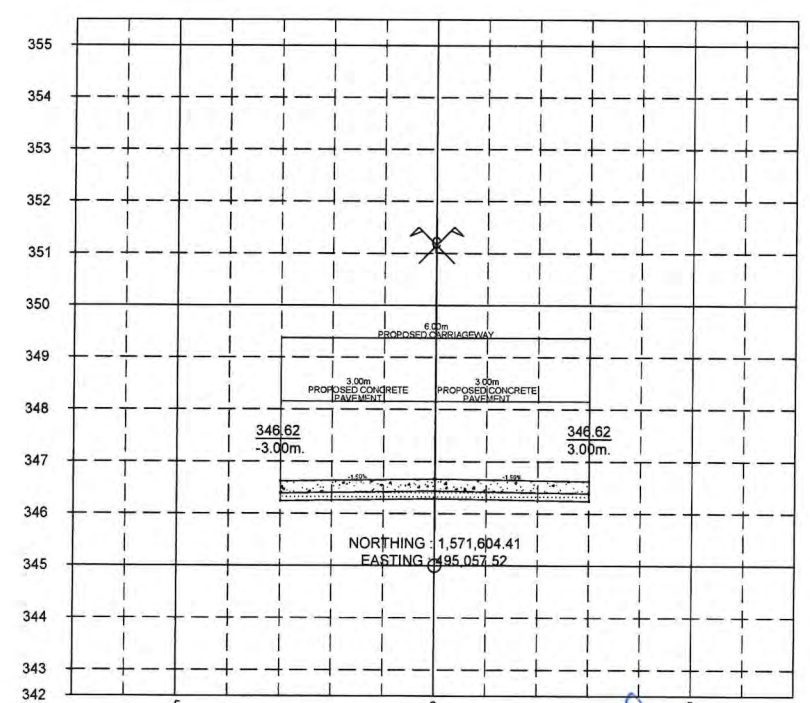
ALIGNMENT 2: STA. 0+060.00



ALIGNMENT 1: STA. 0+360.00



ALIGNMENT 2: STA. 0+000.00



ALIGNMENT 2: STA. 0+040.00



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE IV-A  
CAVITE 3<sup>RD</sup> DISTRICT ENGINEERING OFFICE  
CARMONA CITY, CAVITE

PROJECT NAME AND LOCATION:  
DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROADS LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE

SHEET CONTENTS:  
ROADWAY CROSS-SECTION  
(ALIGNMENT 1: STA. 0+360.00 - ALIGNMENT 2: STA. 0+060.00)

DRAFTED:  
AARON JAY F. ABELLA  
ENGINEERING ASSISTANT  
SUBMITTED BY:  
JORD MICHAEL F. BENIGAS  
ENGINEER I

REVIEWED:  
ISAAC EMANUEL C. MOJICA  
ENGINEER II  
DATE: 9/27/24

SUBMITTED:  
REIMART REGIN P. BAUTISTA  
CHIEF, PLANNING AND DESIGN SECTION  
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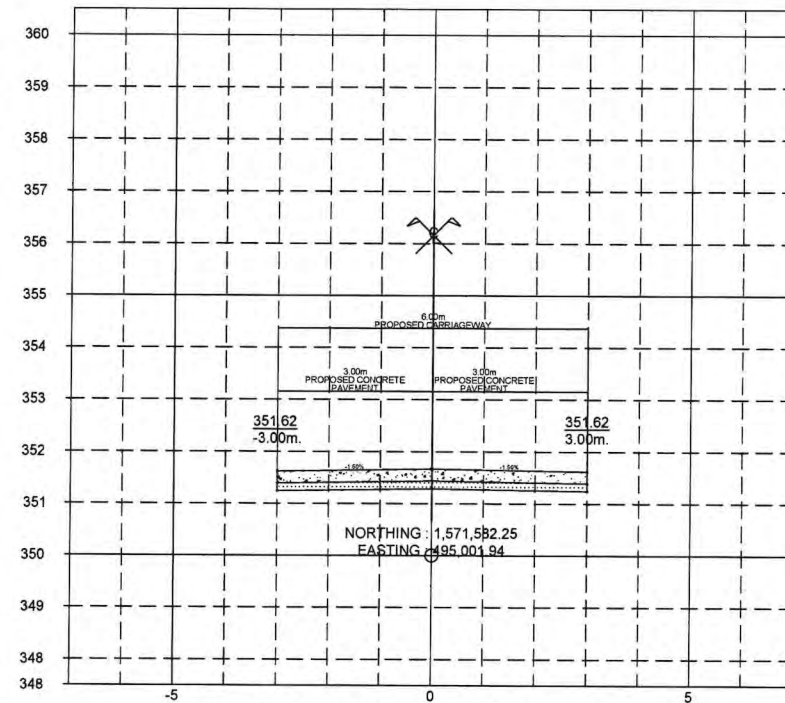
APPROVED:  
DONNIE D. CUNA  
DISTRICT ENGINEER  
DATE: 9/30/24

SET NO. 4 5  
SHEET NO. 20 25

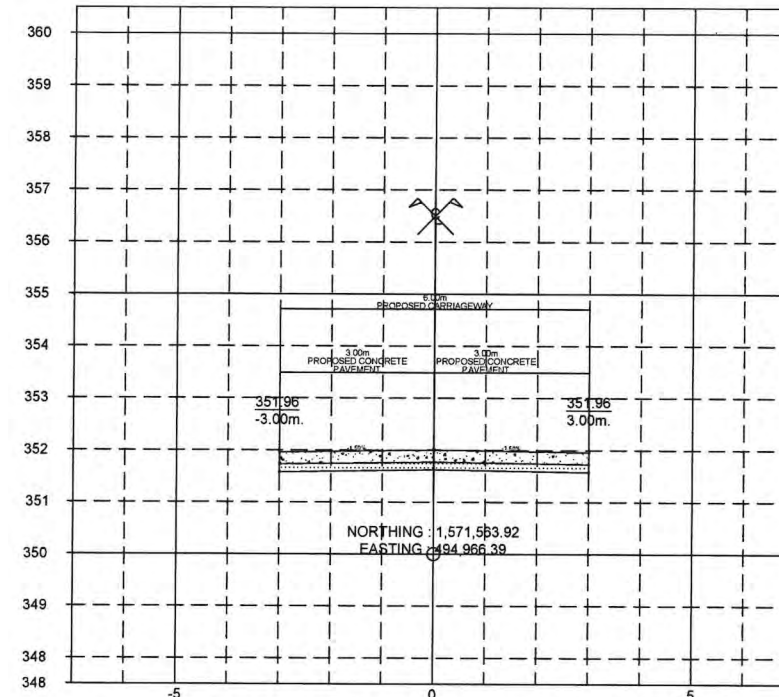
# ROADWAY CROSS-SECTION

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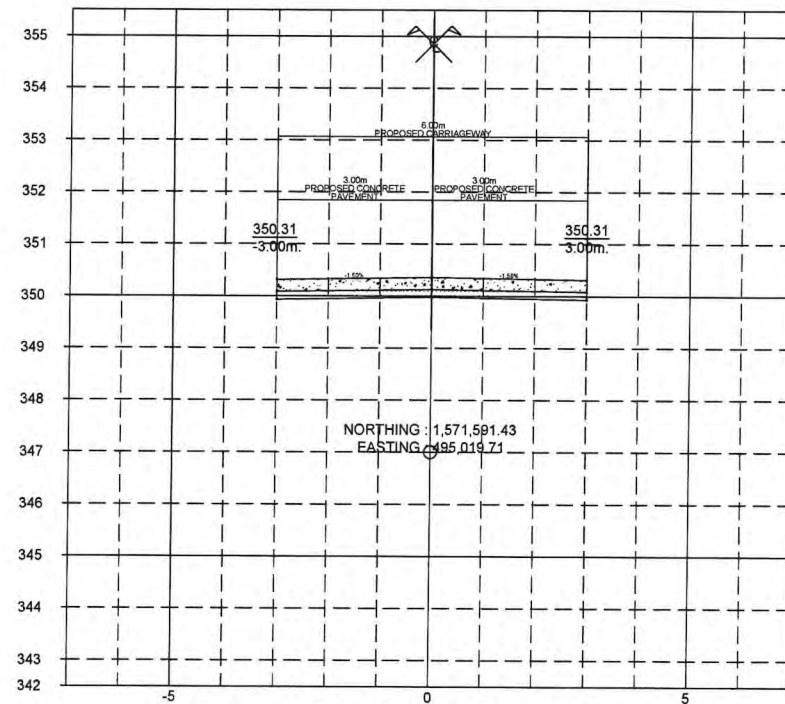
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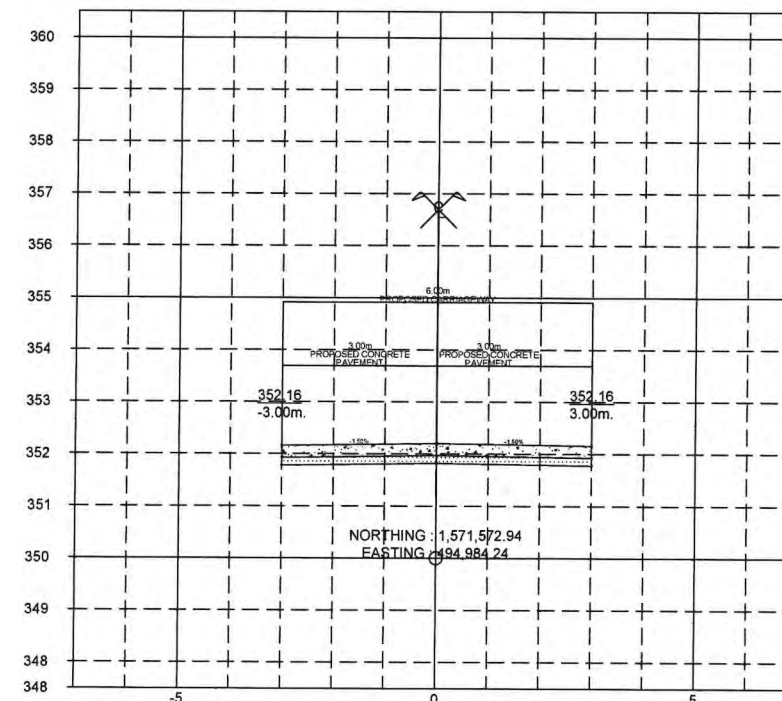
ALIGNMENT 2: STA. 0+100.00



ALIGNMENT 2: STA. 0+144.00



ALIGNMENT 2: STA. 0+080.00



ALIGNMENT 2: STA. 0+120.00



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
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PROJECT NAME AND LOCATION  
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SHEET CONTENTS:  
ROADWAY CROSS-SECTION  
(ALIGNMENT 2: STA. 0+080.00 - STA. 0+144.00)

DRAFTED:  
AARON JAY F. ABELLA  
ENGINEERING ASSISTANT  
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JOED MICHAEL F. BENEGAS  
ENGINEER I

REVIEWED:  
ISAAC EMANUEL C. MOJICA  
ENGINEER II  
DATE: 9/24/24

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CHIEF, PLANNING AND DESIGN SECTION  
DATE: 9/24/24

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JENNIFER F. ALMANZOR  
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DATE: 9/30/24

APPROVED:  
DONNIE D. CUNA  
DISTRICT ENGINEER  
DATE: 9/30/24

SET NO. 5  
SHEET NO. 21

# TRAFFIC MANAGEMENT PLAN

SCALE:

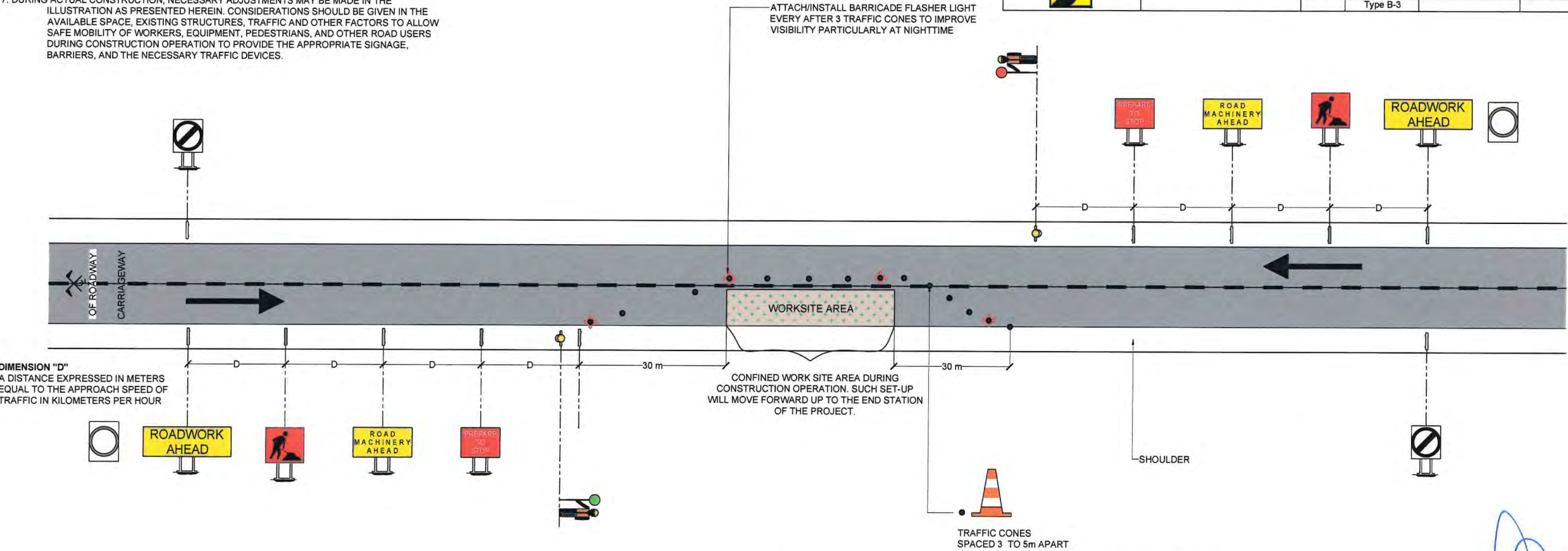
NOT TO SCALE

## GENERAL NOTES

- STANDARD SPECIFICATIONS
  - ALL ROAD WORKS SAFETY ITEMS SHALL COMPLY WITH THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS ROAD WORKS SAFETY MANUAL 2004 EDITION.
- SIGNS, MARKINGS AND DEVICES
  - DETAILS OF SIGNS AND MARKINGS LIKE SIZE, LETTERING AND BACKGROUND COLOR SHALL CONFORM WITH THE DPWH ROAD WORKS SAFETY MANUAL.
  - SIGNS, MARKINGS AND DEVICES SHALL BE MADE OF RETRO-REFLECTIVE MATERIALS
  - SIGNS SHOULD BE PLACED IN CONSPICUOUS LOCATION. THEY SHOULD BE ERECTED AT APPROPRIATE LOCATIONS AS PRESENTED IN THE TRAFFIC MANAGEMENT PLAN.
  - REGULAR INSPECTION, CLEANING AND REPLACING OF DAMAGE SIGNS, AS APPROPRIATE, MUST BE CARRIED OUT TO ENSURE CONTINUED EFFECTIVENESS. THE LAYOUT SHOULD BE DRIVEN THROUGH PERIODICALLY TO CHECK THAT SIGNS ARE STILL IN PLACE AND STILL APPROPRIATE.
  - UPON COMPLETION OF WORKS, SIGNS SHALL BE REMOVED FROM THE WORKSITE AND APPROACHES TO THE SITE.
- TRAFFIC CONTROLLERS
  - ALL TRAFFIC CONTROLLERS DETAILED IN THE WORK SITE SHOULD HAVE BASIC KNOWLEDGE ON ROAD WORKS SAFETY ESPECIALLY IN HANDLING TRAFFIC.
  - TRAFFIC CONTROLLERS MUST ALWAYS WEAR THE CORRECT CLOTHING WHILE ON DUTY.
- WORK SITE TRAFFIC MANAGEMENT
  - THE DESIGN OF TRAFFIC MANAGEMENT LAYOUT IS BASED ON THE APPROACH SPEED OF 70 KPH
- THE PROJECT ENGINEER TOGETHER WITH THE CONTRACTOR SHALL MAKE THE NECESSARY TRAFFIC MANAGEMENT SEQUENCE IN SUCH A WAY THAT ROAD WORKS WILL NOT ADVERSELY AFFECT THE FLOW OF TRAFFIC.
- SAME SET-UP OF TRAFFIC MANAGEMENT LAYOUT APPLIES AS THE WORK PROGRESSES UP TO THE OTHER SIDE OF THE ROAD UNTIL THE NEWLY CONSTRUCTED STRUCTURE MAY BE OPENED FOR TRAFFIC.
- DURING ACTUAL CONSTRUCTION, NECESSARY ADJUSTMENTS MAY BE MADE IN THE ILLUSTRATION AS PRESENTED HEREIN. CONSIDERATIONS SHOULD BE GIVEN IN THE AVAILABLE SPACE, EXISTING STRUCTURES, TRAFFIC AND OTHER FACTORS TO ALLOW SAFE MOBILITY OF WORKERS, EQUIPMENT, PEDESTRIANS, AND OTHER ROAD USERS DURING CONSTRUCTION OPERATION TO PROVIDE THE APPROPRIATE SIGNAGE, BARRIERS, AND THE NECESSARY TRAFFIC DEVICES.

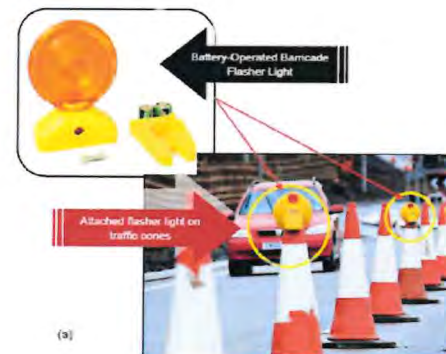
| Name & Specification                     | Unit      | Quantity |
|------------------------------------------|-----------|----------|
| <b>Materials</b>                         |           |          |
| <b>PHASE 1</b>                           | <b>CD</b> |          |
| Speed Restriction (R4-1)                 | 75 each   | 2.00     |
| Roadwork Ahead (T1-1)                    | 75 each   | 2.00     |
| End Speed Restriction (R4-2)             | 75 each   | 2.00     |
| Workmen Ahead (T1-5)                     | 75 each   | 2.00     |
| Road Machinery (T1-3)                    | 75 each   | 2.00     |
| Prepare to Stop (T1-18)                  | 75 each   | 2.00     |
| Temporary Hazard Markers (Chevron, T5-5) | 75 each   | 1.00     |
| Traffic Cones 5m apart                   | 75 each   | 20.00    |
| Concrete Safety Barriers                 | 75 each   | 41.00    |
| <b>** Estimated Quantity for</b>         |           |          |
| <b>One (1) set-up of 45 meters</b>       |           |          |

| ROAD AND BRIDGE WORK SITE TEMPORARY SIGNAGE |                            | SIGNAGE DESCRIPTION |                                                                                       |                                                                                                   |  |
|---------------------------------------------|----------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--|
| Sign No.                                    | Size (mm) (Width X Height) | Letters/Symbols     | Background                                                                            |                                                                                                   |  |
|                                             | R4-1                       | 600 x 800 (size B)  | Black 240 DN                                                                          | White ReflectORIZED                                                                               |  |
|                                             |                            |                     | Circle - 600 dia. Red                                                                 | Red circle - ReflectORIZED                                                                        |  |
|                                             | T1-1                       | 1800 x 600          | Line 1- Black 200 DM<br>Line 2- Black 180 DM                                          | Yellow ReflectORIZED                                                                              |  |
|                                             | R4-2                       | 600 x 800 (size B)  | Symbol - 600 dia. Black                                                               | White ReflectORIZED                                                                               |  |
|                                             | T1-5                       | 900 x 600           | Black                                                                                 | Red / Orange<br>-Fluorescent for day use (Short Term)<br>-ReflectORIZED for night use (Long Term) |  |
|                                             | T1-3                       | 1200 x 600          | Line 1- Black 100 EM<br>Line 2- Black 120 DM<br>Line 3- Black 100 EM                  | Yellow ReflectORIZED                                                                              |  |
|                                             | T1-18                      | 900 x 600           | Line 1- White 120 DM<br>Line 2- White 120 DM<br>Line 3- White 120 EM<br>ReflectORIZED | Red ReflectORIZED                                                                                 |  |
|                                             | T5-5                       | 600 x 600           | Chevron<br>Black 194 wide at 45°                                                      | Yellow ReflectORIZED                                                                              |  |
|                                             | Type B-3                   |                     |                                                                                       |                                                                                                   |  |



|  |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                      |                                            |                                                                                                                     |                                                                      |                                                                                                |                                                                                      |                                                                   |                     |                       |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|-----------------------|
|  | REPUBLIC OF THE PHILIPPINES<br>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS<br>REGIONAL OFFICE IV-A<br>CAVITE 3 <sup>RD</sup> DISTRICT ENGINEERING OFFICE<br>CARMONA CITY, CAVITE | PROJECT NAME AND LOCATION:<br>DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM - BASIC INFRASTRUCTURE PROGRAM (BIP) - ACCESS ROADS AND/OR BRIDGES FROM THE NATIONAL ROAD/S LEADING TO MAJOR/ STRATEGIC PUBLIC BUILDINGS/ FACILITIES - REHABILITATION OF ROAD, BARANGAY KALUBKOB, SILANG, CAVITE | SHEET CONTENTS:<br>TRAFFIC MANAGEMENT PLAN | DRAFTED:<br>AARON JAY F. FABELLA<br>ENGINEERING ASSISTANT<br>SUBMITTED BY:<br>JOSE MICHAEL F. BENEZAS<br>ENGINEER I | REVIEWED:<br>ISAAC EMANUEL C. MOJICA<br>ENGINEER II<br>DATE: 9/24/24 | SUBMITTED:<br>REIMART REGIN P. BAUTISTA<br>CHIEF, PLANNING AND DESIGN SECTION<br>DATE: 9/24/24 | RECOMMENDED:<br>JENNIFER F. ALMANZOR<br>ASSISTANT DISTRICT ENGINEER<br>DATE: 9/30/24 | APPROVED:<br>DONNIE D. GUNA<br>DISTRICT ENGINEER<br>DATE: 9/30/24 | SET NO.<br>N<br>1 1 | SHEET NO.<br>22<br>25 |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|-----------------------|

TO FURTHER IMPROVE THE VISIBILITY OF ONSITE SET-UP ROAD WORKS TRAFFIC MANAGEMENT SIGNAGE AND DEVICES PARTICULARLY DURING NIGHTTIME, LED FLASHER LIGHT OR APPROPRIATE AVAILABLE RETRO-REFLECTIVE MATERIAL IS SUGGESTED TO BE ATTACHED OR SEPARATELY MOUNTED ON THE INSTALLED TEMPORARY BOLLARDS, TRAFFIC CONES, SAFETY BARRIER AND MESH FENCE/BARRICADE ALONG THE CONFINED AREA (WORK ZONE).



Attached barricade flasher light



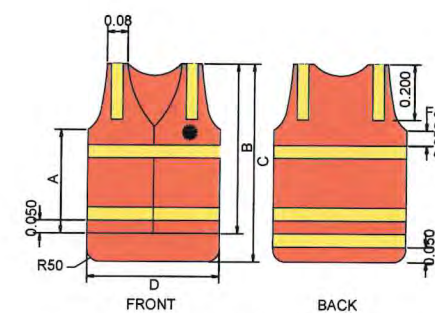
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**NOTES:**

1. TRAFFIC CONES SHALL BE AT LEAST 300MM HIGH OVERALL AND AT LEAST 150MM WIDE AT THE BASE OF THE CONE. THEY SHALL BE FLUORESCENT RED-ORANGE WHEN USED AT NIGHT A MINIMUM OF ONE-THIRD OF THE SURFACE AREA VISIBLE TO APPROACHING TRAFFIC SHALL BE COVERED WITH YELLOW REFLECTIVE MATERIAL.
2. FRAGMENT SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION OPERATIONS.
3. THE CONTRACTOR SHALL ALWAYS MAINTAIN A GOOD CONDITION TRAFFIC CONES. ANY DAMAGED SHALL BE REPLACE WITH NEW ONE.

| SPACING   | CONDITION                                                                                                                                                |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 - 10 M  | ON TAPERS                                                                                                                                                |
|           | WHEN USED AROUND SMALL SITES<br>(MAY BE REDUCED TO 3m TO GUIDE PEDESTRIANS OR TO PREVENT TRAFFIC TAKING A WRONG TURN THROUGH A GAP IN THE LINE OF CONES) |
| 10 - 20 M | WHEN USED AS LONGITUDINAL SEPARATION BETWEEN OPPOSITE TRAFFIC FLOWS                                                                                      |
|           | WHEN USED AS LONGITUDINAL SEPARATION OF TRAFFIC FROM THE WORKSITE OR A CLOSED LANE                                                                       |
|           | (MAY BE INCREASED TO 50m WHERE THE LENGTH OF CONES EXCEEDS 1KM)                                                                                          |



|             | A (mm) | B (mm) | C (mm) | D (mm) |
|-------------|--------|--------|--------|--------|
| MEDIUM      | 280    | 600    | 750    | 580    |
| LARGE       | 295    | 625    | 775    | 610    |
| EXTRA LARGE | 310    | 650    | 800    | 640    |

- NOTES:
1. ALL PERSONNEL WORKING ON OR ADJACENT TO ROADWORK SITE SHALL WEAR APPROPRIATE HIGH VISIBILITY CLOTHING.
  2. THE VEST SHALL BE WORN OVER NORMAL CLOTHING AND PROPERLY FASTENED SO THAT THE ENTIRE AVAILABLE AREA OF HIGH VISIBILITY MATERIAL CAN BE SEEN IN ANY DIRECTION, TO MAXIMIZE EFFECTIVENESS THE VEST SHOULD BE KEPT CLEAN AND IN GOOD CONDITION.
  3. THE TRAFFIC SAFETY VEST SHALL BE MADE FROM FLUORESCENT RED OR ORANGE MATERIAL. THE VEST SHALL ALSO HAVE TWO (2) STRIPS OF YELLOW RETRO - REFLECTIVE MATERIAL AT THE FRONT AND THREE (3) STRIPS AT THE BACK. REFLECTIVE MATERIAL SHALL BE 50mm WIDE. DPHW LOGO SHALL BE 80mm DIAMETER. THE SAFETY VEST SHOULD HAVE A SECURE FASTENING, PREFERABLY A ZIP.
  4. THE JACKET MAY BE WORN OVER WET WEATHER CLOTHING. ALTERNATIVELY, WET WEATHER HIGH VISIBILITY CLOTHING SHALL BE MADE FROM WATERPROOF MATERIAL MATCHING THOSE PROPERTIES ABOVE FOR COLOR AND RETRO REFLECTIVITY.



|                            |                                                                                                                                                                                                                                                                                      |
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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| SHEET CONTENTS:                                                                                                                                       |
| <p>LIST OF ROAD WORK TEMPORARY SIGNAGE,<br/>         TEMPORARY ROAD SIGN DETAIL, TYPICAL BOLLARD<br/>         DETAIL, TYPICAL TRAFFIC CONE DETAIL</p> |

DRAFTED: AARON JAY F. FABELLA  
ENGINEERING ASSISTANT

SUBMITTED BY: JOED MICHAEL F. BENIGAS  
ENGINEER I

|                                                                                       |  |
|---------------------------------------------------------------------------------------|--|
| REVIEWED:                                                                             |  |
|  |  |
| <b>ISAAC EMANUEL C. MOJICA</b><br>ENGINEER II                                         |  |

SUBMITTED:

**REIMART REGIN P. BAUTISTA**  
CHIEF, PLANNING AND DESIGN SECTION

RECOMMENDED:

  
**JENNIFER F. ALMANZOR**  
ASSISTANT DISTRICT ENGINEER

APPROVED:

**DONNIE D. GUNA**  
DISTRICT ENGINEER

|                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SET NO                                                                                | SHEET NO.                                                                             |
|  |  |