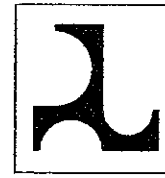




JAPAN INTERNATIONAL
COOPERATION AGENCY



DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
REPUBLIC OF INDONESIA

M. S. E. WALL

 **Kei** KATAHIRA & ENGINEERS INTERNATIONAL

MECHANICALLY STABILIZED EARTH WALL

NOTES :

1. THE MECHANICALLY STABILIZED EARTH WALL SHOWN IN THIS SET OF DRAWINGS SHALL COMPLY WITH THE REQUIREMENTS OF AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION I AND II." THE CONTRACTOR MAY PROPOSE WALL TYPES OTHER THAN THAT SHOWN IN THE DRAWINGS AND APPROVED BY THE ENGINEER. DESIGN LIFE = 75 YEARS
4. FOUNDATION TREATMENT

THE CONTRACTOR SHALL PREPARE THE FOUNDATION FOR MECHANICALLY STABILIZED EARTH WALL (M.S.E.W) IN ACCORDANCE WITH THE PLANS AND SHALL VERIFY IF THE EXISTING FOUNDATION IS SUITABLE TO SUPPORT THE M.S.E.W. IN AREAS WHERE EXCAVATION OF FOUNDATION MATERIAL IS NECESSARY, THE CONTRACTOR SHALL PERFORM SUCH EXCAVATION TO THE LIMITS SHOWN IN THE DRAWINGS. THE EXCAVATED MATERIALS SHALL BE REPLACED WITH STRUCTURE BACKFILL MATERIAL MEETING THE REQUIREMENTS OF THE EARTH RETAINING SYSTEM.

2. MATERIALS

- 2.1 PRECAST CONCRETE PANELS
 28TH DAY COMPRESSIVE STRENGTH OF CONCRETE = 30 MPa
 THE EXTERIOR FACE OF THE PANELS MUST BE UNIFORM AND MUST NOT SHOW SIGNIFICANT VARIATIONS FROM ONE PANEL TO ANOTHER. PANELS SHOULD CONFORM TO THE DIMENSIONS SHOWN AND BE FREE OF HONEYCOMBS, STRAINS OR DEEP CRACKS IN THE FACE.
- 2.2 STEEL REINFORCING STRIPS
 STEEL REINFORCING STRIPS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123 AND HAVE A CORROSION-RESISTANCE DURABILITY IN ACCORDANCE WITH AASHTO REQUIREMENTS. A MINIMUM AVERAGE ZINC COATING MASS OF 600 GRAMS PER METER SQUARE AS PER ISO 1460 SHALL BE ADAPTED.
 THE STEEL REINFORCING STRIPS(60mm x 4mm) SHALL BE RIBBED FLATS OF GRADE 350 (Fy=350MPa) AND CONFORMING TO THE LATEST AASHTO REQUIREMENTS. STEEL REINFORCING STRIPS MUST EXHIBIT A MAX. TENSILE LOAD OF 32.05 KN PER STRIP. THE REINFORCING STRIPS SHALL HAVE A MINIMUM APPARENT COEFFICIENT OF FRICTION, f*, OF 2.0 AT GROUND LEVEL.

5. CONSTRUCTION

THE MECHANICALLY STABILIZED EARTH WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO REQUIREMENTS OR RECOMMENDED BY THE MANUFACTURER / SUPPLIER. THE CONTRACTOR SHALL SUBMIT, FOR THE APPROVAL OF THE ENGINEER, WORKING PLAN AND DRAWINGS OF CONSTRUCTION METHOD, SEQUENCE, SAFETY AND QUALITY ASSURANCE.

- 2.3 STRUCTURE BACKFILL
 THE STRUCTURE BACKFILL FOR MECHANICALLY STABILIZED EARTH WALL SHALL CONFORM TO THE FOLLOWING GRADING REQUIREMENTS.

SIEVE SIZE	PERCENT PASSING
4"	100
NO. 40	0-60
NO. 200	0-15

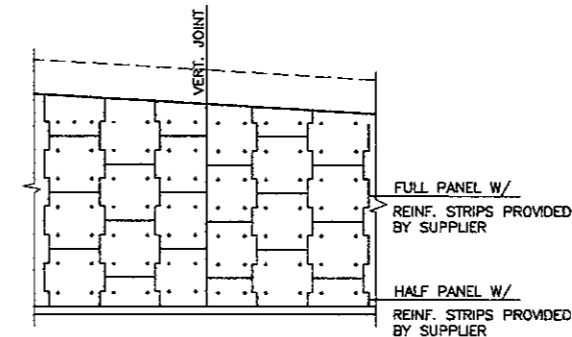
OTHER REQUIREMENTS FOR BACKFILL SHALL BE IN ACCORDANCE WITH THE LATEST AASHTO REQUIREMENTS OR AS PER MANUFACTURER'S / SUPPLIER'S RECOMMENDATIONS.

- 2.4 JOINT FILLER
 FILLER FOR VERTICAL JOINTS SHALL BE FLEXIBLE OPEN CELL POLYURETHANE FOAM STRIPS OF 40mm SQUARE CROSS-SECTION OR EQUIVALENT. THE VERTICAL JOINT SHALL BE ENCLOSED WITH GEOTEXTILE MEMBRANE AS SHOWN IN THE DRAWINGS. HORIZONTAL JOINT FILLER SHALL BE RESIN BONDED CORK FILLER BOARD CONFORMING TO ASTM D 1752 AND RUBBER PAD WITH SHORE HARDNESS OF 85 +0, -5.

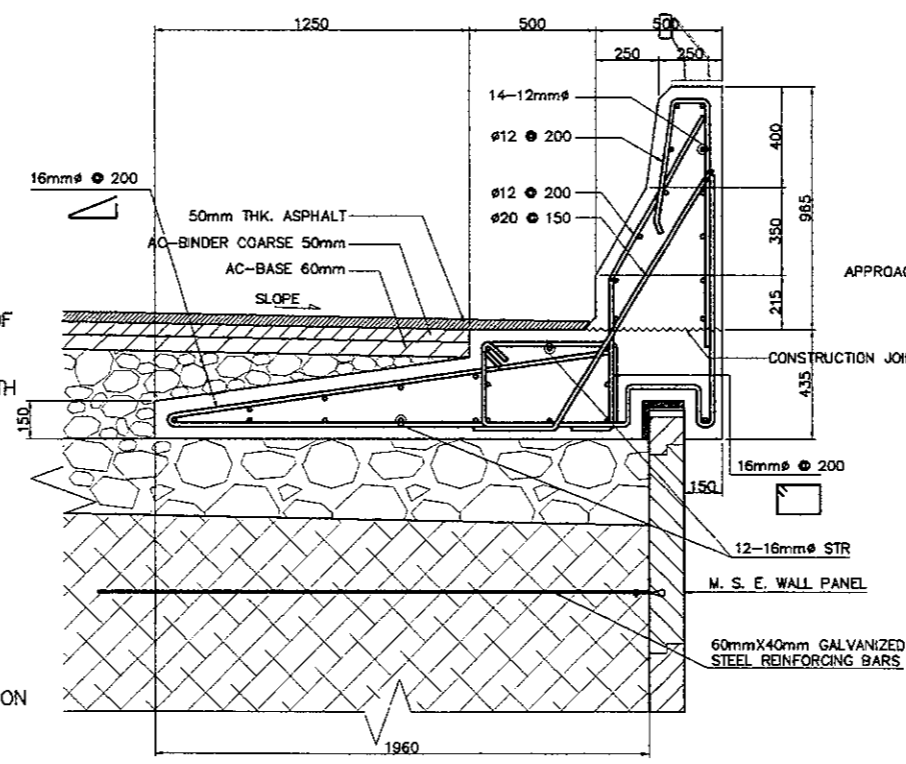
- 2.5 CONCRETE LEVELING PAD
 CONCRETE LEVELING PAD SHALL HAVE A 28TH DAY COMPRESSIVE STRENGTH OF 21MPa.

3. ALLOWABLE SOIL BEARING CAPACITY

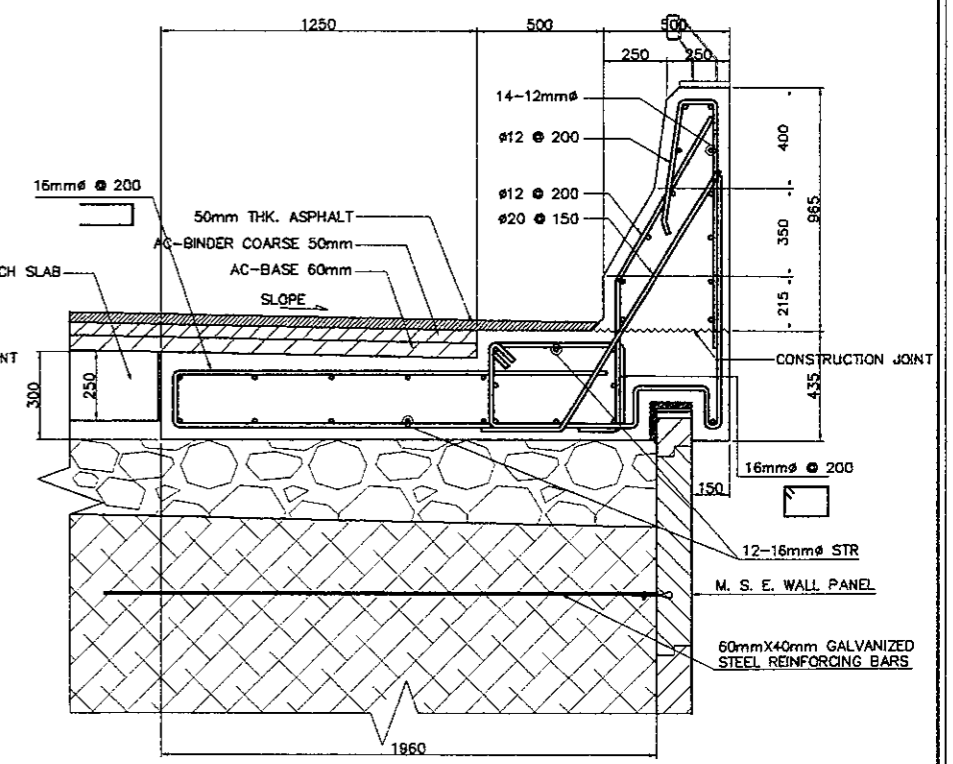
THE CONTRACTOR SHALL VERIFY THAT THE ALLOWABLE SOIL BEARING CAPACITY AT FOUNDATION LEVEL SHALL BE SUFFICIENT FOR M. S. E. WALL.



TYPICAL WALL PANELS

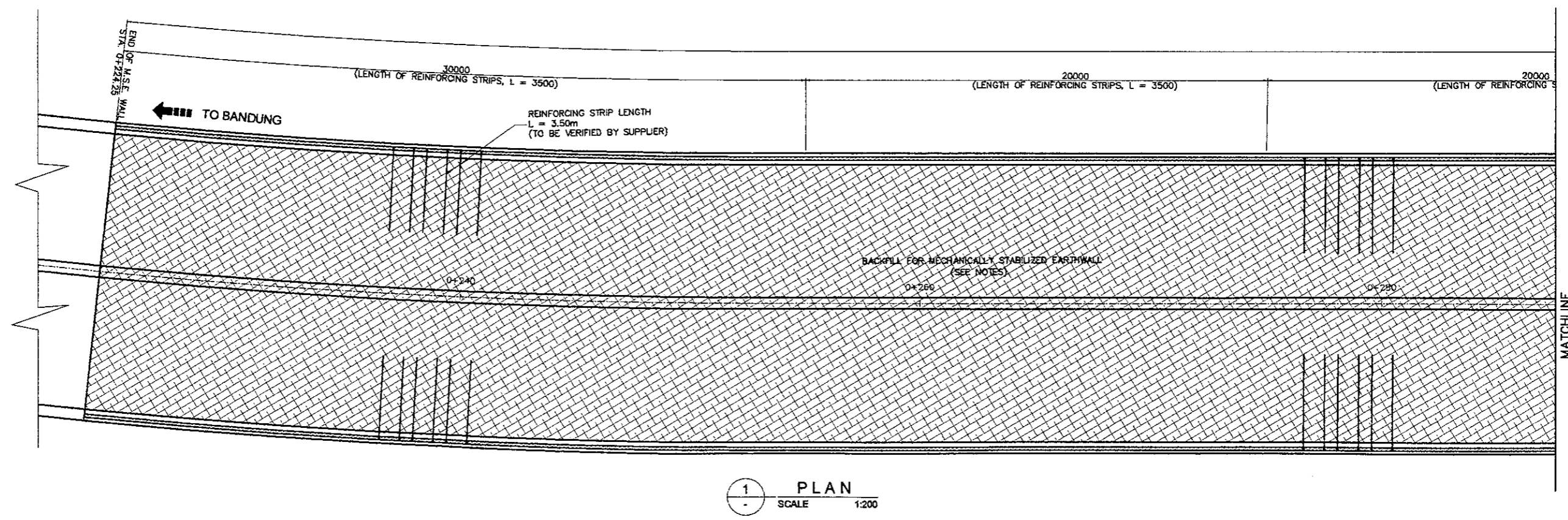
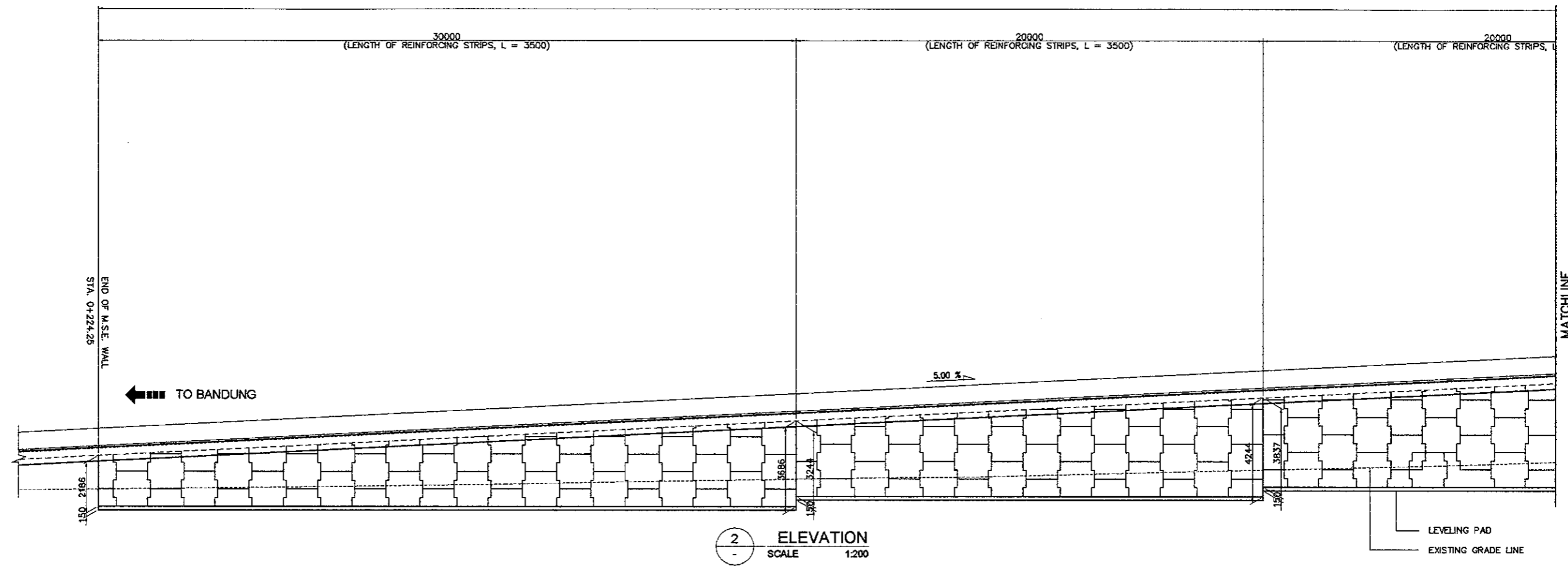


STANDARD DETAIL OF CONCRETE RAILING AT M. S. E. WALL

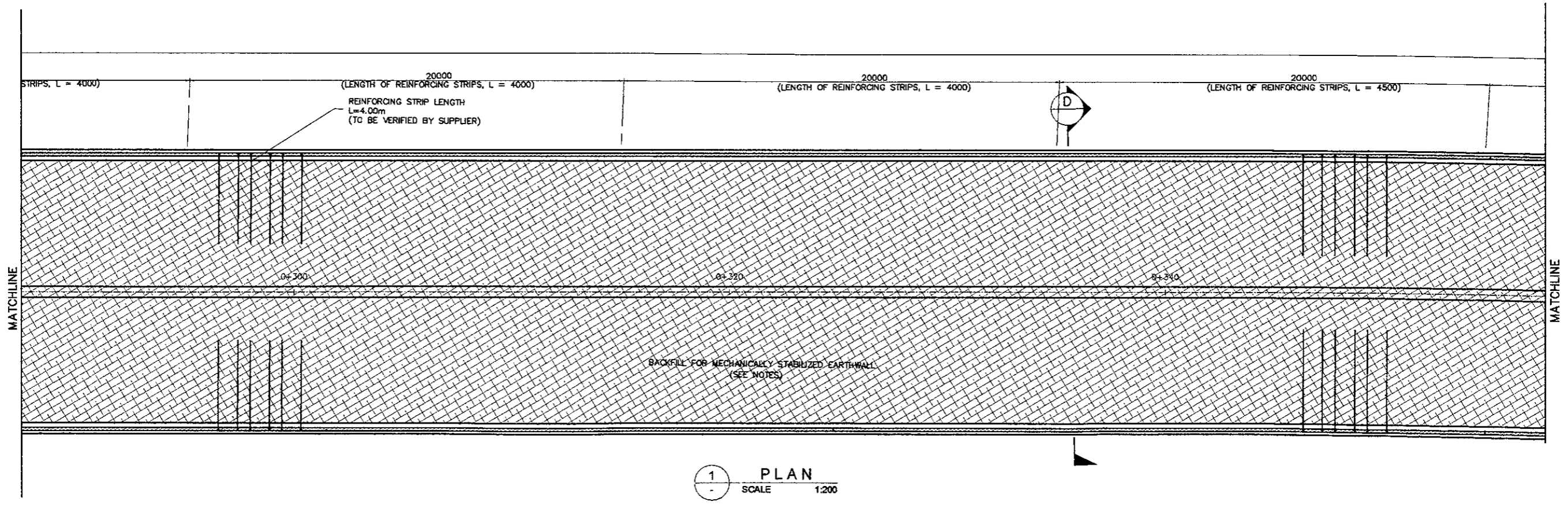
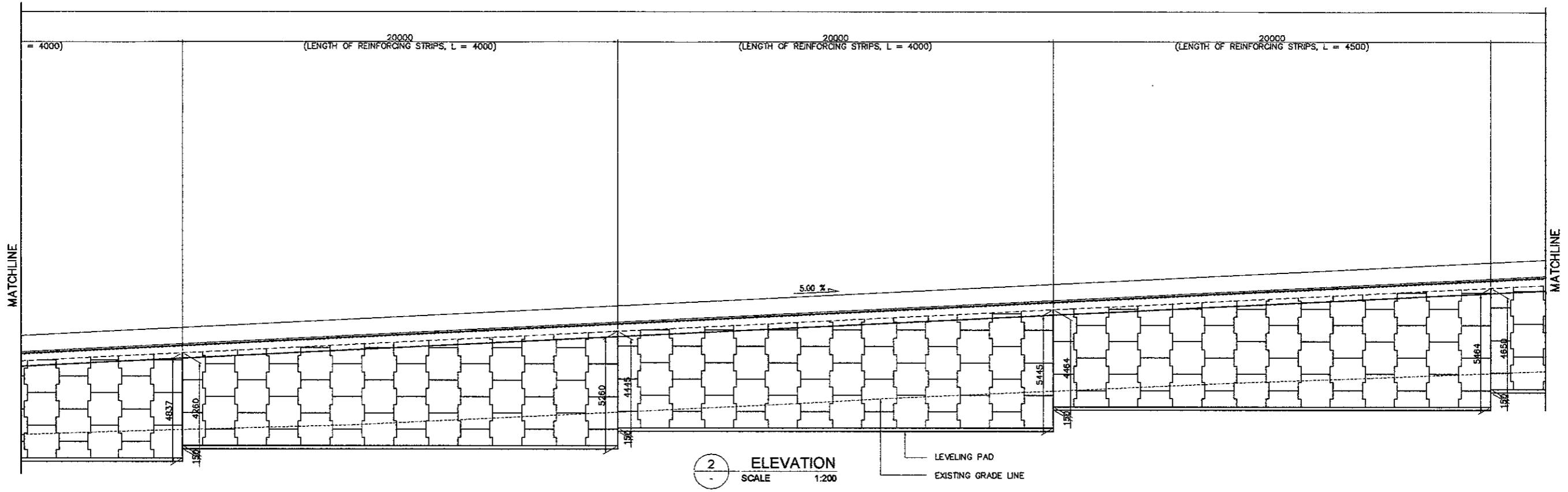


STANDARD DETAIL OF CONCRETE RAILING AT APPROACH SLAB

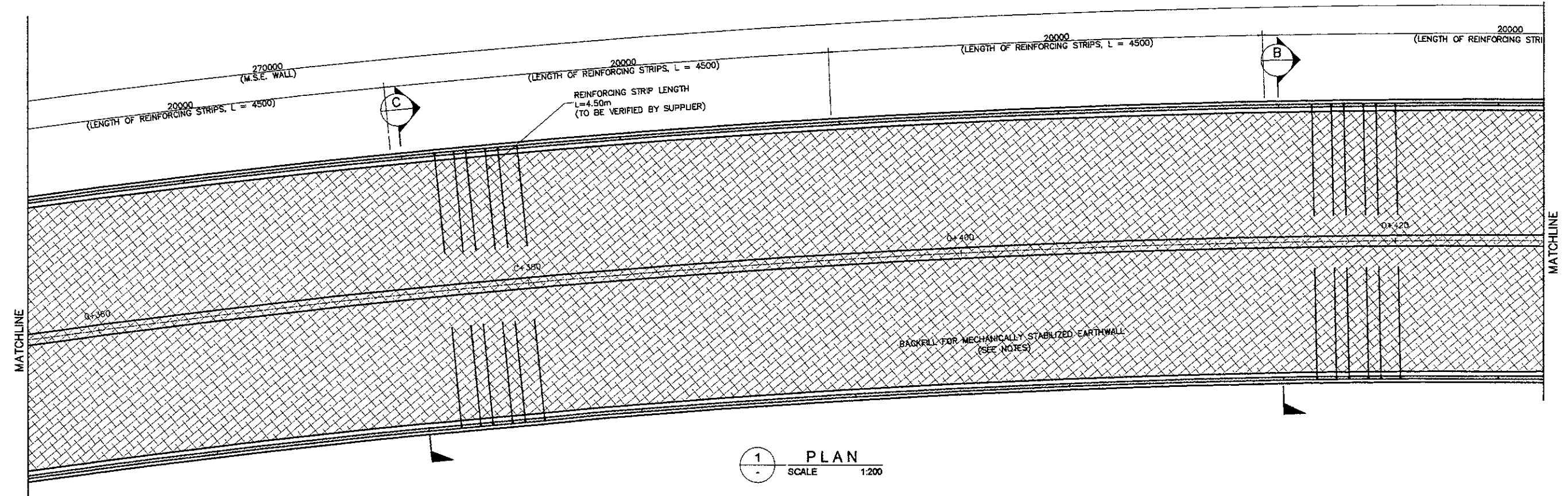
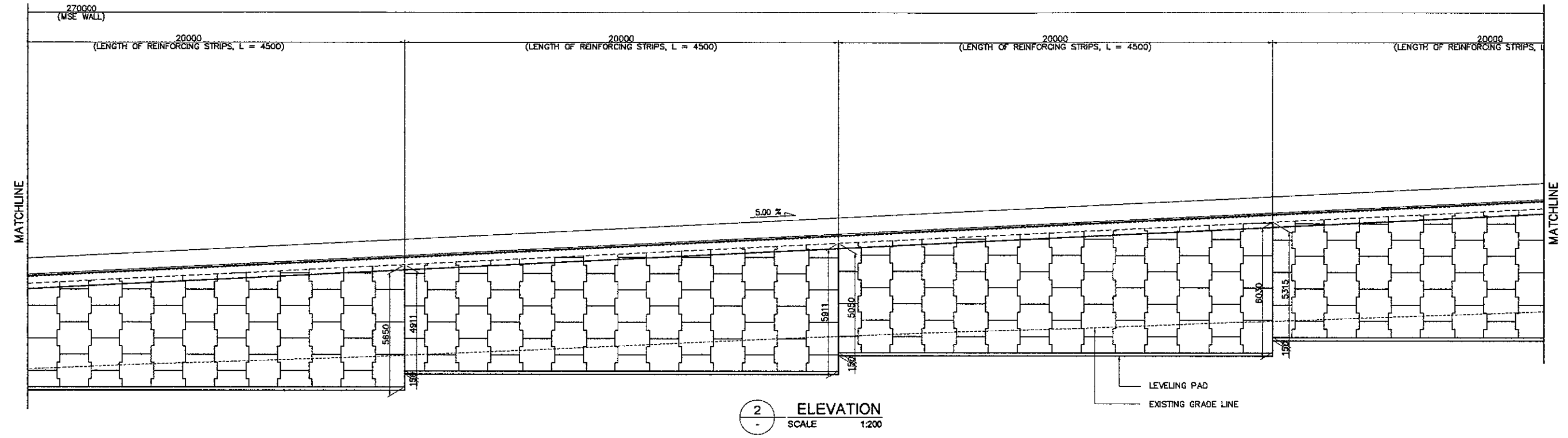
DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	T. OKUMURA	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	



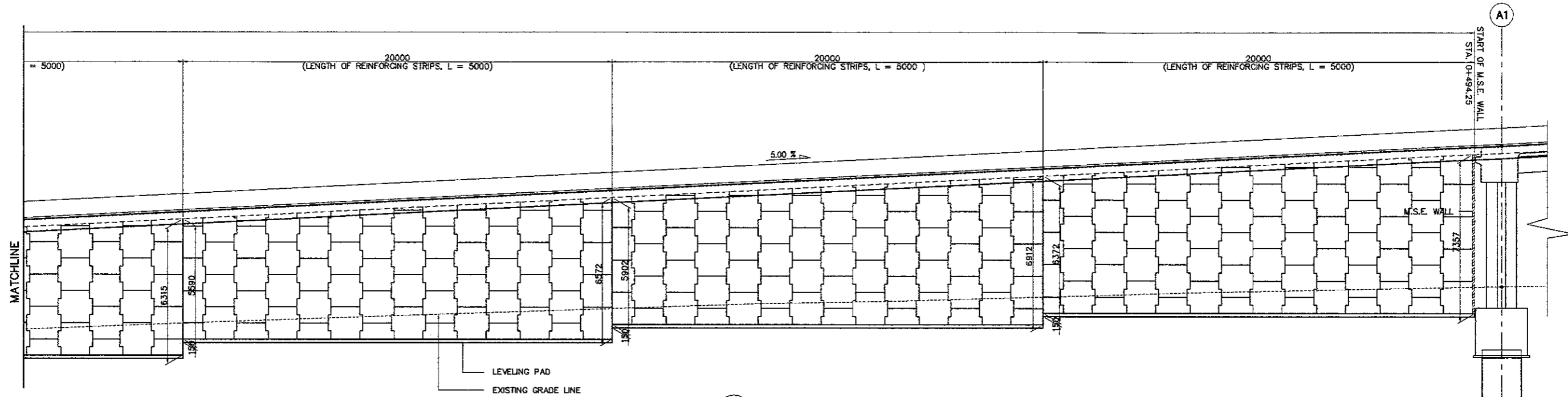
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Date		Date		Date	



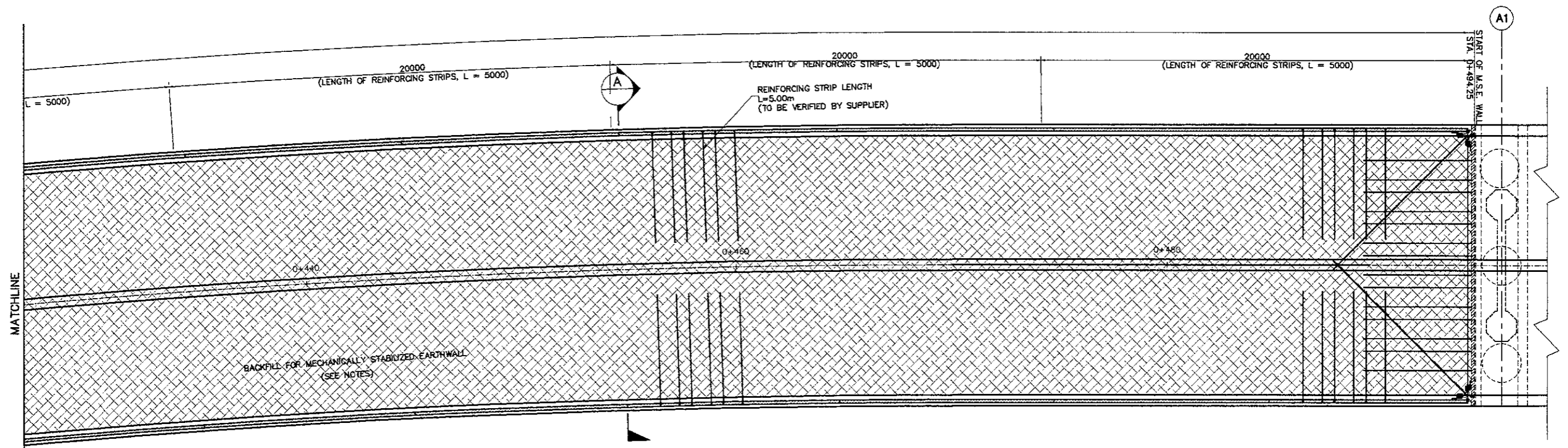
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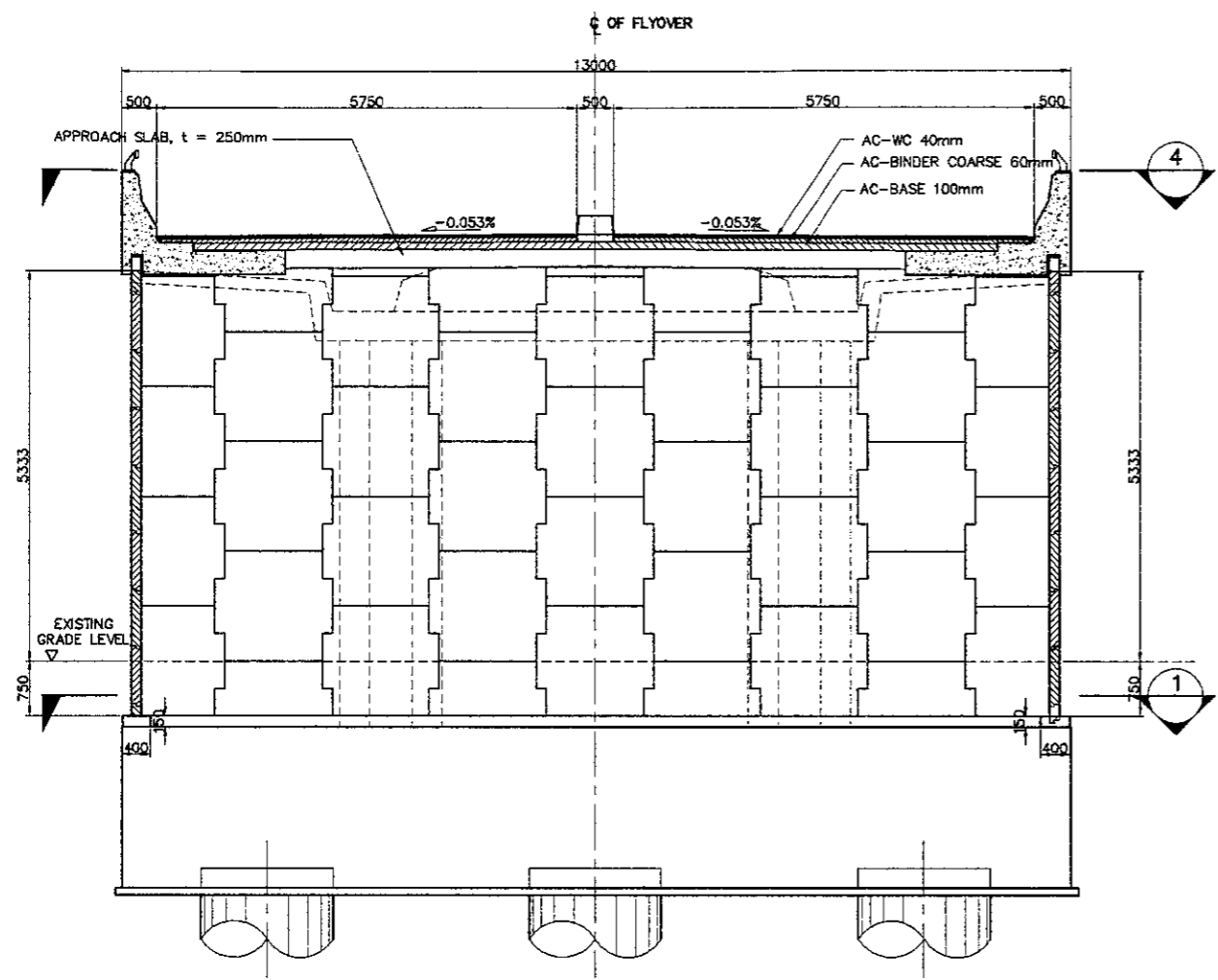
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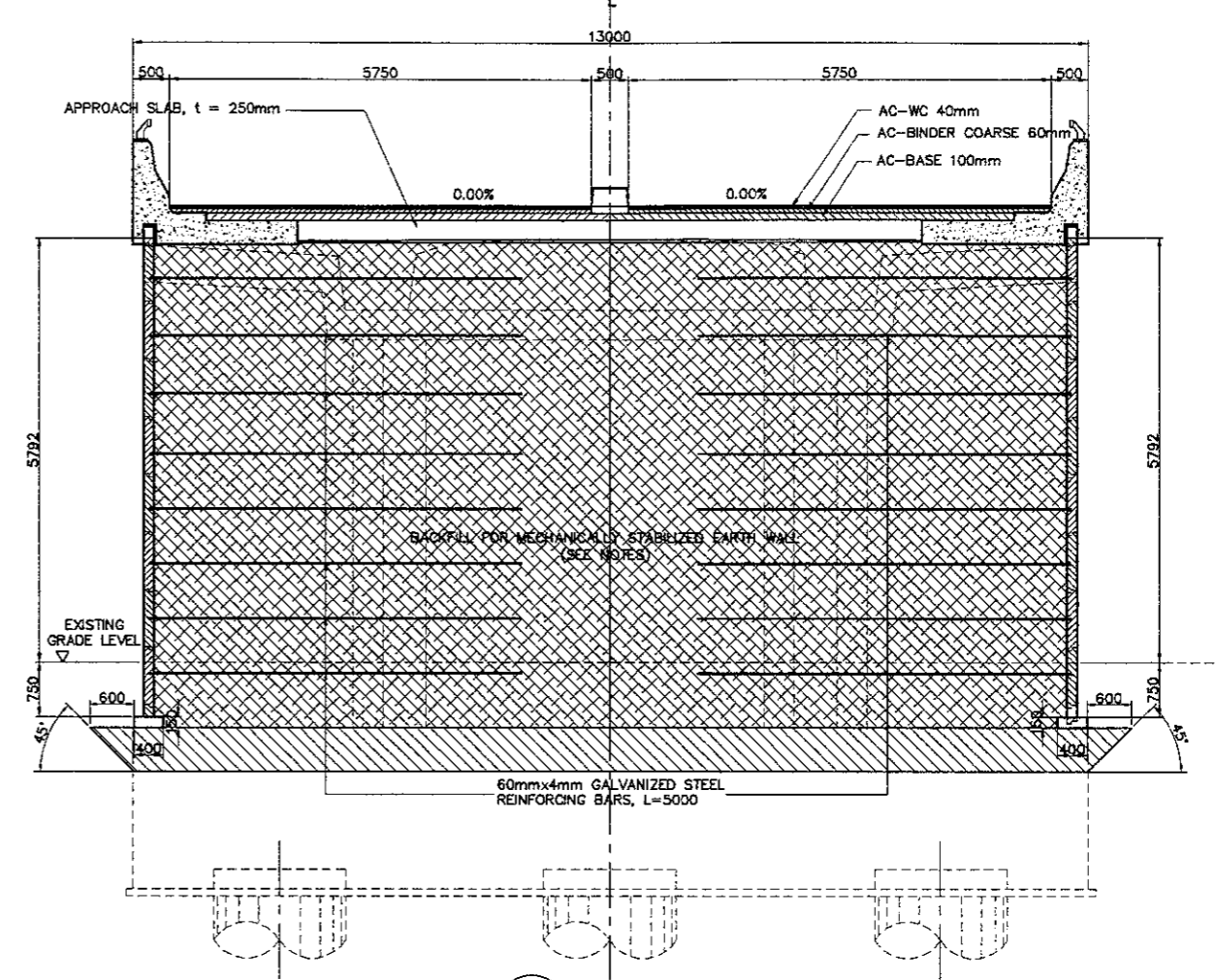
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 SCALE 1:200



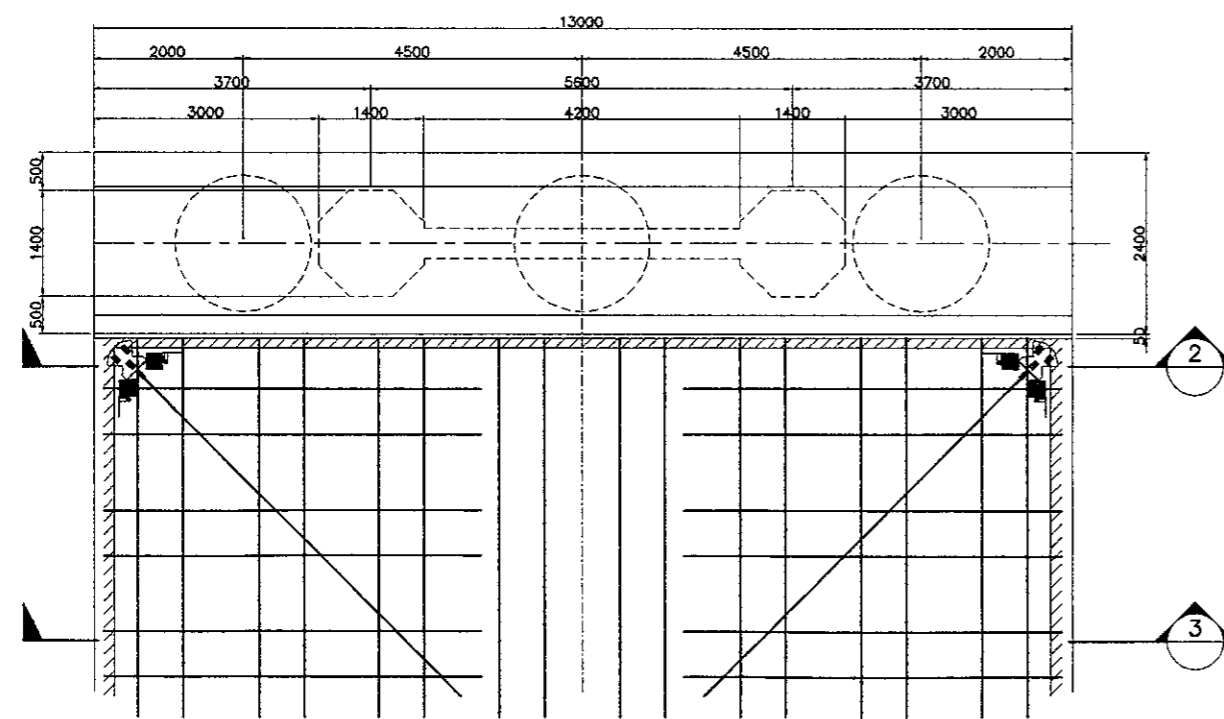
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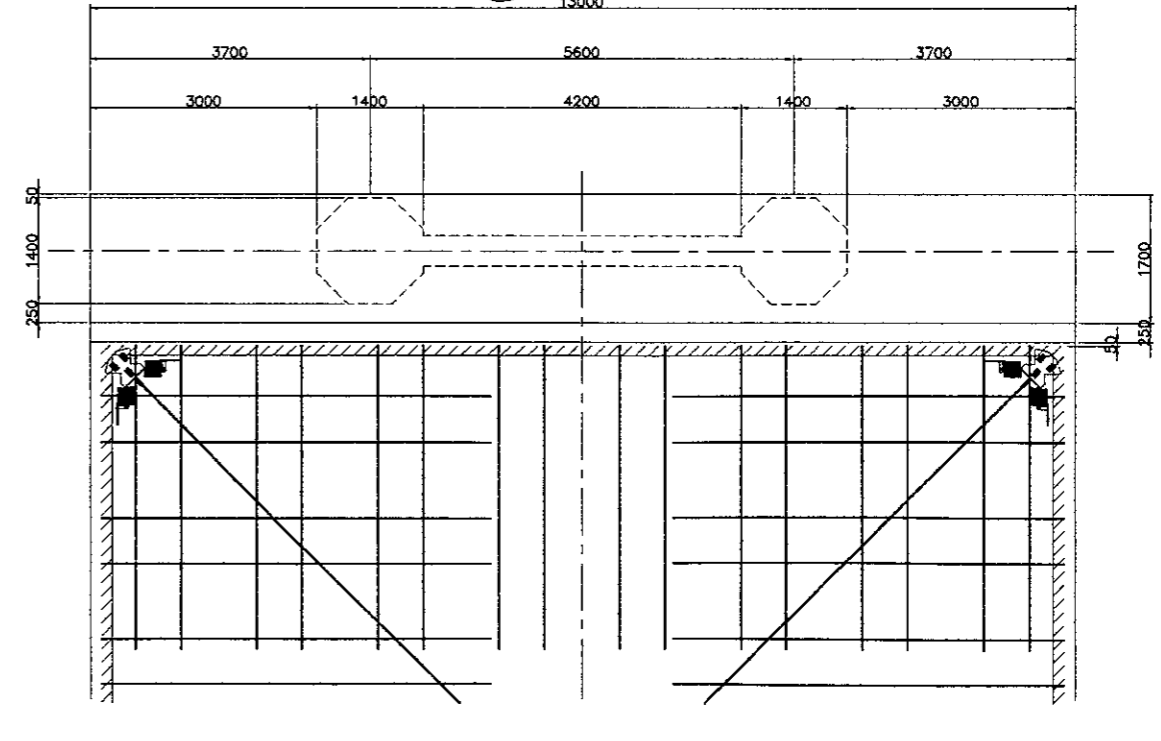
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3 SECTION
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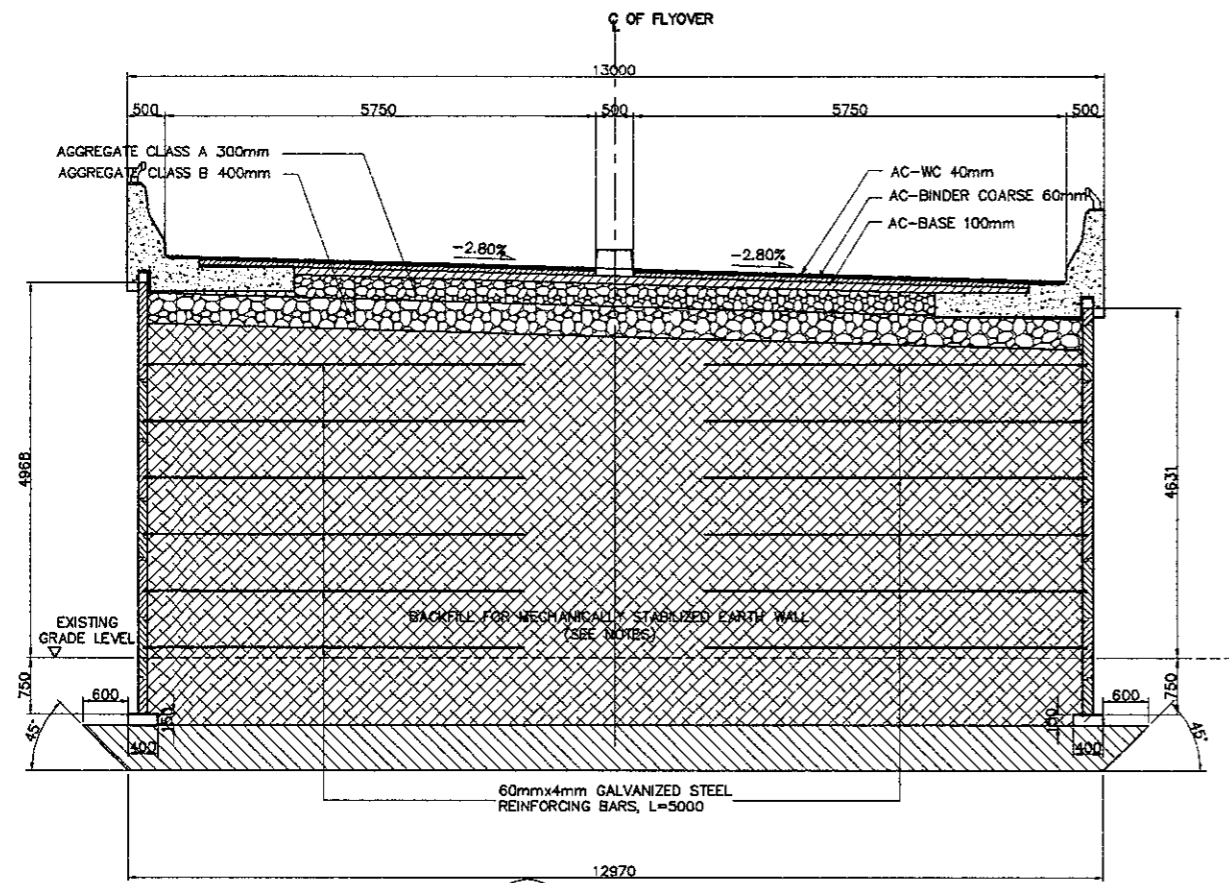


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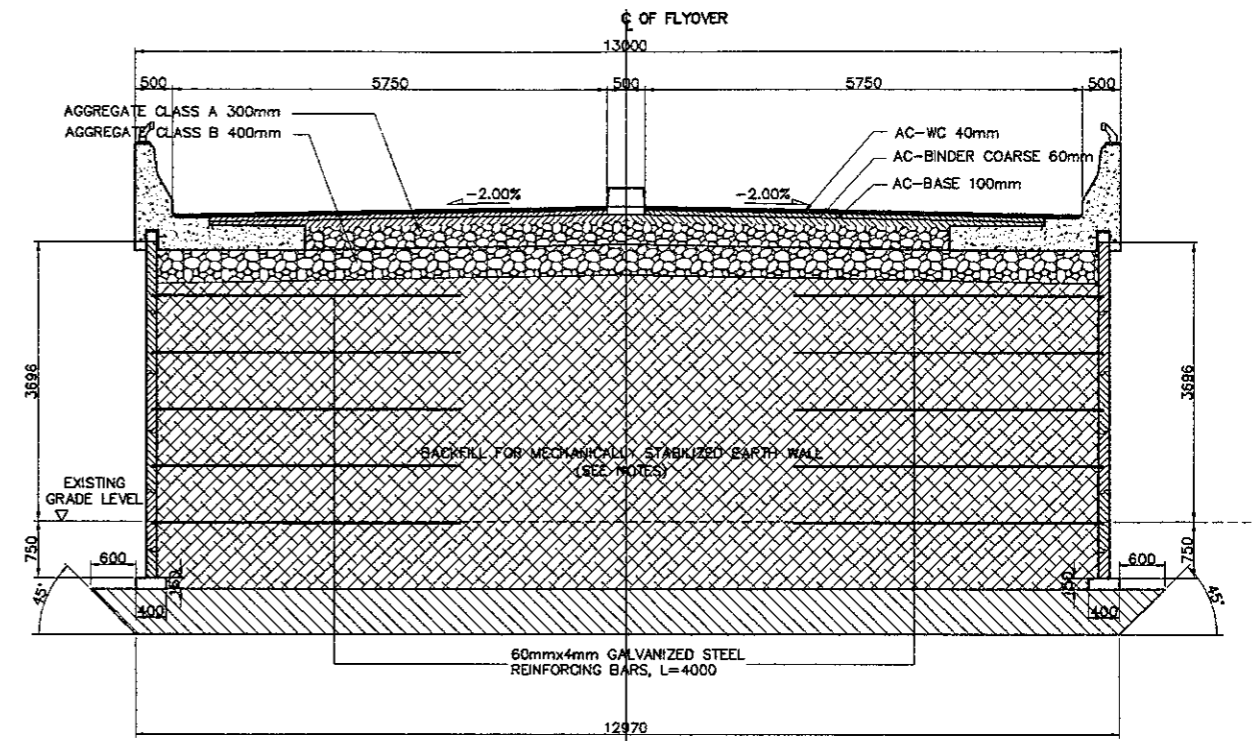


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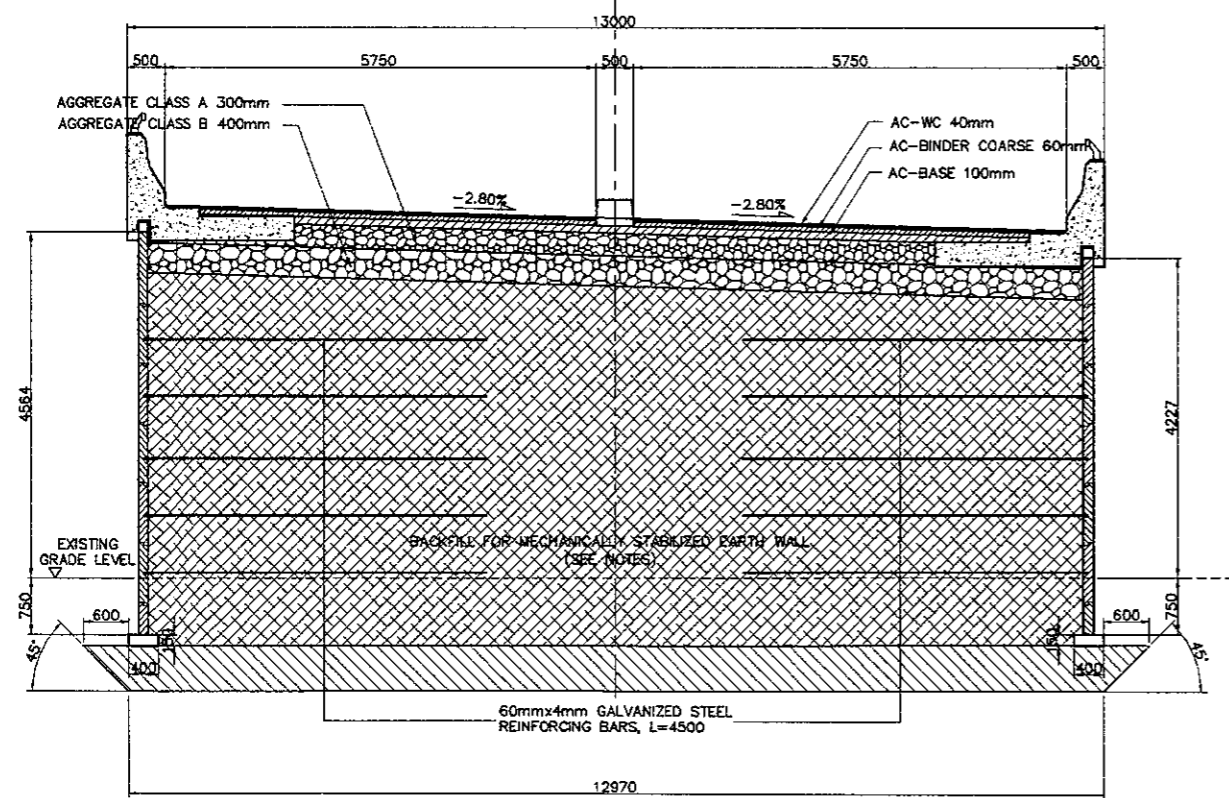
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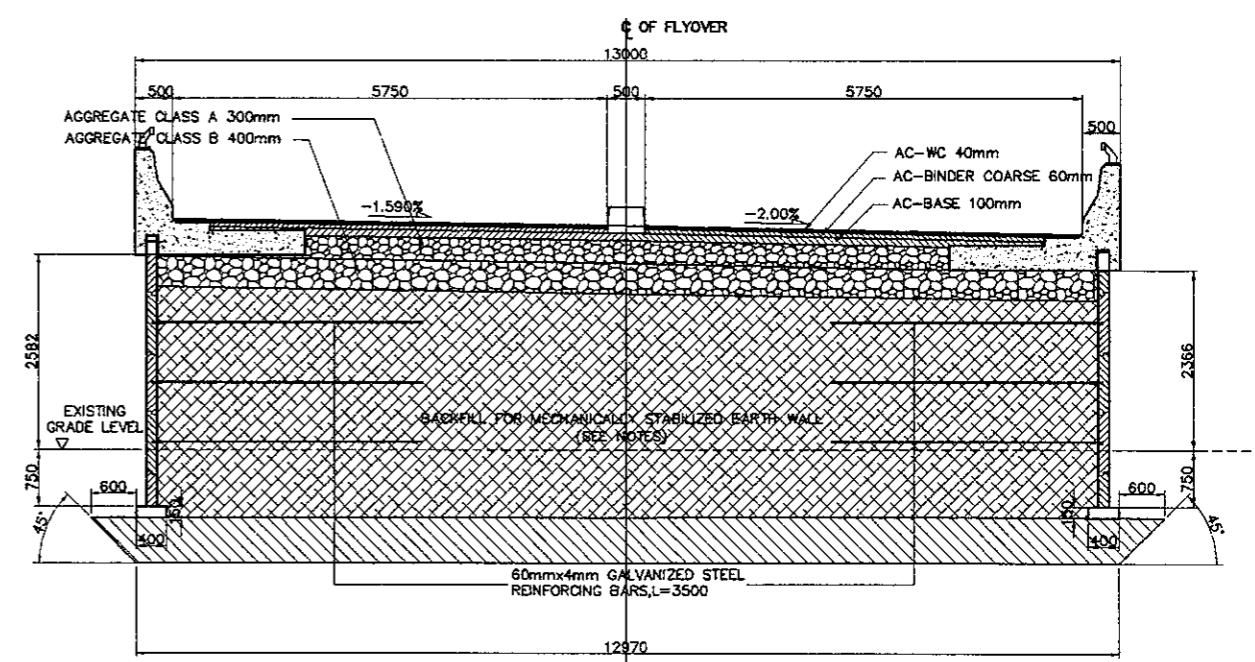
A SECTION
 SCALE 1:100



C SECTION
 SCALE 1:100



B SECTION
 SCALE 1:100



D SECTION
 SCALE 1:100

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Sign		Sign		Sign	
Date		Date		Date	

REPUBLIC OF INDONESIA

 MINISTRY OF PUBLIC WORKS

 DIRECTORATE GENERAL OF HIGHWAYS

 APPROVED BY: Ir. HERRY VAZA M,Eng.Sc

 NIP. : 110038400

PROJECT AND LOCATION :

 DETAILED DESIGN STUDY OF

 NORTH JAVA CORRIDOR FLYOVER PROJECT

 NAGREG FLYOVER - CONTRACT PACKAGE 2

 (NAGREG - GEBANG)

 WEST JAVA PROVINCE

SCALE :

 1 : 200

 FULL SIZE A3

DRAWING TITLE :

 PLAN & PROFILE OF MSE WALL AT

 APPROACH ROAD ABUTMENT A2 SIDE

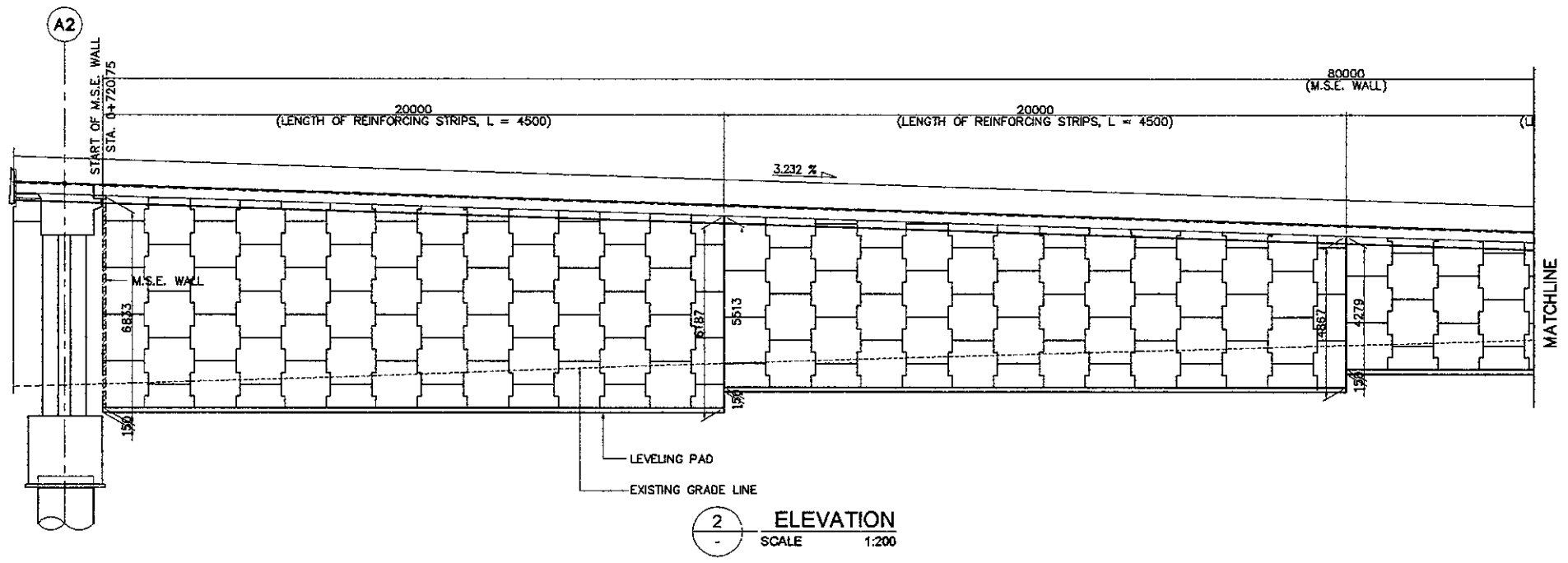
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DRAWING NO :

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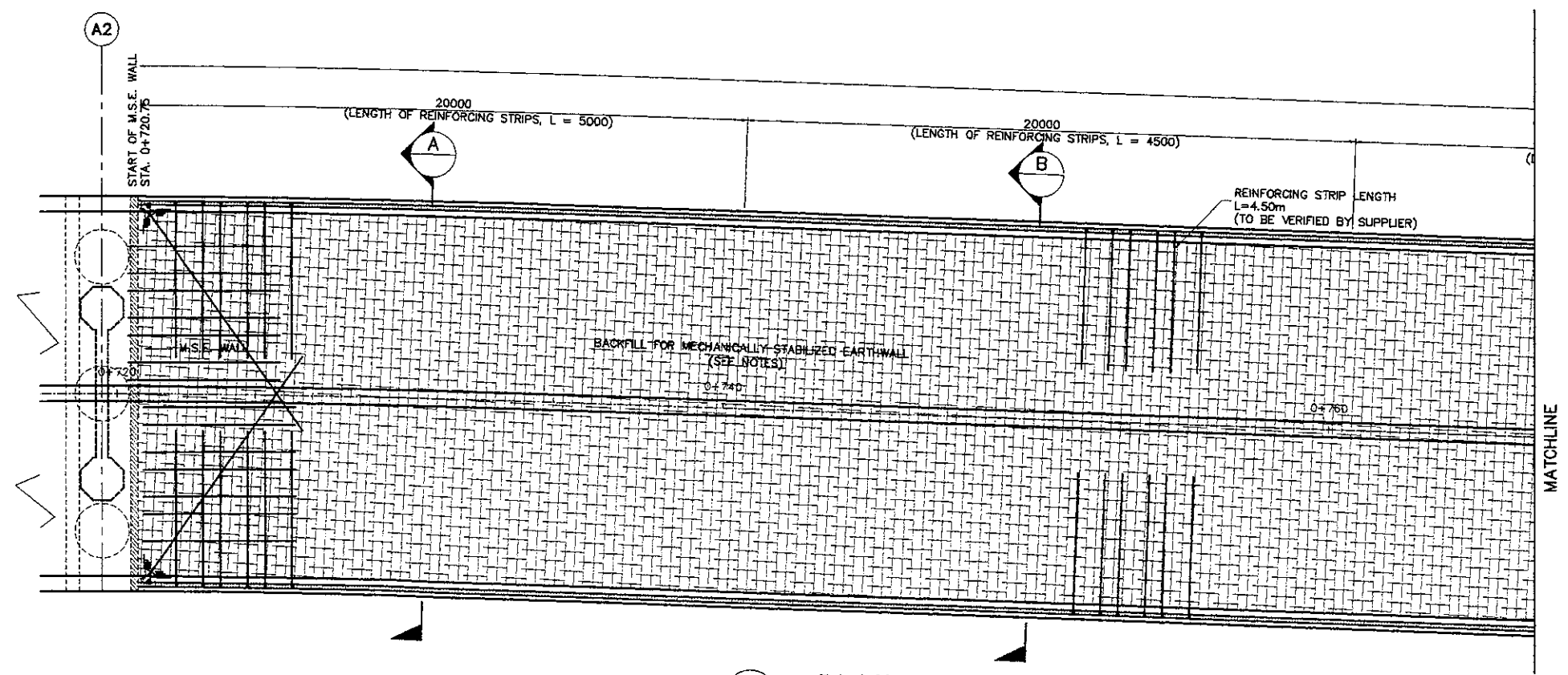
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 8 / 16



2 ELEVATION

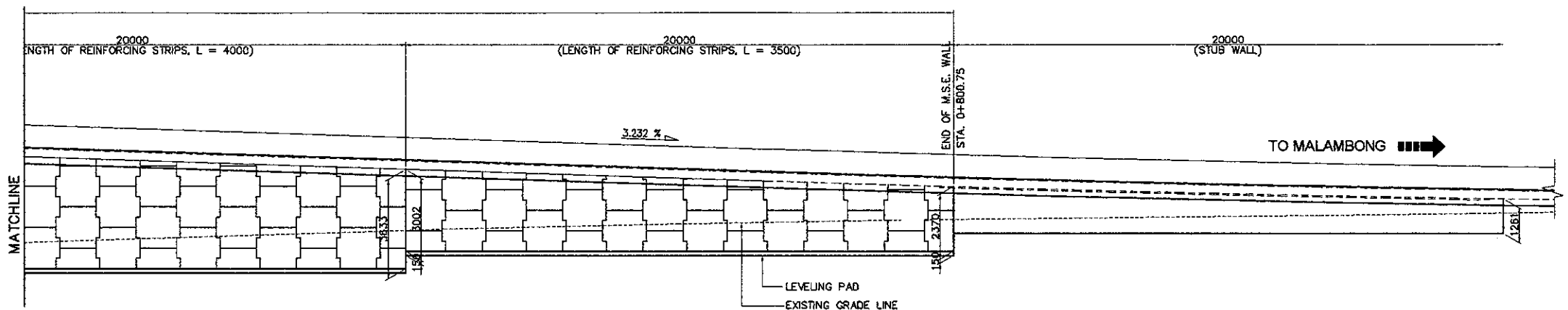
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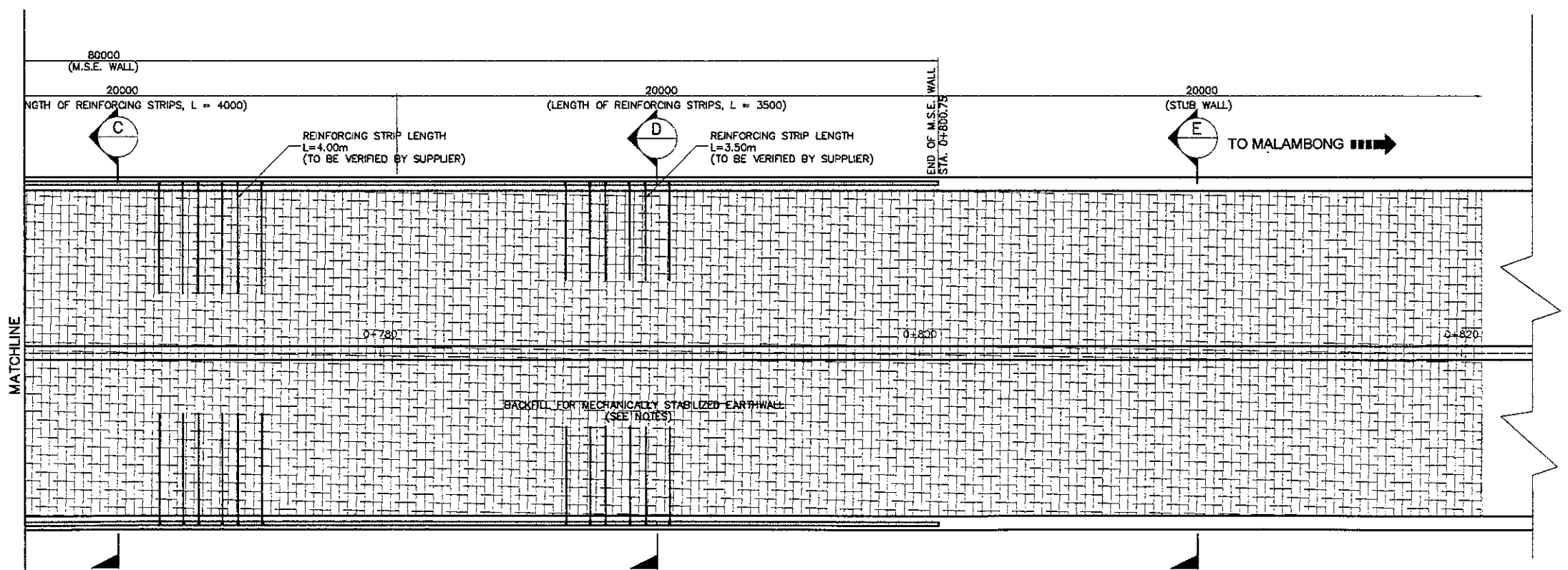
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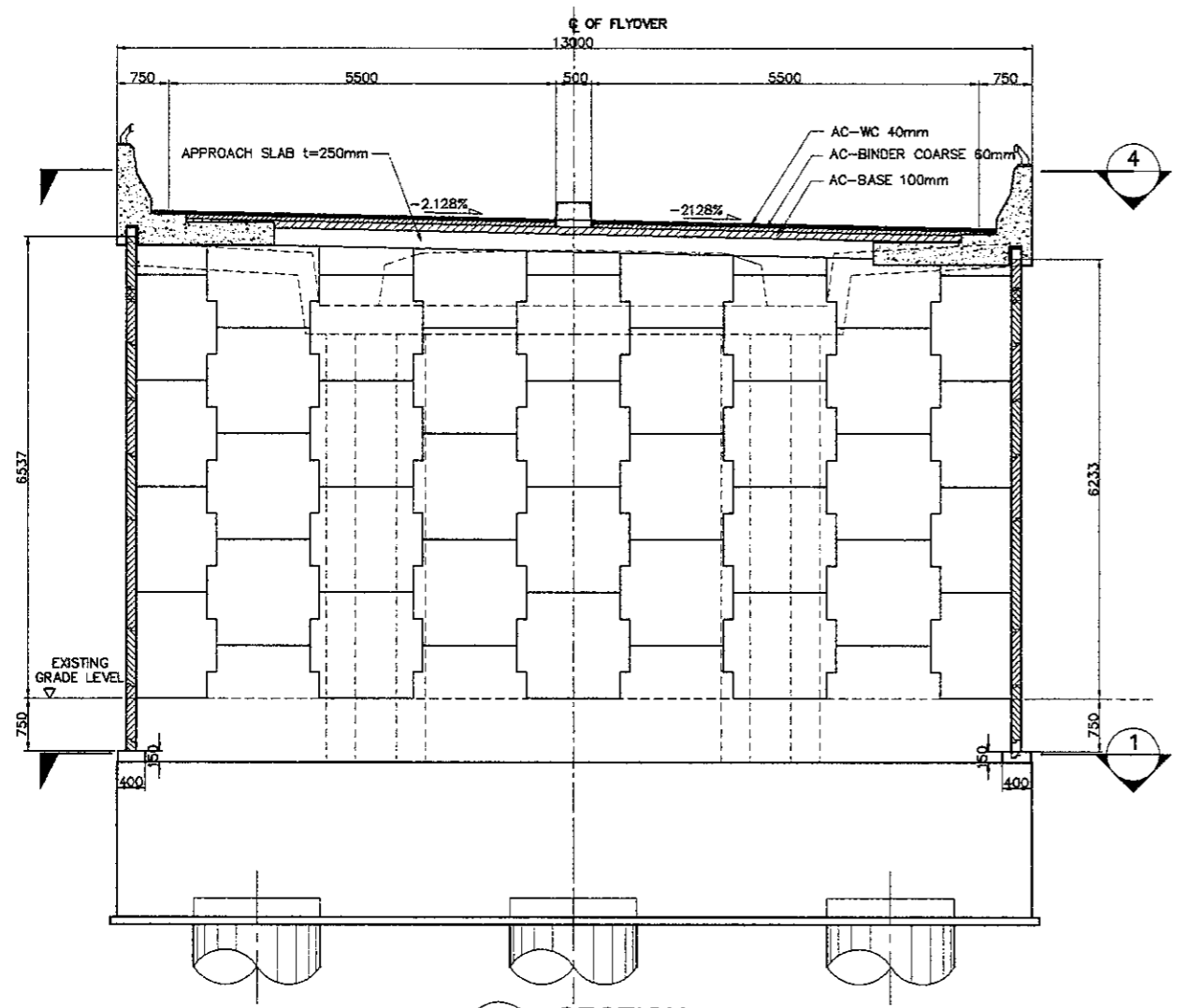
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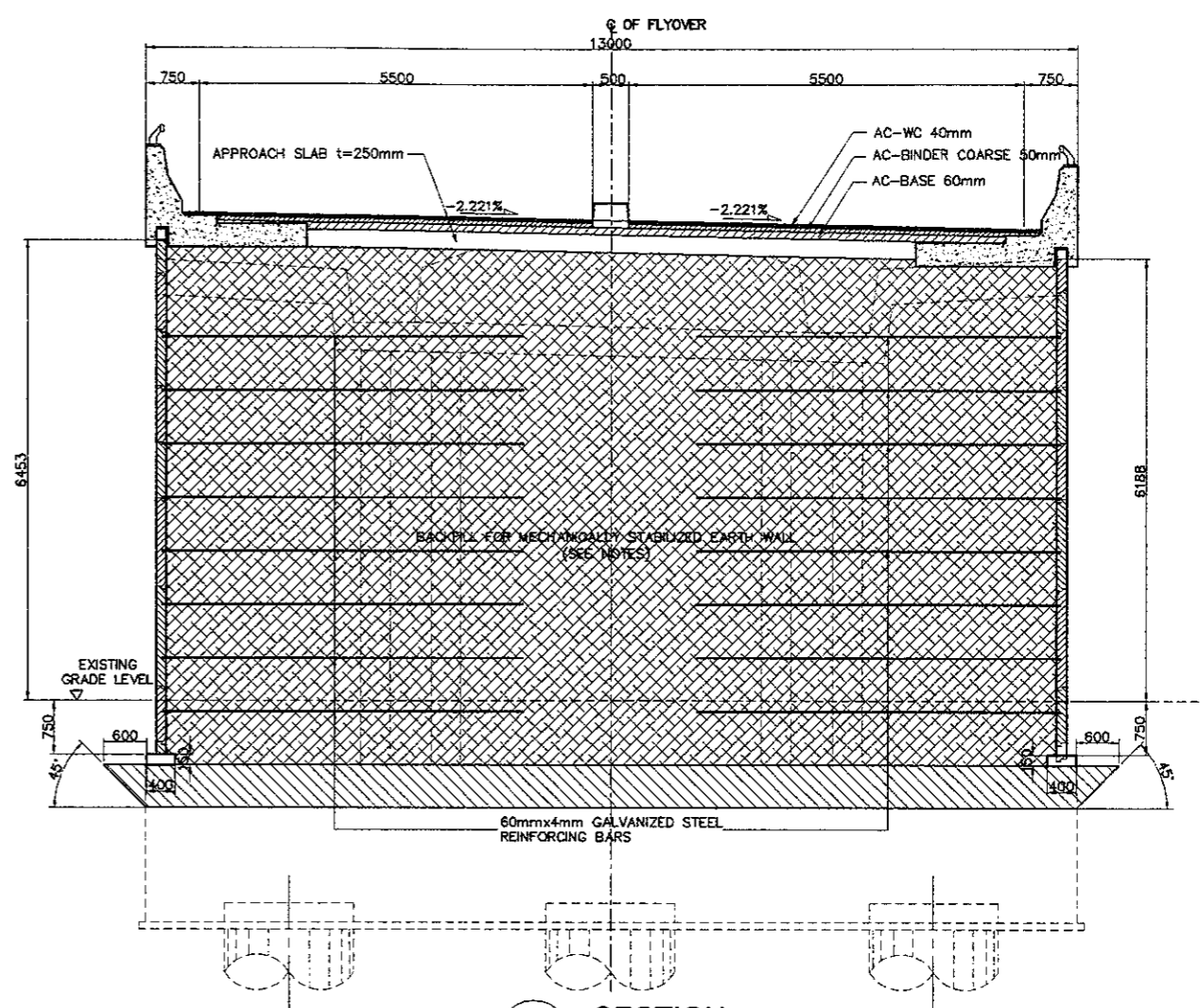
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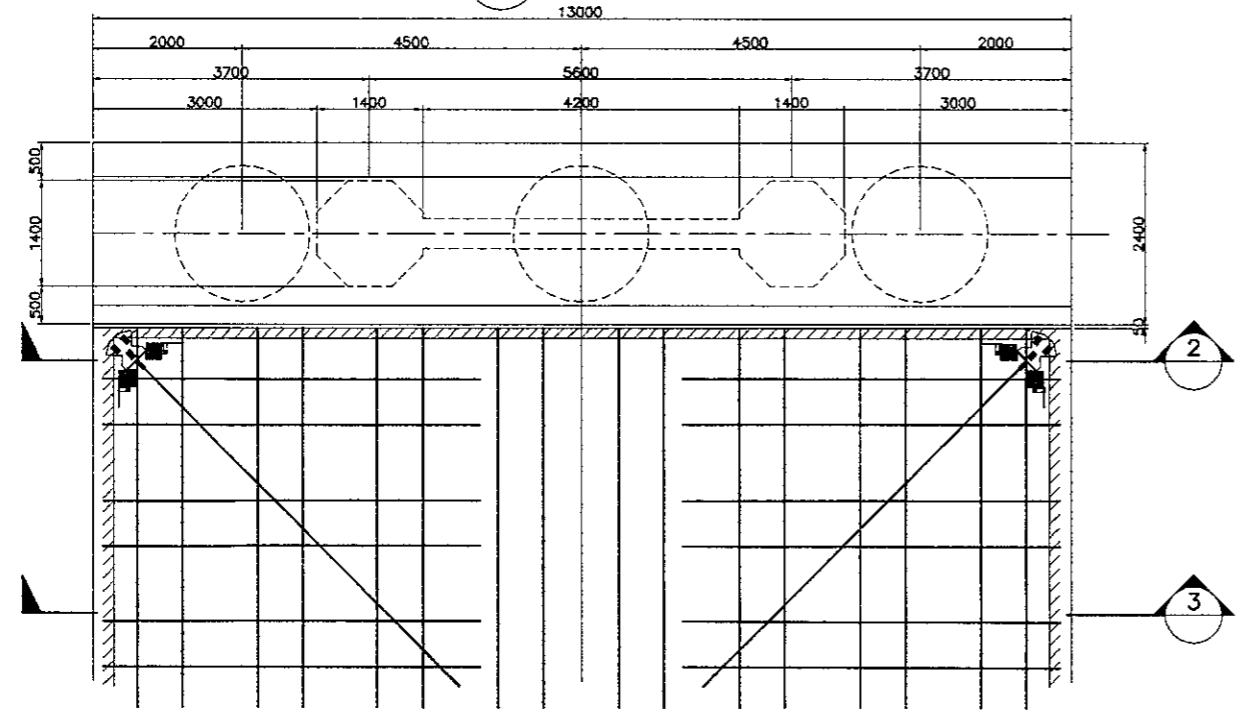
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Sign: _____	Sign: _____	Sign: _____
Date: _____	Date: _____	Date: _____



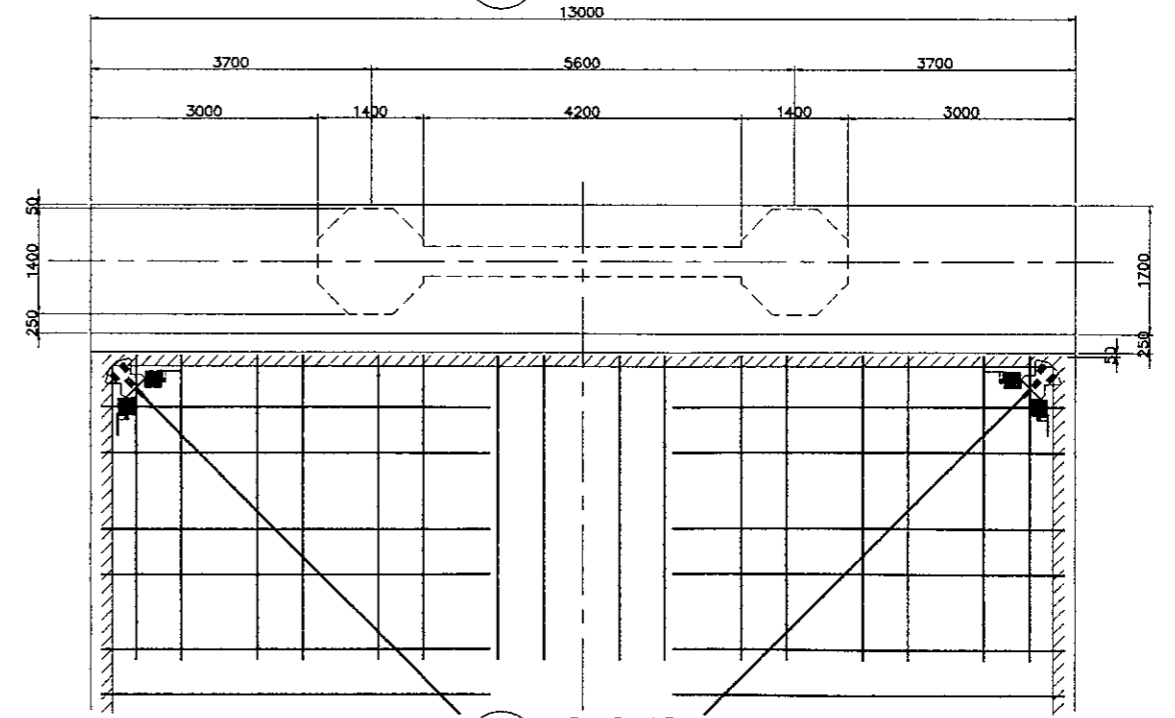
2 SECTION
 SCALE 1:100



3 SECTION
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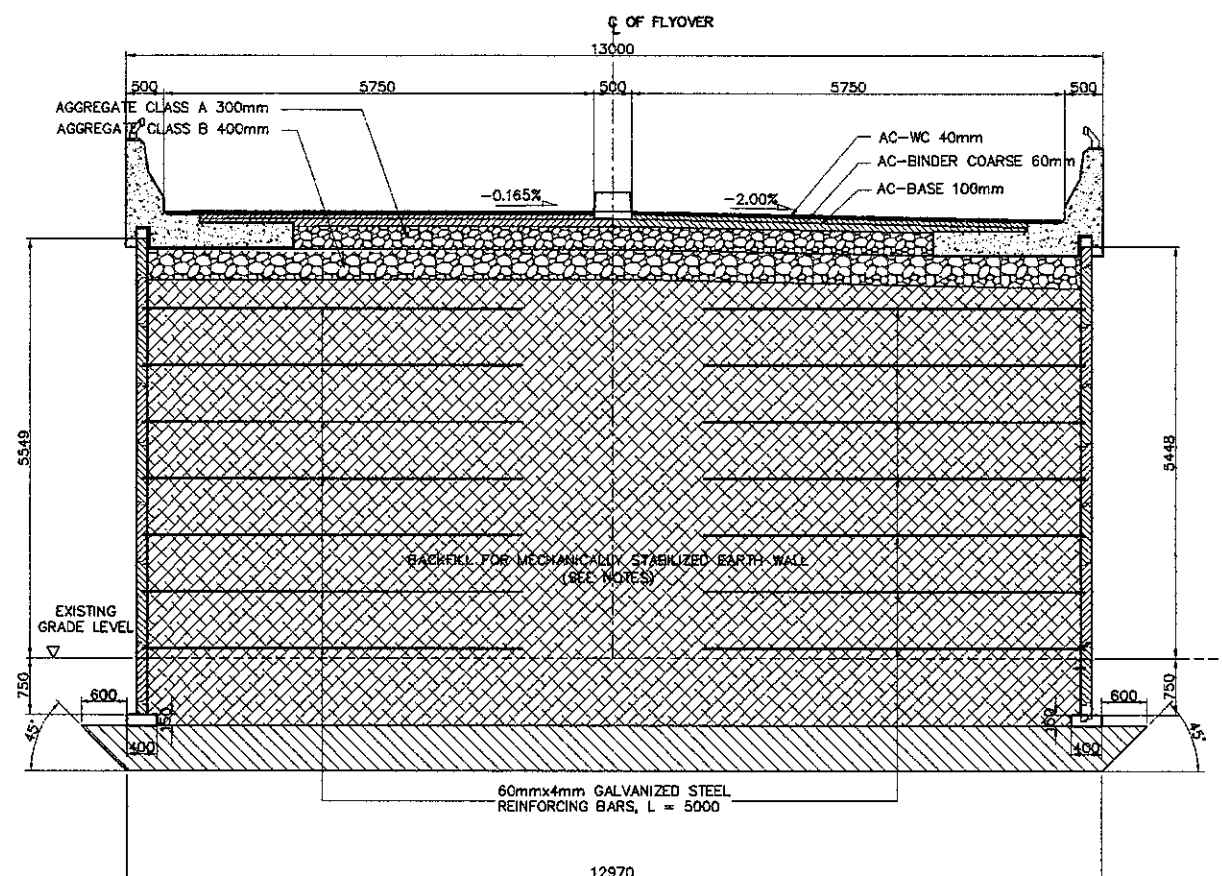


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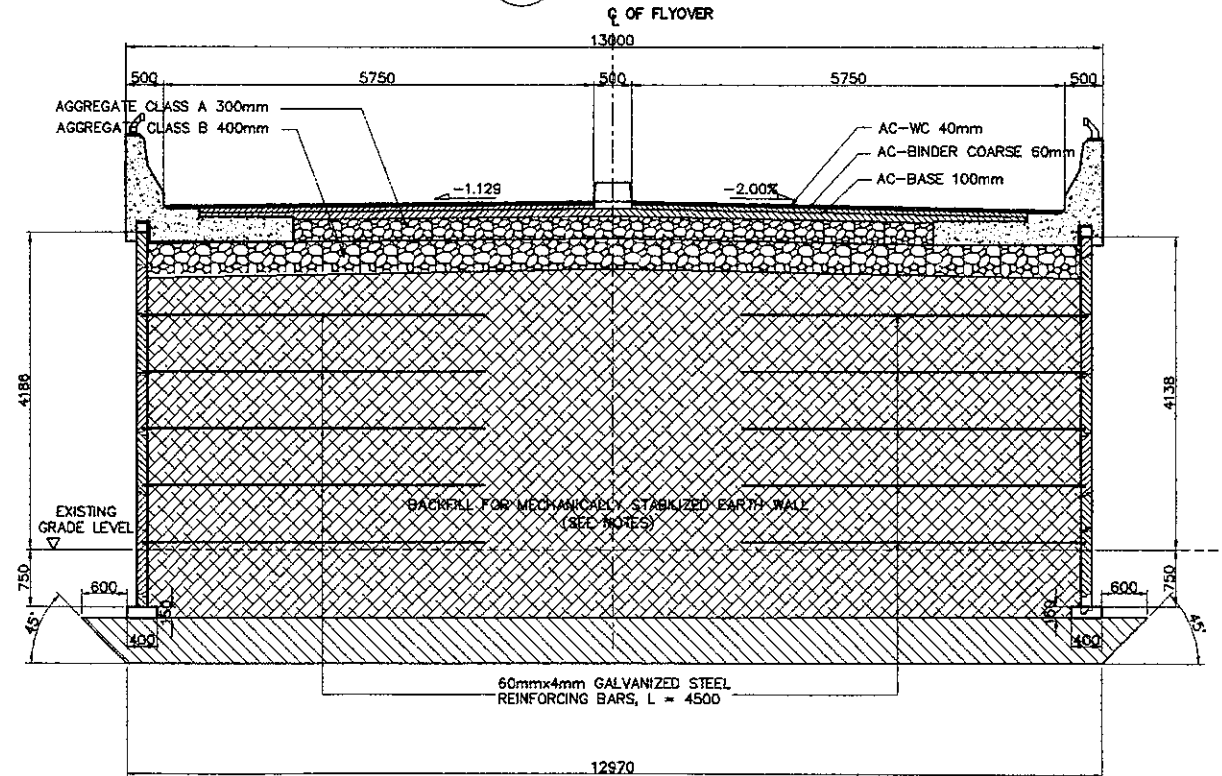


4 SECTION
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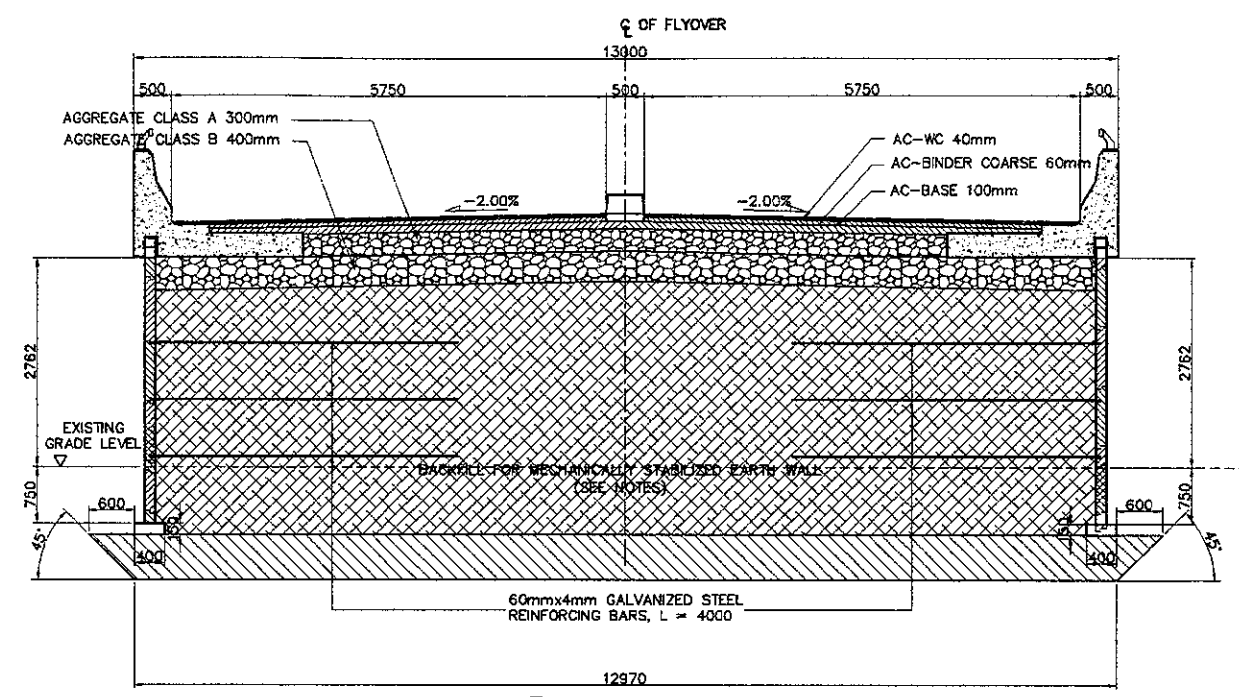
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Date		Date		Date	



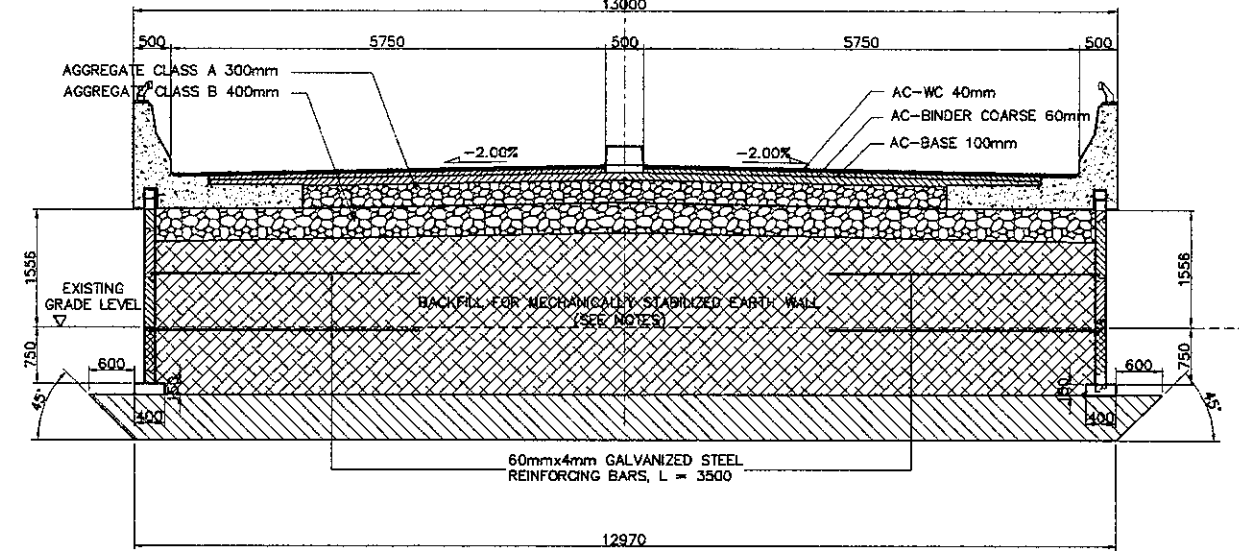
A SECTION
 SCALE 1:100



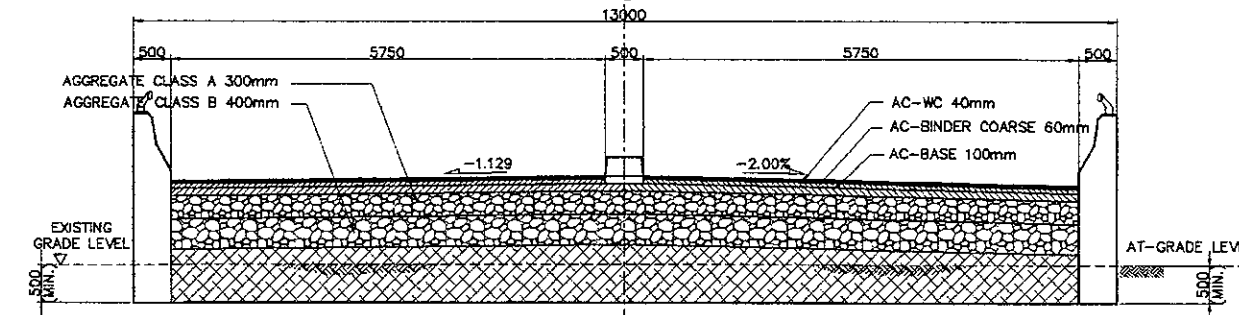
B SECTION
 SCALE 1:100



C SECTION
 SCALE 1:100
 C OF FLYOVER

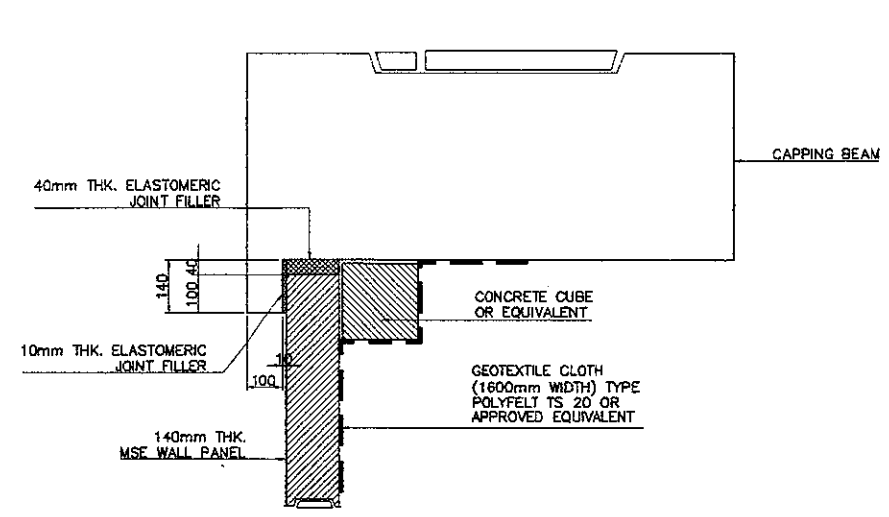


D SECTION
 SCALE 1:100
 C OF FLYOVER

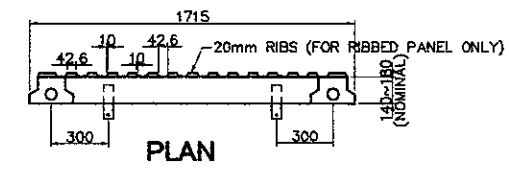
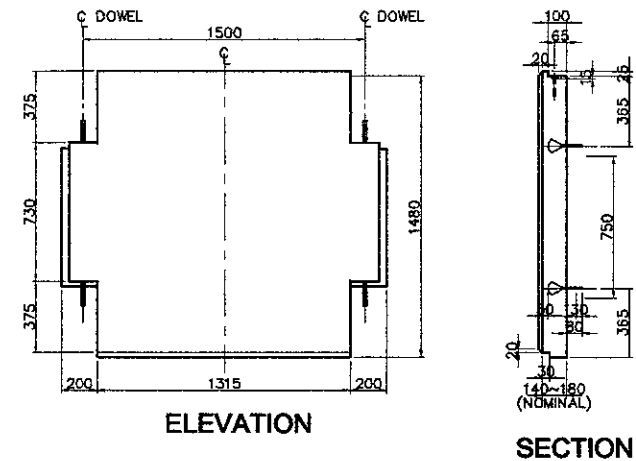


E SECTION
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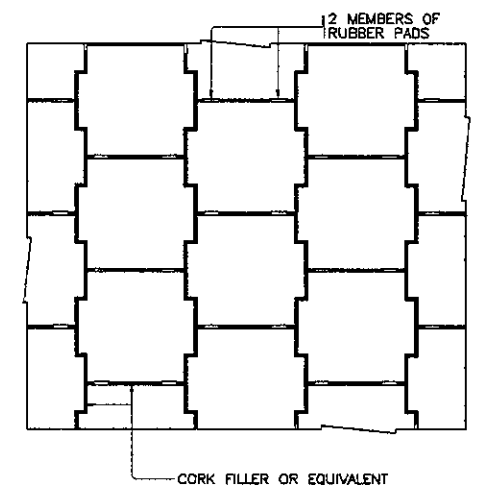
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Name: T. OKUMURA	Name: T. OKUMURA	Name: M. KIUCHI
Sign: _____	Sign: _____	Sign: _____
Date: _____	Date: _____	Date: _____



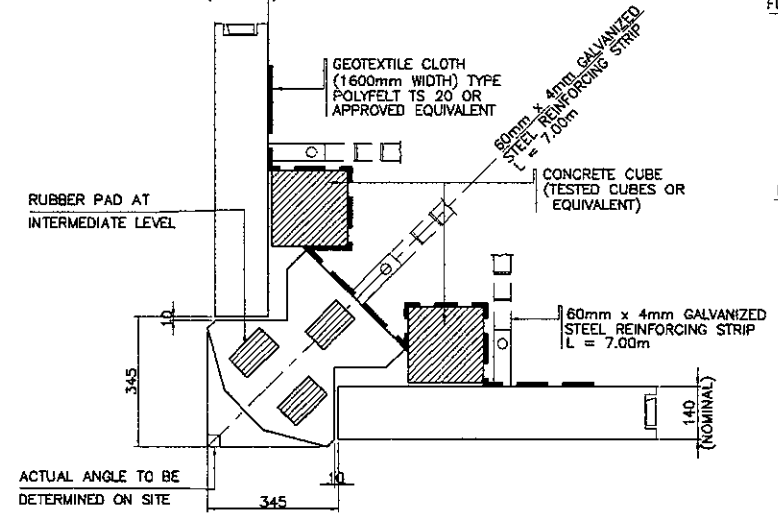
5 RE PANEL / CAPPING BEAM DETAIL
 SCALE 1:20



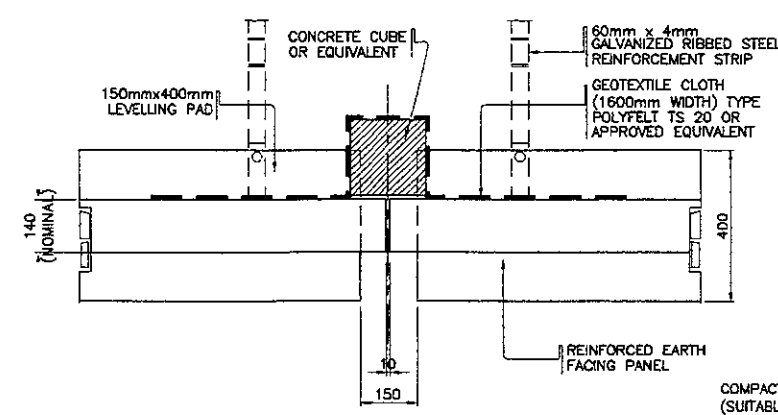
6 NORMAL FACING PANEL
 SCALE 1:40



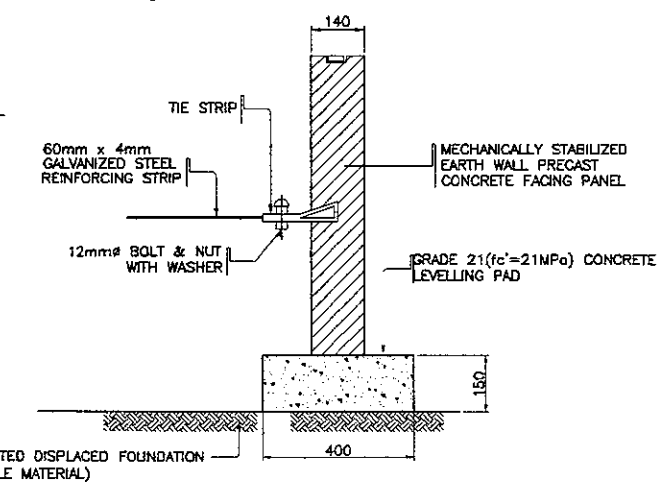
1 JOINT MATERIAL DETAIL
 SCALE 1:100



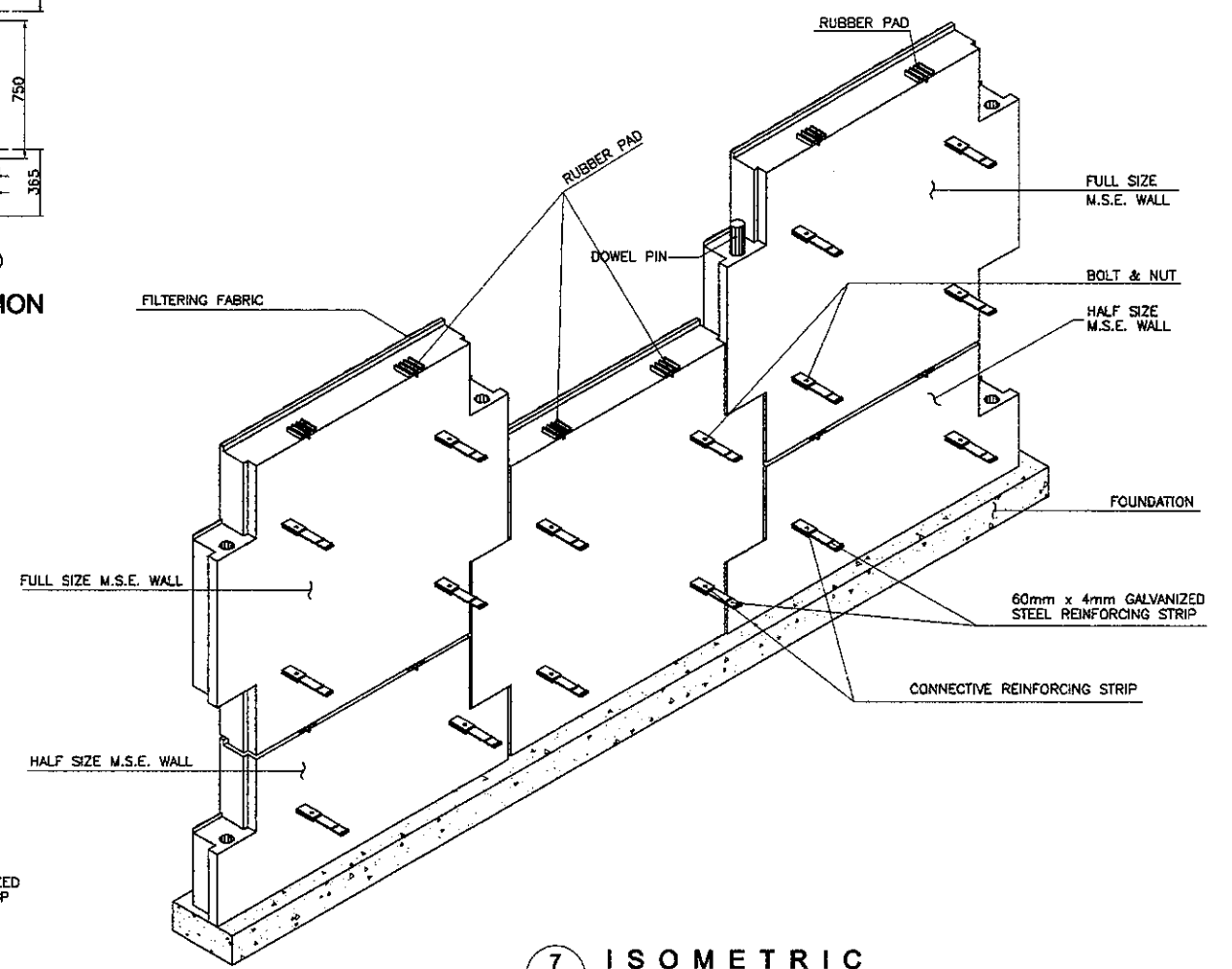
3 CORNER PANEL DETAILS
 SCALE 1:20



2 VERTICAL MATERIAL DETAIL
 SCALE 1:20

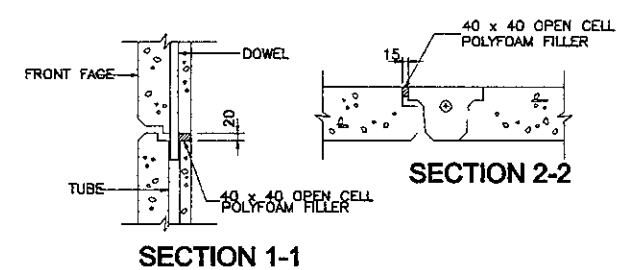


4 DETAIL
 SCALE 1:20



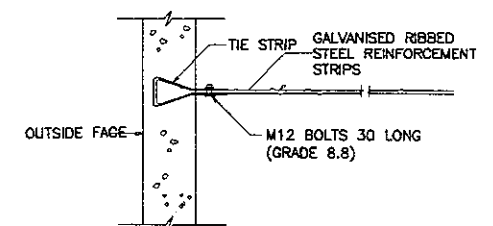
7 ISOMETRIC

NOTES:
 1. REINFORCING BARS FOR THE PC-PANELS SHALL BE PROVIDED / DESIGN BY THE MANUFACTURER / SUPPLIER FOR APPROVAL OF THE ENGINEER PRIOR TO CASTING AND / OR FABRICATION.

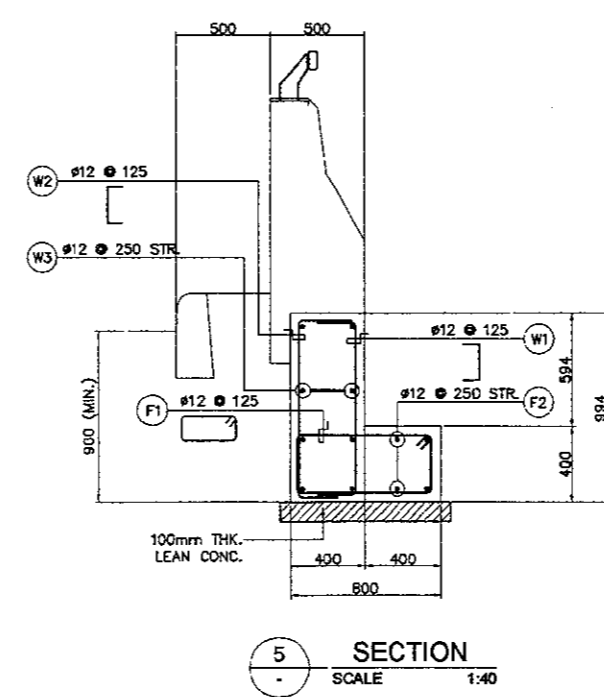
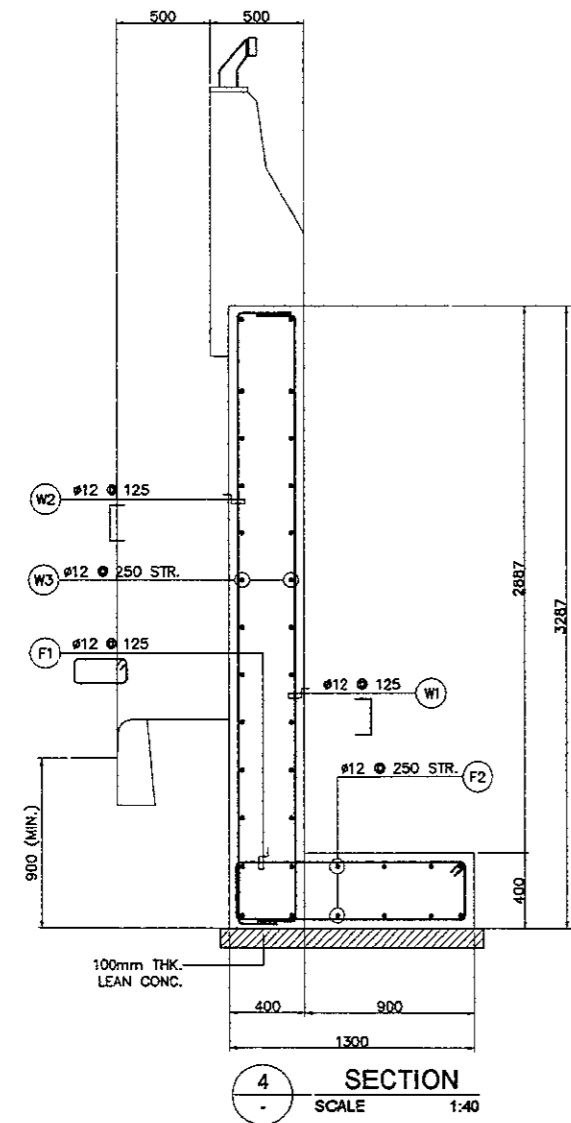
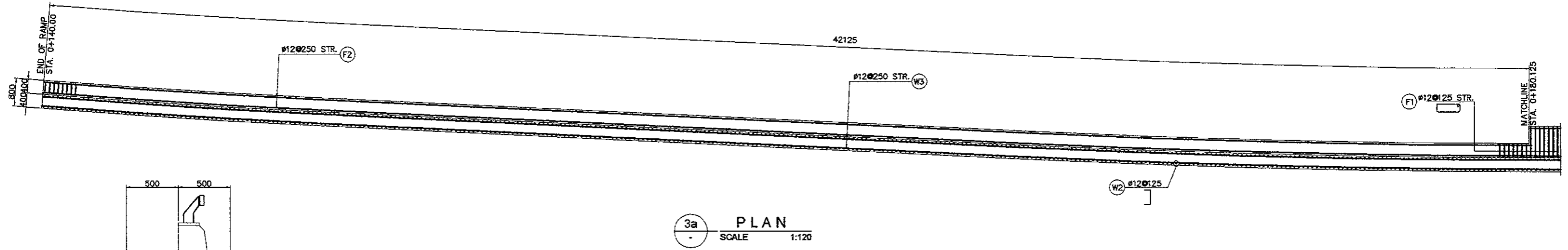
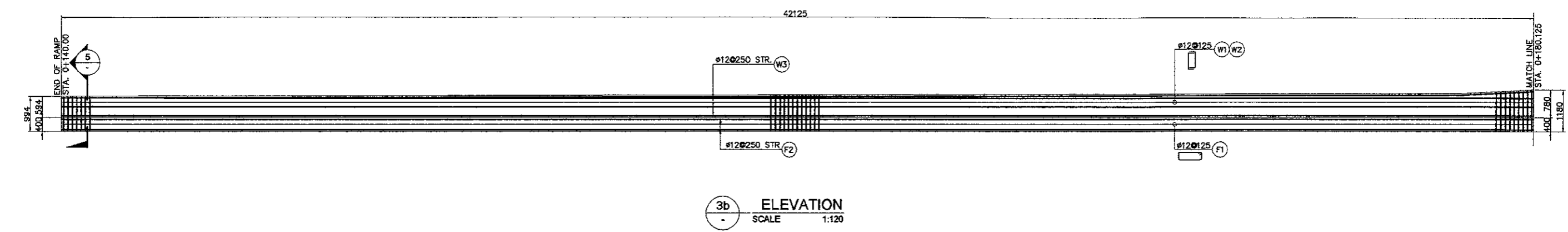


SECTION 1-1

SECTION 2-2



8 PLAN / STRIP ASSEMBLY
 SCALE 1:20



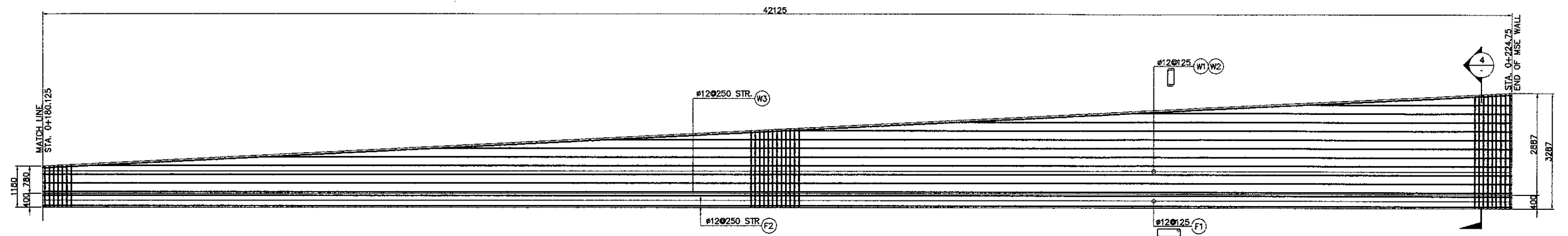
BAR BENDING DIAGRAM

SCHEDULE OF REINFORCEMENT

LOCATION	BAR MARK	SIZE (mm)	BAR SHAPE	SPACING	DIMENSION (mm)							LENGTH PER BAR (mm)	NO. OF BARS	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	REMARKS	
					a	b	c	d	e	f	g						
STUB WALL (STA. 0+140.00 - STA. 0+224.25) LEFT & RIGHT	W1	12	(B)	125	300	1740	300						2340	1348	0.888	2,801.00	b is ave.
	W2	12	(B)	125	300	1740	300						2340	1348	0.888	2,801.00	b is ave.
	W3	12	(A)	250	12000								12000	168	0.888	1,790.00	b is ave.
	W3a	12	(A)	250	2350								2350	24	0.888	50.00	
	F1	12	(C)	125	150	150	720	320	720	320			2380	676	0.888	1,429.00	
	F1a	12	(C)	125	150	150	1220	320	1220	320			3380	676	0.888	2,029.00	
	F2	12	(A)	250	12000								12000	48	0.888	511.00	
	F2a	12	(A)	250	6900								6900	16	0.888	98.00	
	F3	12	(A)	250	12000								12000	72	0.888	767.00	
	F3a	12	(A)	250	8610								9610	24	0.888	183.00	
GRADE 40 TOTAL =												12,459.00					
GRADE 80 TOTAL =																	

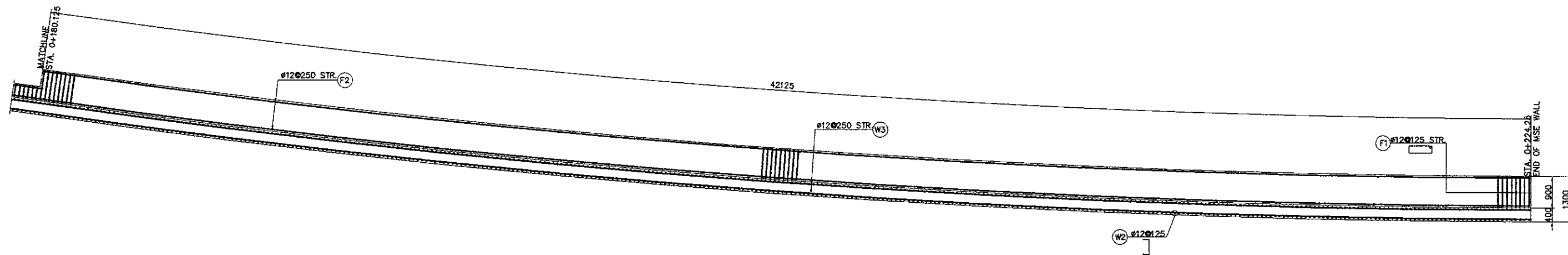
THE REINFORCEMENT SHOWN ON THIS TABLE IS FOR REFERENCE ONLY. THE CONTRACTOR SHOULD CHECKED AND VERIFY ALL DIMENSIONS, SIZES AND QUANTITIES OF REINFORCEMENT.

DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	T. OKUMURA	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	



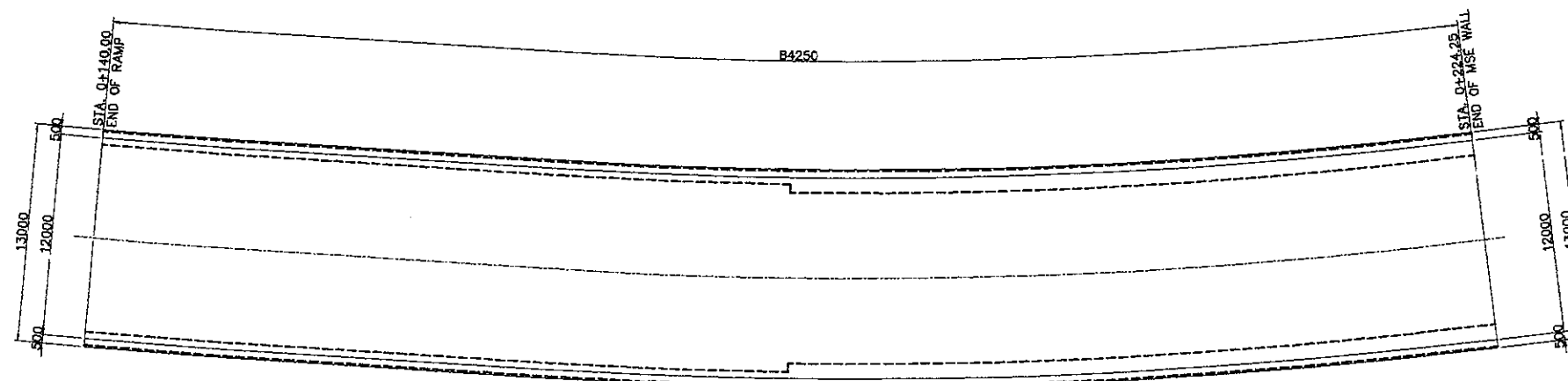
2b ELEVATION

 SCALE 1:120



2a PLAN

 SCALE 1:120



1 PLAN

 SCALE 1:400

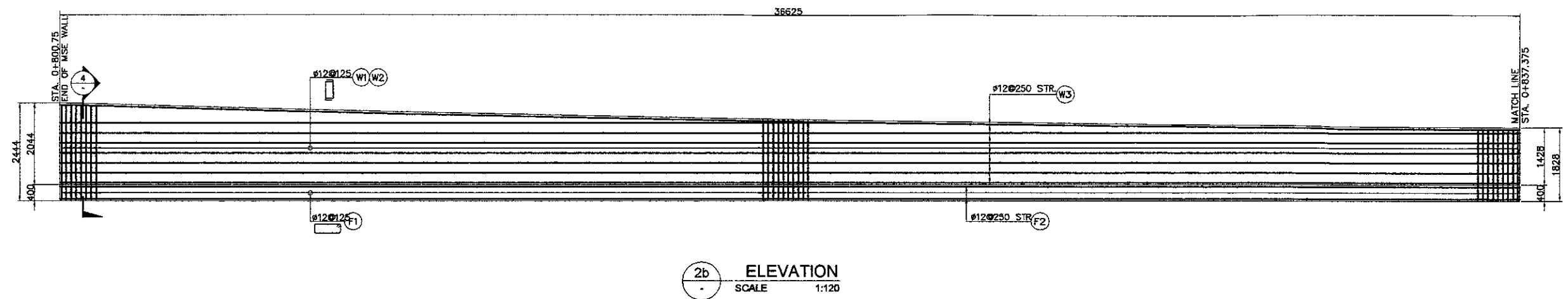
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Date		Date		Date	

PROJECT AND LOCATION :
 DETAILED DESIGN STUDY OF
 NORTH JAVA CORRIDOR FLYOVER PROJECT
 NAGREG FLYOVER - CONTRACT PACKAGE 2
 (NAGREG - GEBANG)
 WEST JAVA PROVINCE

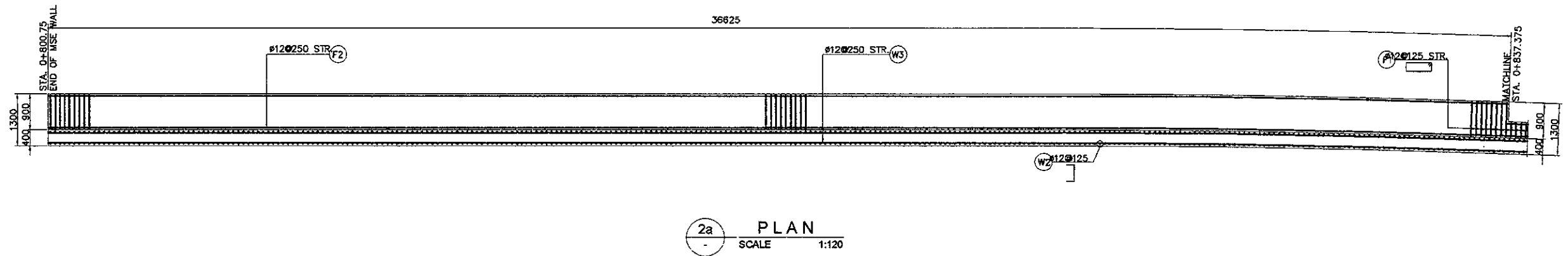
SCALE :
 AS SHOWN
 FULL SIZE A3

DRAWING TITLE :
 STUBWALL LAYOUT & REINFORCEMENT
 (ABUT. A2 SIDE)
 1 OF 2

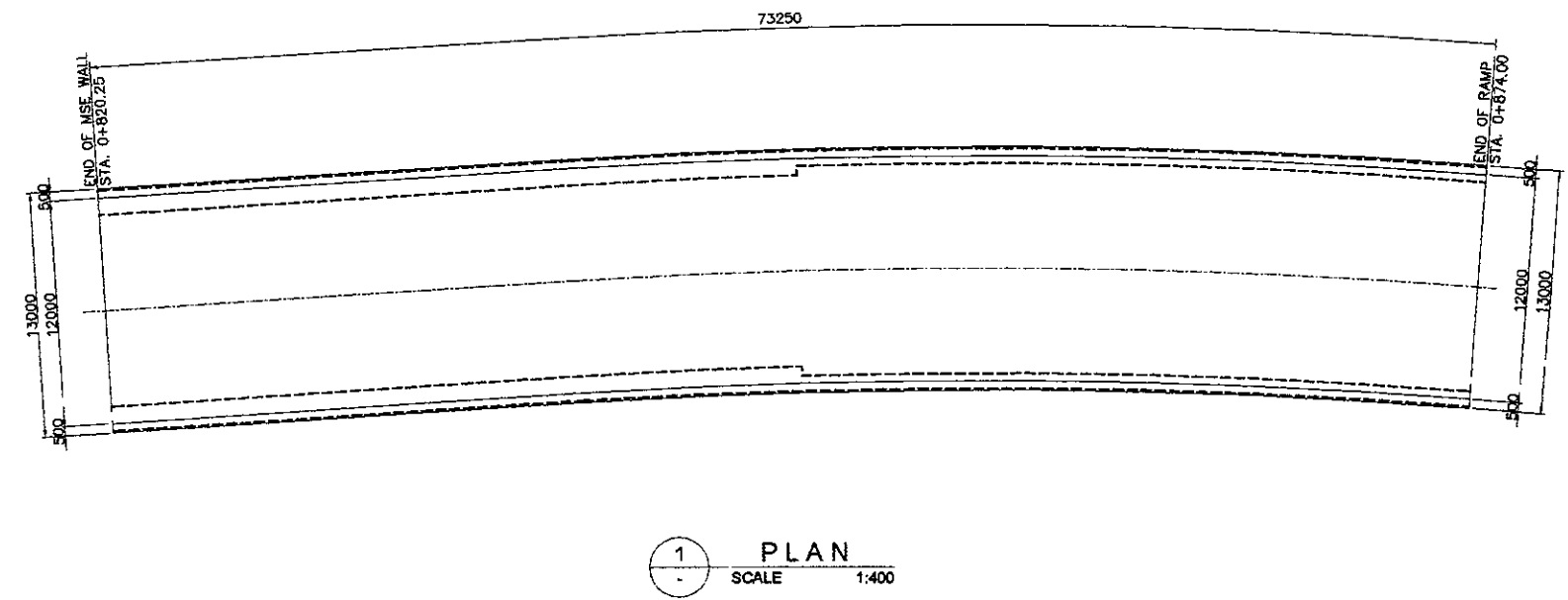
DRAWING NO :
 NMS-015
 SHEET NO :
 15 / 16



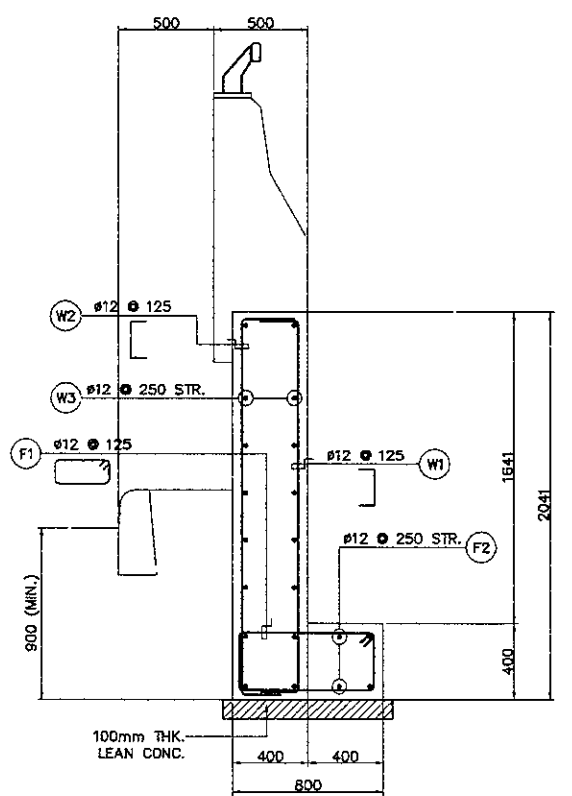
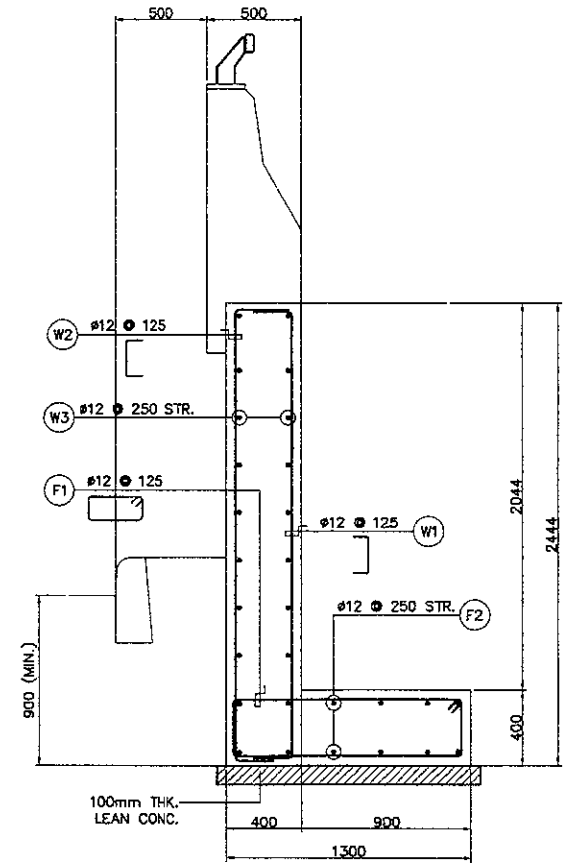
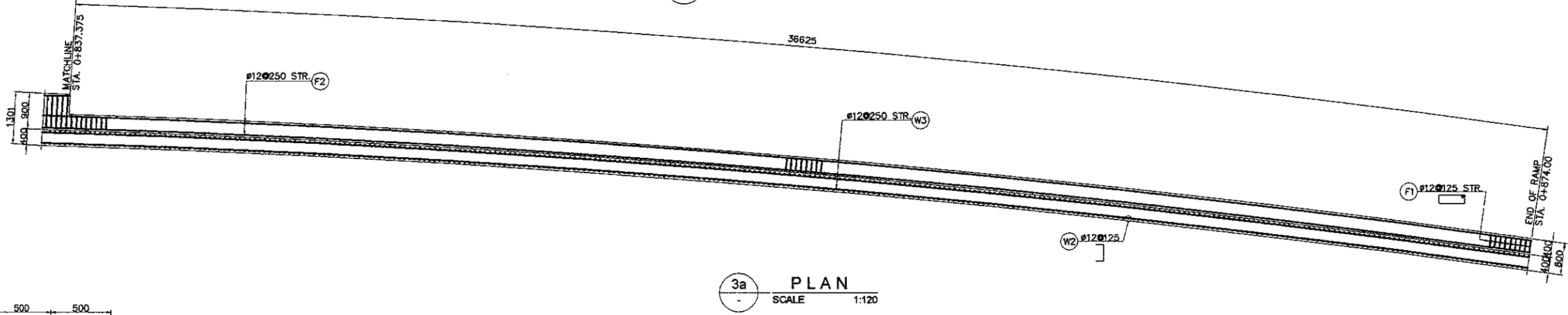
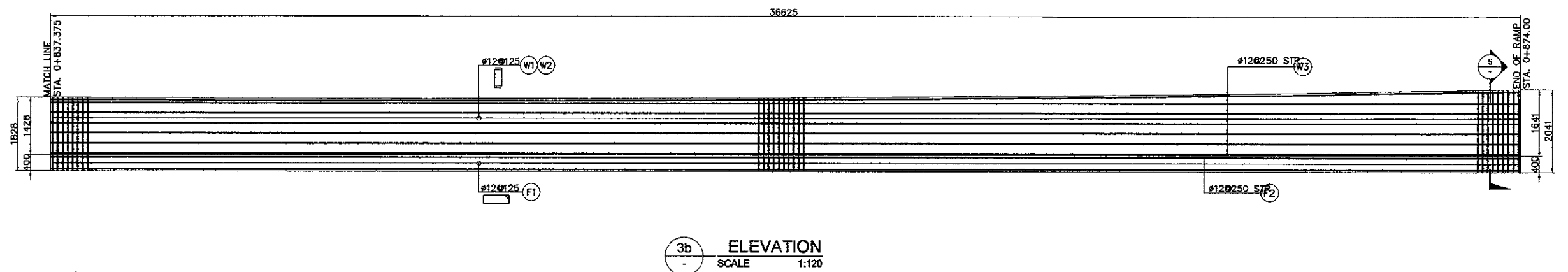
2b ELEVATION
 SCALE 1:120



2a PLAN
 SCALE 1:120



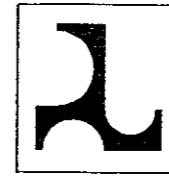
1 PLAN
 SCALE 1:400



BAR BENDING DIAGRAM																																																																																																																																																																																																																																	
A		B				C																																																																																																																																																																																																																											
<p>SCHEDULE OF REINFORCEMENT</p> <table border="1"> <thead> <tr> <th rowspan="2">LOCATION</th> <th rowspan="2">BAR MARK</th> <th rowspan="2">SIZE (mm)</th> <th rowspan="2">BAR SHAPE</th> <th rowspan="2">SPACING</th> <th colspan="7">DIMENSION (mm)</th> <th rowspan="2">LENGTH PER BAR (mm)</th> <th rowspan="2">NO. OF BARS</th> <th rowspan="2">UNIT WEIGHT (kg/m)</th> <th rowspan="2">TOTAL WEIGHT (kg)</th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th>e</th> <th>f</th> <th>g</th> </tr> </thead> <tbody> <tr> <td rowspan="9">STUB WALL (STA. 0+800.75-STA. 0+874.00) LEFT & RIGHT</td> <td>W1</td> <td>12</td> <td>(B)</td> <td>125</td> <td>300</td> <td>2024</td> <td>300</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2624</td> <td>1174</td> <td>0.888</td> <td>2,736.00</td> <td>b is ave.</td> </tr> <tr> <td>W2</td> <td>12</td> <td>(B)</td> <td>125</td> <td>300</td> <td>2024</td> <td>300</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2624</td> <td>1174</td> <td>0.888</td> <td>2,736.00</td> <td>b is ave.</td> </tr> <tr> <td>W3</td> <td>12</td> <td>(A)</td> <td>250</td> <td>12000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>12000</td> <td>168</td> <td>0.888</td> <td>1,790.00</td> <td>b is ave.</td> </tr> <tr> <td>W3a</td> <td>12</td> <td>(A)</td> <td>250</td> <td>3350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3350</td> <td>28</td> <td>0.888</td> <td>83.00</td> <td></td> </tr> <tr> <td>F1</td> <td>12</td> <td>(C)</td> <td>125</td> <td>150</td> <td>150</td> <td>720</td> <td>320</td> <td>720</td> <td>320</td> <td></td> <td></td> <td>2380</td> <td>588</td> <td>0.888</td> <td>1,243.00</td> <td></td> </tr> <tr> <td>F1a</td> <td>12</td> <td>(C)</td> <td>125</td> <td>150</td> <td>150</td> <td>1220</td> <td>320</td> <td>1220</td> <td>320</td> <td></td> <td></td> <td>3380</td> <td>588</td> <td>0.888</td> <td>1,765.00</td> <td></td> </tr> <tr> <td>F2</td> <td>12</td> <td>(A)</td> <td>250</td> <td>12000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>12000</td> <td>48</td> <td>0.888</td> <td>511.00</td> <td></td> </tr> <tr> <td>F2a</td> <td>12</td> <td>(A)</td> <td>250</td> <td>1525</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1525</td> <td>16</td> <td>0.888</td> <td>22.00</td> <td></td> </tr> <tr> <td>F3</td> <td>12</td> <td>(A)</td> <td>250</td> <td>12000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>12000</td> <td>72</td> <td>0.888</td> <td>767.00</td> <td></td> </tr> <tr> <td>F3a</td> <td>12</td> <td>(A)</td> <td>250</td> <td>1525</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1525</td> <td>24</td> <td>0.888</td> <td>33.00</td> <td></td> </tr> <tr> <td colspan="14" style="text-align: right;">TOTAL WEIGHT = 11,686.00</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>														LOCATION	BAR MARK	SIZE (mm)	BAR SHAPE	SPACING	DIMENSION (mm)							LENGTH PER BAR (mm)	NO. OF BARS	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	REMARKS	a	b	c	d	e	f	g	STUB WALL (STA. 0+800.75-STA. 0+874.00) LEFT & RIGHT	W1	12	(B)	125	300	2024	300						2624	1174	0.888	2,736.00	b is ave.	W2	12	(B)	125	300	2024	300						2624	1174	0.888	2,736.00	b is ave.	W3	12	(A)	250	12000								12000	168	0.888	1,790.00	b is ave.	W3a	12	(A)	250	3350								3350	28	0.888	83.00		F1	12	(C)	125	150	150	720	320	720	320			2380	588	0.888	1,243.00		F1a	12	(C)	125	150	150	1220	320	1220	320			3380	588	0.888	1,765.00		F2	12	(A)	250	12000								12000	48	0.888	511.00		F2a	12	(A)	250	1525								1525	16	0.888	22.00		F3	12	(A)	250	12000								12000	72	0.888	767.00		F3a	12	(A)	250	1525								1525	24	0.888	33.00		TOTAL WEIGHT = 11,686.00																
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JAPAN INTERNATIONAL
COOPERATION AGENCY

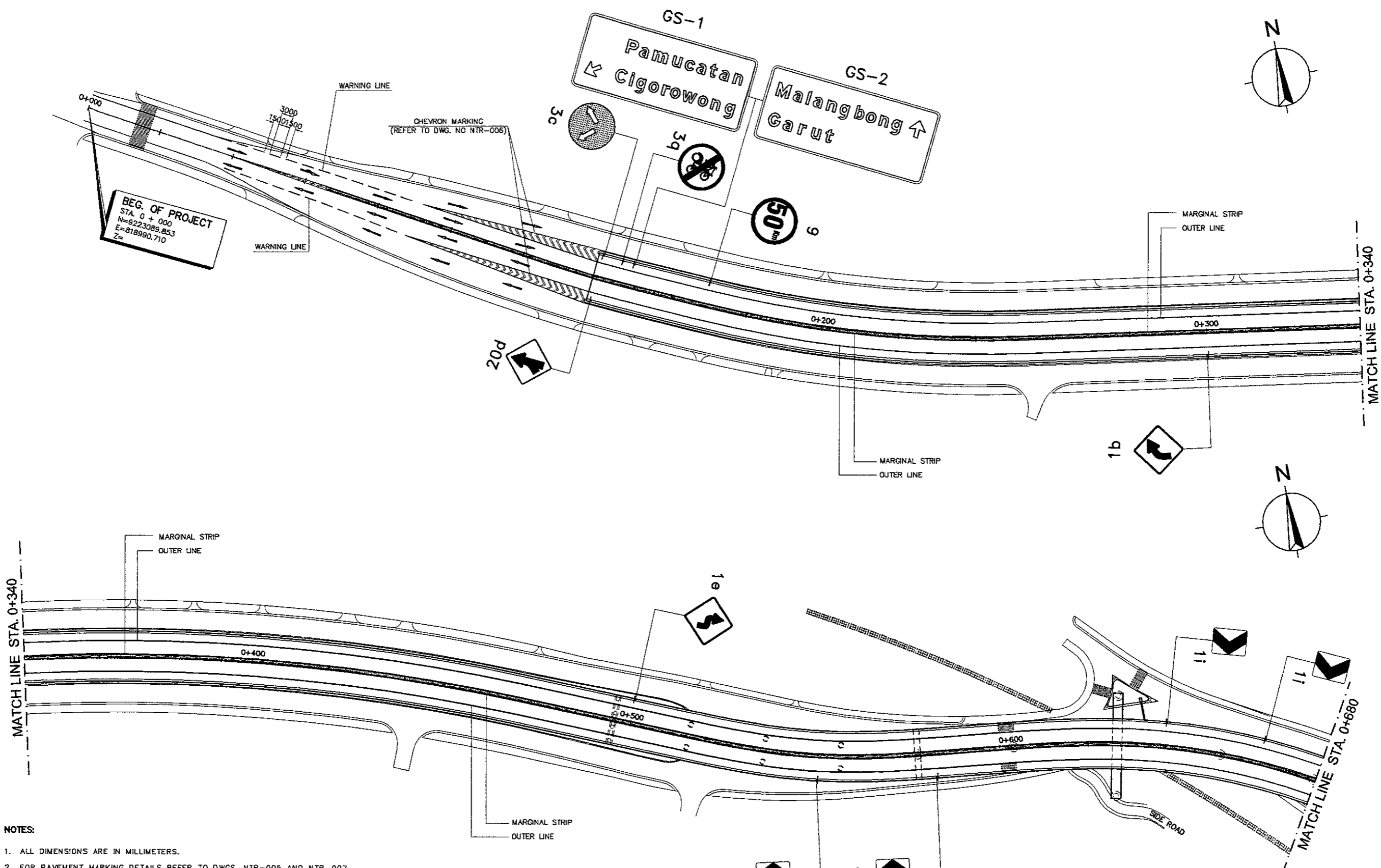


DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
REPUBLIC OF INDONESIA

TRAFFIC CONTROL

 **KEI** KATAHIRA & ENGINEERS INTERNATIONAL

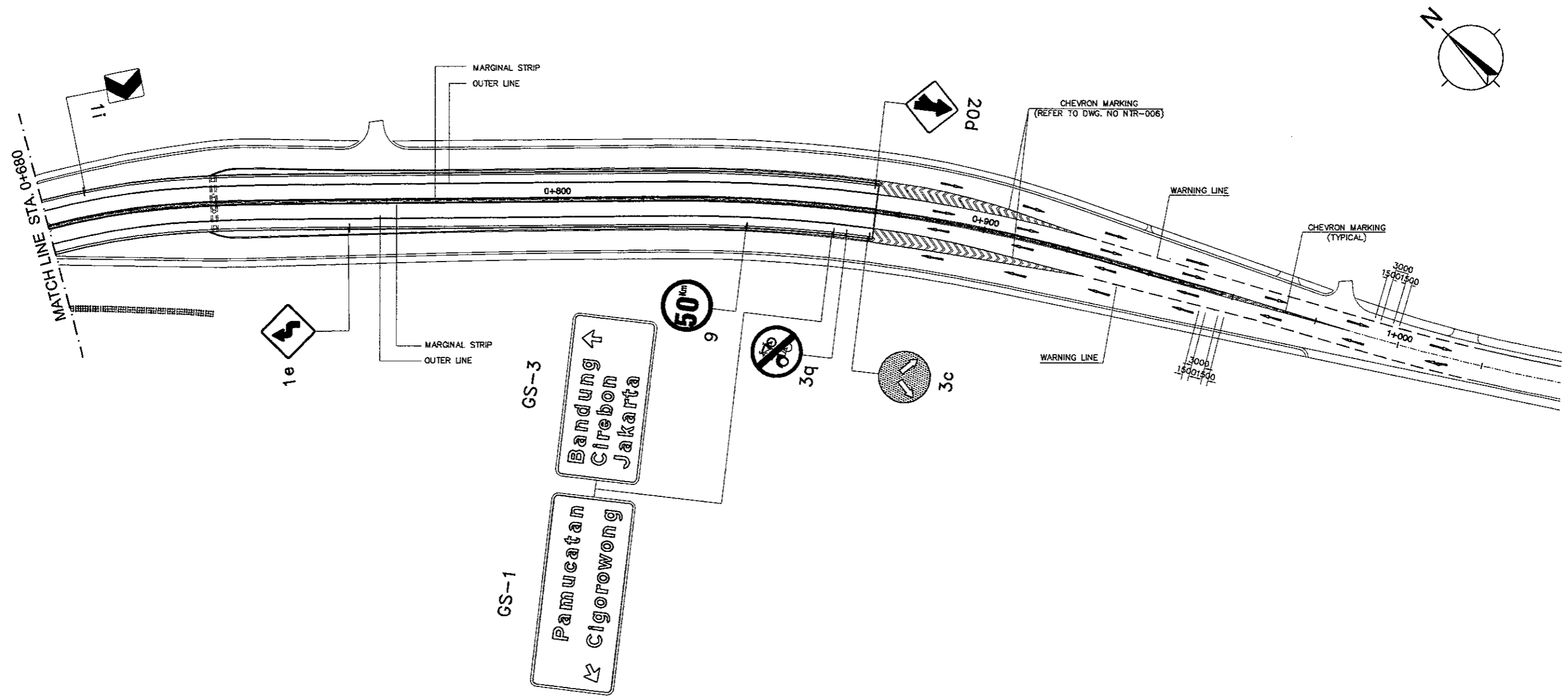
DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	R. UENO	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS.
 2. FOR PAVEMENT MARKING DETAILS REFER TO DWGS. NTR-005 AND NTR-007.
 3. FOR STANDARD TRAFFIC SIGN DETAILS, REFER TO DWGS. NTR-009 TO NTR-012.
 4. LOCATION OF SIGNS SHALL BE VERIFIED DURING CONSTRUCTION.
 5. OVERHEAD GUIDE SIGN SHALL BE ATTACHED TO A CANTILEVER TYPE SIGNS SUPPORT, REFER TO DWG.NTR-015 AND NTR-016.
 6. DELINEATORS SHALL BE INSTALLED AT FACE OF NEW JERSEY BARRIER AND PARAPET.

1 TRAFFIC SIGNS AND ROAD MARKINGS LAYOUT (FLYOVER) 1 OF 2
 SCALE 1:1000

DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	R. UENO	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	

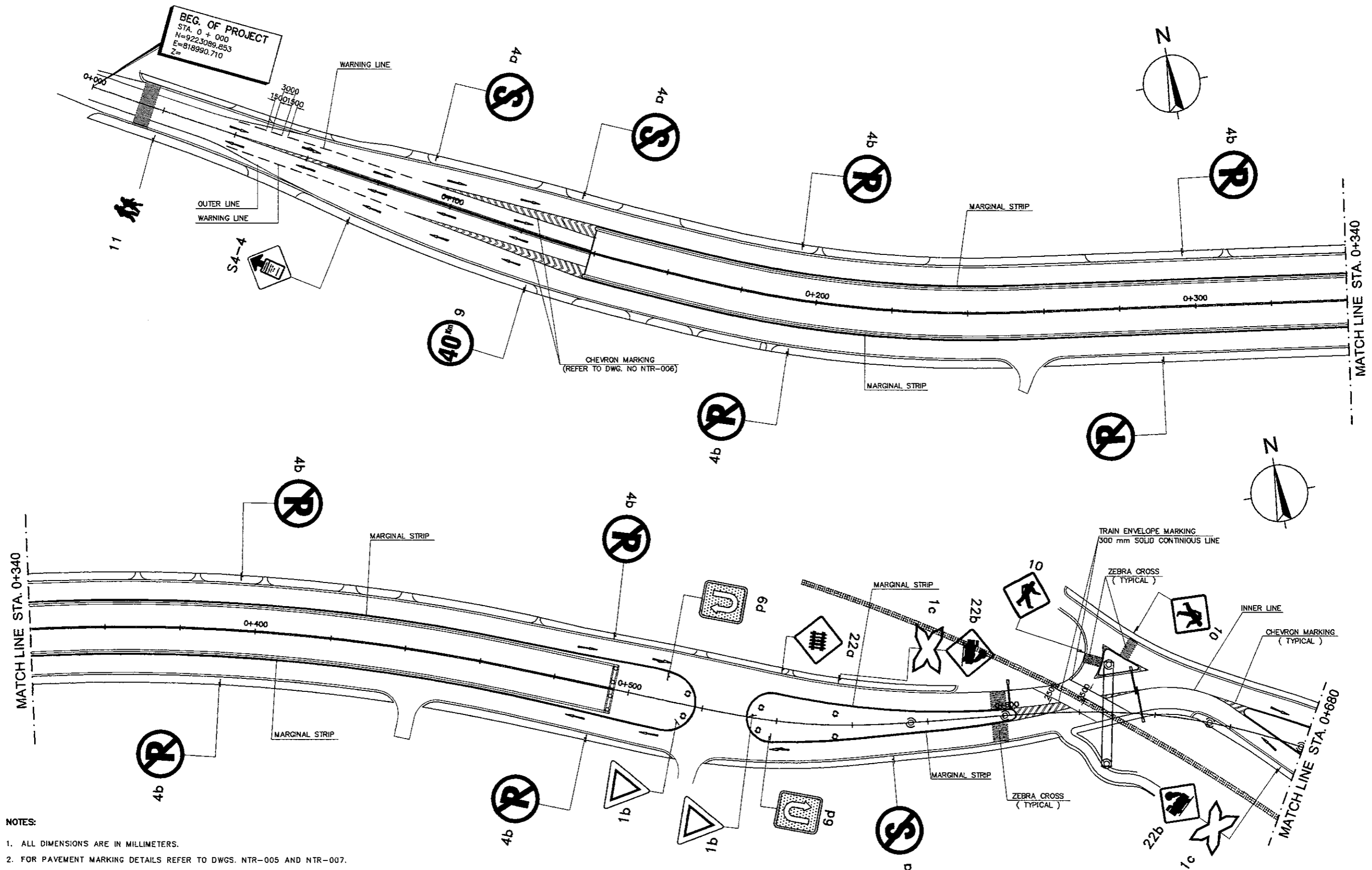


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DESIGNED BY	CHECKED BY	SUBMITTED BY
Name R. UENO	Name T. OKUMURA	Name M. KIUCHI
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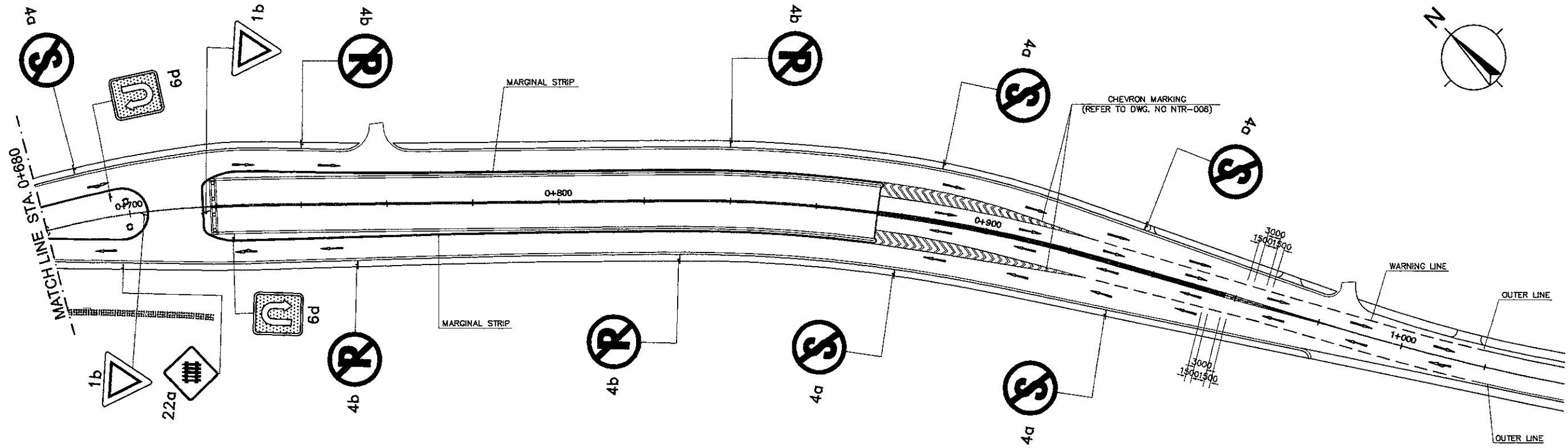
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1 TRAFFIC SIGNS AND ROAD MARKINGS LAYOUT(AT GRADE)
 SCALE 1:1000

DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	R. UENO	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	



APPROVED BY	
Ir. HERRY VAZA M,Eng.Sc	
NIP. : 110038400	

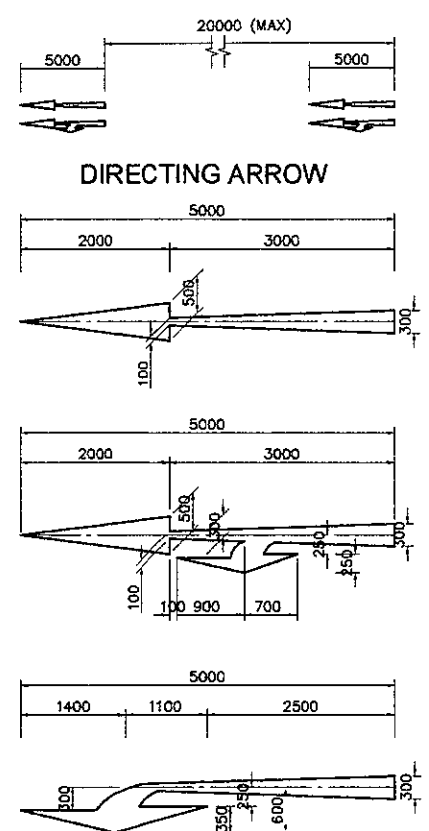



 TRAFFIC SIGNS AND ROAD MARKINGS LAYOUT(AT GRADE)

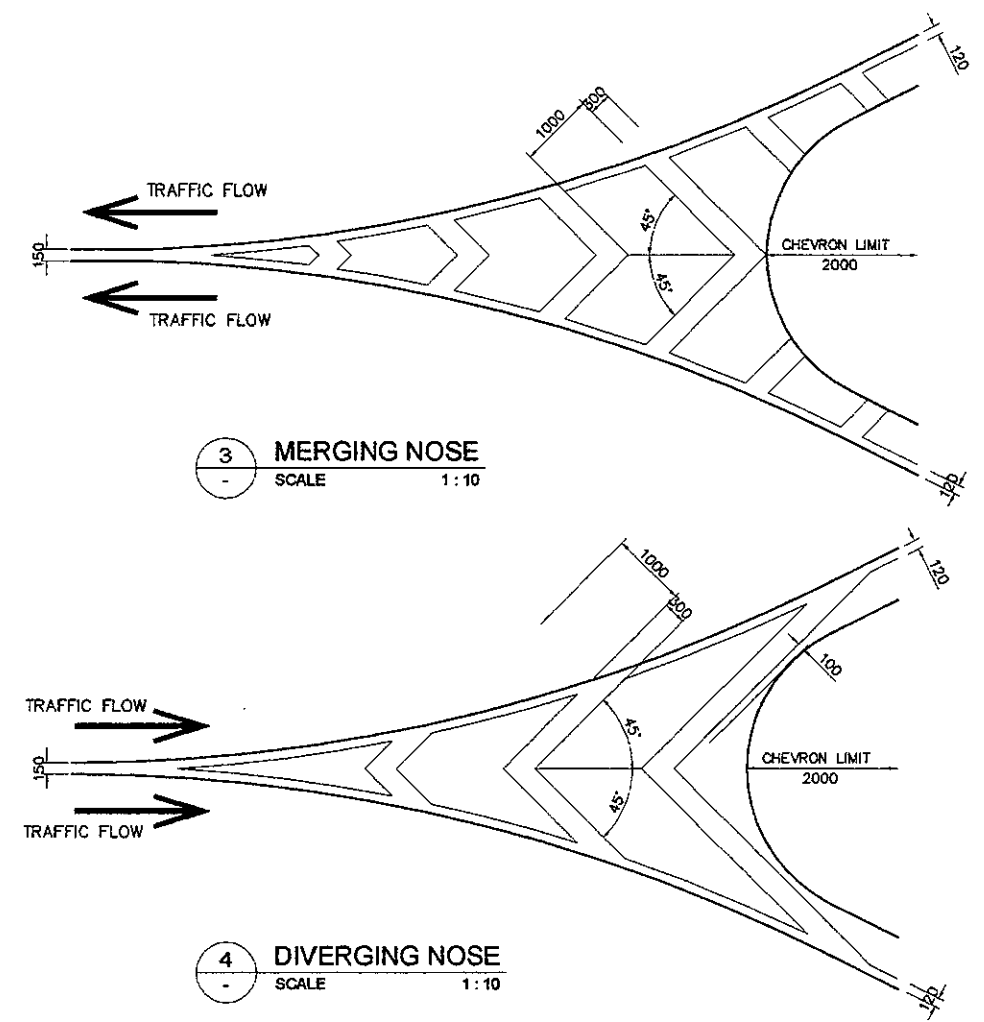
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2 ARROW MARKING DETAIL
 SCALE 1:10



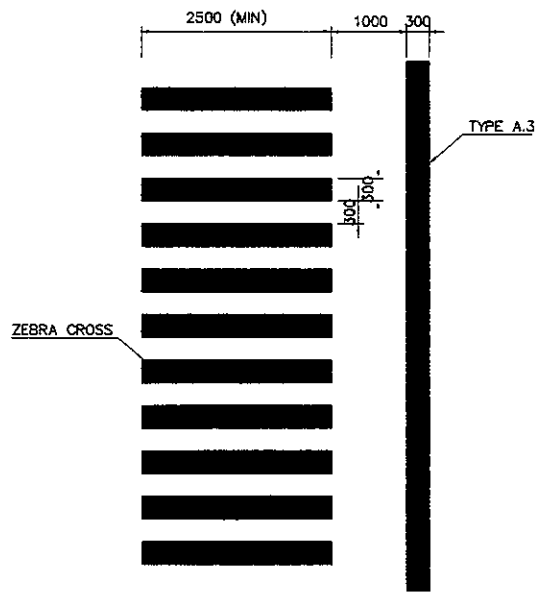
3 MERGING NOSE
 SCALE 1:10

4 DIVERGING NOSE
 SCALE 1:10

5 CONVERGING NOSE
 SCALE 1:10

TYPE		LANE MARKINGS
A	CONTINUOUS/SOLID LINE	
	1. MARGINAL STRIP/DIRECTION LINE	
	2. APPROACH LINE	
	3. STOP LINE	
B	BROKEN GUIDING LINE (SEPARATOR/DIVIDING LINES) (V < 60 KM/H)	
C	WARNING LINE (MIN 50M)	

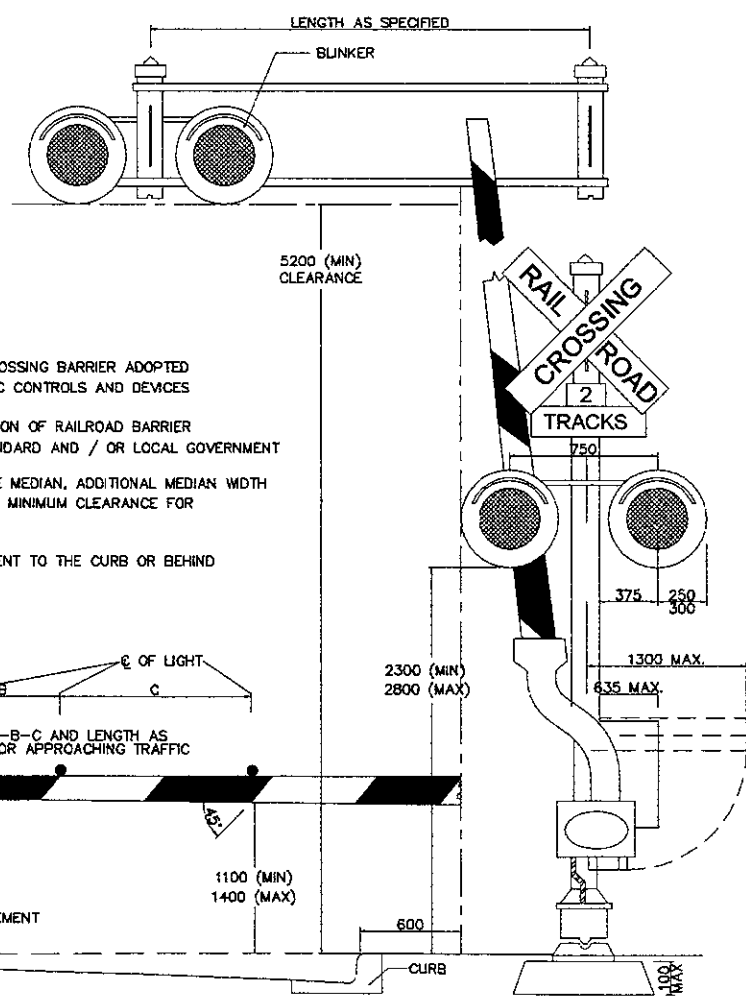
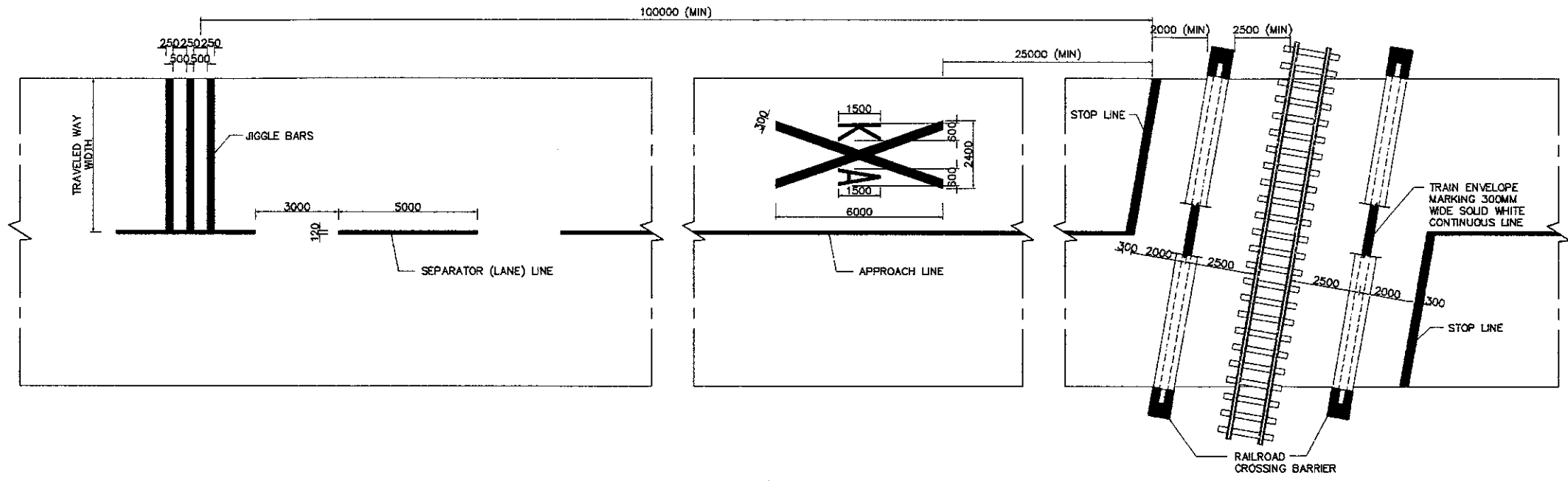
1 TYPES OF LINE MARKING
 SCALE 1:400



6 STOP LINE LOCATION AT PEDESTRIAN CROSSING
 SCALE 1:10

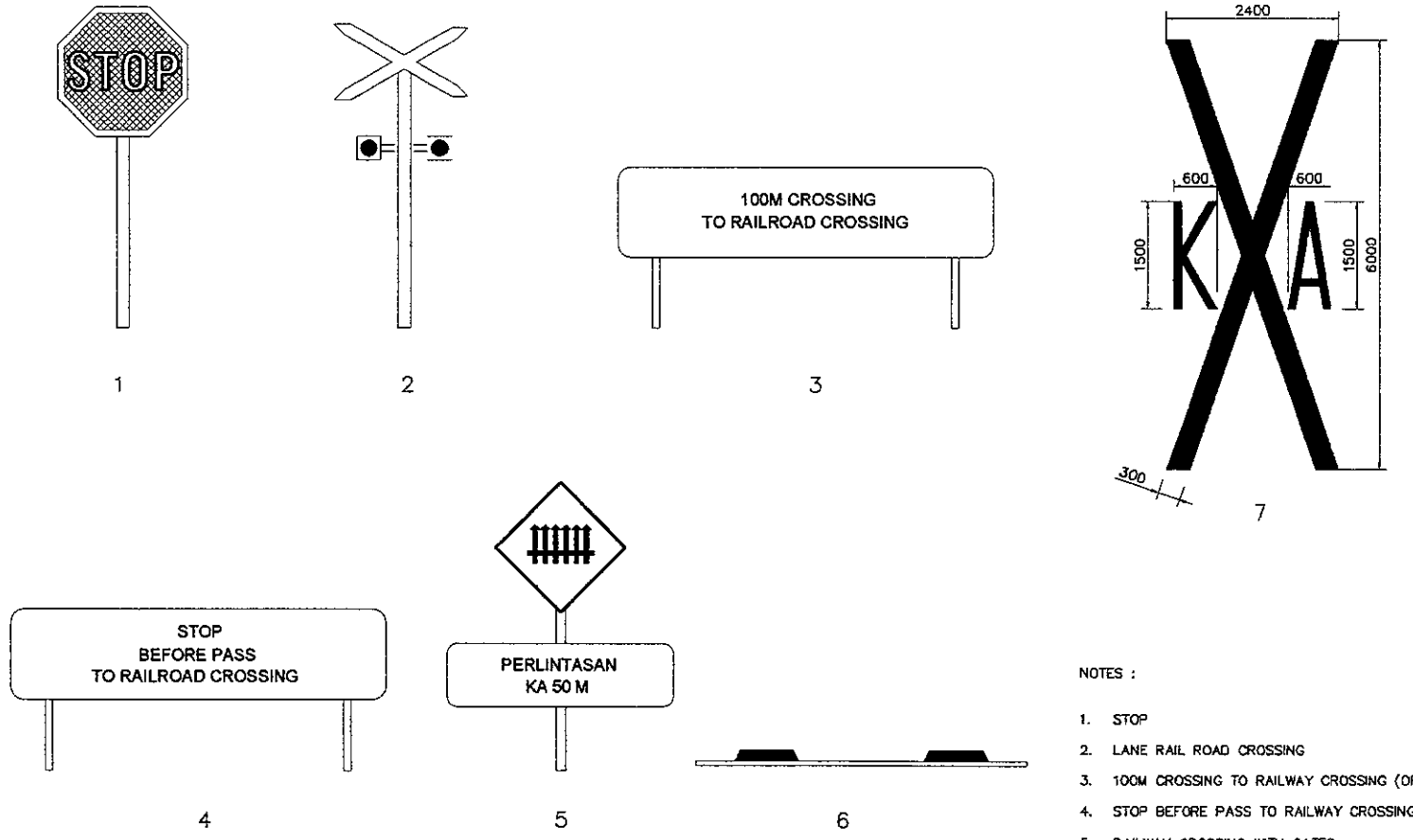
NOTES

- ROAD MARKINGS TO BE WHITE PAINT AND THE MATERIAL SHALL BE APPROVED BY THE ENGINEER
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SHOWN
- MARKING AT ALL LOCATIONS OF THE ROAD SHALL BE PROVIDED AS SHOWN IN THE DRAWINGS AND AS INSTRUCTED/ APPROVED BY THE ENGINEER
- PAVEMENT/ROAD MARKINGS SHOULD CONFORM WITH THE "DINAS PERHUBUNGAN LALU LINTAS DAN ANGGKUTAN JALAN SETEPAT"



NOTES :

1. TYPICAL EXAMPLE OF RAILROAD CROSSING BARRIER ADOPTED FROM MANUAL ON UNIFORM TRAFFIC CONTROLS AND DEVICES
2. DETAILED FABRICATION & INSTALLATION OF RAILROAD BARRIER SHOULD CONFORM TO PT. KAI STANDARD AND / OR LOCAL GOVERNMENT
3. WHERE GATES ARE LOCATED IN THE MEDIAN, ADDITIONAL MEDIAN WIDTH MAY BE REQUIRED TO PROVIDE THE MINIMUM CLEARANCE FOR THE COUNTERWEIGHT SUPPORT
4. SIDEWALK CAN BE LOCATED ADJACENT TO THE CURB OR BEHIND THE RAILWAY BARRIER



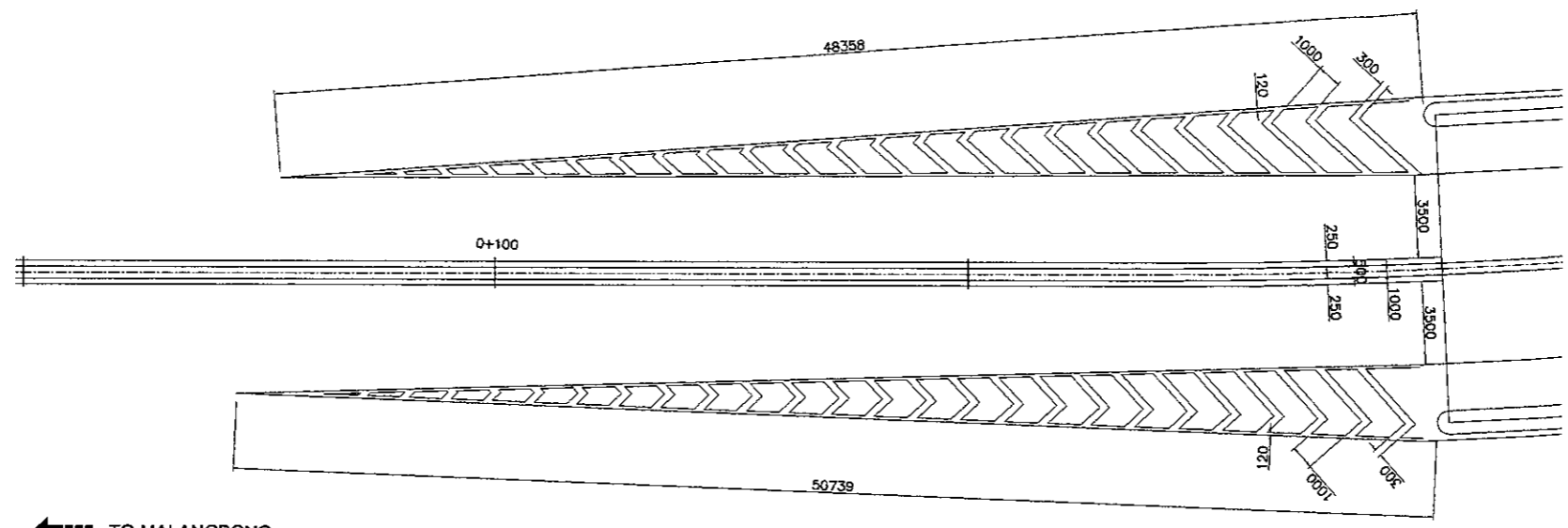
NOTES :

1. STOP
2. LANE RAIL ROAD CROSSING
3. 100M CROSSING TO RAILWAY CROSSING (OPTIONAL)
4. STOP BEFORE PASS TO RAILWAY CROSSING (OPTIONAL)
5. RAILWAY CROSSING WITH GATES
6. JIGGLE BARS
7. RAILROAD CROSSING

2 TYPICAL RAILROAD CROSSING GATE
 NOT TO SCALE

1 STANDARD SIGNS AND PAVEMENT MARKINGS AT RAILROAD CROSSING
 NOT TO SCALE

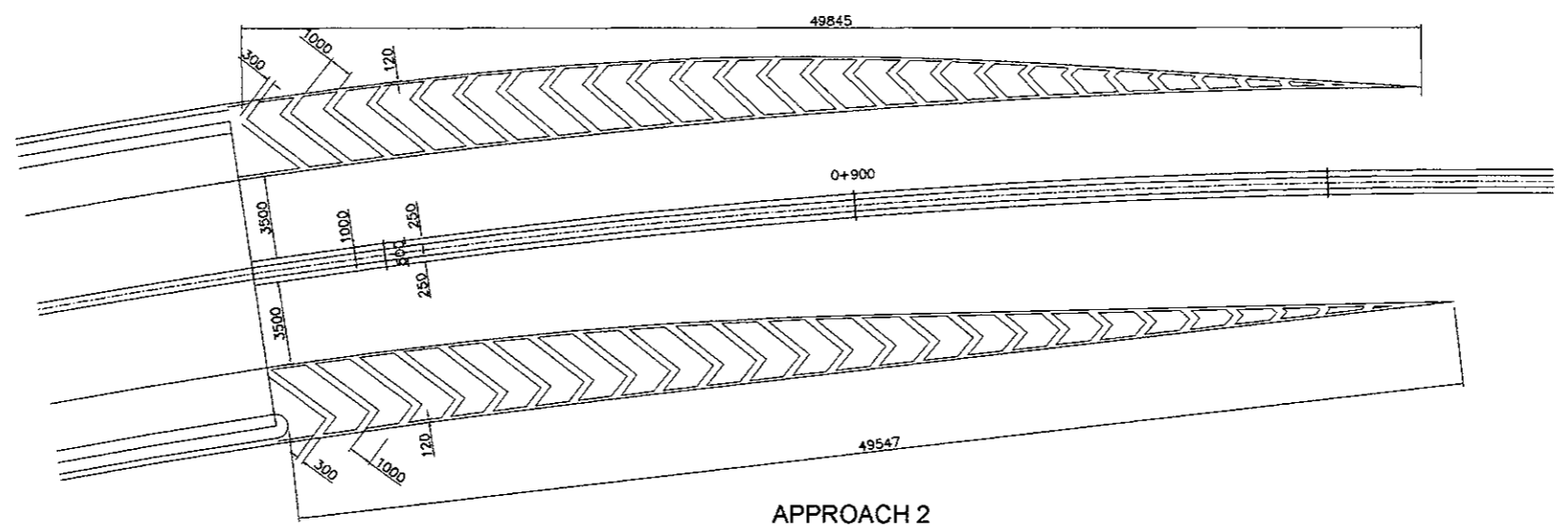
DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	R. UENO	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	



APPROACH 1

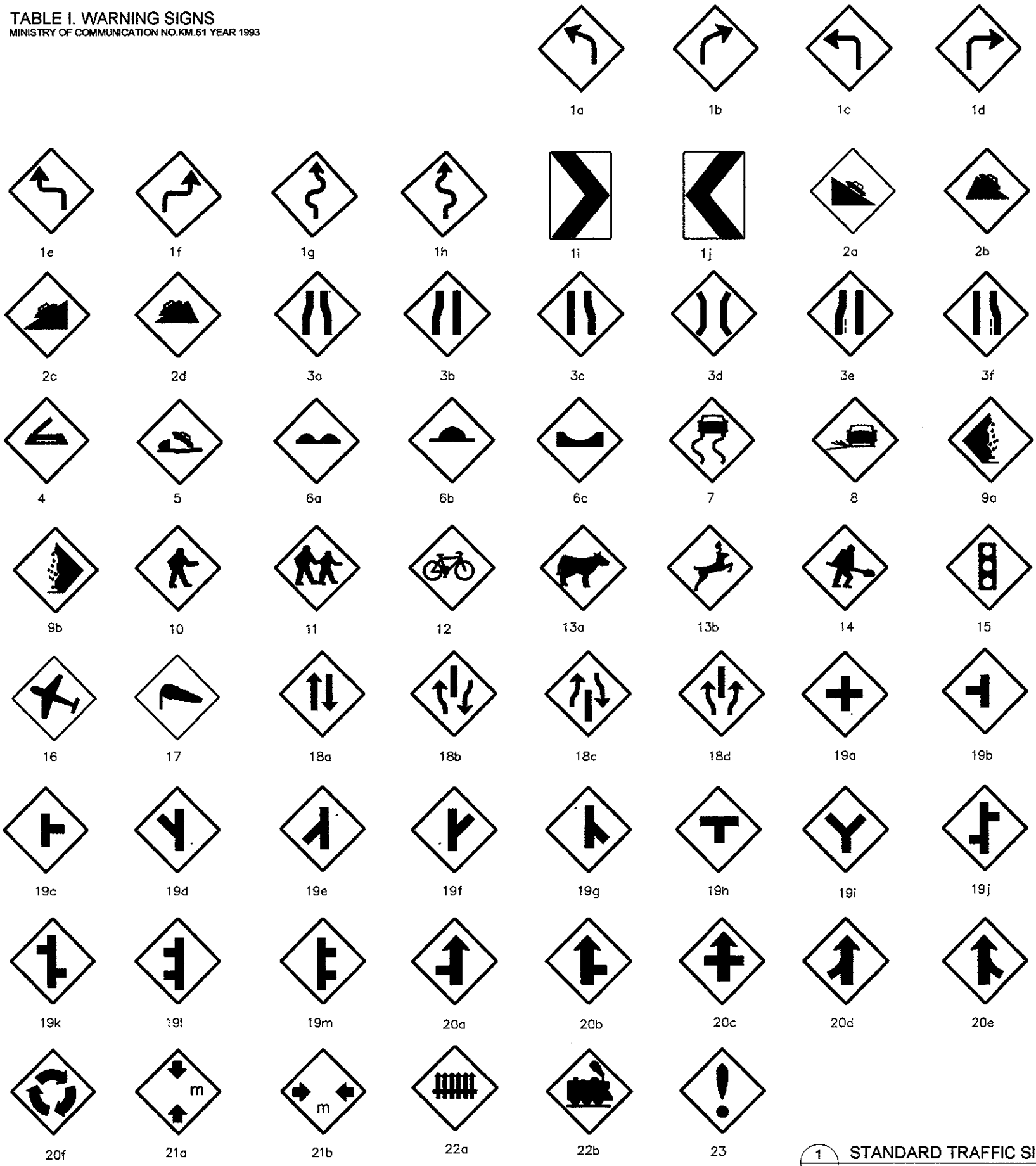
← TO MALANGBONG

TO BANDUNG →



APPROACH 2

TABLE I. WARNING SIGNS
 MINISTRY OF COMMUNICATION NO.KM.61 YEAR 1993



- 1a. LEFT CURVE
- 1b. RIGHT CURVE
- 1c. SHARP LEFT CURVE
- 1d. SHARP RIGHT CURVE
- 1e. DOUBLE CURVE, BEGIN WITH LEFT CURVE
- 1f. DOUBLE CURVE, BEGIN WITH RIGHT CURVE
- 1g. MANY CURVES, BEGIN WITH LEFT CURVE
- 1h. MANY CURVES, BEGIN WITH RIGHT CURVE
- 1i. RIGHT CURVE
- 1j. LEFT CURVE
- 2a. DOWN GRADE
- 2b. DOWN GRADE SHARP
- 2c. UP GRADE
- 2d. UP GRADE SHARP
- 3a. CHANGING OF ROAD WIDTH
- 3b. CHANGING OF ROAD WIDTH LEFT
- 3c. CHANGING OF ROAD WIDTH RIGHT
- 3d. CHANGING OF ROAD WIDTH AT BRIDGE
- 3e. MERGER OF LEFT LANE TO RIGHT LANE
- 3f. MERGER OF RIGHT LANE TO LEFT LANE
- 4. LIFT BRIDGE
- 5. WHARF
- 6a. CONDITIONAL OF ROAD PROFILE IS NOT EVEN
- 6b. CONDITIONAL OF ROAD PROFILE IS CONVEX
- 6c. CONDITIONAL OF ROAD PROFILE IS CONCAVE
- 7. SLIPPERY
- 8. MANY GRAVEL'S
- 9a. FALLING ROCKS FROM LEFT
- 9b. FALLING ROCKS FROM RIGHT
- 10. WATCH FOR PEDESTRIAN
- 11. WATCH FOR CHILDREN
- 12. WATCH FOR BICYCLE
- 13a. WATCH FOR CATTLE
- 13b. WATCH FOR WILD LIFE
- 14. ROAD WORK
- 15. TRAFFIC CONTROL LIGHTS
- 16. PLANE TRAJECTORY
- 17. WIND FROM SIDE COURSE
- 18a. TWO WAY TRAFFIC
- 18b. BEGINNING OF SEPARATOR ON TWO WAY TRAFFIC
- 18c. END OF SEPARATOR ON TWO WAY TRAFFIC
- 18d. BEGINNING OF SEPARATOR ON ONE WAY TRAFFIC
- 19a. CROSS ROAD
- 19b. INTERSECTION FROM LEFT DIRECTION TRAFFIC
- 19c. INTERSECTION FROM RIGHT DIRECTION TRAFFIC
- 19d. INTERSECTION FROM FRONT LEFT DIRECTION TRAFFIC
- 19e. INTERSECTION FROM BACK LEFT DIRECTION TRAFFIC
- 19f. INTERSECTION FROM FRONT RIGHT DIRECTION TRAFFIC
- 19g. INTERSECTION FROM BACK RIGHT DIRECTION TRAFFIC
- 19h. T-TYPE INTERSECTION
- 19i. Y-TYPE INTERSECTION
- 19j. TWO INTERSECTION, BEGIN FROM LEFT DIRECTION TRAFFIC AND THEN RIGHT DIRECTION TRAFFIC
- 19k. TWO INTERSECTION, BEGIN FROM RIGHT DIRECTION TRAFFIC AND THEN LEFT DIRECTION TRAFFIC
- 19l. TWO INTERSECTION, BOTH OF THEM FROM LEFT DIRECTION TRAFFIC
- 19m. TWO INTERSECTION, BOTH OF THEM FROM RIGHT DIRECTION TRAFFIC
- 20a. CROSSROAD WITH PRIORITY
- 20b. INTERSECTION FROM LEFT DIRECTION TRAFFIC WITH PRIORITY
- 20c. INTERSECTION FROM RIGHT DIRECTION TRAFFIC WITH PRIORITY
- 20d. INTERSECTION FROM BACK LEFT DIRECTION TRAFFIC WITH PRIORITY
- 20e. INTERSECTION FROM BACK RIGHT DIRECTION TRAFFIC WITH PRIORITY
- 21a. HEIGHT OF FREE SPACE
- 21b. WIDTH OF FREE SPACE
- 22a. RAIL ROAD CROSSING WITH GATES
- 22b. RAIL ROAD CROSSING WITHOUT GATES
- 23. LOOK OUT

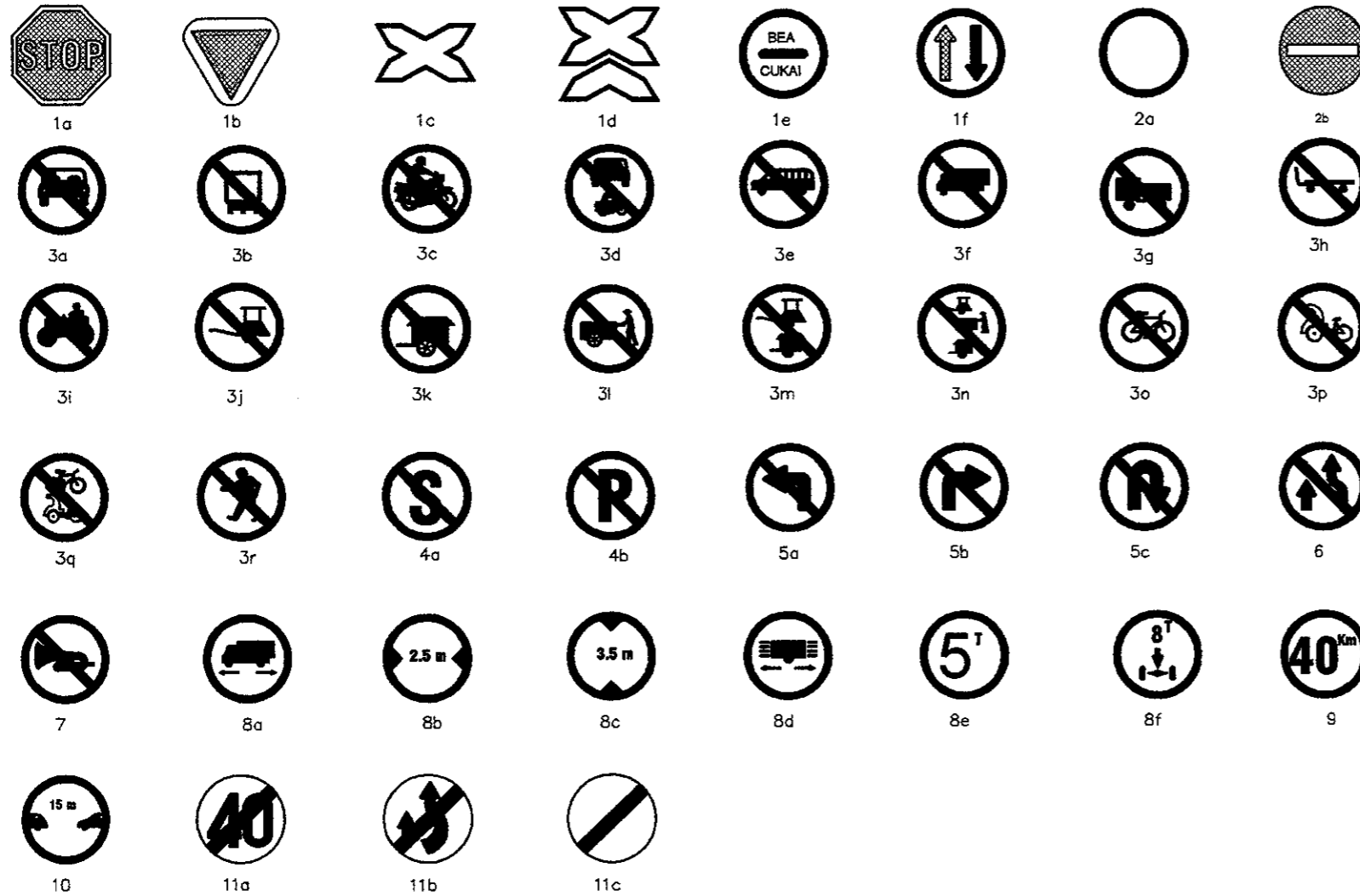
COLOR LEGEND :

	YELLOW
	BLACK

NOTE :

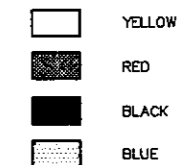
STANDARD TRAFFIC ROAD SIGNS SHOULD CONFORM WITH THE "DINAS PERHUBUNGAN LALU LINTAS DAN ANGKUTAN JALAN SETEMPAT"

TABLE II A. PROHIBITION SIGN
 MINISTRY OF COMMUNICATION NO.KM.61 YEAR 1993



- 1a. STOP
- 1b. GIVE WAY, YIELD
- 1c. ONE LANERAIL ROAD CROSSING
- 1d. TWO LANERAIL ROAD CROSSING
- 1e. STOP FOR INVESTIGATION CONCERN WITH 'BEA CUKAI'
- 1f. PRIORITY FOR VEHICLES FROM BOTH DIRECTION
- 2a. NO ENTRY FOR ALL VEHICLES FROM BOTH DIRECTIONS
- 2b. NO ENTRY FOR ALL VEHICLES
- 3a. NO ENTRY FOR FOUR WHEEL MOTORIZED VEHICLES
- 3b. NO ENTRY FOR THREE WHEEL MOTORIZED VEHICLES
- 3c. NO ENTRY FOR TWO WHEEL MOTORIZED VEHICLES
- 3d. NO ENTRY FOR ALL MOTORIZED VEHICLES
- 3e. NO ENTRY FOR BUS
- 3f. NO ENTRY FOR TRUCK
- 3g. NO ENTRY FOR MOTORIZED VEHICLE WITH PULL A CART
- 3h. NO ENTRY FOR TRAILER
- 3i. NO ENTRY FOR ROLLER
- 3j. NO ENTRY FOR CARRIAGE
- 3k. NO ENTRY FOR OXCART
- 3l. NO ENTRY FOR PUSHCART
- 3m. NO ENTRY FOR CARRIAGE AND OXCART
- 3n. NO ENTRY FOR CARRIAGE, PUSHCART AND OXCART
- 3o. NO ENTRY FOR BICYCLE
- 3p. NO ENTRY FOR TRICYCLE
- 3q. NO ENTRY FOR BICYCLE AND TRICYCLE
- 3r. NO ENTRY FOR PEDESTRIAN
- 4a. NO STOPPING
- 4b. NO PARKING
- 5a. TURN TO LEFT PROHIBITION (NO LEFT TURN)
- 5b. TURN TO RIGHT PROHIBITION (NO RIGHT TURN)
- 5c. CHANGE OF COURSE PROHIBITION (NO U-TURN)
- 6. NO OVERTAKE
- 7. NO HORN
- 8a. LENGTH LIMIT FOR MOTORIZED VEHICLE
- 8b. WIDTH LIMIT
- 8c. HEIGHT LIMIT
- 8d. LENGHT LIMIT FOR CART
- 8e. WEIGHT LIMIT FOR CART
- 8f. WEIGHT LIMIT
- 9. SPEED LIMIT
- 10. DISTANCE LIMIT
- 11a. END OF SPEED LIMIT AREA
- 11b. END OF NO OVERTAKE AREA
- 11c. END OF PROHIBITION AREA

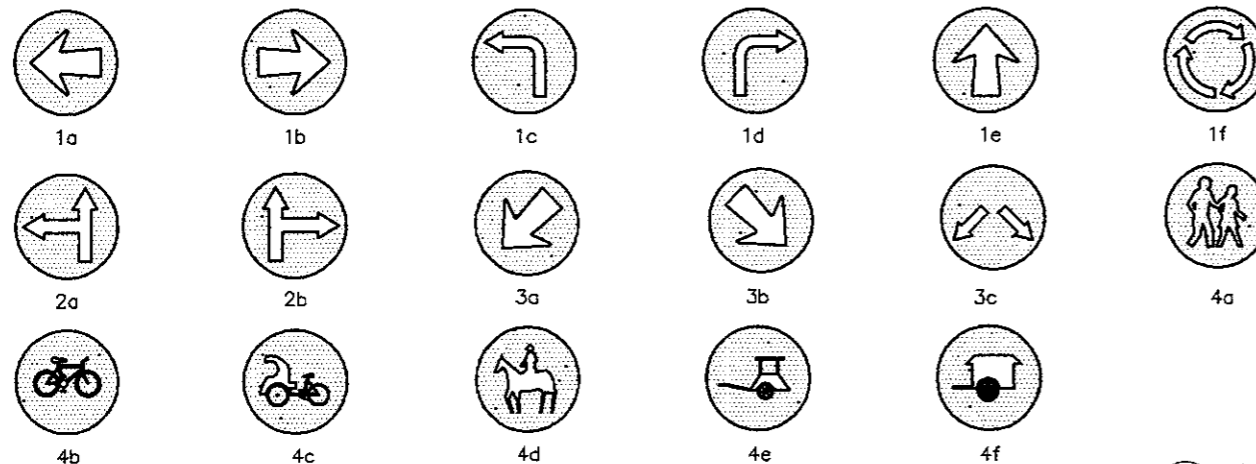
COLOR LEGEND :



NOTE :

STANDARD TRAFFIC ROAD SIGNS SHOULD CONFORM WITH THE " DINAS PERHUBUNGAN LALU LINTAS DAN ANGKUTAN JALAN SETEMPAT "

TABLE II B. INSTRUCTION SIGN



- 1a. INDICATION OF DIRECTION TO LEFT
- 1b. INDICATION OF DIRECTION TO RIGHT
- 1c. TURNING INDICATION TO LEFT
- 1d. TURNING INDICATION TO RIGHT
- 1e. MUST BE RUN IN A STRAIGHT LINE
- 1f. MUST BE FOLLOW THE ARROW POINTS WHILE ON TRAFFIC ROTARY
- 2a. MUST BE FOLLOW ONE OF THE ARROW POINTS
- 2b. MUST BE FOLLOW ONE OF THE ARROW POINTS
- 3a. MUST PASS THIS LANE
- 3b. MUST PASS THIS LANE
- 3c. MUST PASS IN ONE OF THESE LANES
- 4a. FOR PEDESTRIANS
- 4b. FOR BICYCLES
- 4c. FOR TRICYCLES
- 4d. FOR HORSE
- 4e. FOR CARRIAGE
- 4f. FOR OXCART