

MINISTRY OF
TRANSPORT AND INFRASTRUCTURE
(MTI)

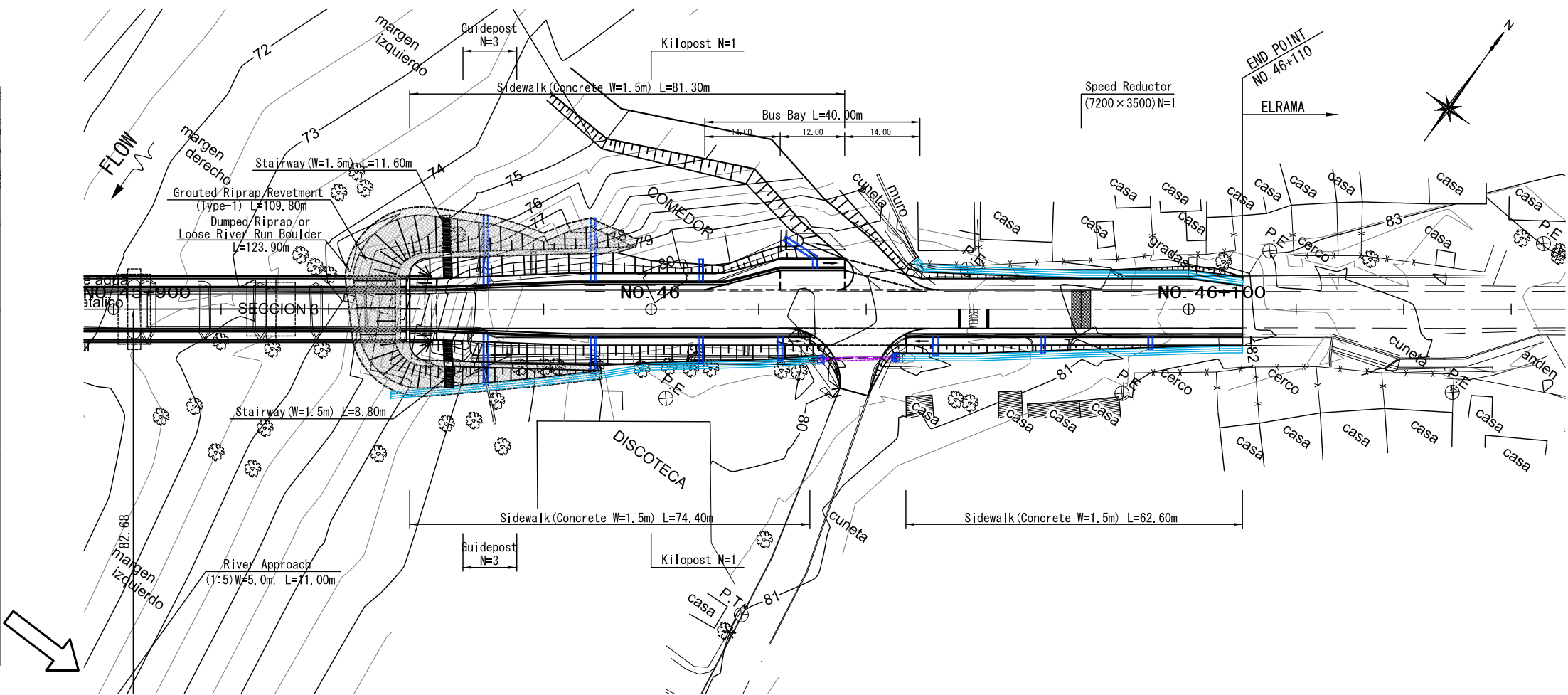
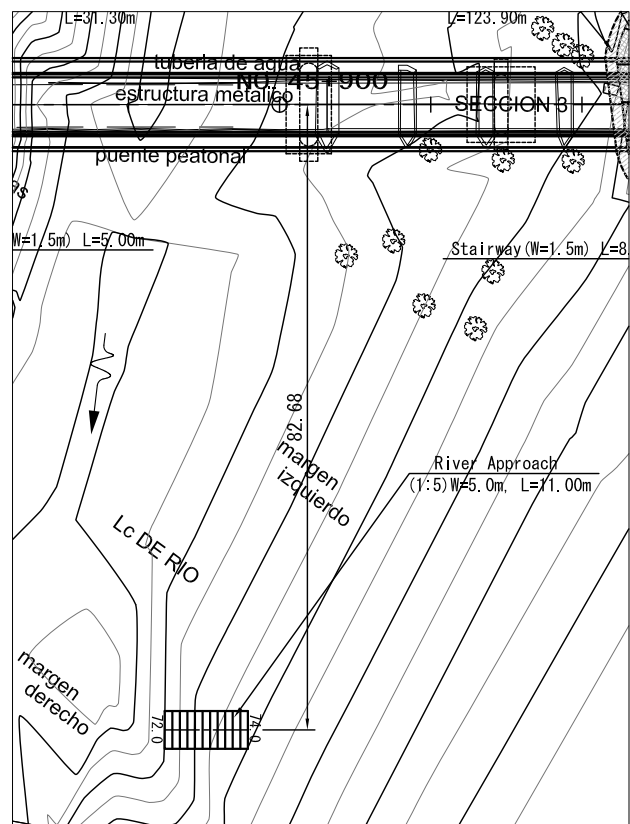
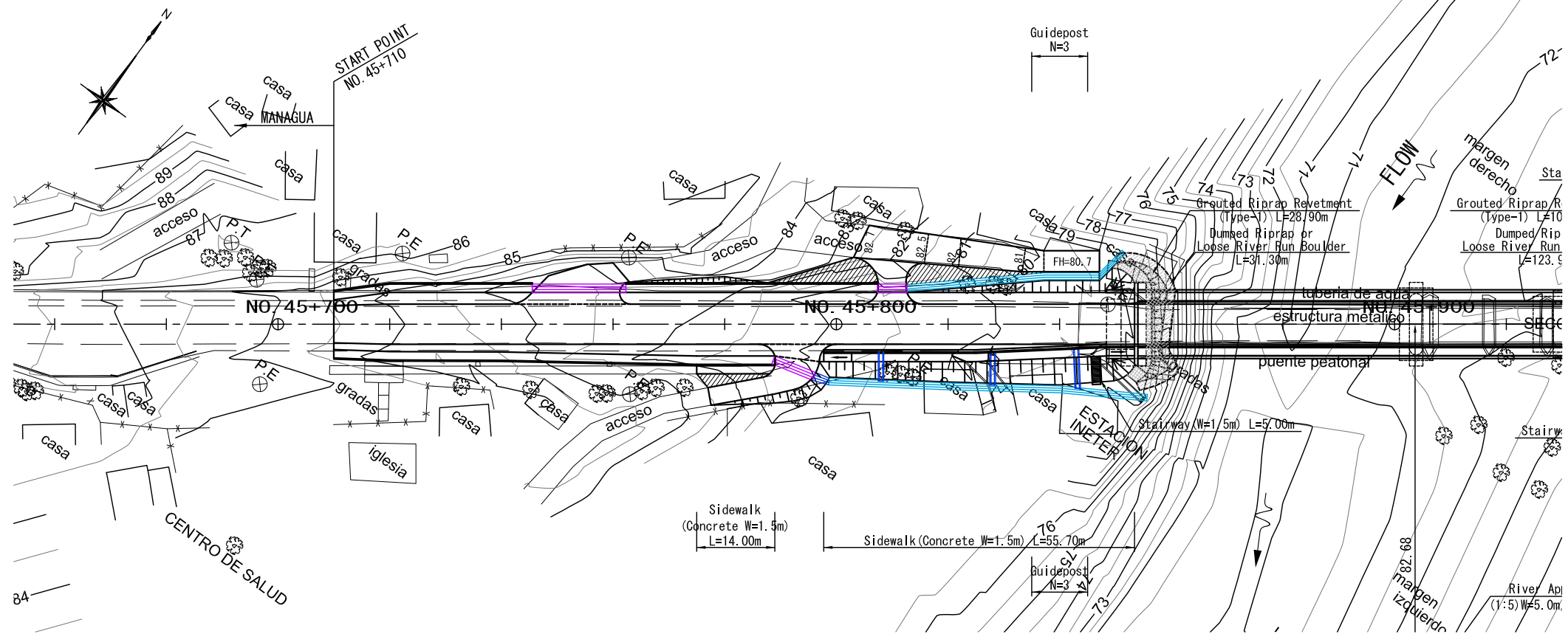
THE PREPATORY STUDY ON
THE PROJECT FOR RECONSTRUCTION OF BRIDGES
ON MANAGUA - EL RAMA ROAD
IN THE REPUBLIC OF NICARAGUA

JAPAN INTERNATIONAL COOPERATION AGENCY
CTI ENGINEERING INTERNATIONAL CO., LTD.

TITLE :
PLAN OF APPROACH ROAD
(DRAINAGE FACILITIES)

SCALE(A1size)
S=1:500

Drawing No.
LB-09



MINISTRY OF
TRANSPORT AND INFRASTRUCTURE
(MTI)

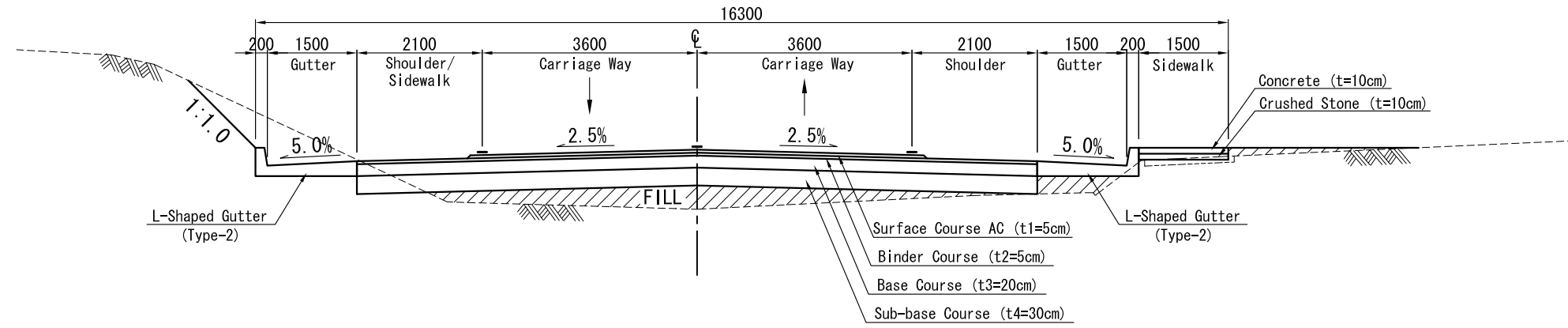
THE PREPATORY STUDY ON
THE PROJECT FOR RECONSTRUCTION OF BRIDGES
ON MANAGUA - EL RAMA ROAD
IN THE REPUBLIC OF NICARAGUA

JAPAN INTERNATIONAL COOPERATION AGENCY
CTI ENGINEERING INTERNATIONAL CO., LTD.

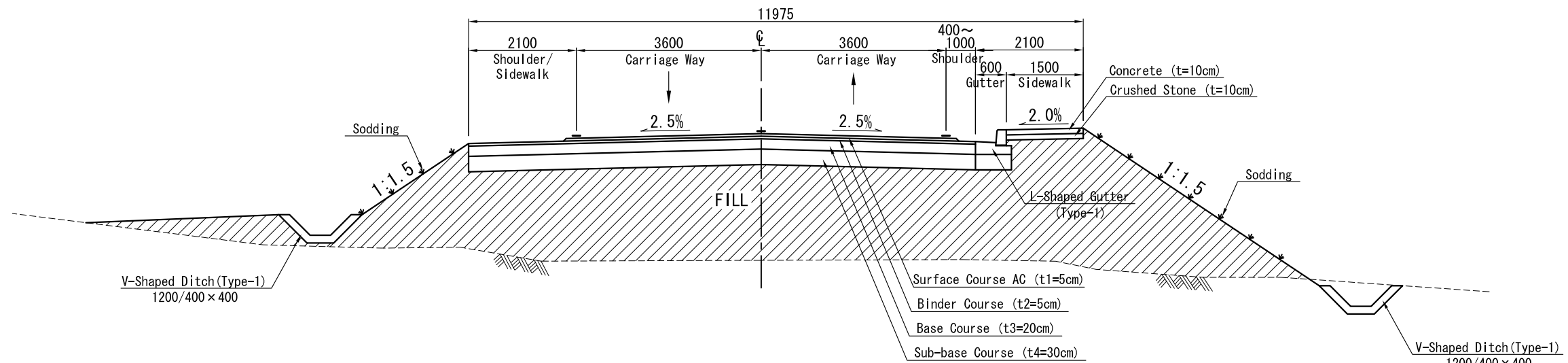
TITLE :
PLAN OF APPROACH ROAD
(ROAD ANCILLARY WORKS)

SCALE(A1size)
S=1:500

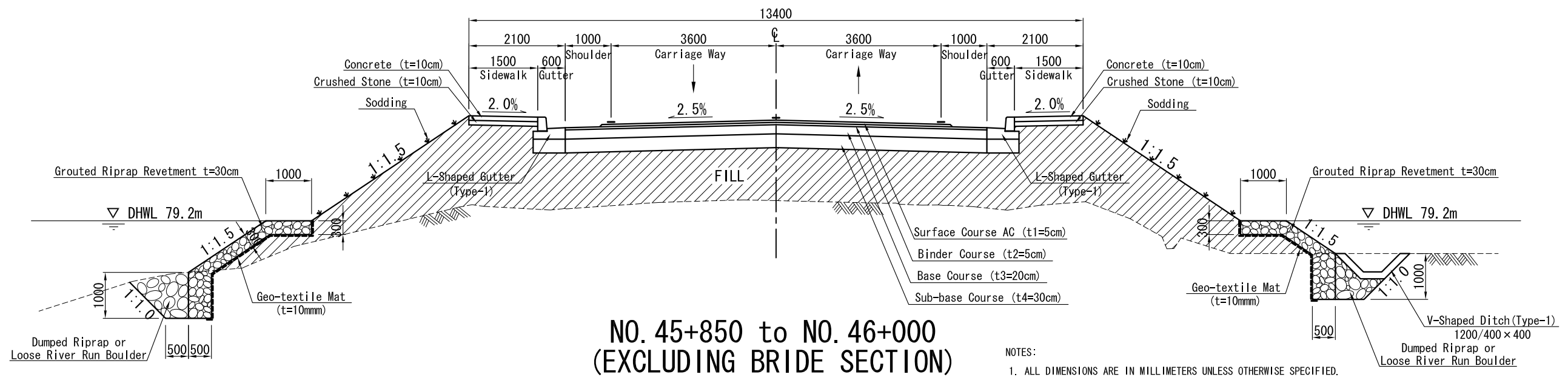
Drawing No.
LB-10



NO. 45+710 to NO. 45+800



NO. 45+800 to NO. 45+850 , NO. 46+000 to NO. 46+110

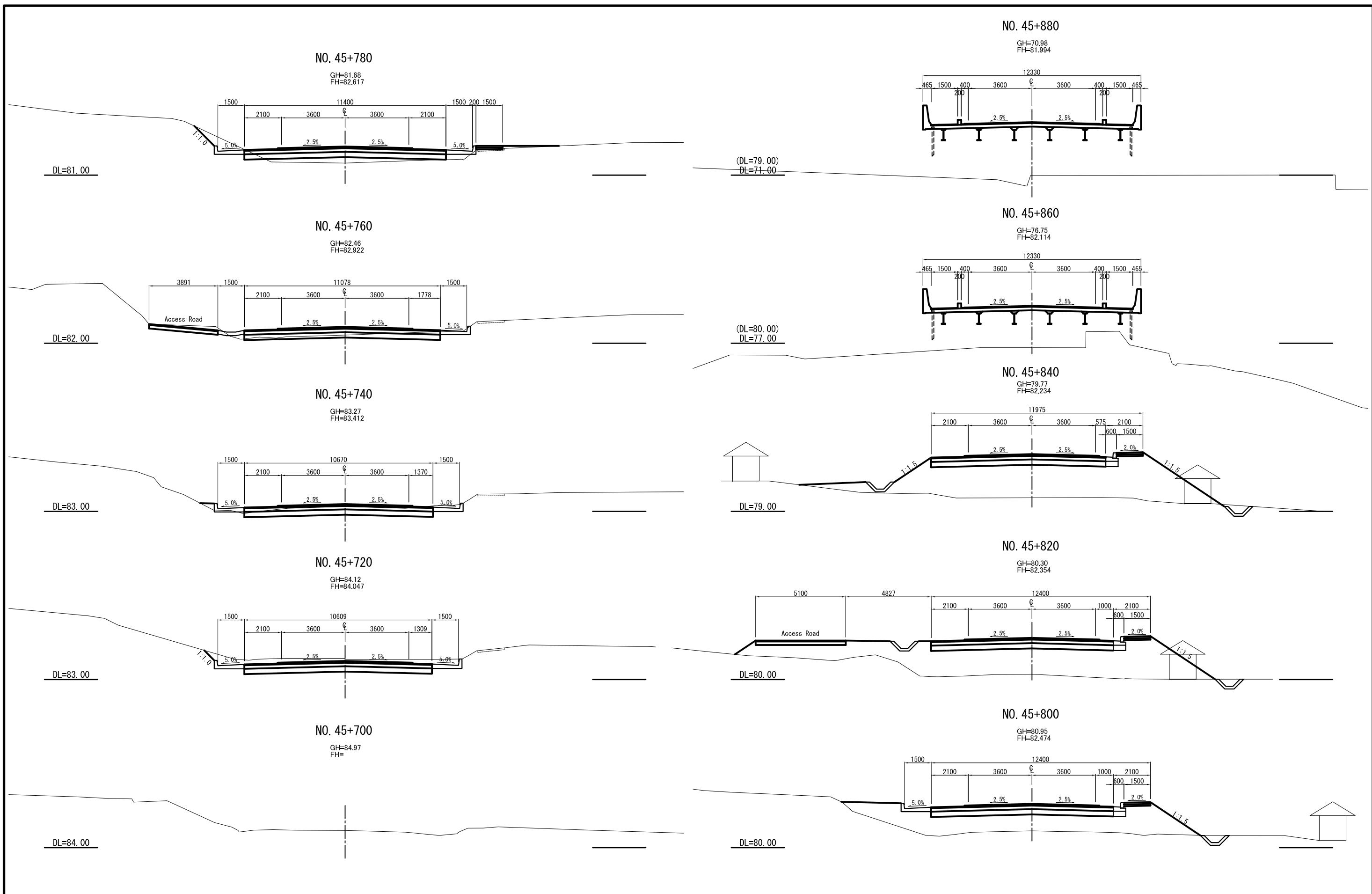


NO. 45+850 to NO. 46+000
(EXCLUDING BRIDE SECTION)

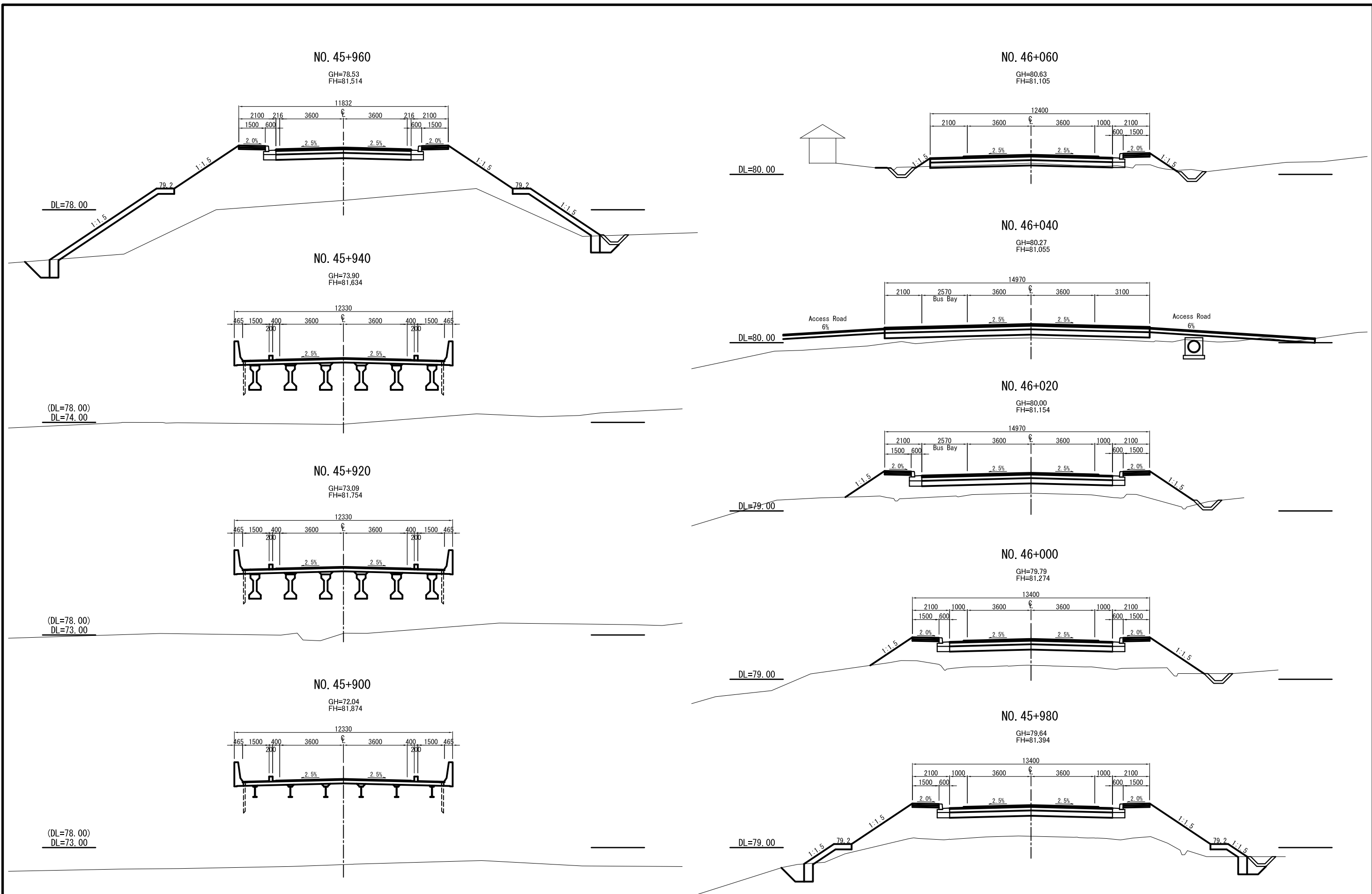
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. ASPHALT OF THE EXISTING ROAD WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED COMPLETELY.
3. CEMENT MORTAR FOR GROUTED RIPRAP REVETMENT , GUTTER AND DITCHES SHALL BE ONE PART PORTLAND CEMENT AND THREE PARTS SAND.

<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : TYPICAL CROSS SECTION OF APPROACH ROAD</p>	<p>SCALE(A1size) S=1:50</p>	<p>Drawing No. LB-11</p>
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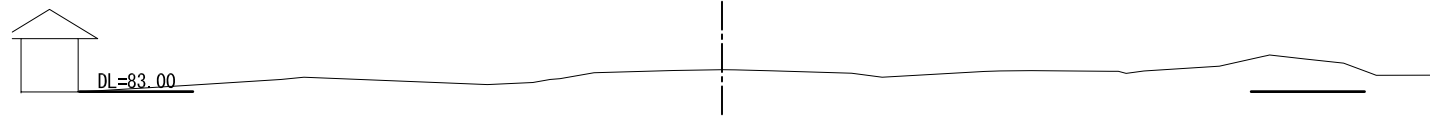
<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : CROSS SECTION OF APPROACH ROAD (1/3)</p>	<p>SCALE(A1size) S=1:100</p>	<p>Drawing No. LB-12</p>
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<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : CROSS SECTION OF APPROACH ROAD (2/3)</p>	<p>SCALE(A1size) S=1:100</p>	<p>Drawing No. LB-13</p>
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NO. 46+160

GH=83.58
FH=



NO. 46+140

GH=82.97
FH=



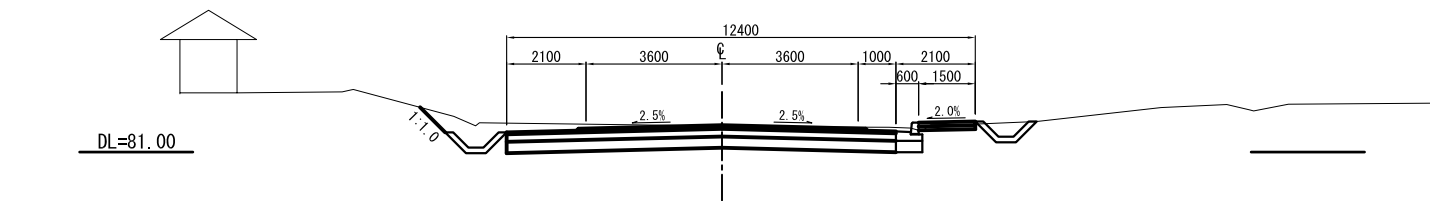
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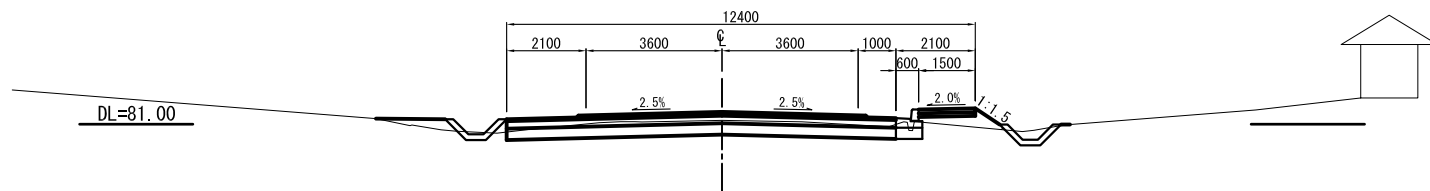
NO. 46+100

GH=81.69
FH=81.712



NO. 46+080

GH=81.10
FH=81.324



MINISTRY OF
TRANSPORT AND INFRASTRUCTURE
(MTI)

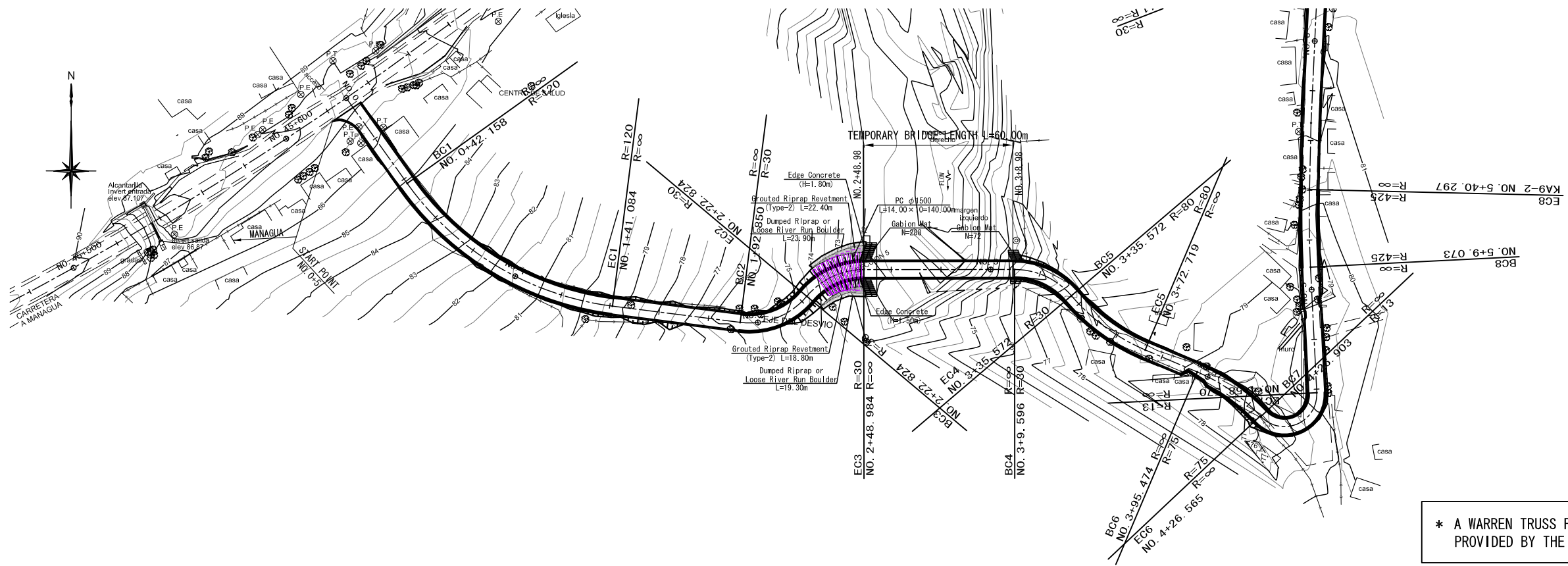
THE PREPATORY STUDY ON
THE PROJECT FOR RECONSTRUCTION OF BRIDGES
ON MANAGUA - EL RAMA ROAD
IN THE REPUBLIC OF NICARAGUA

JAPAN INTERNATIONAL COOPERATION AGENCY
CTI ENGINEERING INTERNATIONAL CO., LTD.

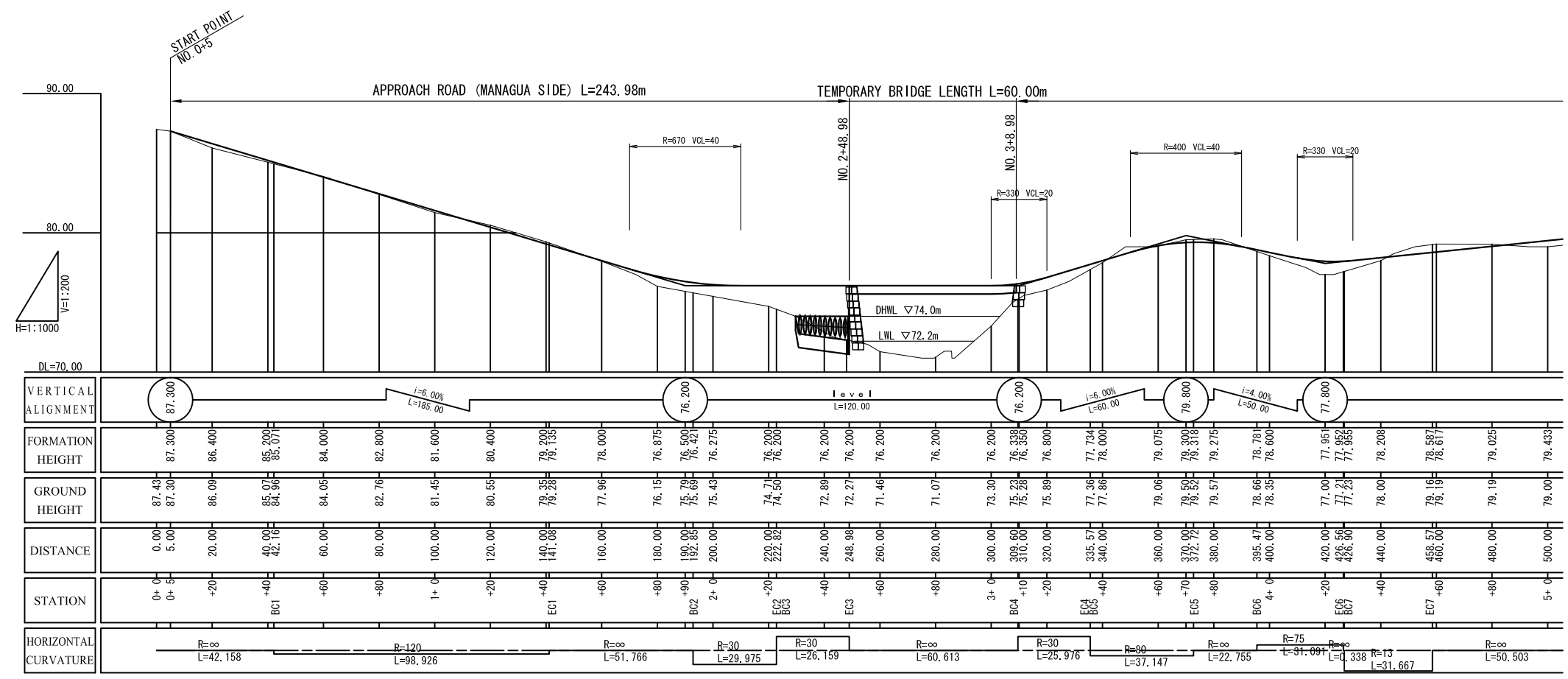
TITLE :
CROSS SECTION OF APPROACH ROAD (3/3)

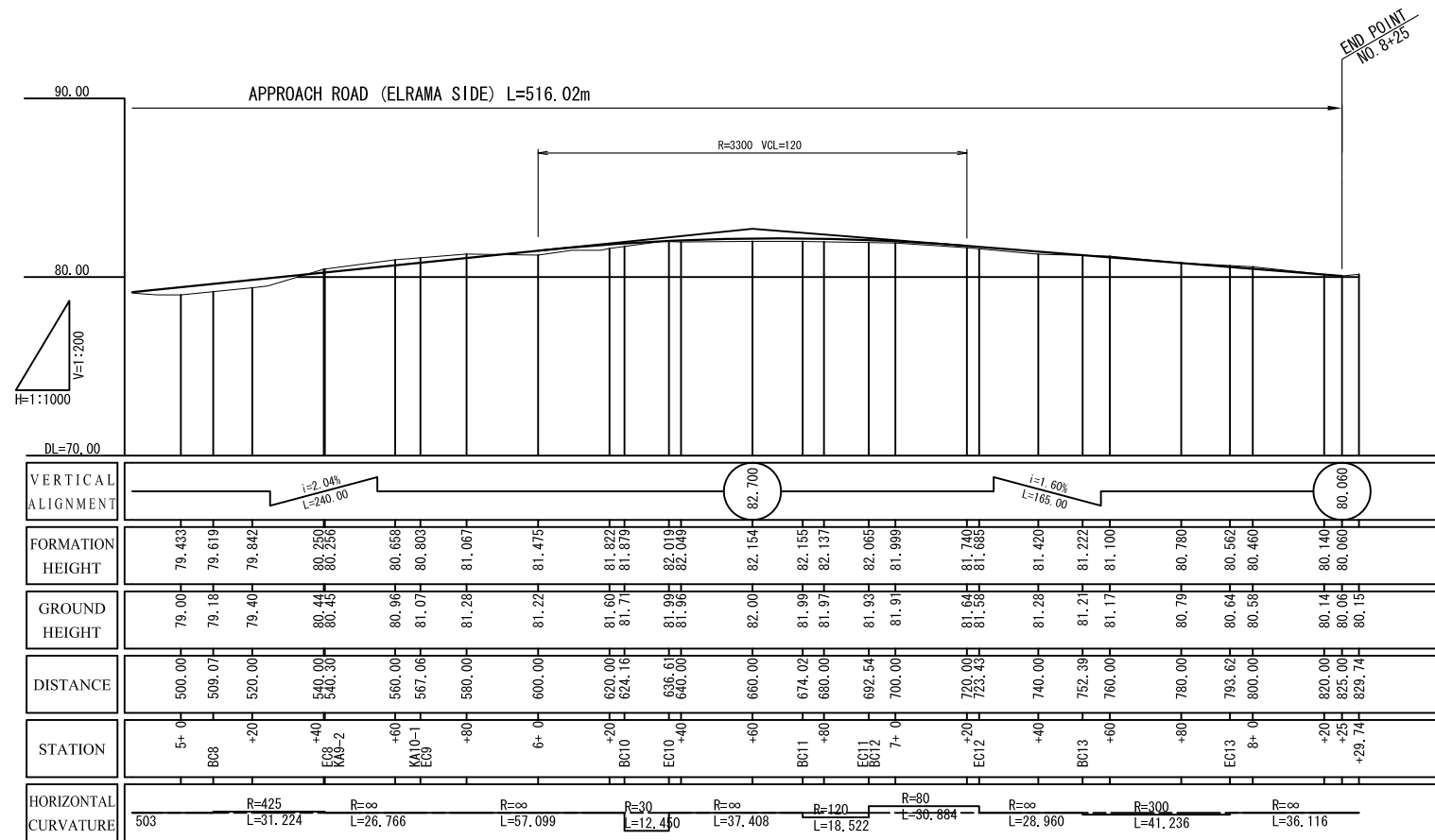
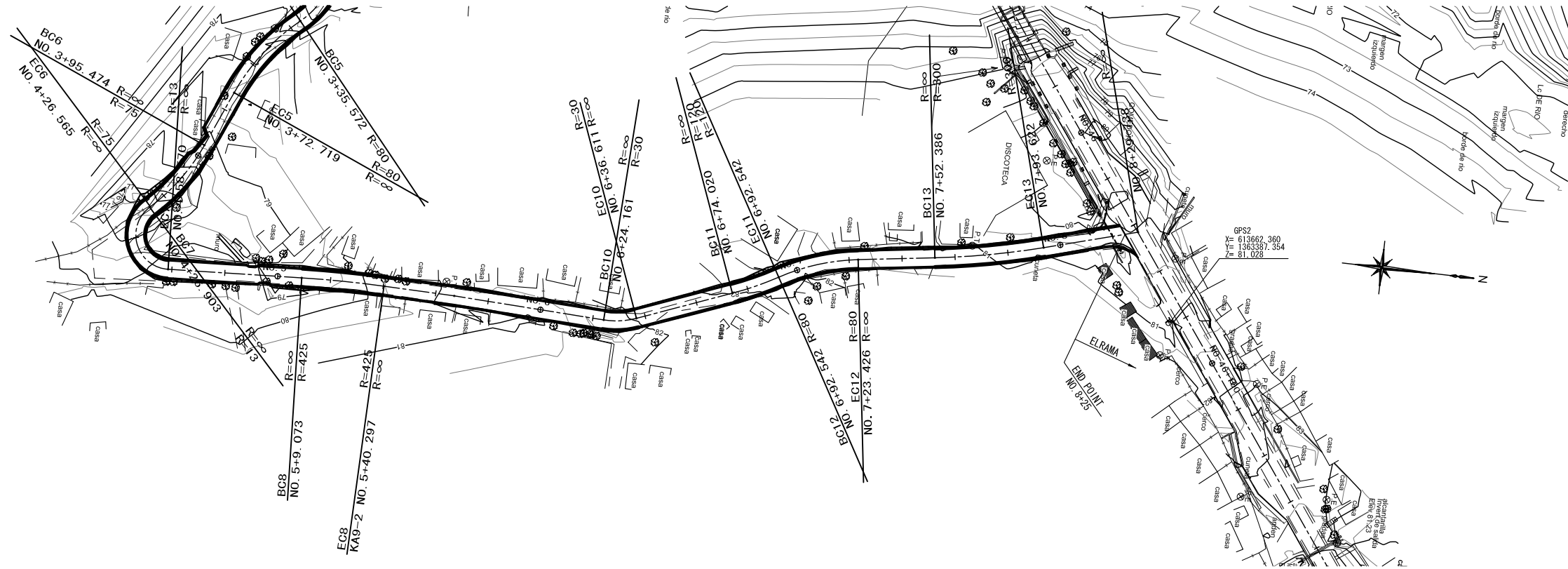
SCALE(A1size)
S=1:100

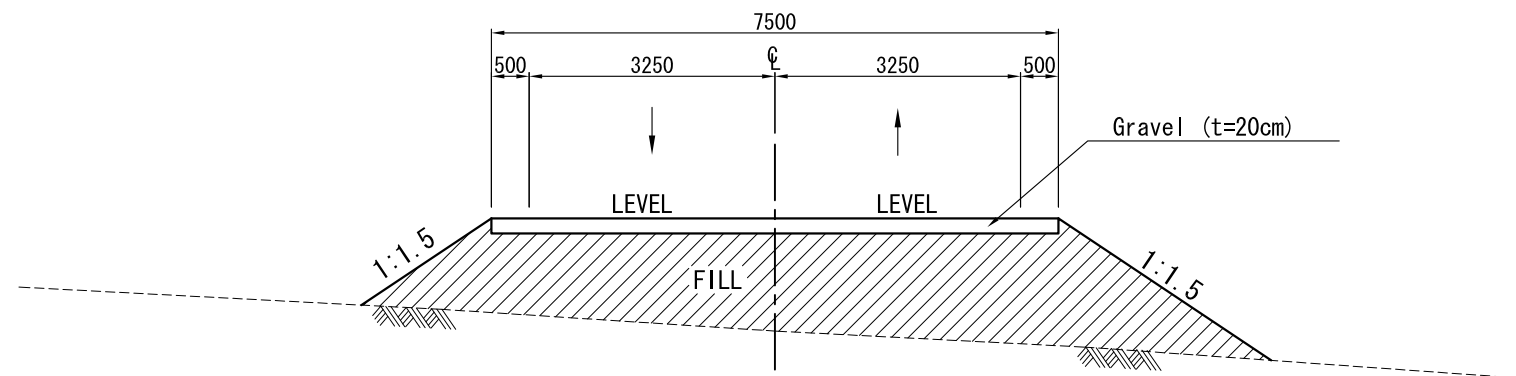
Drawing No.
LB-14



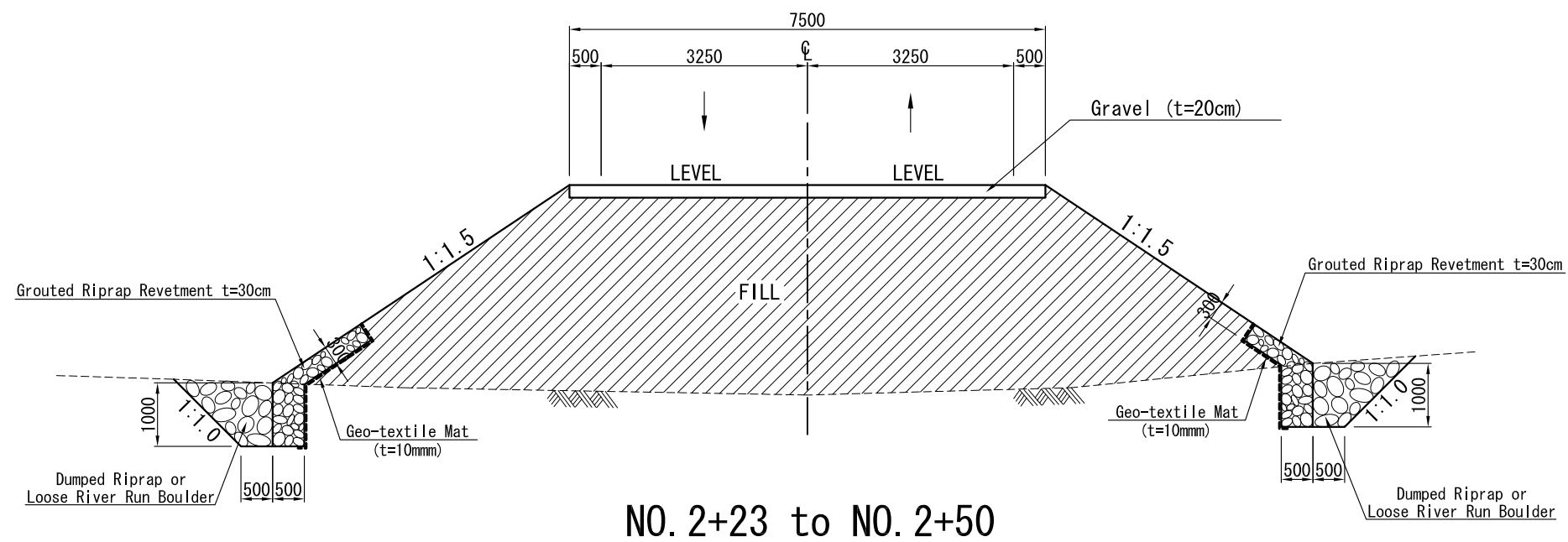
* A WARREN TRUSS FOR THE TEMPORARY BRIDGE SHALL BE PROVIDED BY THE NICARAGUA GOVERNMENT







NO. 0+5 to NO. 2+23 , NO. 2+50 to NO. 8+25
(EXCLUDING BRIDE SECTION)

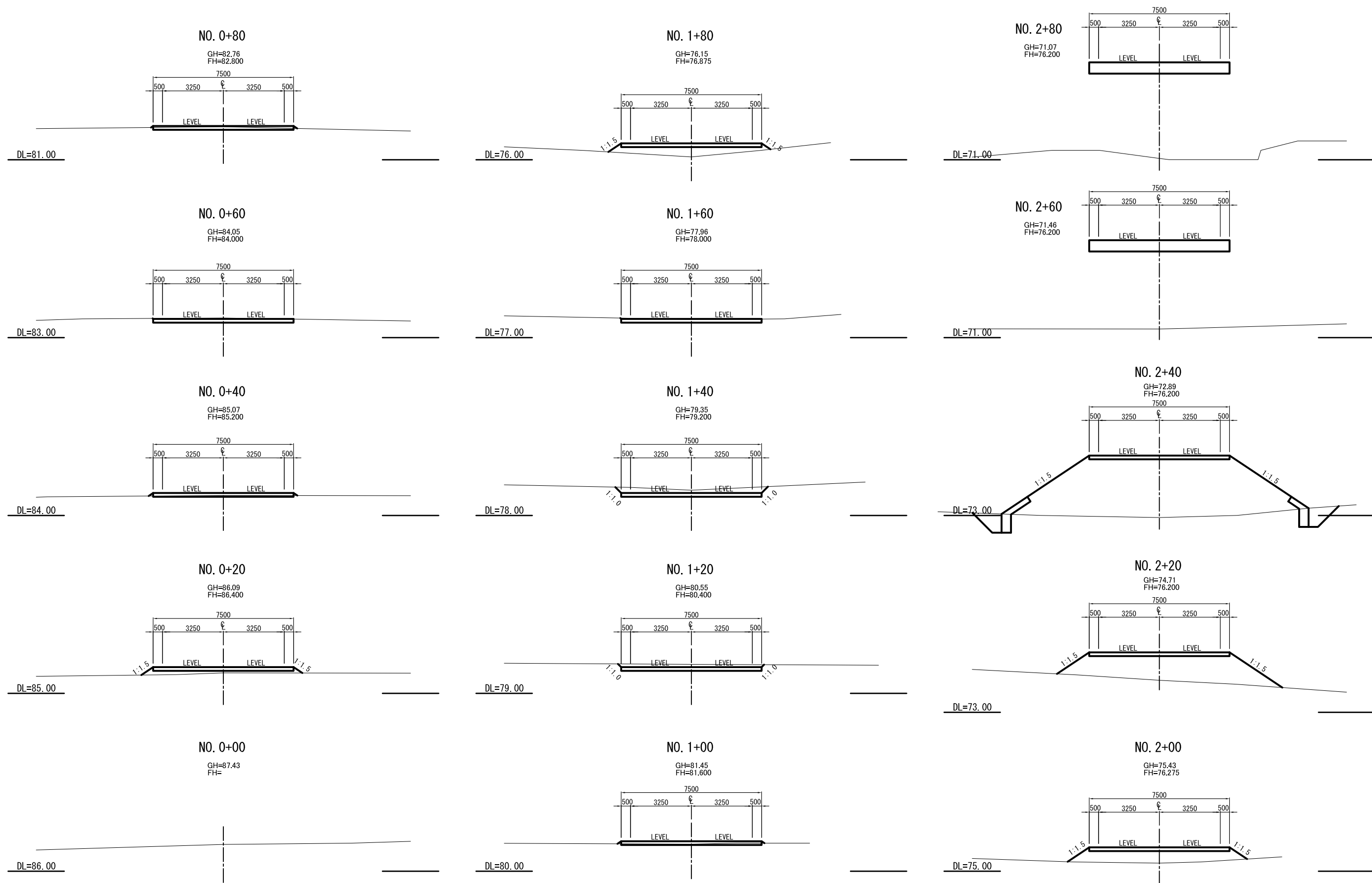


NO. 2+23 to NO. 2+50

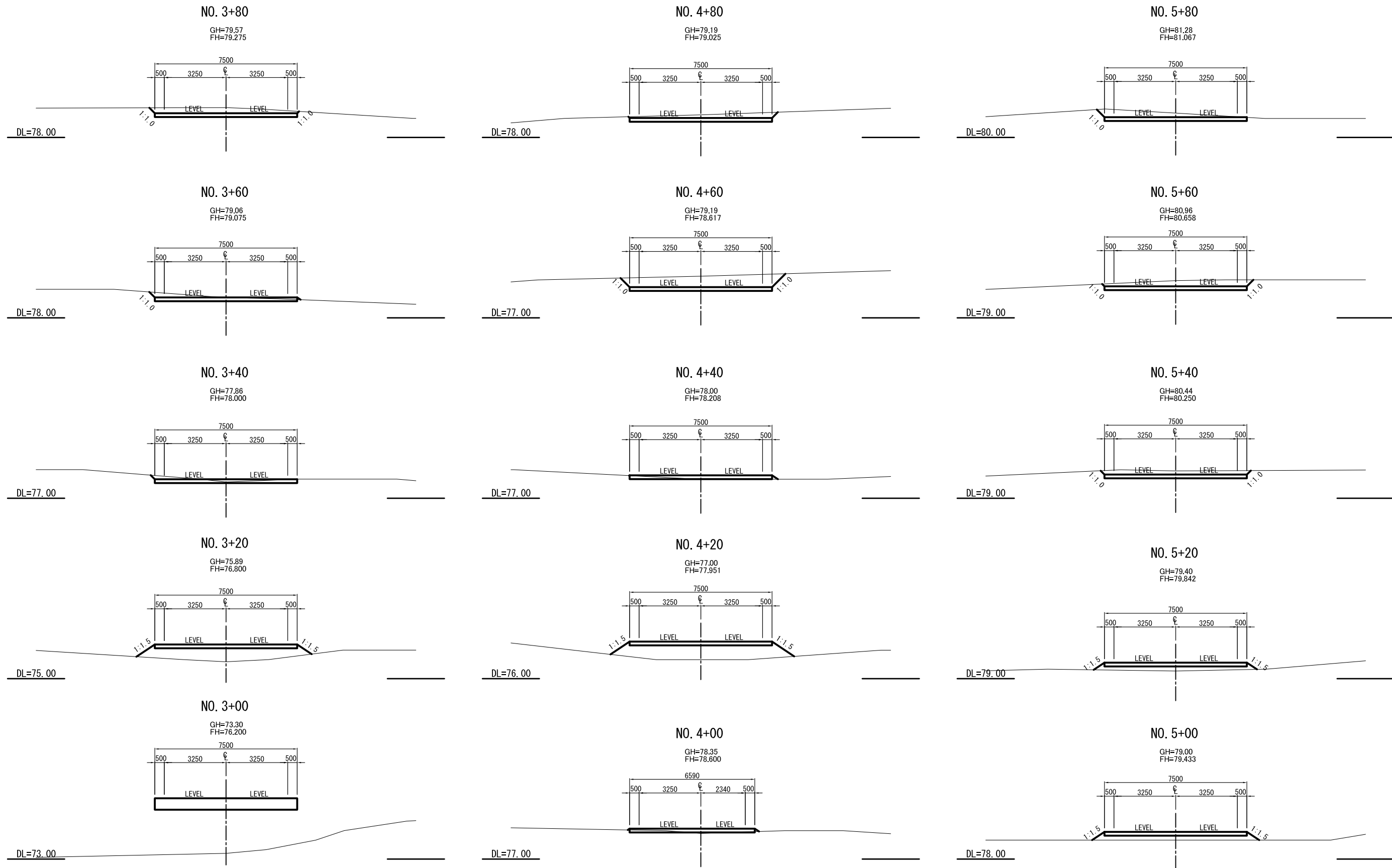
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. CEMENT MORTAR FOR GROUTED RIPRAP REVETMENT SHALL BE ONE PART PORTLAND CEMENT AND THREE PARTS SAND.

MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : TYPICAL CROSS SECTION OF DETOUR	SCALE(A1size) S=1:50	Drawing No. LB-17
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<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : CROSS SECTION OF DETOUR (1/3)</p>	<p>SCALE(A1size) S=1:100</p>	<p>Drawing No. LB-18</p>
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MINISTRY OF
TRANSPORT AND INFRASTRUCTURE
(MTI)

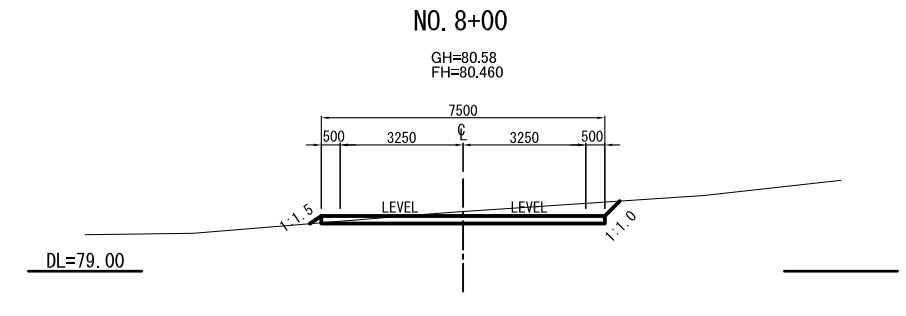
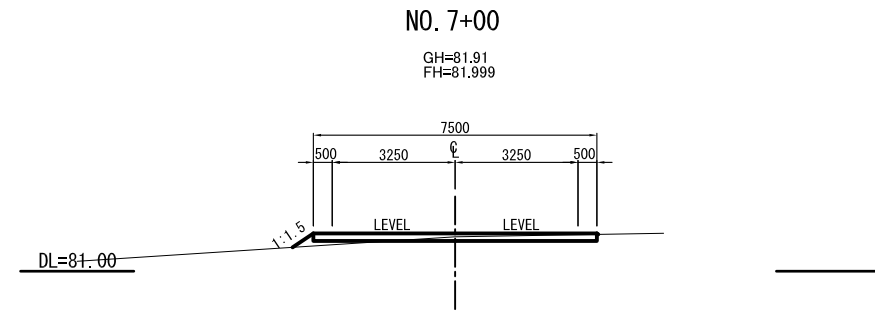
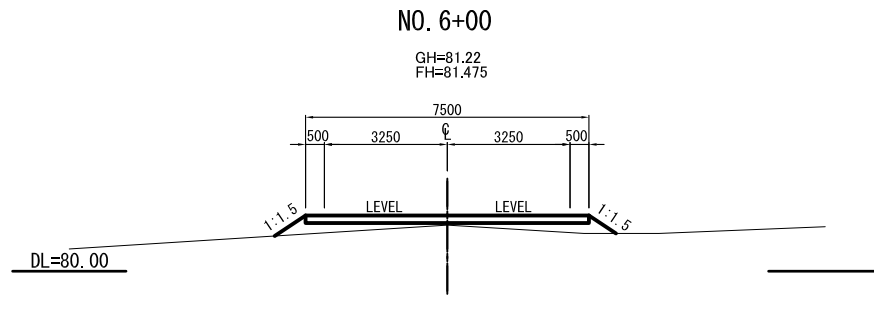
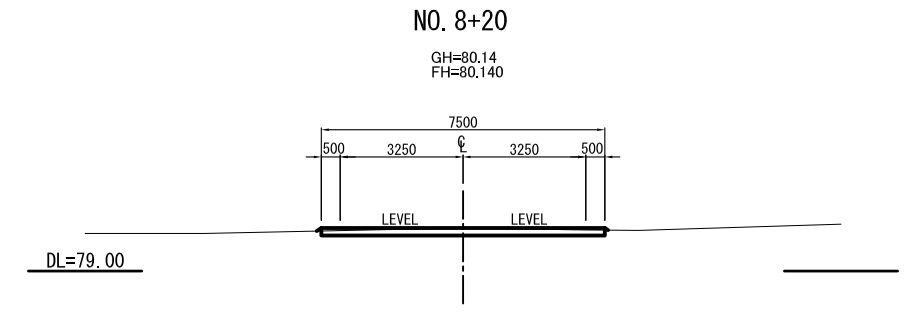
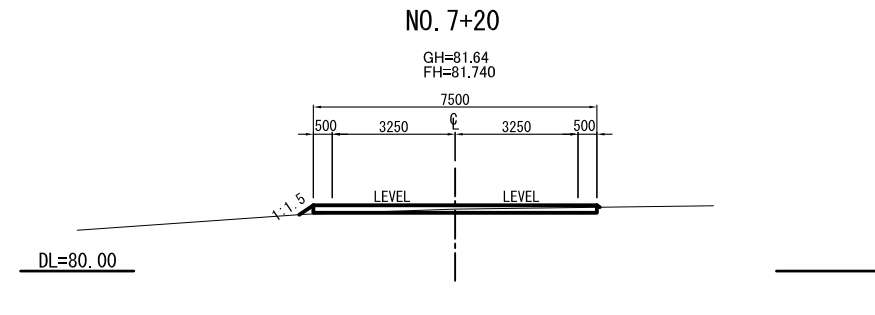
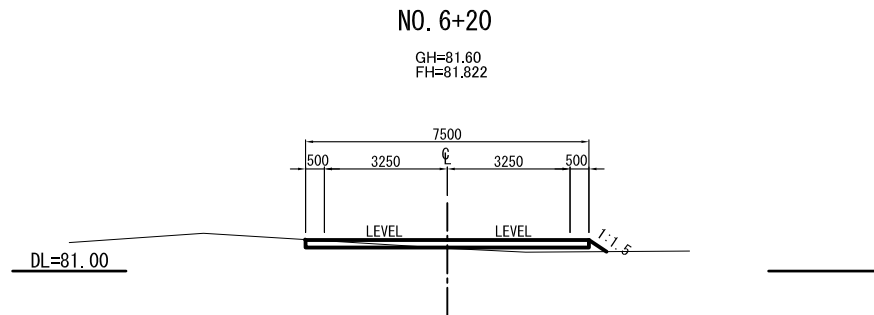
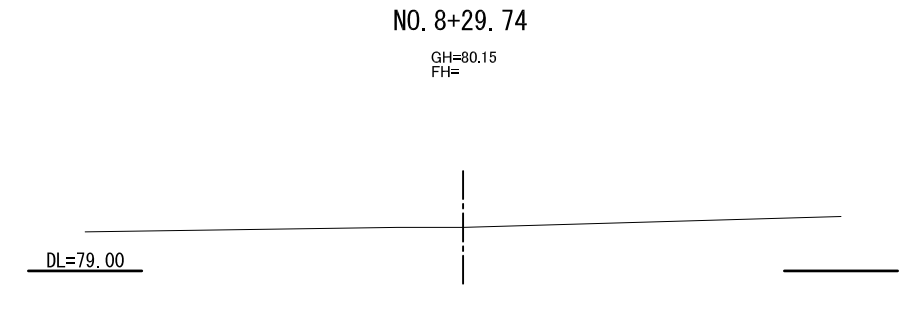
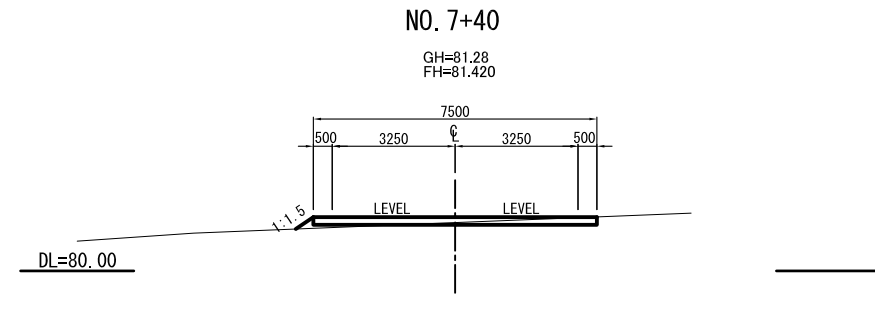
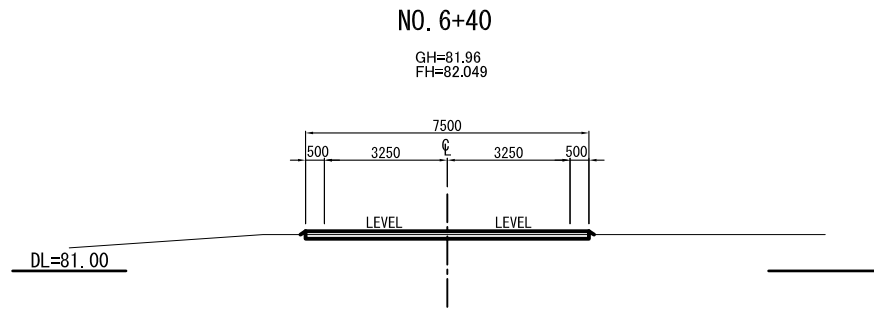
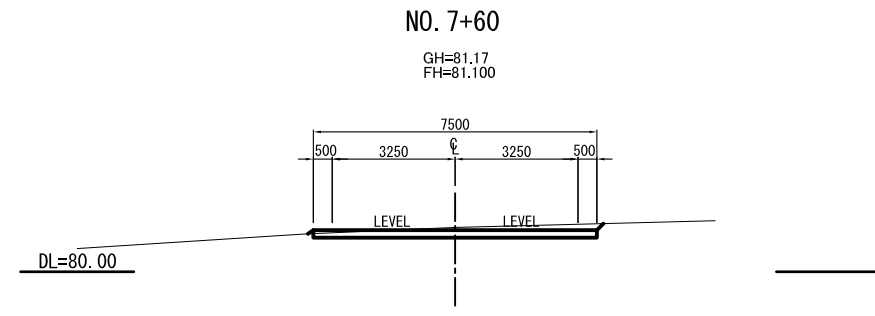
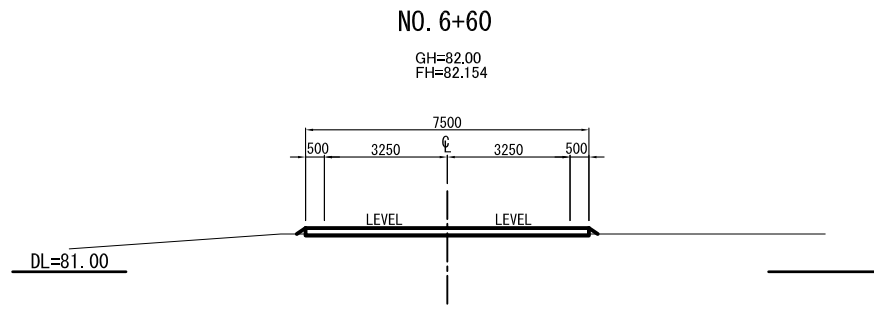
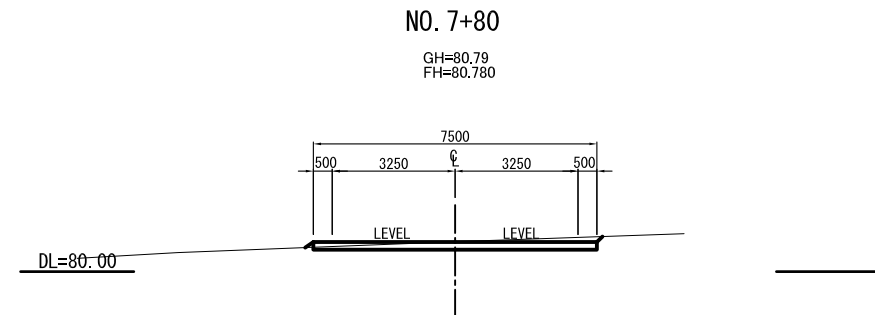
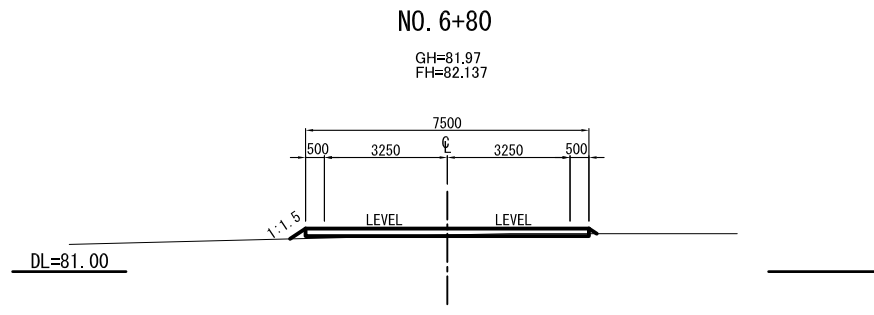
THE PREPARATORY STUDY ON
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IN THE REPUBLIC OF NICARAGUA

JAPAN INTERNATIONAL COOPERATION AGENCY
CTI ENGINEERING INTERNATIONAL CO., LTD.

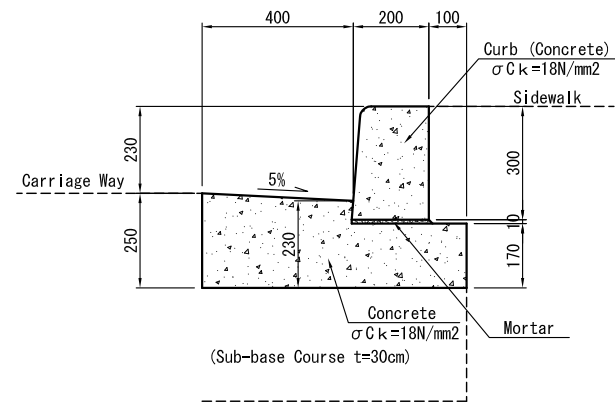
TITLE :
CROSS SECTION OF DETOUR (2/3)

SCALE(A1size)
S=1:100

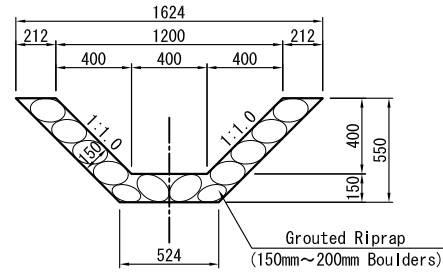
Drawing No.
LB-19



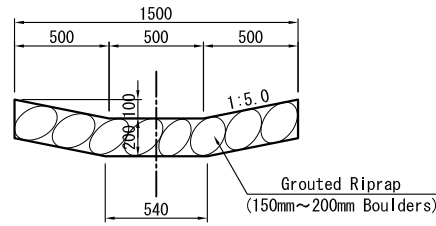
<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : CROSS SECTION OF DETOUR (3/3)</p>	<p>SCALE(A1size) S=1:100</p>	<p>Drawing No. LB-20</p>
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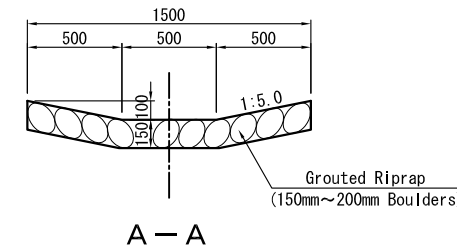
L-SHAPED GUTTER (Type-1) S=1:10



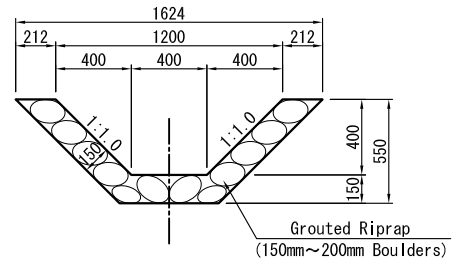
V-SHAPED DITCH (Type-1) S=1:20



V-SHAPED DITCH (Type-2) S=1:20

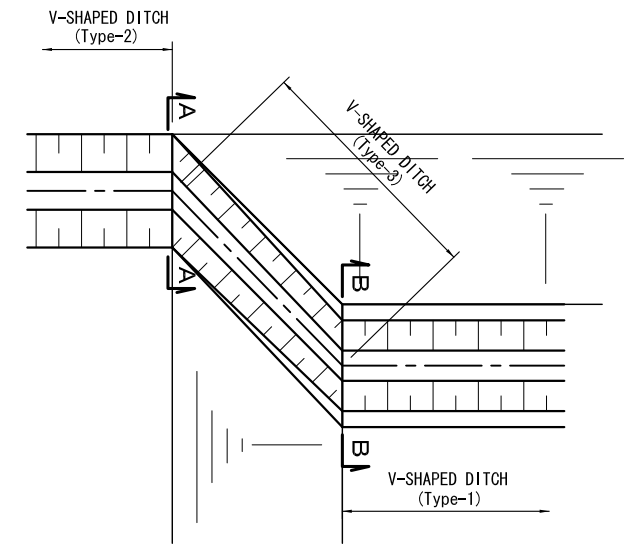


A - A



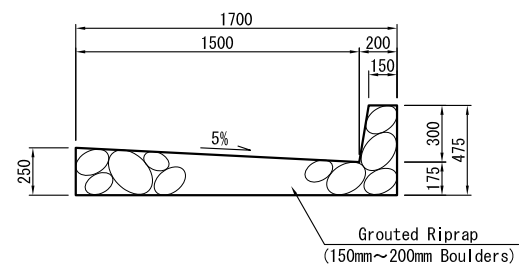
B - B

SECTION S=1:20

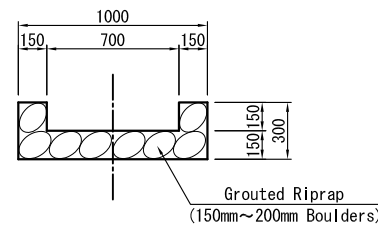


PLAN S=1:50

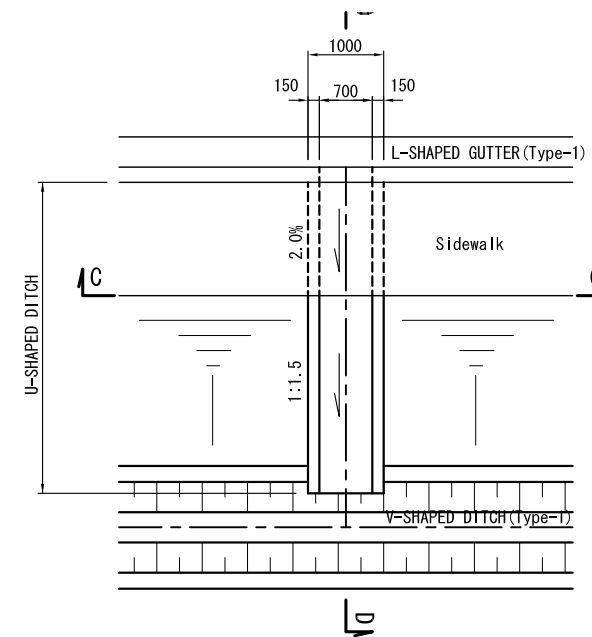
DETAIL OF V-SHAPED DITCH (Type-3)



L-SHAPED GUTTER (Type-2) S=1:20

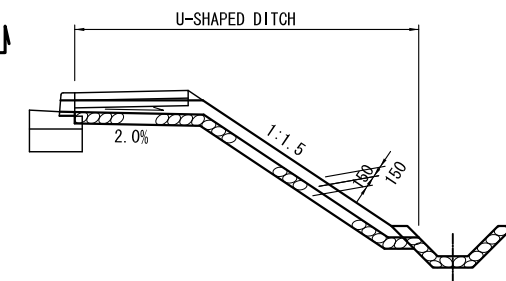


C-C SECTION S=1:20
U-SHAPED DITCH



PLAN S=1:50

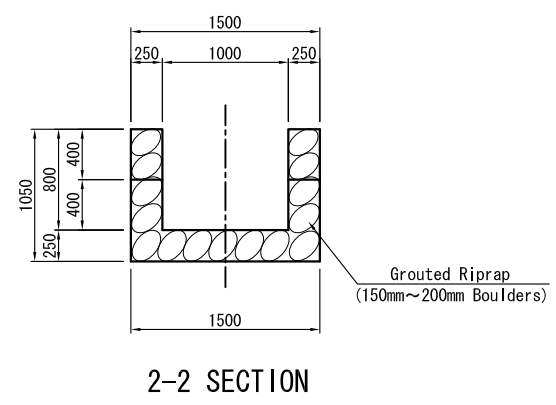
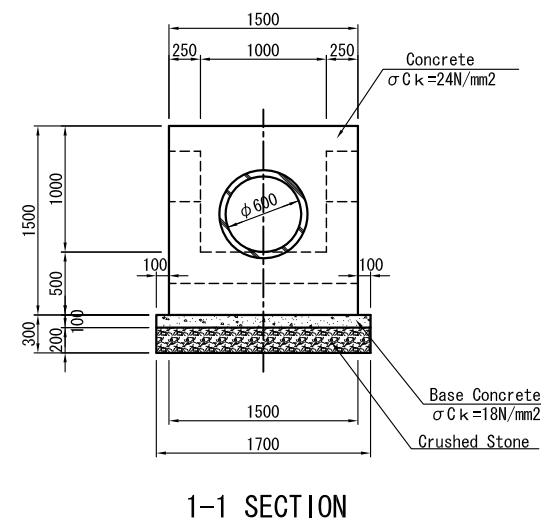
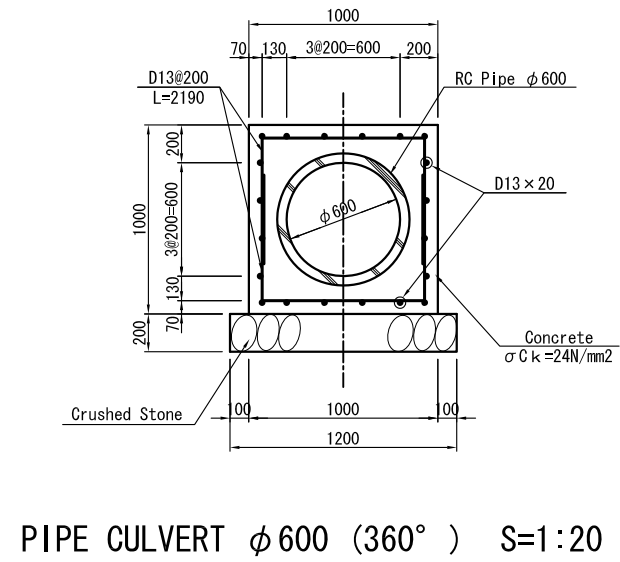
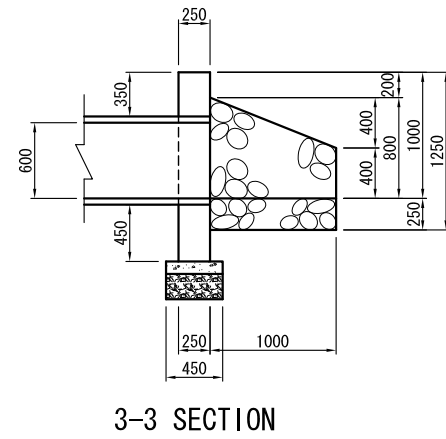
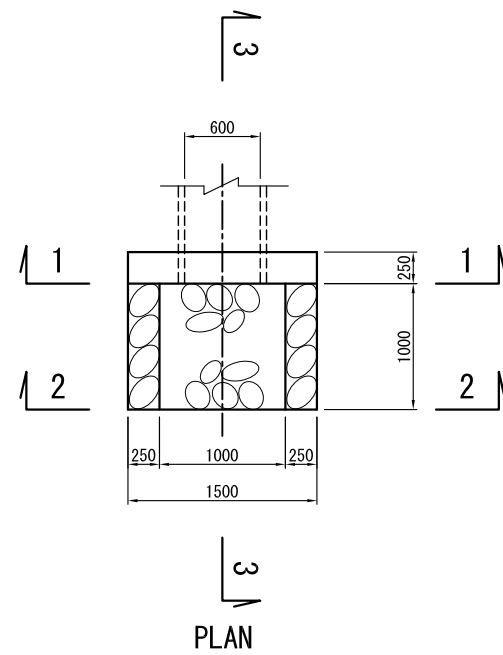
DETAIL OF U-SHAPED DITCH



D-D SECTION S=1:50

NOTE: CONCRETE MORTAR FOR GROUDED RIPRAP IS ONE PART CEMENT AND THREE PARTS SAND.

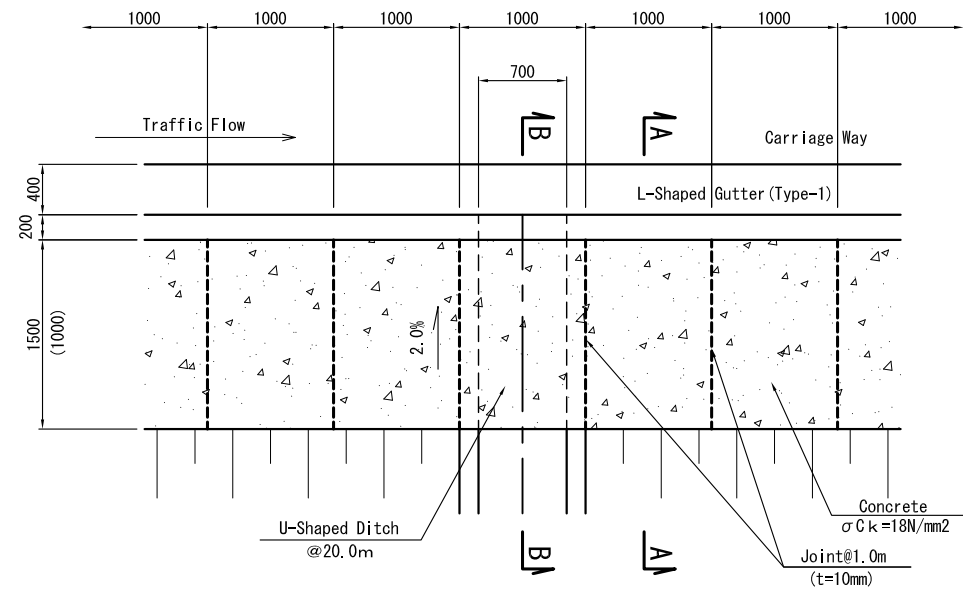
MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : STRUCTURE OF DRAINAGE FACILITIES (1/2)	SCALE(A1size) AS SHOWN	Drawing No. LB-21
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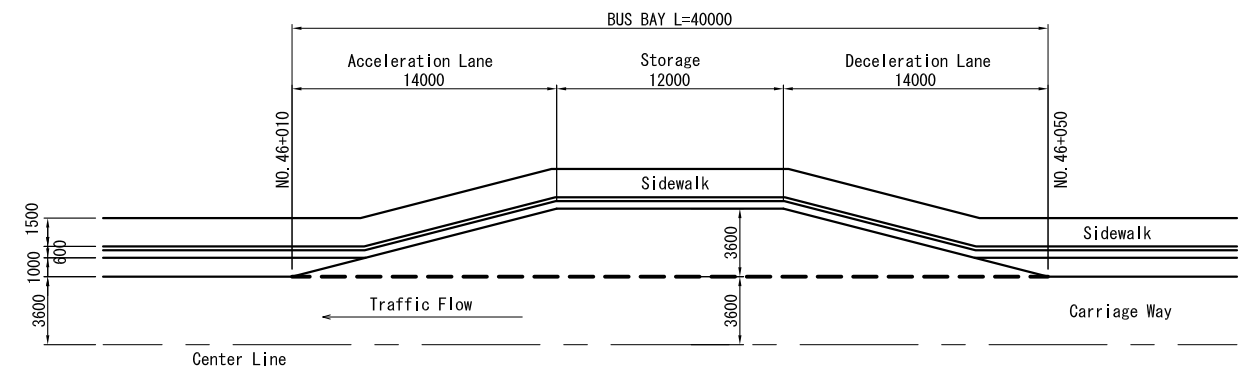
INLET/OUTLET (ϕ 600) S=1:30

NOTE: CONCRETE MORTAR FOR GROUTED RIPRAP IS ONE PART CEMENT AND THREE PARTS SAND.

MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : STRUCTURE OF DRAINAGE FACILITIES (2/2)	SCALE(A1size) AS SHOWN	Drawing No. LB-22
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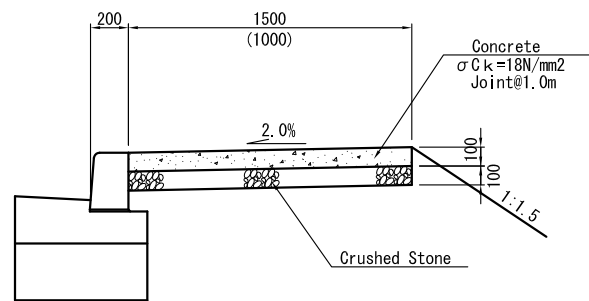


SIDEWALK PLAN S=1:30

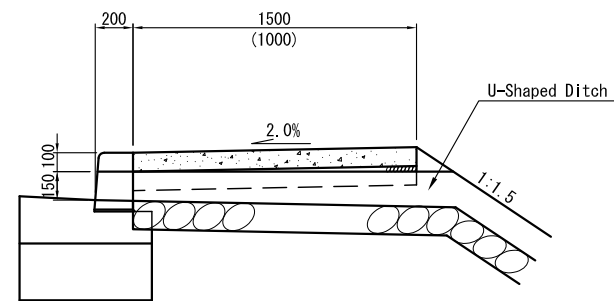


DETAILS OF BUS BAY 1:200

NOTE: BUS SHELTER IS TO BE PROVIDED BY THE GOVERNMENT OF NICARAGUA AND HENCE IS OUT OF SCOPE OF THIS PROJECT.



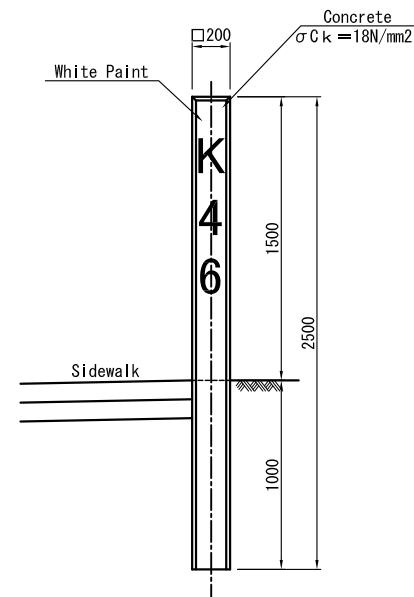
A-A SECTION



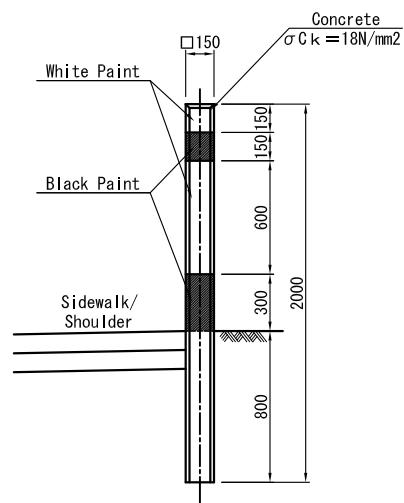
B-B SECTION

SIDEWALK SECTION S=1:20

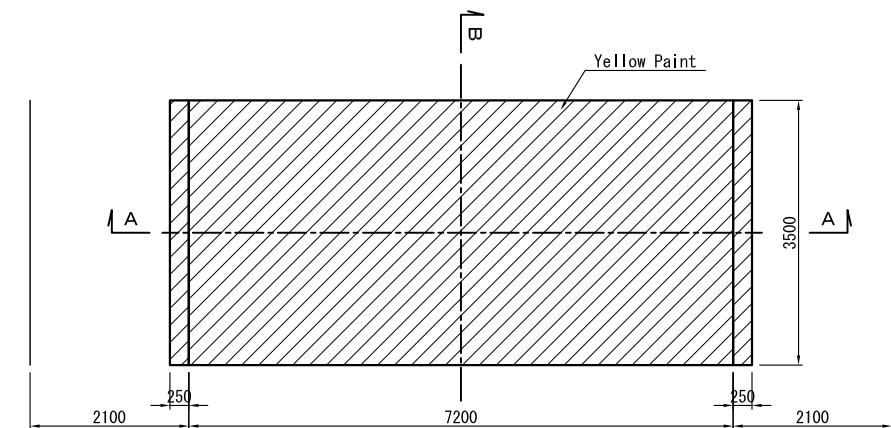
MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : STRUCUTRE OF SIDEWALK & BUS BAY	SCALE(A1size) AS SHOWN	Drawing No. LB-23
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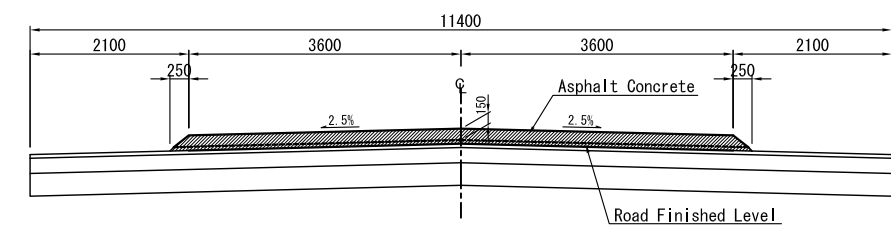
KILOPOST S=1:20



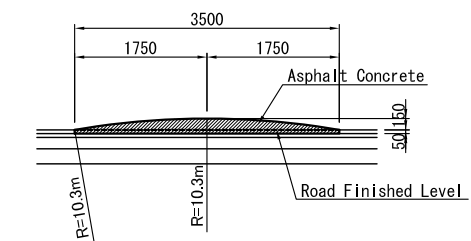
GUIDEPOST S=1:20



PLAN



A - A SECTION



B - B SECTION

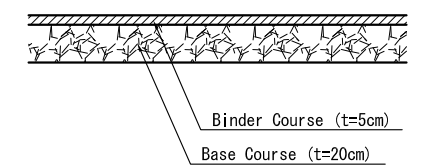
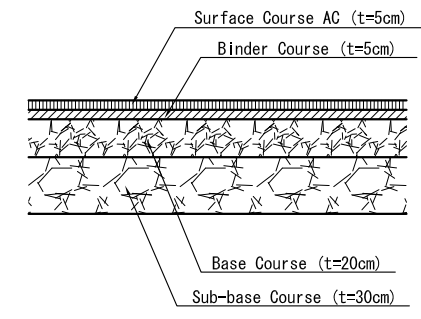
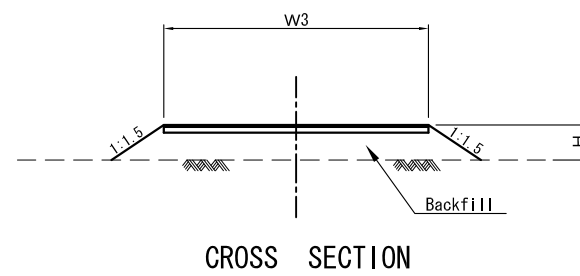
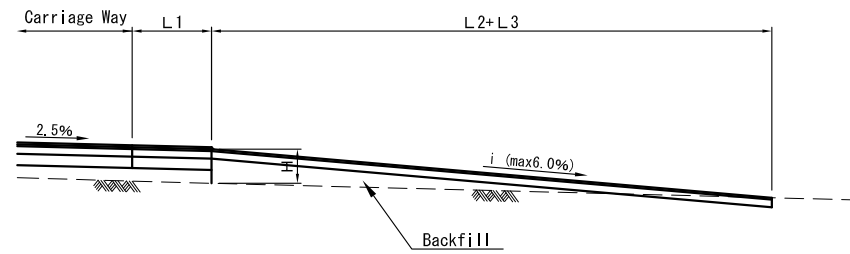
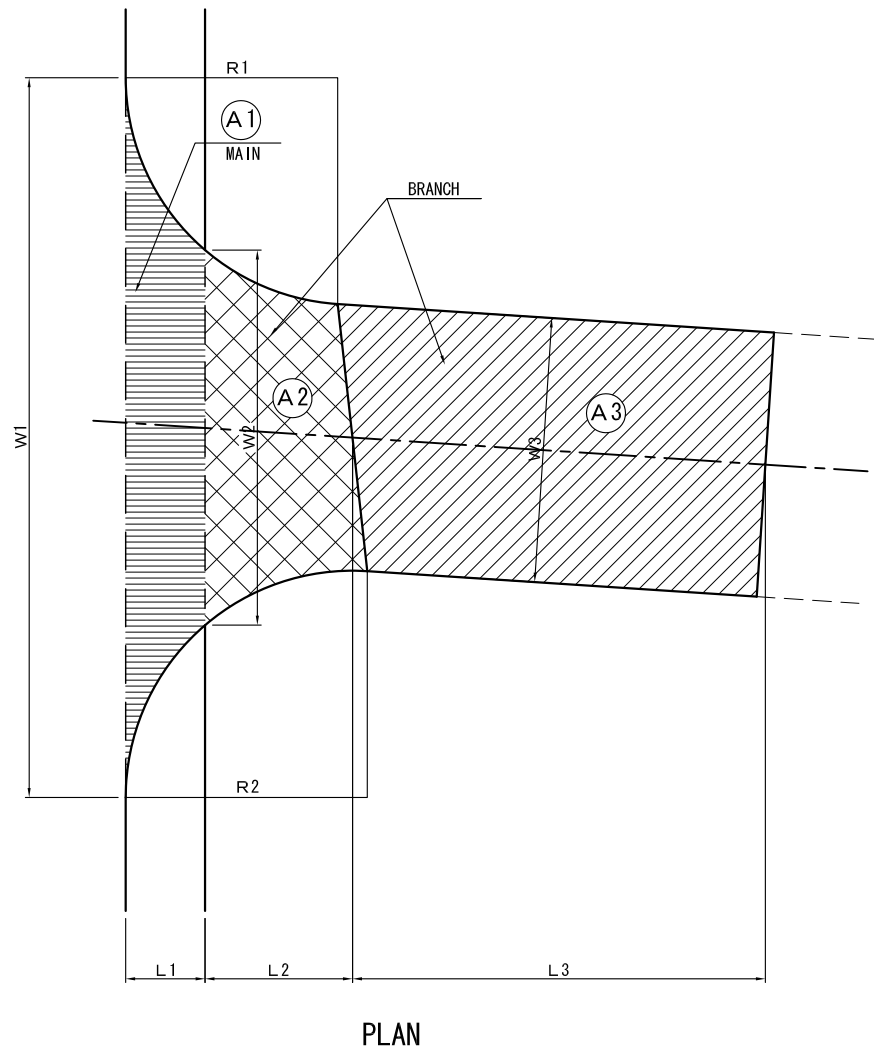
DETAILS OF SPEED REDUCTOR S=1:50

Scheduled List of Kilopost

No.	STATION	SIDE		Nos.	Remarks
1	46+000	LEFT	RIGHT	2	

Scheduled List of Guidepost

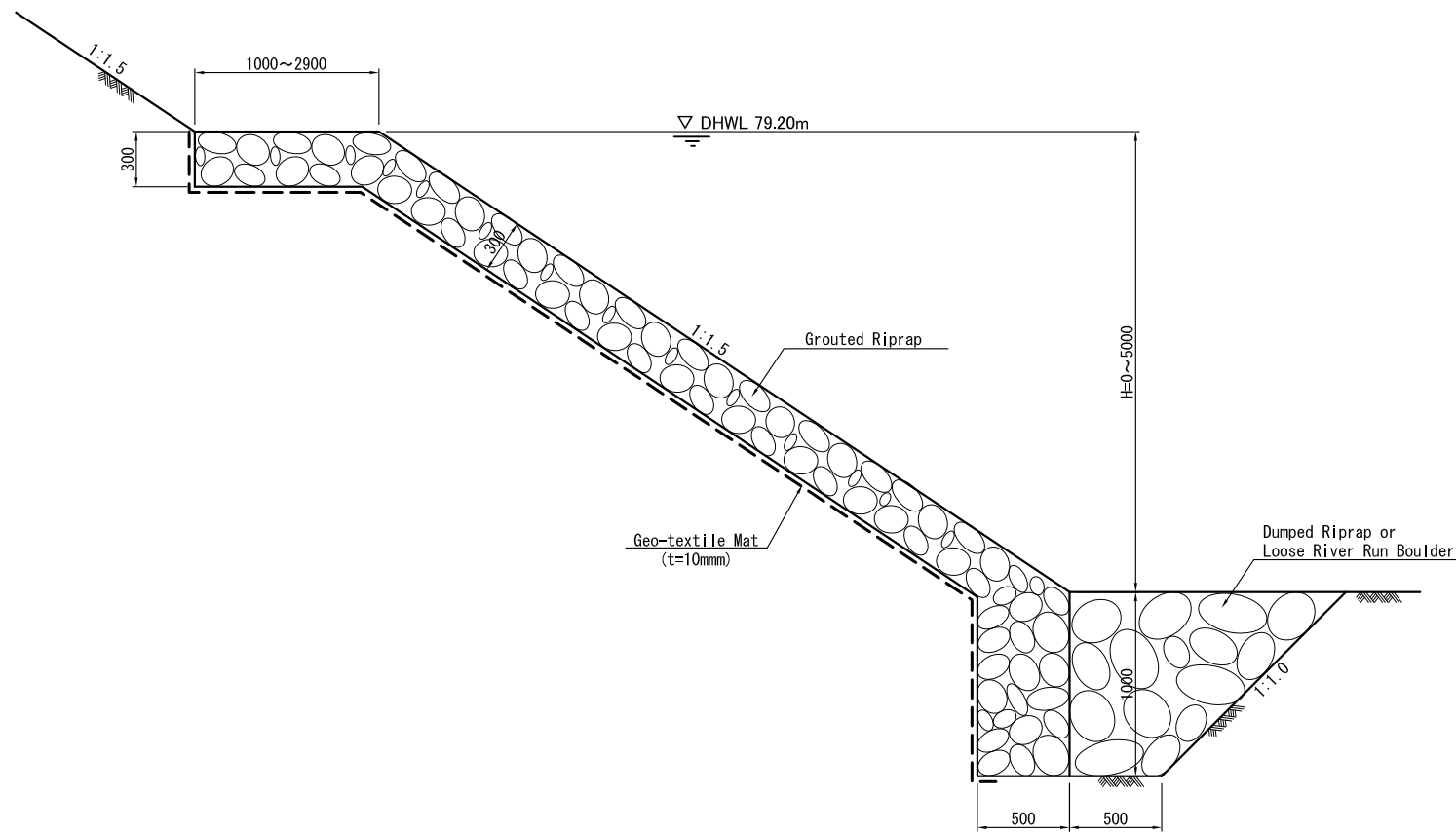
No.	STATION	SIDE		Nos.	Remarks
1	45+835	LEFT	RIGHT	2	
2	45+840	LEFT	RIGHT	2	
3	45+845	LEFT	RIGHT	2	
4	45+965	LEFT	RIGHT	2	
5	45+970	LEFT	RIGHT	2	
6	45+975	LEFT	RIGHT	2	



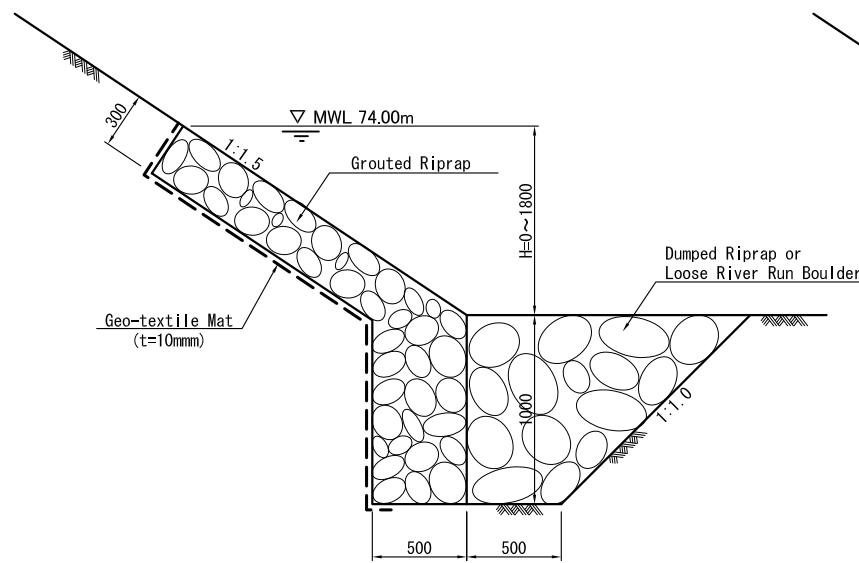
PAVEMENT S=1:20

ACCESS ROAD S=1:100

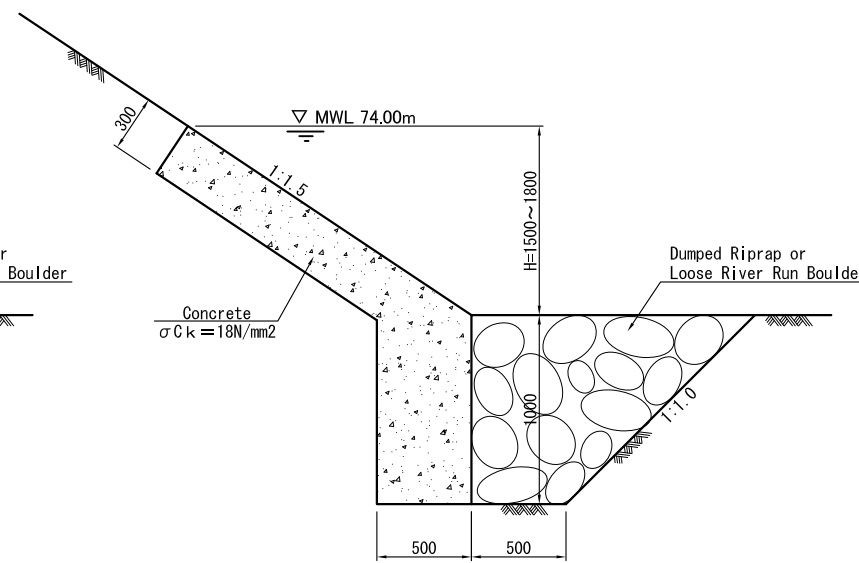
MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : STANDARD TREATMENT OF ACCESS ROAD	SCALE(A1size) AS SHOWN	Drawing No. LB-25
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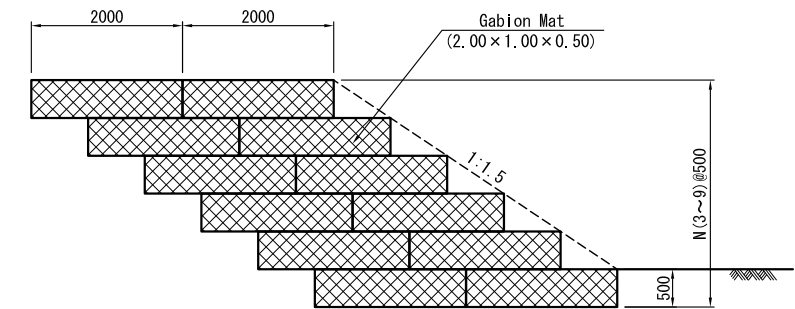
GRouted RIPRAP REVETMENT (Type-1) S=1:20
 APPROACH ROAD



GRouted RIPRAP REVETMENT (Type-2) S=1:20

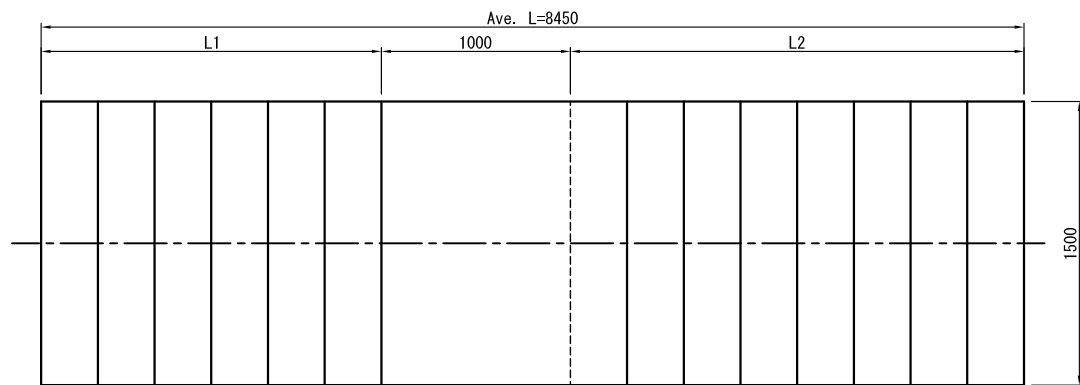


EDGE CONCRETE S=1:20
 DETOUR

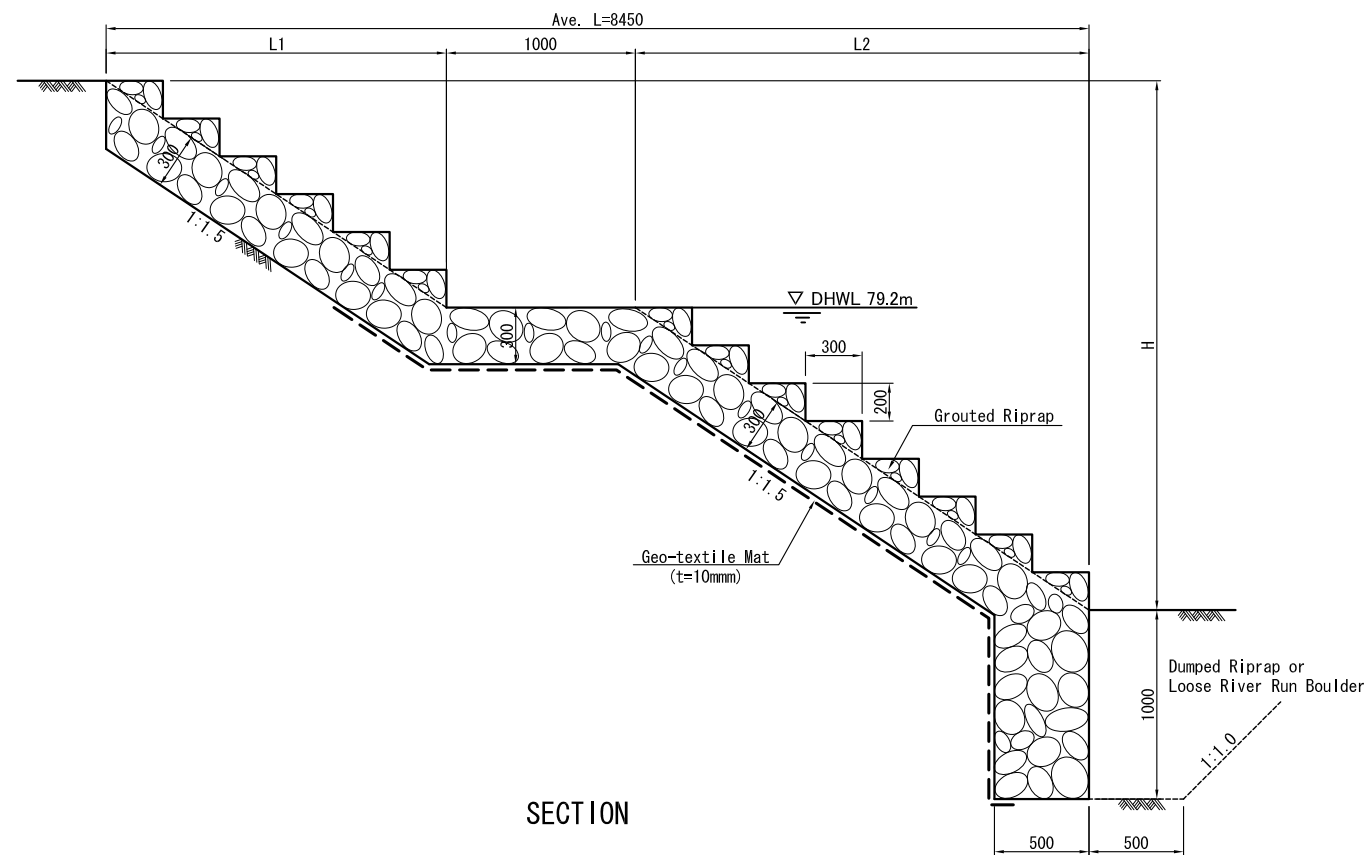


GABION MAT S=1:50

MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPARATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : EMBANKMENT PROTECTION WORKS	SCALE(A1size) AS SHOWN	Drawing No. LB-26
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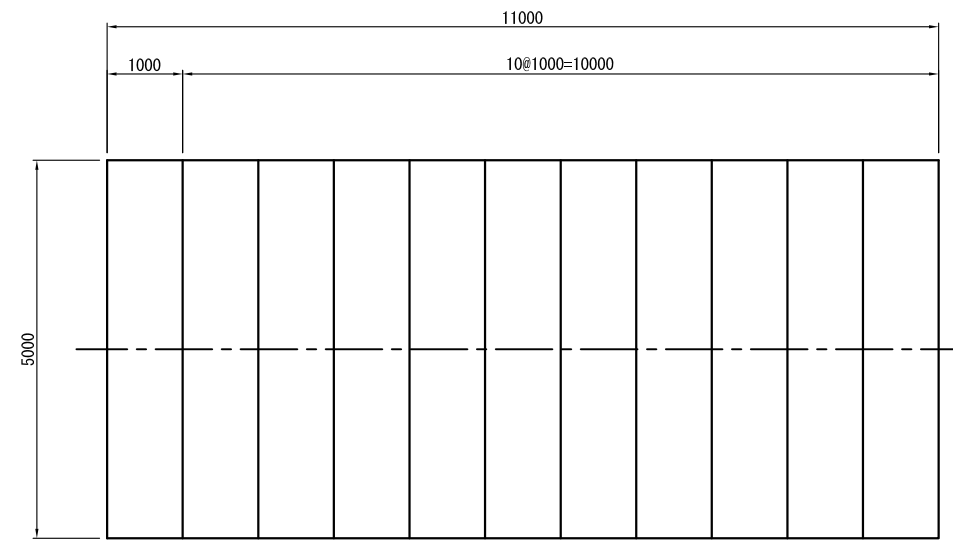


PLAN

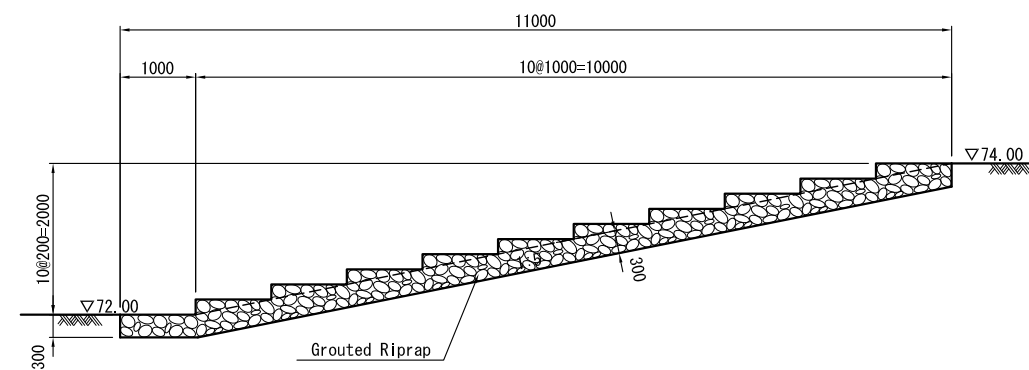


SECTION

STAIRWAY S=1:20



PLAN



SECTION

RIVER APPROACH S=1:50



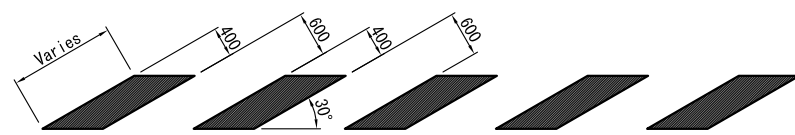
CENTER LINE (SOLID YELLOW) S=1:50



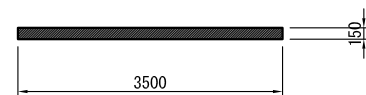
SIDE LINE ① (SOLID WHITE) S=1:50



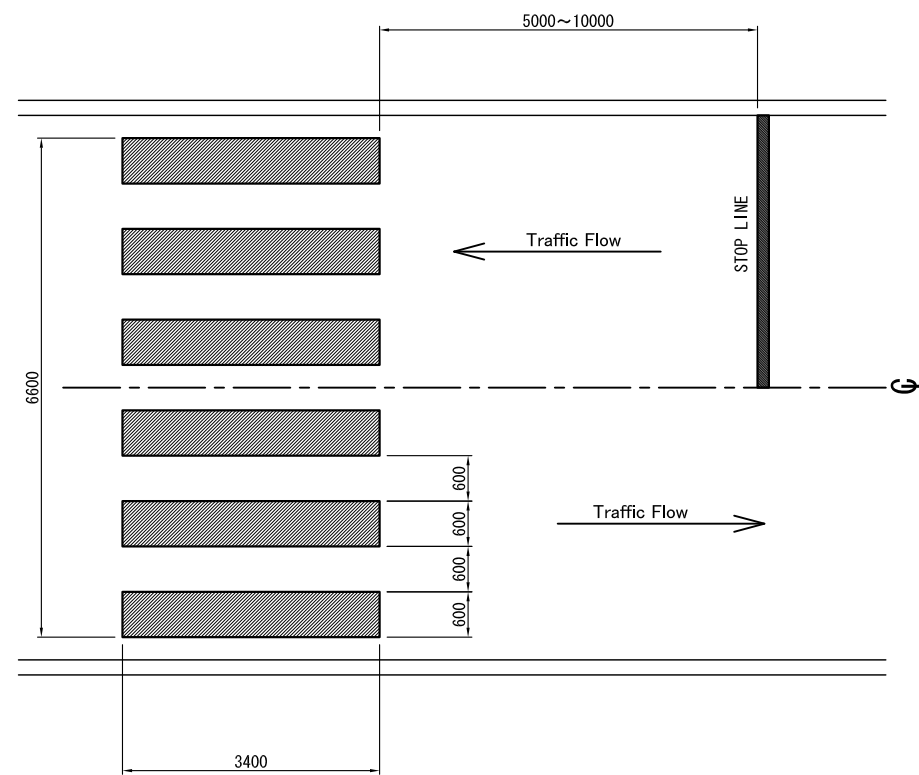
SIDE LINE ② (SHORT BROKEN WHITE) S=1:100



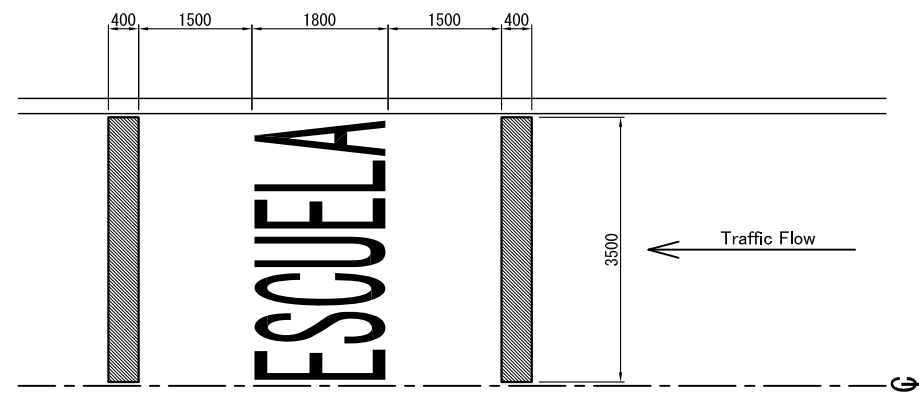
ZEBRA MARKING S=1:50



STOP LINE MARKING S=1:50



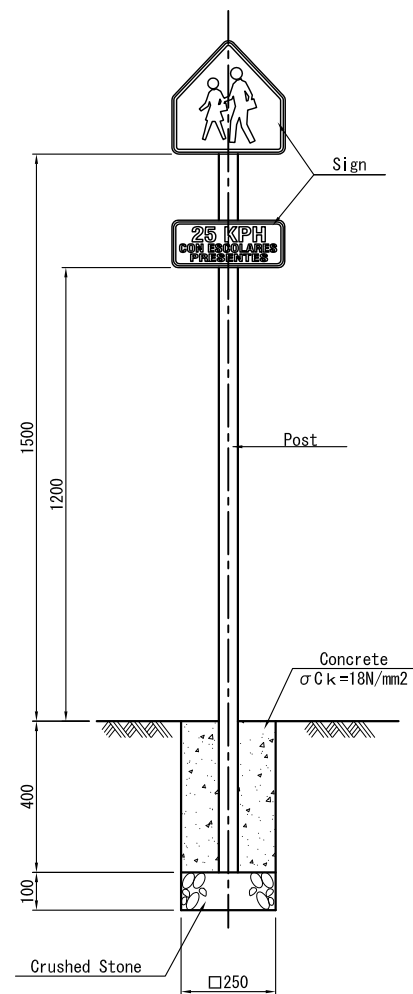
CROSS WALKS S=1:50



SCHOOL ZONE S=1:50

NOTE: THE MATERIALS, DIMENSION, SHAPES, COLOR, SIZE OF NUMERALS, LETTERS AND INSTALLATION LOCATION SHALL CONFORM WITH THE SPECIFICATION OF SIEGA.

<p>MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)</p>	<p>THE PREPATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.</p>	<p>TITLE : STANDARD PAVEMENT AND PEDESTRIAN MARKINGS</p>	<p>SCALE(A1size) AS SHOWN</p>	<p>Drawing No. LB-28</p>
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SIGN POST S=1:10



P-4-5



P-4-6



P-9-12



E-1-1



E-1-3



E-1-4



E-1-1, E-1-2



E-1-1, E-3-3



R-2-1



R-2-4



R-2-11



E-3-1, R-2-1



E-3-1, R-2-1, E-3-2



NOTE: THE MATERIALS, DIMENSION, SHAPES, COLOR, SIZE OF NUMERALS, LETTERS AND INSTALLATION LOCATION SHALL CONFORM IN ACCORDANCE WITH THE SPECIFICATION OF SIECA.

MINISTRY OF TRANSPORT AND INFRASTRUCTURE (MTI)	THE PREPATORY STUDY ON THE PROJECT FOR RECONSTRUCTION OF BRIDGES ON MANAGUA - EL RAMA ROAD IN THE REPUBLIC OF NICARAGUA	JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING INTERNATIONAL CO., LTD.	TITLE : REGULATORY/PROHIBITORY ROAD SIGNS	SCALE(A1size) AS SHOWN	Drawing No. LB-29
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