



Asian Development Bank
National Capital Region Planning Board



Capacity Development of the
National Capital Region Planning Board
Package 2 Component B
TA No. 7055-IND



FINAL REPORT

Volume V-B2 : Detailed Drawings

**Detailed Project Report for
Road Widening Component in Ghaziabad**



WilburSmith
ASSOCIATES

July 2010

NCR Planning Board
Asian Development Bank

Capacity Development of the National Capital Region Planning Board (NCRPB) – Component B (TA No. 7055-IND)

FINAL REPORT
Volume V-B2: DPR for Road Widening Component in Ghaziabad
Detailed Drawings

July 2010

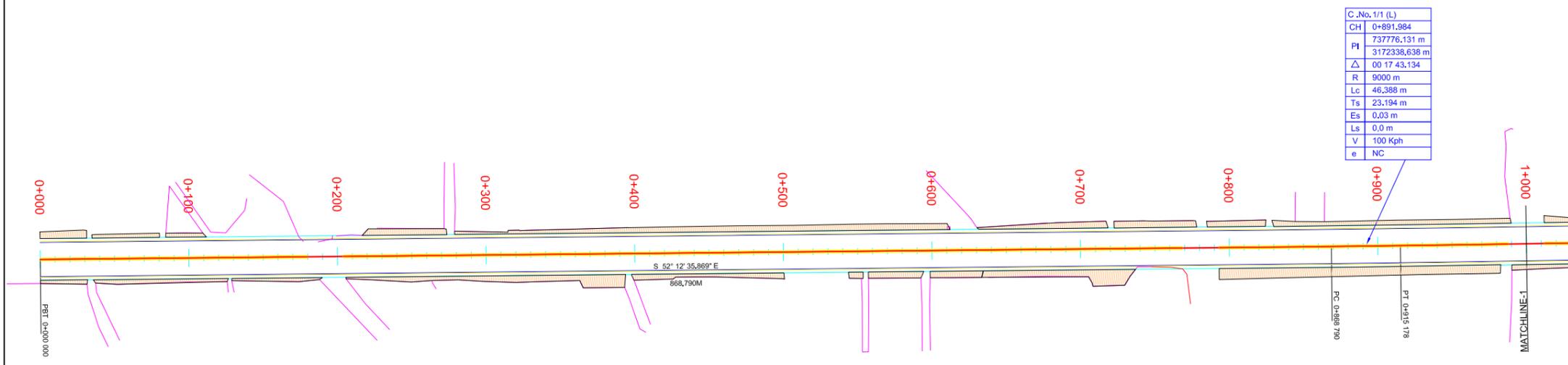
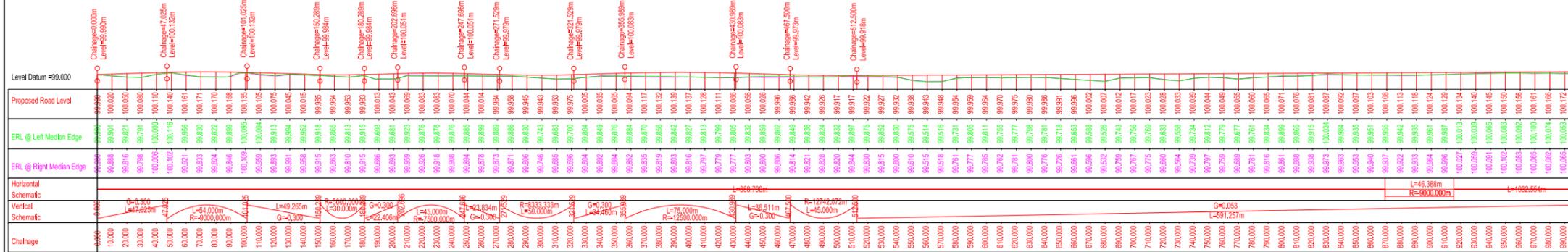


List of Drawings

Drawing No.	:	Drawing Title
HP-1D-10-001-01/1 to 5	:	Plan & Profile (5 sheets)
HP-1D-10-001-02/1 to 2	:	Utility Relocation Plan (2 sheets)
HP-1D-10-001-03	:	Typical Details of Traffic Safety
HP-1D-90-001-01	:	Typical Details of Drain & Kurb
HP-1D-90-001-02	:	Typical Details of Central Median Opening
HP-1D-90-001-03/1 to 2	:	Typical Details of Road Marking & Kurb Painting (2 sheets)
HP-1D-90-001-04	:	Typical Details of Traffic Signs

Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad Plan & Profile



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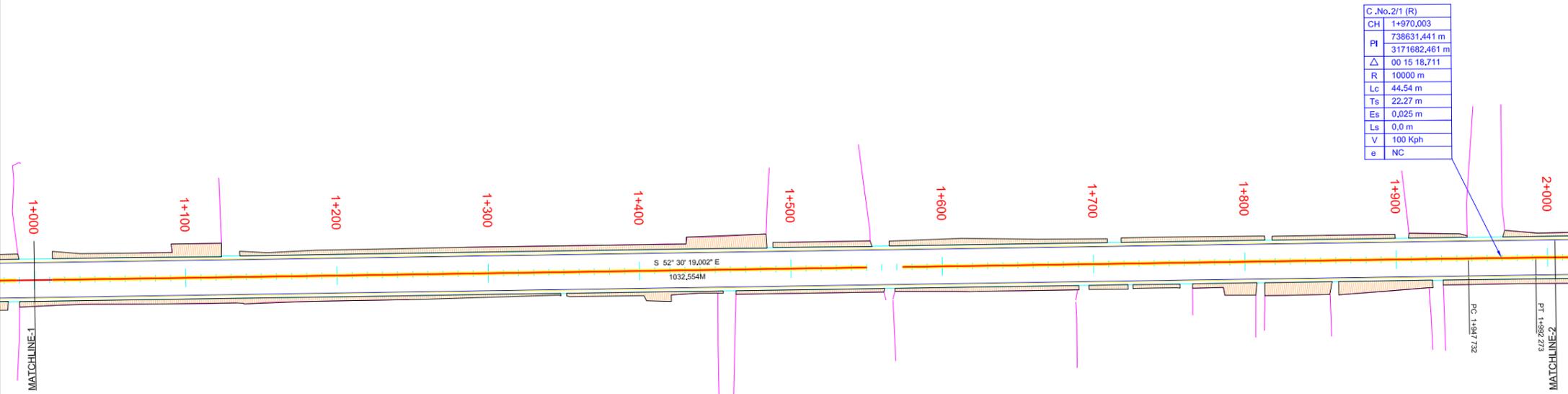
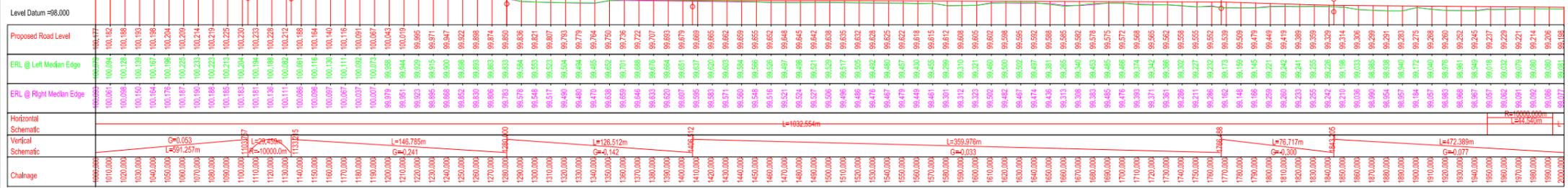
Consultant:
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Date: Dec.2009	Approved: AN	1 OF 5

Drawing No. HP - 1D-10 -001-01

Capacity Development of the NCRPB: Component B (ADB TA-7055)

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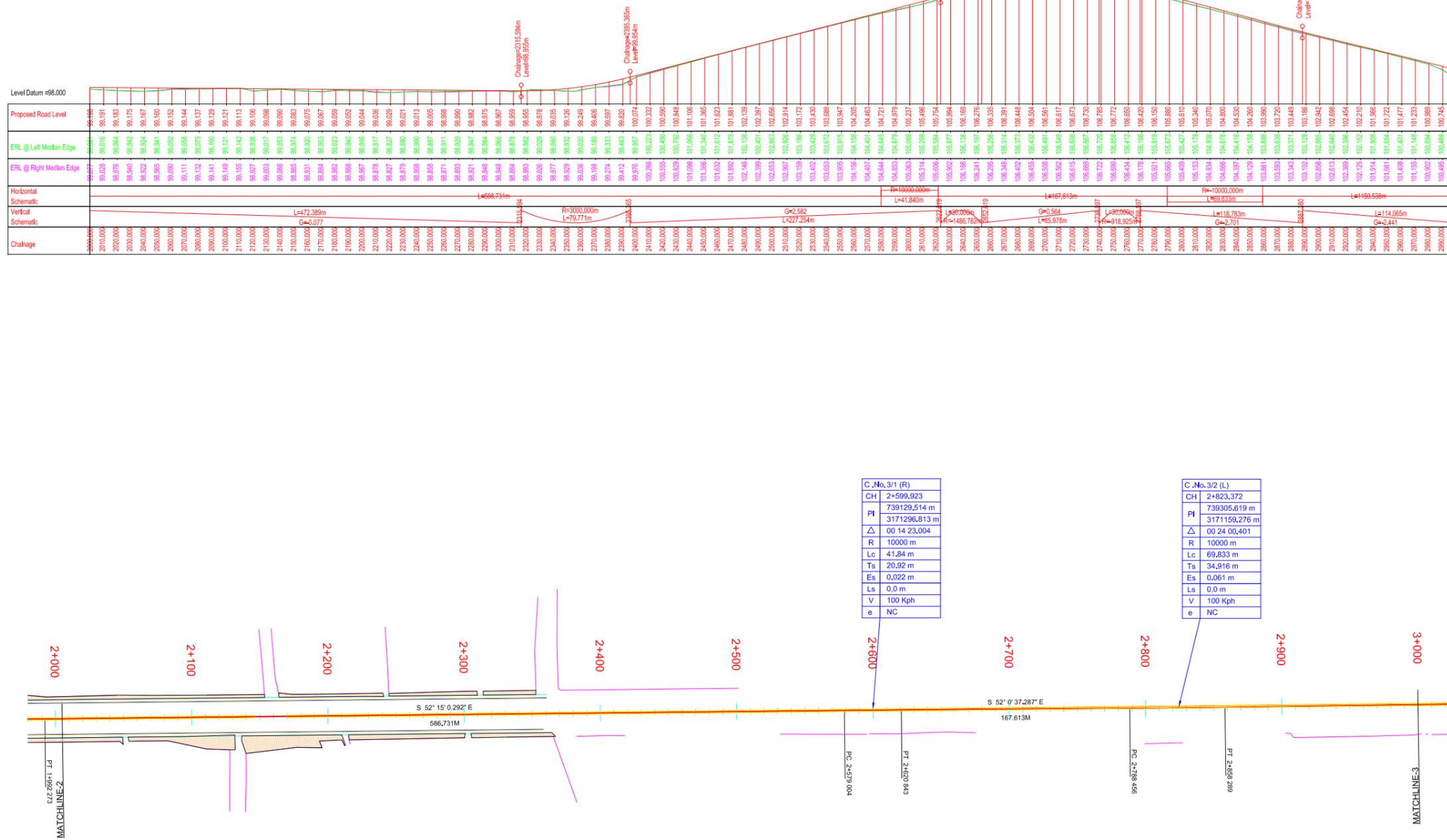
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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad Plan & Profile



C.No. 3/1 (R)	
CH	2+599,923
PI	739129,514 m
△	3171296,813 m
R	10000 m
Lc	41,84 m
Ts	20,92 m
Es	0,222 m
Ls	0,0 m
V	100 Kph
e	NC

C.No. 3/2 (L)	
CH	2+823,372
PI	739305,619 m
△	3171159,276 m
R	10000 m
Lc	69,833 m
Ts	34,916 m
Es	0,061 m
Ls	0,0 m
V	100 Kph
e	NC

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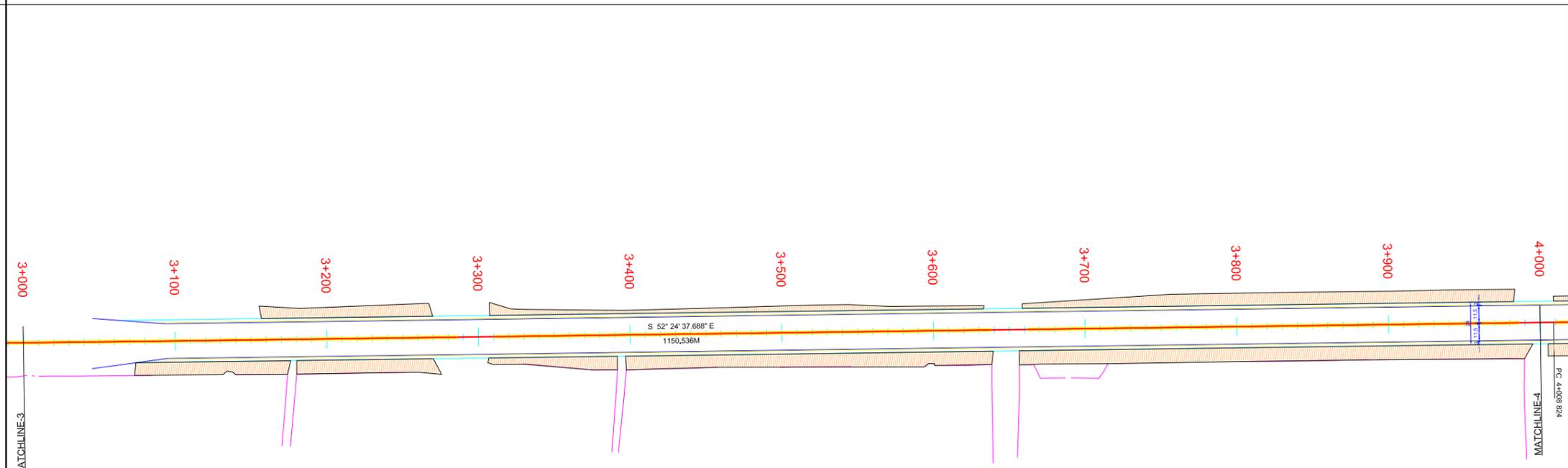
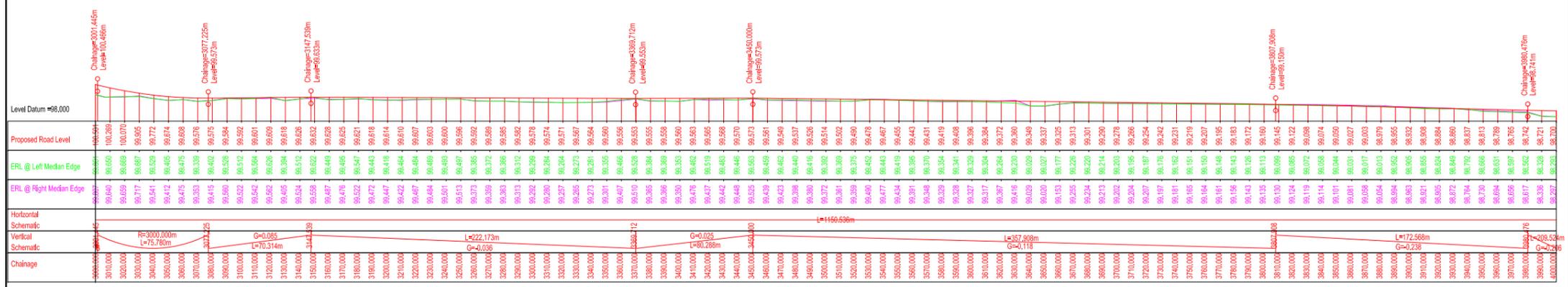
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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad Plan & Profile



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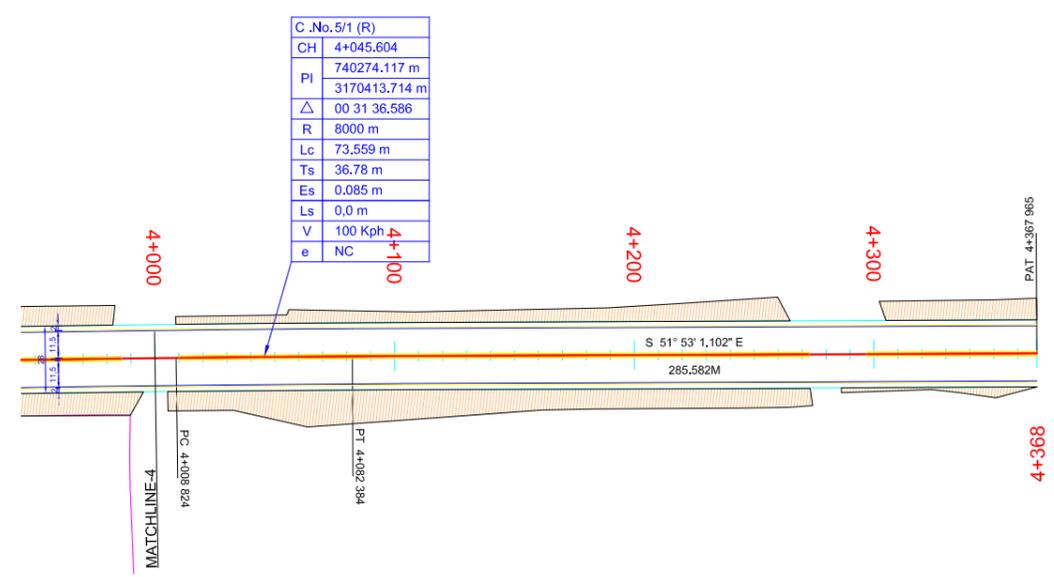
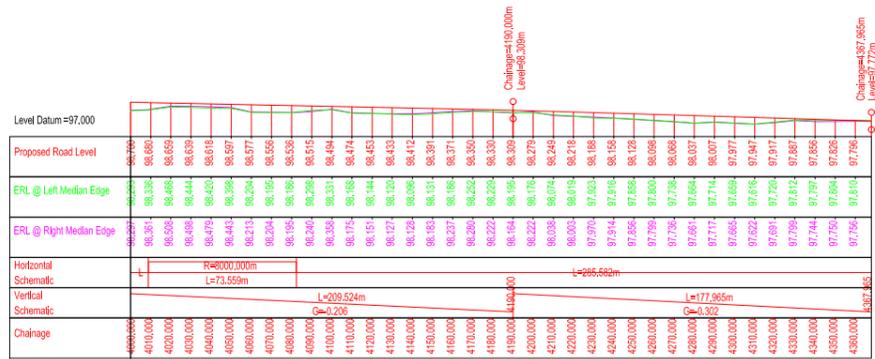
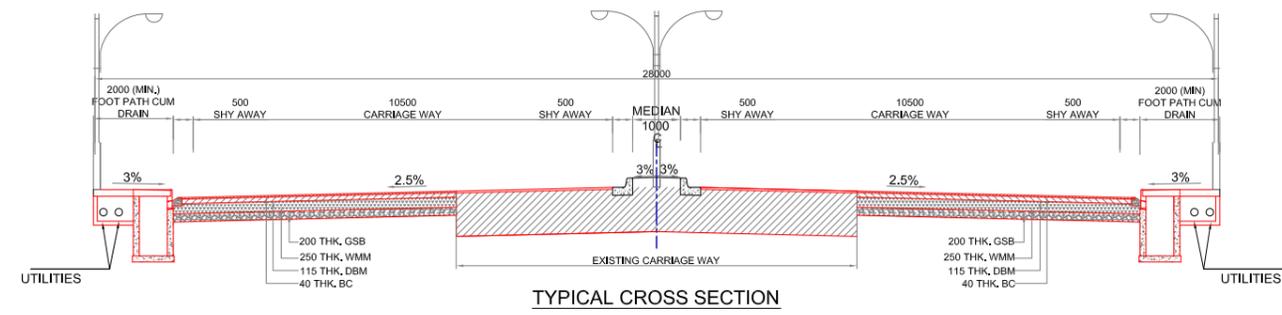
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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad Plan & Profile



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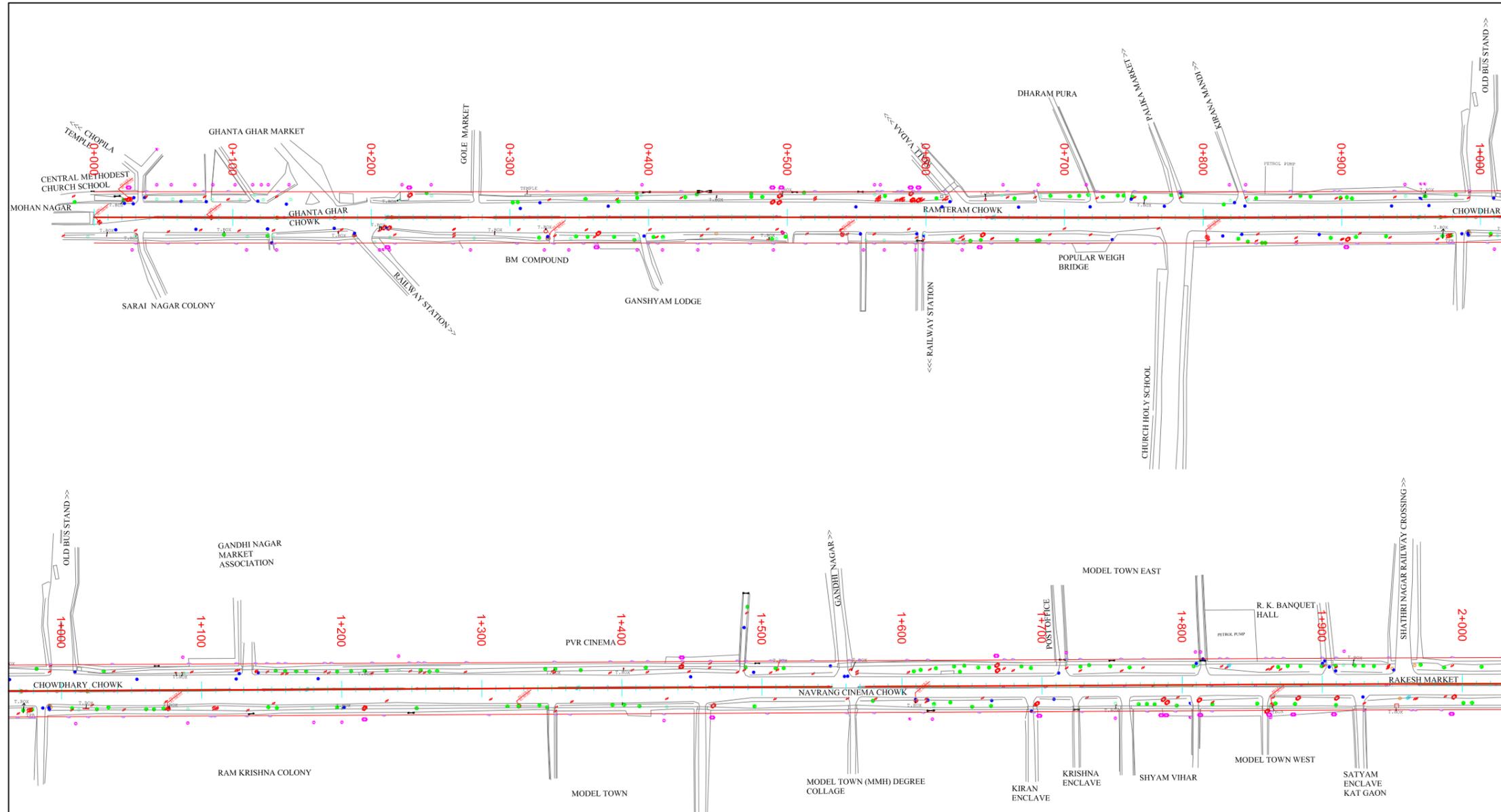
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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of Nh 91 From Hapur Bypass Intersection to Nh 24 in Ghaziabad Utility Relocation Plan



LEGEND

1.	LAMPOST	
2.	TRANSFORMER	
3.	TELEPHONE POLE	
4.	TREE	
5.	MAIN HOLE	
6.	ELECTRIC POLE	
7.	HAND PUMP	
8.	RED LIGHT	
9.	KM_STONE	
10.	O.F.C	

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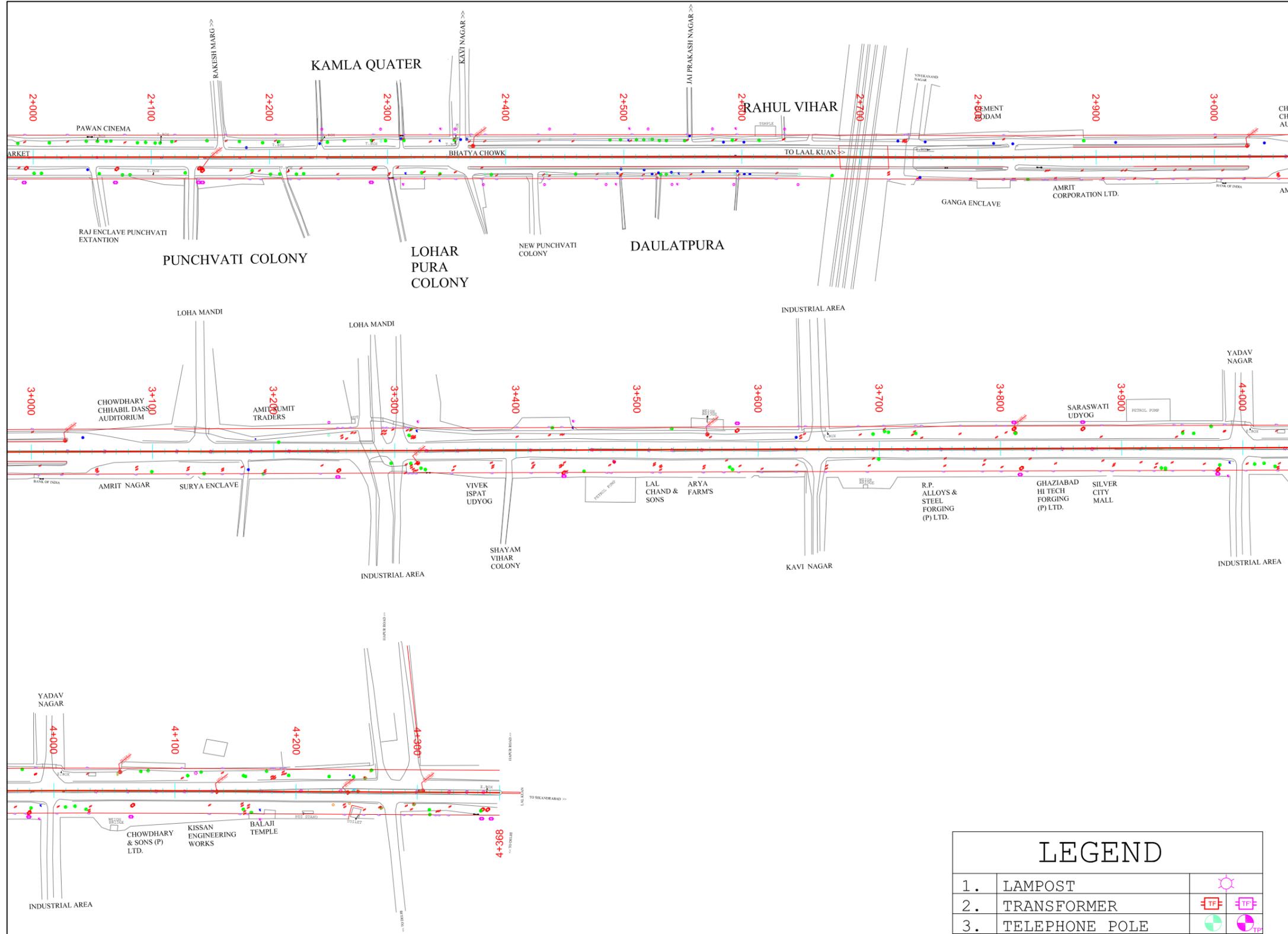
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HP - 1D-10 -001-02



Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of Nh 91 From Hapur Bypass Intersection to Nh 24 in Ghaziabad Utility Relocation Plan



LEGEND		
1.	LAMPOST	
2.	TRANSFORMER	
3.	TELEPHONE POLE	
4.	TREE	
5.	MAIN HOLE	
6.	ELECTRIC POLE	
7.	HAND PUMP	
8.	RED LIGHT	
9.	KM_STONE	
10.	O.F.C	

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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad Typical Details of Traffic Safety

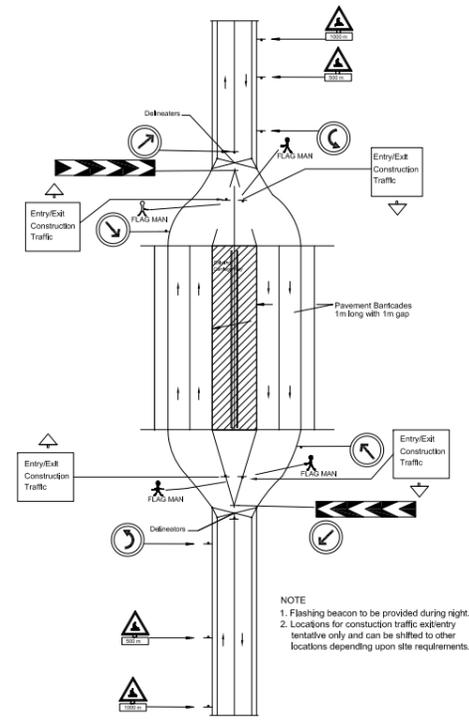


Fig:1 Layout of Traffic Control Devices for Urban Section (Stage - 2) Construction of 4 Lane divided Carriageway

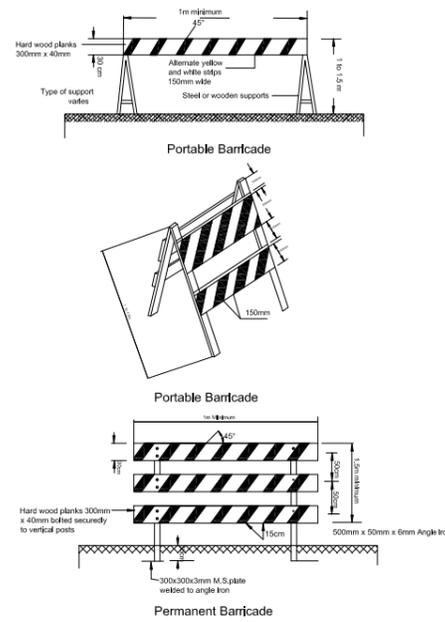


FIG:2 Portable And Permanent Barricades

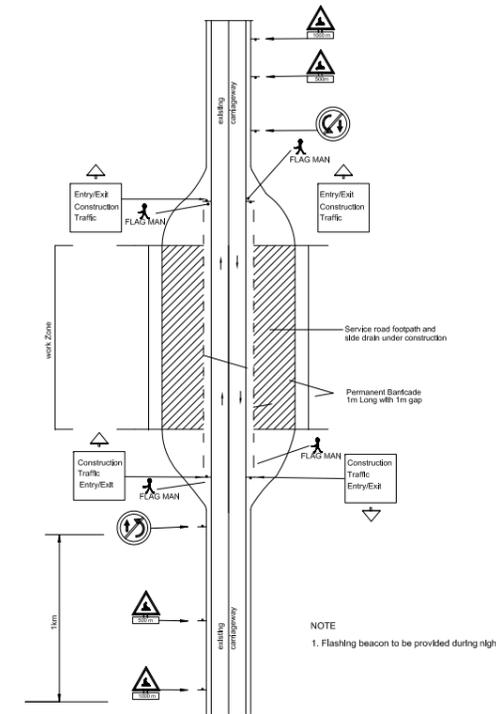


FIG:3 Layout of Traffic Control Devices for Urban Section(Stage - I) Construction of service road, footpath and service drain

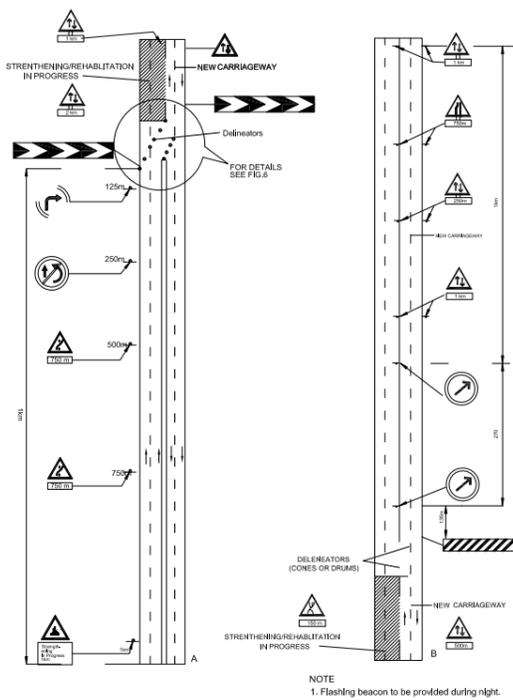


FIG:4 Layout of signs for traffic diversion from Existing Carriageway to New carriageway for Strengthening/ Reconstruction From One Median to other Median

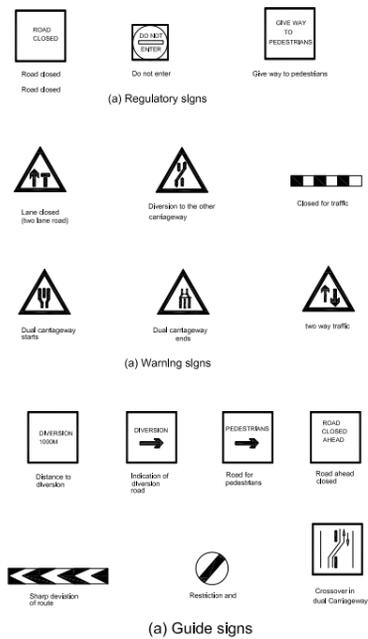


FIG:5 Regulatory warning and Guide Signs for a Construction Zone

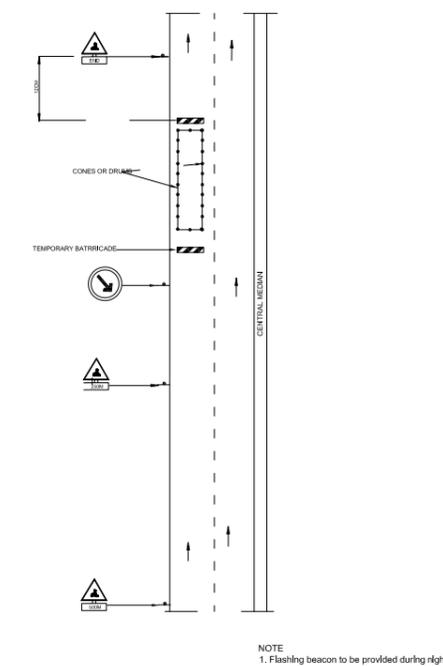


FIG:6 Layout of Signs For Work Zone in One Lane of 4 Lane Dual carriageway

1. MATERIALS COLOR FOR ROAD SIGNS SHALL BE OF AS PER IRC 357-2001.
2. ALL THE MARKINGS SHALL BE IN CONFIRMATION WITH IRC:35-1997.
3. FLAG MAN SHOULD WEAR REFLECTIVE JACKET.
4. LANTERN SHALL BE PROVIDED IN THE NIGHT FLAG MAN IS NECESSARY.
5. TIGER TAPES SHALL BE PROVIDED FROM POST TO POST FOR CLEAR DELINEATION.

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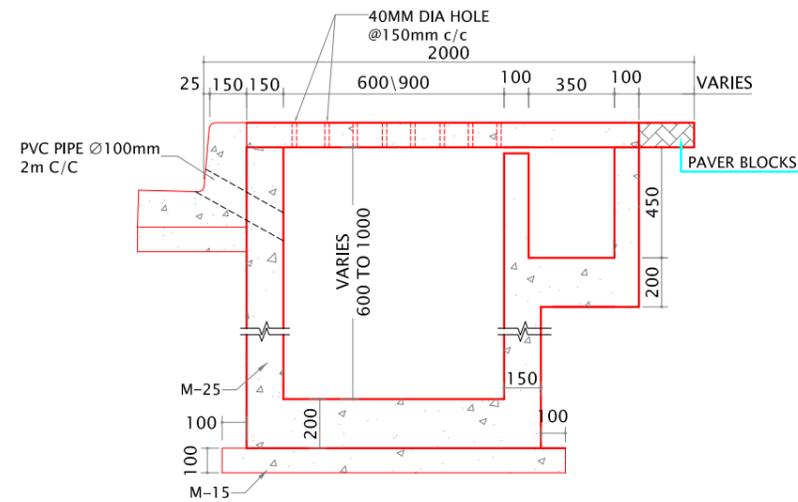
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Drawing No.

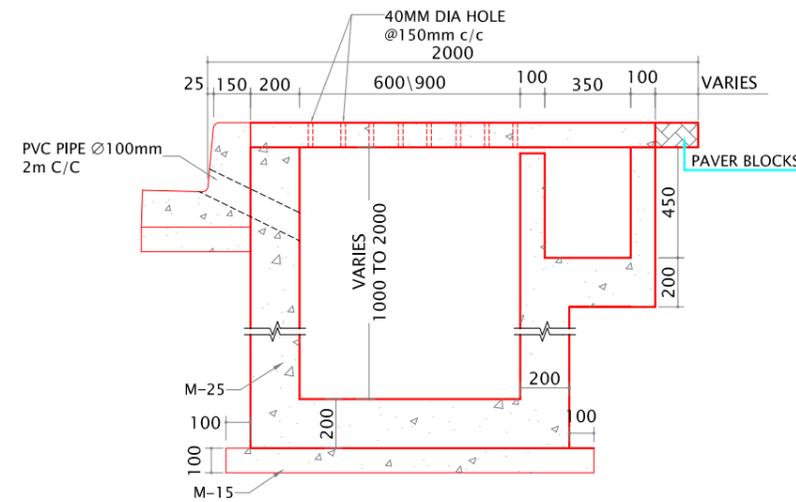
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**Capacity Development of
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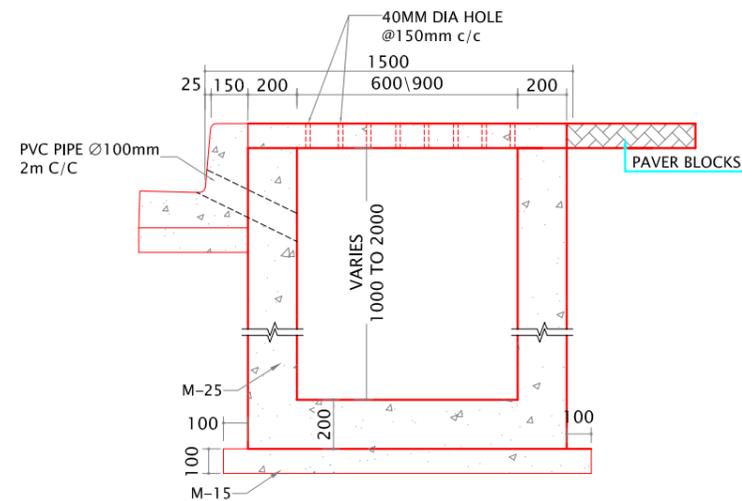
**Widening of Nh 91 From Hapur Bypass
Intersection to Nh 24 in Ghaziabad
Typical Details Of Drain And Kerb**



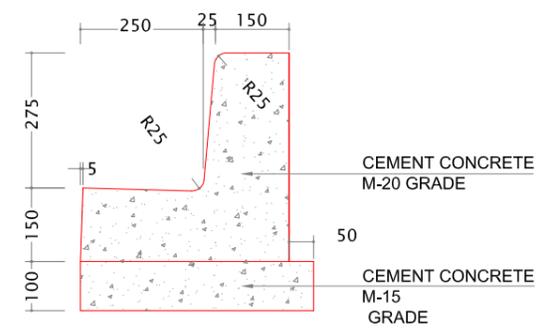
**TYPICAL SECTION OF COVERED LINED DRAIN
UPTO 1000mm DEPTH WITH UTILITY CORRIDOR**



**TYPICAL SECTION OF COVERED LINED DRAIN
1000mm TO 2000mm DEPTH WITH UTILITY CORRIDOR**



**TYPICAL SECTION OF COVERED LINED DRAIN
1000mm TO 2000mm DEPTH**



TYPICAL DETAILS OF KERB

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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad
Typical Details of Traffic Signs

CAUTIONARY/WARNING SIGNS;-



1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED
2. ALL SIGNS TO BE LOCATED AS INDICATED IN THE ROAD FURNITURE DRAWINGS
3. MATERIALS COLOUR FOR ROAD SIGNS SHALL BE OF AS PER IRC :67-2001.
4. SIZES OF ARROW, LETTERS AND NUMERALS FOR ROAD SIGNS SHALL BE AS PER IRC : 30-1969.

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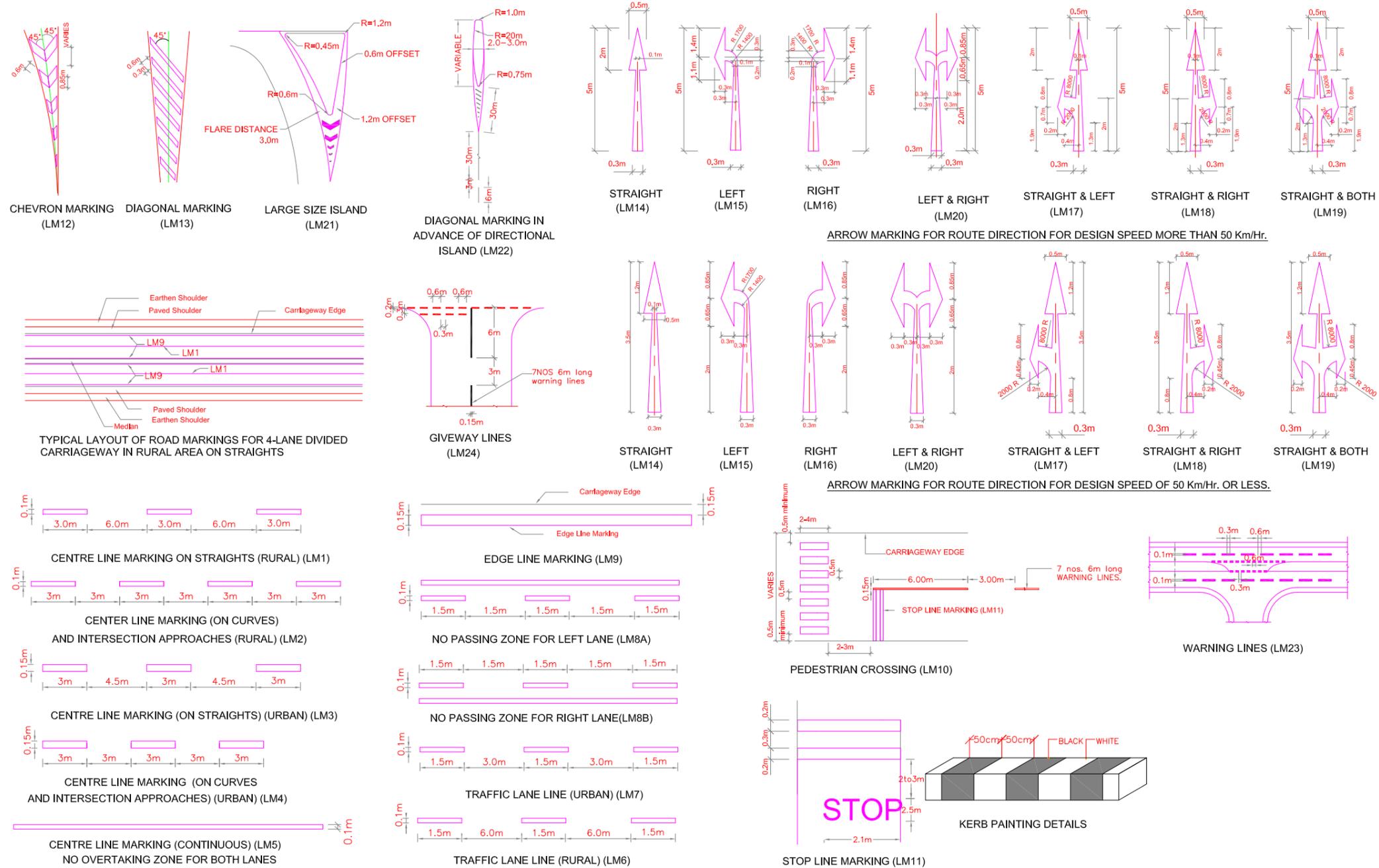
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Capacity Development of the NCRPB: Component B (ADB TA-7055)

Widening of NH 91 From Hapur Bypass Intersection to NH 24 in Ghaziabad
Typical Details of Road Marking & Kerb Painting



1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED
 2. ALL THE MARKINGS SHALL BE IN CONFIRMATION WITH IRC:35-1997

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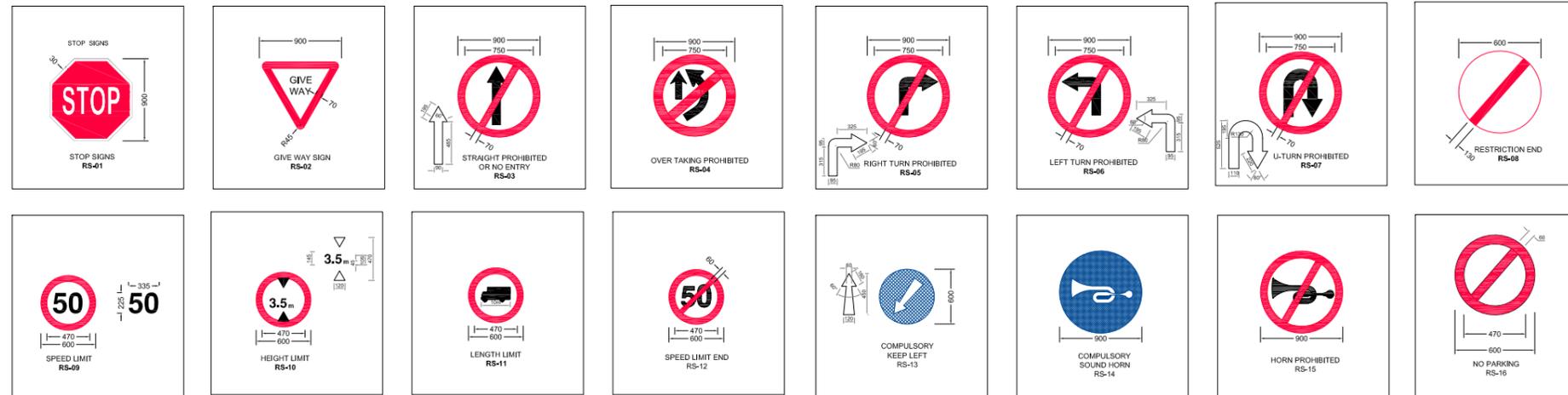
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the NCRPB: Component B
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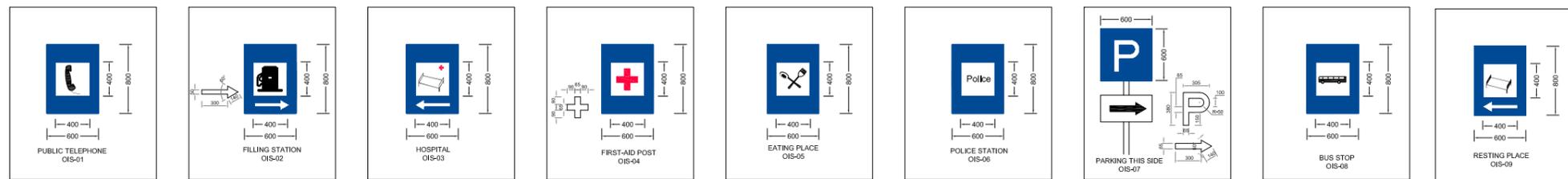
**Widening of NH 91 From Hapur Bypass
Intersection to NH 24 in Ghaziabad
Typical Details of Traffic Signs**

MANDATORY/REGULATORY SIGNS

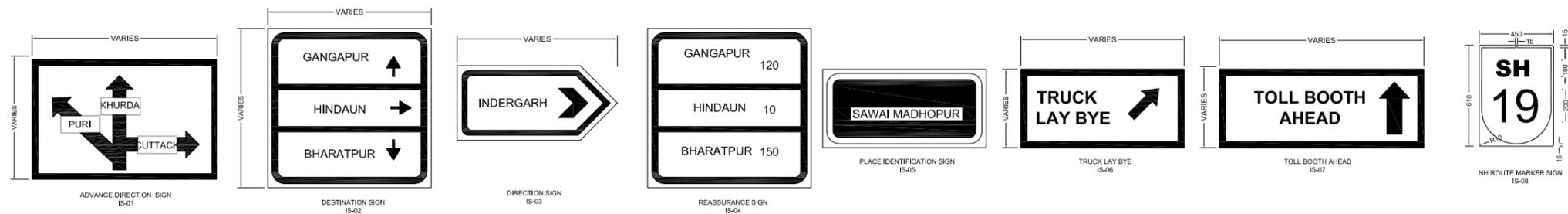


INFORMATORY SIGN BOARD :-

A) FACILITY INFORMATION SIGNS



(B) DIRECTION AND PLACE IDENTIFICATION SIGNS



1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED
2. ALL SIGNS TO BE LOCATED AS INDICATED IN THE ROAD FURNITURE DRAWINGS
3. MATERIALS COLOUR FOR ROAD SIGNS SHALL BE OF AS PER IRC :67-2001.
4. SIZES OF ARROW, LETTERS AND NUMERALS FOR ROAD SIGNS SHALL BE AS PER IRC : 30-1969.

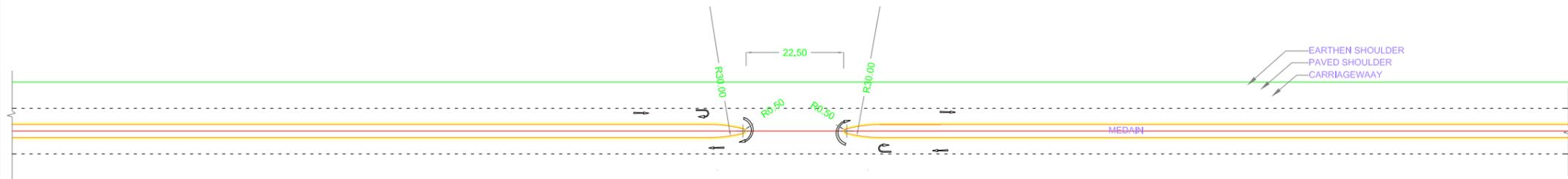
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**Capacity Development of
the NCRPB: Component B
(ADB TA-7055)**

**Widening of NH 91 From Hapur Bypass
Intersection to NH 24 in Ghaziabad**
Typical Details Of Central Median Opening



MEDIAN OPENING FOR CENTRAL MEDIAN

1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED

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