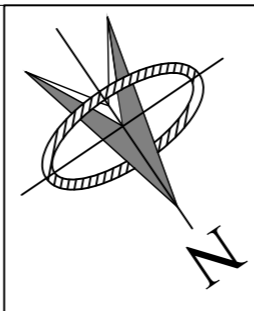


KEY PLAN  
(SCALE 1:1000)



MINOR BRIDGE	
Design Ch.	0+092
Span	1 x 18 (SQ)
Skew	34°

RL 96.39M

DEPTH IN METRES BELOW GROUND LEVEL	STRATA DESCRIPTION	HATCH
0.00	MURRUM, PEBBLES AND COBBLES	
0.50		
1.00		
1.50		
2.00		
2.50		
3.00	GREY MODERATELY WEATHERED ROCK	
3.40		
3.50		
4.00	GREY JOINTED BASALT	
4.50		
4.75		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		
10.10		

BH-01

RL 96.60M

DEPTH IN METRES BELOW GROUND LEVEL	STRATA DESCRIPTION	HATCH
0.00	MURRUM, PEBBLES AND COBBLES	
0.50		
1.00		
1.50		
2.00		
2.50		
2.85	GREY MODERATELY WEATHERED ROCK	
3.00		
3.50	GREY JOINTED BASALT	
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.10		

BH-02

HYDROLOGICAL DETAILS:-

DISCHARGE	16.229m <sup>3</sup> /sec
HFL	97.732m
DESIGN VELOCITY	1.62M/s
MSL AT ABUTMENT	ROCK LEVEL

CO-ORDINATES OF BORE HOLE

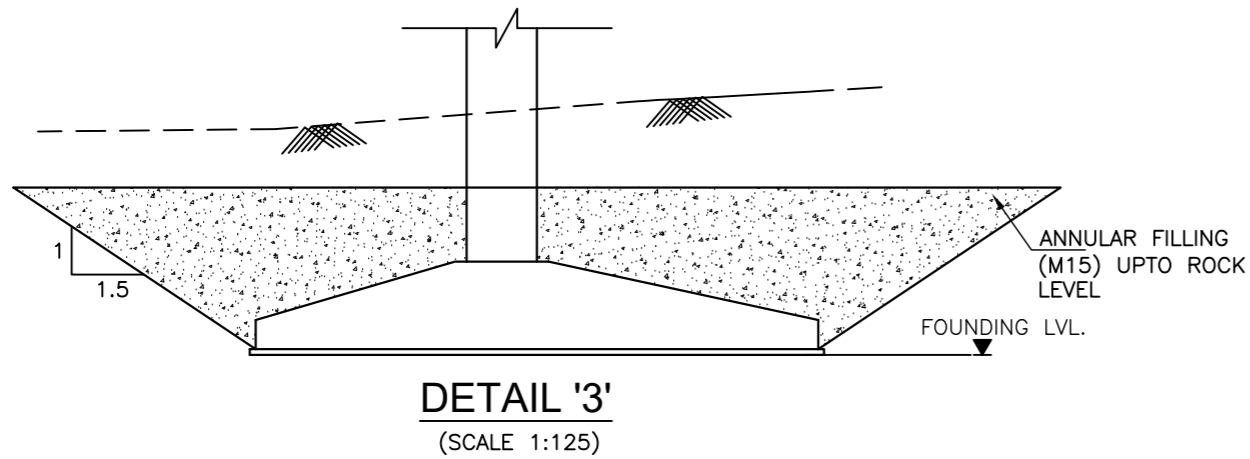
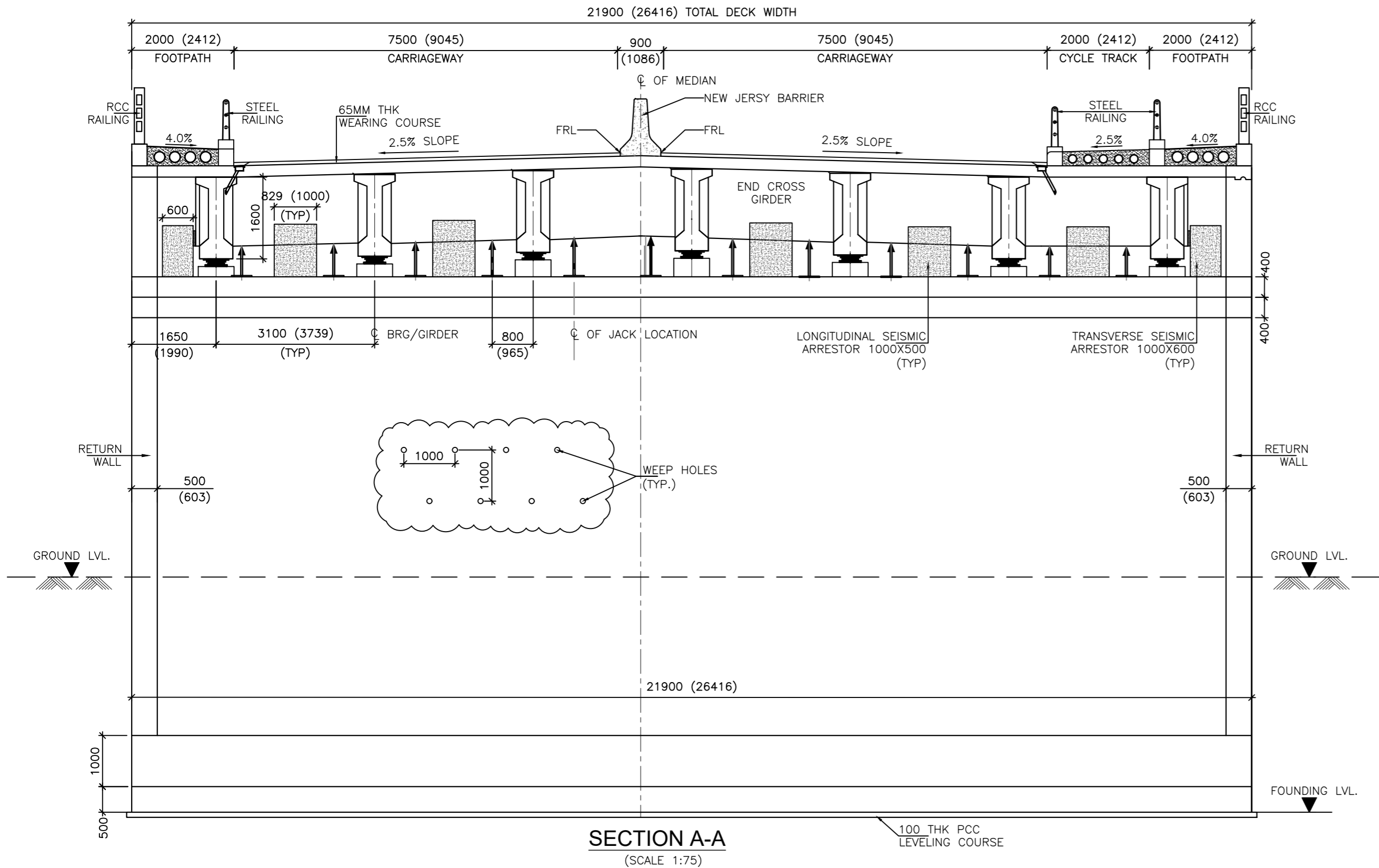
BH-1	X=319508	Y = 2035168
BH-2	X=319488	Y = 2035170

NOTE  
1. ALL DIMENSIONS ARE TO BE READ NOT TO BE MEASURED.  
2. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.

FOR TENDER

CLIENT	MAHARASHTRA INDUSTRIAL TOWNSHIP LTD (MITL)		
PROJECT	DESIGN, CONSTRUCTION, TESTING, COMMISSIONING AND OPERATION & MAINTENANCE OF INFRASTRUCTURE WORKS AT DIGHI PORT INDUSTRIAL AREA (DPIA)- PHASE 1 UNDER DELHI MUMBAI INDUSTRIAL CORRIDOR (DMIC) ON EPC BASIS		
TITLE	GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT CHAINAGE 0+092 (BR-1) ROAD NO.-CR4		
PROJECT CODE: D11628	STATUS: ISSUED FOR TENDER	DATE: 18.12.2024	
SHEET NO: (BH-1 OF 3)	SCALE: NTS	DWG SIZE: A2	REV NO: R0
DRAWING NO:	MITL-DPIA-PKG1-RD-84		





**NOTES:-**

- ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- LOCATION OF THE STRUCTURE IS THE CHAINAGE AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
- THE REINFORCEMENT SHALL BE HYSD. BARS OF (GRADE DESIGNATION Fe 500D) CONFORMING TO IS 1786-2008.
- STRUCTURE IS DESIGN FOR FOLLOWING VEHICULAR LOADS:
  - CLASS-A, ONE, TWO, THREE AND FOUR LANE WITH FOOTPATH + CYCLE TRACK.
  - ONE LANE OF CLASS 70R + FOOTPATH +CYCLE TRACK.
  - TWO LANE OF 70R + FOOTPATH + CYCLE TRACK.
  - ONE LANE OF 70R + ONE LANE OF CLASS A + FOOTPATH + CYCLE TRACK.
  - ONE LANE OF 70R + TWO LANE CLASS A + FOOTPATH + CYCLE TRACK.
- STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED OVER FULL WIDTH OF DECK.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
  - PRECAST RCC GIRDER - M35
  - RCC SLAB & DIAPHRAGM - M35
  - RCC SUBSTRUCTURE & FOUNDING - M35
  - CRASH BARRIER - M40
  - PCC LEVELING COURSE - M15
  - APPROACH SLAB - M35
  - PEDESTAL - M40
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
  - SUPERSTRUCTURE - 45MM
  - FOUNDING - 75MMSUBSTRUCTURE ABUTMENT:-
  - EARTH FACE - 75MM
  - NON EARTH FACE - 50MMRETURN WALL:-
  - EARTH FACE - 75MM
  - NON EARTH FACE - 45MM
  - CRASH BARRIER - 45MM
- CONSTRUCTION METHODOLOGY FOR SUPERSTRUCTURE SHALL BE AS UNDER:-
  - COMPLETION OF CASTING GIRDER.
  - ERECTION OF PRECAST GIRDER IN POSITION RESTING ON BEARING.
  - ERECTION OF STAGING AND SHUTTERING SUPPORTED FROM LAUNCHED GIRDER, CASTING OF DECK SLAB AND CROSS DIAPHRAGM.
  - LAYING OF SIDL AFTER 30 DAYS OF CASTING OF DECK SLAB.
- BITUMINOUS CONCRETE 40mm THICK OVERLAID WITH 25mm THICK MASTIC ASPHALT SHALL BE PROVIDED AS PER SECTION 2700 OF MORTH SPECIFICATIONS.
- MINIMUM REQUIRED SOIL BEARING CAPACITY AND SBC AS PER GEOTECHNICAL REPORT AT FOUNDING LEVEL ARE AS BELOW:-

Sr No.	LOCATION	REQUIRED SBC(t/m <sup>2</sup> )	SBC AS PER GEOTECHNICAL(t/m <sup>2</sup> )
1	ABUTMENT A1	30	50
2	ABUTMENT A2	30	50

- THE REQUIRED SBC SHALL BE ENSURE AT SITE BEFORE EXECUTION USING PLATE LOAD TEST OR CONE PENETRATION (CPT) TEST.
- THE DESIGN AND DETAILED IS CARRIED OUT WITH FOLLOWING ASSUMPTION AS PER CLAUSE 4.2 OF IRC 112-2020.
    - EXECUTION WILL BE CARRIED OUT BY PERSONAL HAVING APPROPRIATE QUALIFICATION, SKILL AND EXPERIENCE.
    - ADEQUATE SUPERVISION AND QUALITY CONTROL WILL BE PROVIDED DURING ALL STAGES OF CONSTRUCTION.
  - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY DRAWING. ALL THE LEVEL, CHAINAGE, CROSS SLOPE SKEW ANGLE, SHALL BE VERIFIED FORM RELEVANT HIGHWAY DRAWING BEFORE EXECUTION.
  - EXPOSURE CONDITION IS SEVERE.
  - LAYING, COMPACTION AND EXTENT OF BACK FILL BEHIND SIDE WALL SHALL CONFIRM TO SPECIFICATION IN APPENDIX : 6 OF IRC : 78-2014.
  - THIS STRUCTURE LIES IN SEISMIC ZONE IV.
  - BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2017 HAVING PROPERTIES  $C=0$ ,  $\phi \geq 30^\circ$ ,  $\delta = 20^\circ$ ,  $\gamma_d = 2.0t/m^3$
  - 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALLS AND RETURN/RETAINING WALL.
  - ALL SOLID WALLS OF PCC/RCC/MASONRY TYPE, RETAINING THE EARTH SHALL HAVE WEEP HOLES STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
  - STRUCTURE DIMENSIONS SHOWN IN GAD ARE BASED ON PRELIMINARY DESIGN AND MAY CHANGE DURING DETAIL DESIGN.
  - ANNULAR FILLING ABOVE FOUNDING SHALL BE FILLED WITH M-15 GRADE CONCRETE UPTO ROCK LEVEL. IF THE DEPTH OF FILL REQUIRED IS MORE THAN 1.5 M IN SOFT ROCK OR 0.6 M IN HARD ROCK ABOVE THE FOUNDING LEVEL, THEN CONCRETE MAY BE FILLED UPTO THIS LEVEL BY M 15 CONCRETE AND PORTION ABOVE MAY BE FILLED BY CONCRETE OR BY BOULDERS GROUTED WITH CEMENT.
  - FOR DETAIL OF APPROACH SLAB, DRAINAGE SYSTEM, CRASH BARRIER, RETAINING WALL ETC. REFER SEPARATE DRAWING.

**LEGEND:-**

- FX - FIXED  
FR - FREE  
BRG - BEARING  
TYP - TYPICAL  
LVL - LEVEL  
CRL - CROSS ROAD LEVEL

NOTE  
1. ALL DIMENSIONS ARE TO BE READ NOT TO BE MEASURED.  
2. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.

**FOR TENDER**

CLIENT



**MAHARASHTRA INDUSTRIAL  
TOWNSHIP LTD (MITL)**

PROJECT

DESIGN, CONSTRUCTION, TESTING, COMMISSIONING  
AND OPERATION & MAINTENANCE OF INFRASTRUCTURE  
WORKS AT DIGHI PORT INDUSTRIAL AREA (DPIA)- PHASE  
1 UNDER DELHI MUMBAI INDUSTRIAL CORRIDOR (DMIC)  
ON EPC BASIS

TITLE

**GENERAL ARRANGEMENT DRAWING  
OF MINOR BRIDGE AT  
CHAINAGE 0+092 (BR-1) ROAD NO.-CR4**

PROJECT CODE: D11628 STATUS: ISSUED FOR TENDER DATE: 18.12.2024

SHEET NO: (BH 3 OF 3) SCALE: NTS DWG SIZE: A2 REV NO: R0

DRAWING NO:

MITL-DPIA-PKG1-RD-84