

KEY PLAN
(SCALE 1:1000)

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

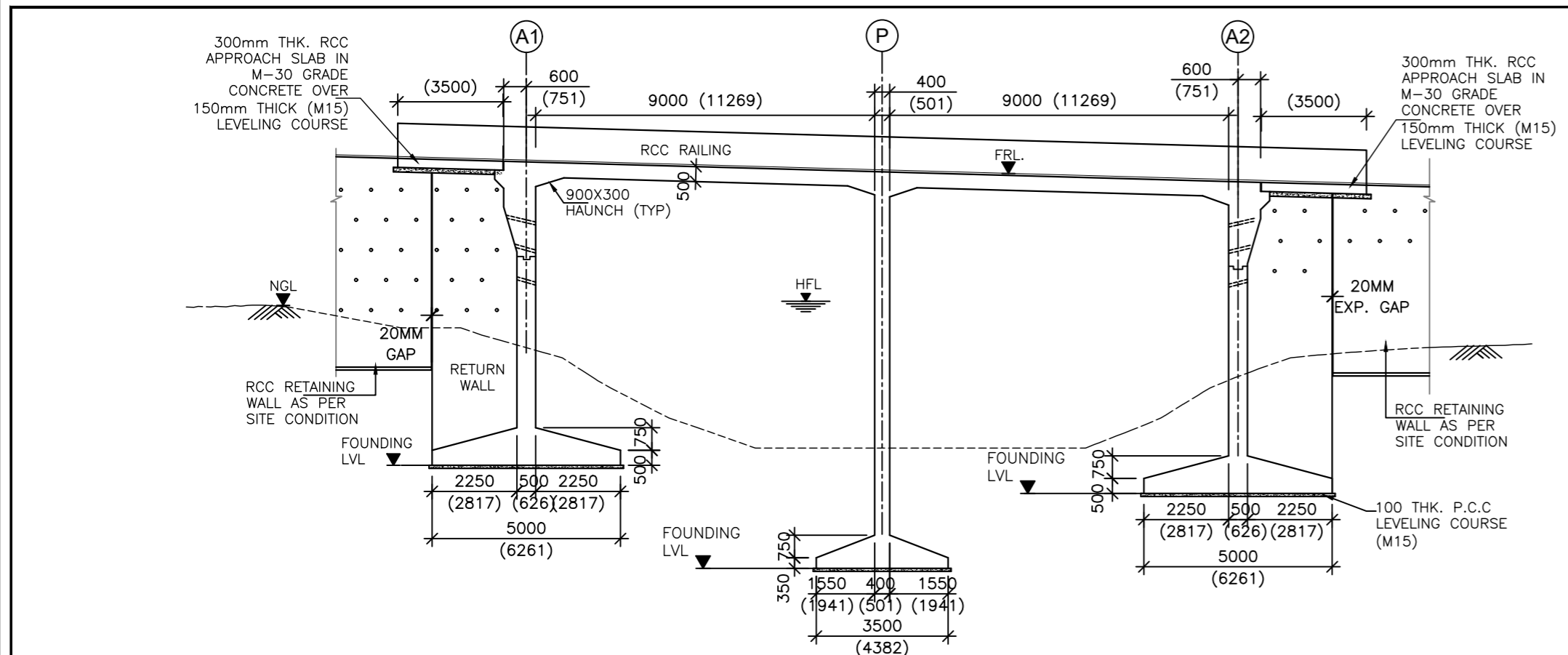
GENERAL ARRANGEMENT DRAWING
OF MINOR BRIDGE AT
CHAINAGE 2+270 (BR-33) ROAD NO.- SAR-2

PROJECT CODE: DI1628 | STATUS: ISSUED FOR TENDER | DATE: 18.12.2024

SHEET NO: (Bk. 1 OF 3) | SCALE: NTS | DWG SIZE: A2 | REV NO: R0

DRAWING NO:

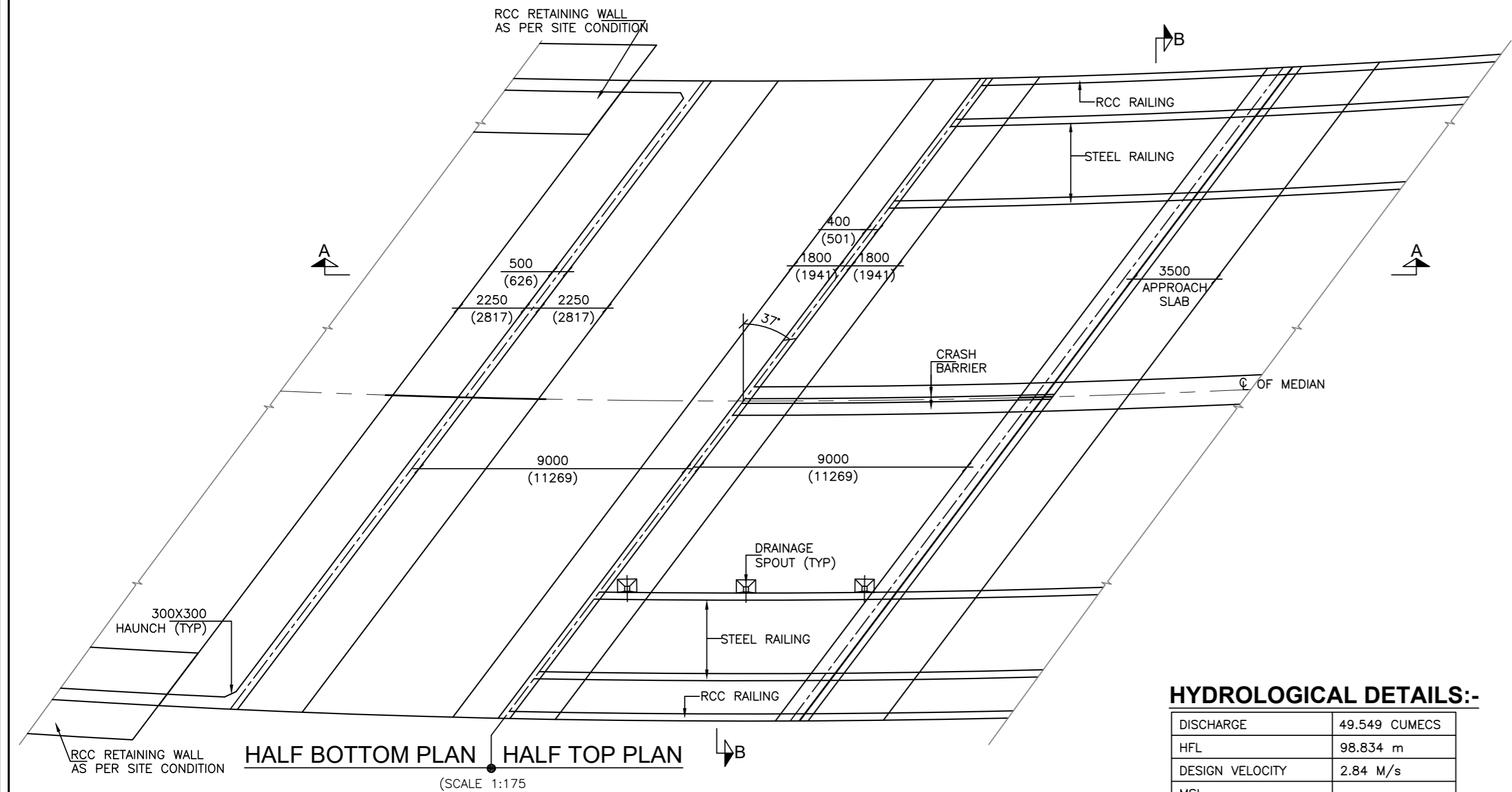
MITL-DPIA-PKG1-RD-101



FORMATION LEVEL (MCW) (M)	103.560	103.252	102.944
GROUND LEVEL (GR. LVL.)	97.250	94.000	96.252
FOUNDING LEVEL	93.250	90.000	92.250
SUPERELEVATION (%)	-2.5%	-2.5%	-2.5%
CHAINAGE (KM)	2+258.48	2+270	2+281.520

ELEVATION
(SCALE 1:175)

LEGEND:-
V - VERTICAL
H - HORIZONTAL
TYP - TYPICAL
LVL - LEVEL



DISCHARGE	49.549 CUMecs
HFL	98.834 m
DESIGN VELOCITY	2.84 M/s
MSL	----

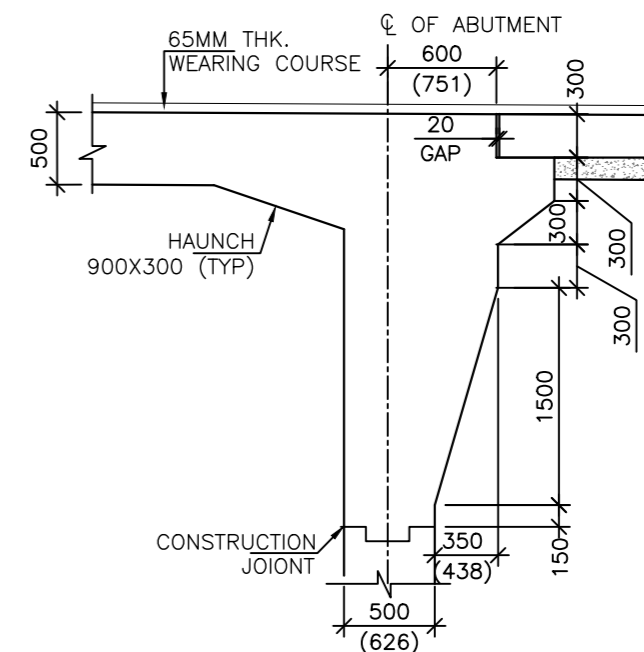
NOTES:-

- 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.
- THE PROPOSED STRUCTURE IS DESIGN FOR FOLLOWING VEHICULAR LOADS FOR MAIN CARRIAGEWAY:
 - CLASS-A, ONE, TWO WITH FOOTPATH + CYCLE TRACK FOR EACH CARRIAGEWAY.
 - ONE LANE OF CLASS 70R + FOOTPATH +CYCLE TRACK FOR EACH CARRIAGEWAY.
- 20mm FILLER TYPE EXPANSION JOINT SHALL BE PROVIDED AS PER MORT&H SPECIFICATION.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH
FOR DIFFERENT ELEMENTS AS FOLLOWS:
 - SUPERSTRUCTURE - M35
 - SUBSTRUCTURE & FOUNDING - M35
 - CRASH BARRIER - M40
 - PCC LEVELING COURSE - M15
 - APPROACH SLAB - M30
 - RETURN WALL - M35
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
 - SUPERSTRUCTURE - 45MM
 - FOUNDING - 75MM
SUBSTRUCTURE ABUTMENT:-
 - EARTH FACE - 75MM
 - NON EARTH FACE - 50MM
RETURN WALL:-
 - EARTH FACE - 75MM
 - NON EARTH FACE - 45MM
 - CRASH BARRIER - 45MM
- EXPOSURE CONDITION IS SEVER.
- CONSTRUCTION METHODOLOGY FOR SUPERSTRUCTURE SHALL BE AS UNDER:-
 - COMPLETION OF CASTING OF CAST-IN-SITU FOUNDING & SIDE WALL OF STRUCTURE.
 - CONSTRUCTION OF CAST-IN-SITU RCC SLAB.
 - CASTING OF CRASH BEAMS AND LAYING WEARING COAT AFTER 30DAYS OF CASTING OF DECK.
- BITUMINOUS CONCRETE 40mm THICK OVERLAID WITH 25mm THICK MASTIC ASPHALT SHALL BE PROVIDED AS PER SECTION 2700 OF MORT&H SPECIFICATIONS.
- 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.
- 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.
- BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2017 HAVING PROPERTIES $C=0$, $\phi>=30^\circ$, $\delta=20^\circ$, $y_d=2.0t/m^3$
- 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.
- REQUIRED BEARING CAPACITY OF STRUCTURE AT FOUNDING LEVEL IS 30.0 t/m². HOWEVER SBC AS PER GEOTECHNICAL REPORT IS 50t/m² AT FOUNDING LEVEL. THE REQUIRED SBC SHALL BE VERIFIED AT SITE BEFORE EXECUTION USING PLATE LOAD TEST OR CONE PENETRATION (CPT) TEST.
- FOR DETAIL OF APPROACH SLAB, DRAINAGE SYSTEM, CRASH BARRIER, RETAINING WALL ETC. REFER SEPARATE DRAWING.
- STRUCTURE DIMENSIONS SHOWN IN GAD ARE BASED ON PRELININARY DESIGN AND MAY CHANGE DURING DETAIL DESIGN.
- ANNUAL 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.

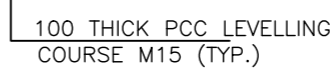
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DETAIL-1
(SCALE 1:50)



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