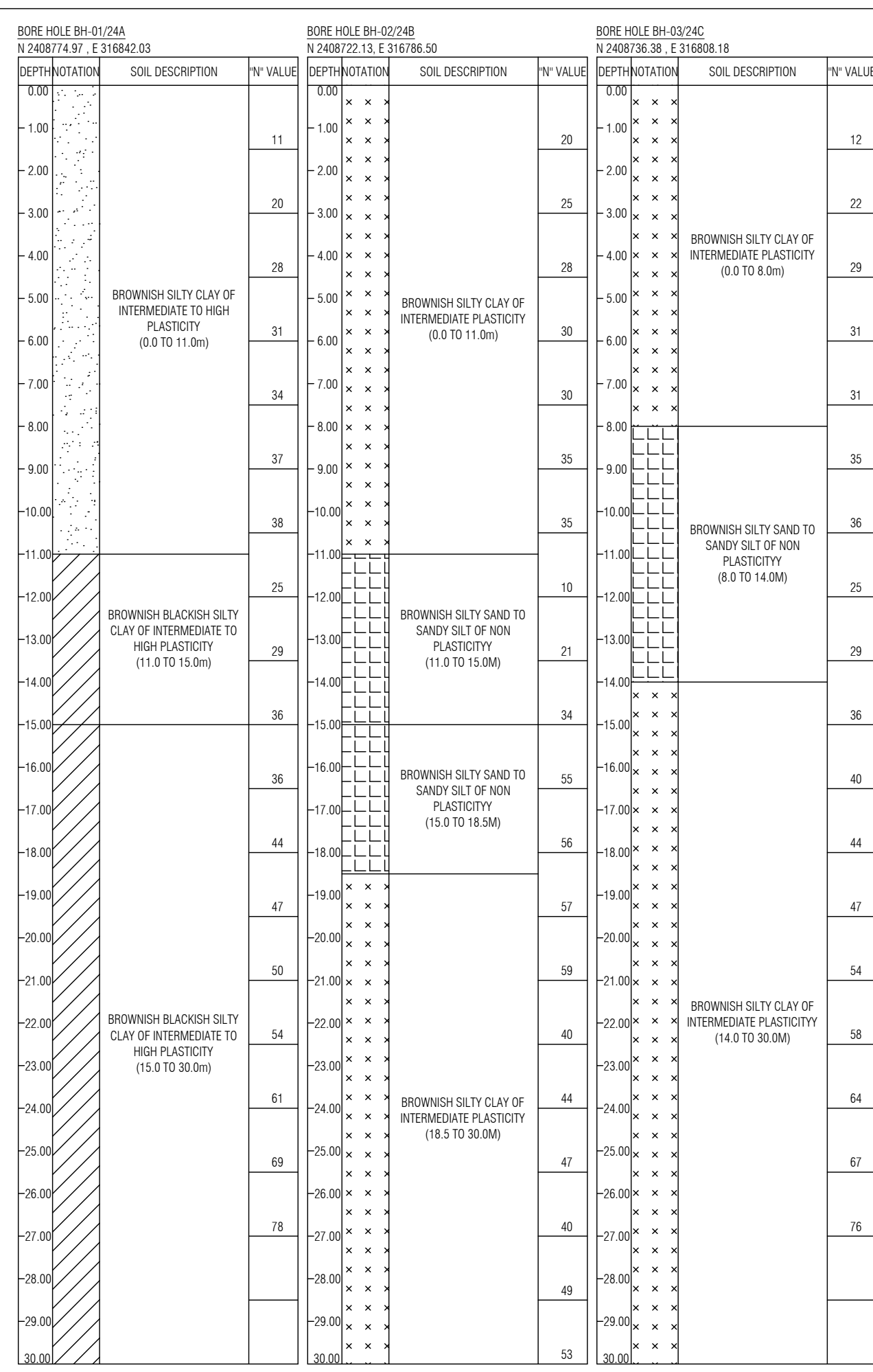


LEVEL TABLE								
LOCATION	F.R.L.	TOP OF PIER CAP / ABUTMENT CAP	BOTTOM OF PIER CAP / ABUTMENT CAP	HEIGHT OF PIER/ ABUTMENT	BED LEVEL	TOP OF PILE CAP	BOTTOM OF PILE CAP	PILE TERMINATION LEVEL
A1	30.400	-	-	-	28.240	27.900	26.100	1.100
P1	30.400	27.900	26.400	5.092	21.808	21.308	19.508	-5.492
P2	30.400	27.900	26.400	6.238	20.662	20.162	18.362	-6.638
P3	30.400	27.900	26.400	4.419	22.481	21.981	20.181	-4.819
A2	30.400	27.900	26.700	1.759	25.441	24.941	23.141	-1.859



- 1) GENERAL:  
A) ALL DIMENSIONS ARE IN MILLIMETER & LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.  
B) WRITTEN DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING.  
C) DESIGN CRITERIA:  
a. IRC: 78-2020  
b. SP: 13-2022  
c. IRC: 15-2017  
d. IRC: 112-2020  
e. IRC: 83-2018(PART-II)  
D) THE DESIGN IS APPLICABLE FOR "SEVERE" EXPOSURE CONDITIONS & SEISMIC ZONE III.  
E) THE STRUCTURE DESIGN FOR:  
1. ONE LANE OF CLASS 70R - ONE LANES OF CLASS A  
2. THREE LANES OF CLASS A  
3. IRC SV LOADING  
F) WIND LOAD DETAILS CONSIDERED IN DESIGN:  
1. BASIC WIND SPEED - 44 m/s  
2. TYPE OF TERRAIN - PLAIN TERRAIN
- 2) CONCRETE:  
A) TO IMPROVE WORKABILITY OF CONCRETE, ADMIXTURE FORMING TO IS 6925 AND IS 9103 MAY BE PERMITTED SUBJECTED TO SATISFACTORY PROVEN USE, ADMIXTURES GENERATING HYDROGEN, NITROGEN ETC. SHOULD NOT BE USED.
- 3) REINFORCEMENT:  
A) FBEC STEEL H4500 CONFORMING TO IS:1786-2008, SPECIFICATION.
- 4) WATER:  
A) WATER TO BE USED IN CONCRETING AND CURING SHALL CONFORM TO CLAUSE 18.4.5 OF IRC 112-2020.
- 5) BEARING:  
ELASTOMERIC BEARINGS SHALL BE CONFORM TO IRC: 83-2018 (PART-II)
- 6) EXPANSION JOINT:  
A) MODULAR TYPE EXPANSION JOINT SHALL BE USED. THE EXPANSION JOINTS MUST BE ROBUST, DURABLE, WATER TIGHT AND REPLACEABLE. IT MUST BE PROVIDED OVER THE FULL WIDTH OF SUPER STRUCTURE INCLUDING KERB AND FOOTPATH FOLLOWING THE PROFILE OF THE SAME. (WHERE RELEVANT) EXPANSION JOINTS SHALL BE OBTAINED ONLY FROM APPROVED MANUFACTURERS AND BE OF PROVEN TYPE. DETAILS OF EXPANSION JOINT MAY BE GOT APPROVED BEFORE COMMENCEMENT OF CONSTRUCTION. SITE FABRICATED EXPANSION JOINTS SHALL BE PROHIBITED.
- 7) WORKMANSHIP DETAILING:  
A) FOR ENSURING PROPER COVER OF CONCRETE TO REINFORCEMENT SPECIALLY MADE POLYMER COVER BLOCKS SHALL ONLY BE USED.  
B) CONCRETE GRADE
- | NO. | DESCRIPTION      | GRADE OF CONCRETE | GRADE OF STEEL |
|-----|------------------|-------------------|----------------|
| 01  | PSC GIRDER       | M45               |                |
| 02  | ABUTMENT         | M25               |                |
| 03  | ABUTMENT PILE    | M25               |                |
| 04  | ABUTMENT CAP     | M25               |                |
| 05  | PIER             | M25               |                |
| 06  | PIER PILE        | M25               |                |
| 07  | PIER CAP         | M25               |                |
| 08  | SEISMIC ARRESTER | M40               |                |
| 09  | LEVELING COURSE  | M15               |                |
| 10  | APPROACH SLAB    | M25               |                |
| 11  | WEARING COURSE   | M40               |                |
- C) BONDING OF REINFORCEMENT BARS SHALL BE AS PER IS:2502.  
D) PROPER COMPACTION OF CONCRETE SHALL BE ENSURED BY USE OF FORM AND/OR NEEDLE VIBRATORS. USE OF FULL WIDTH ACRED VIBRATORS FOR COMPACTION OF CONCRETE IN DECK SLAB SHALL BE ENSURED.  
E) SHUTTERING PLATES SHALL SUITABLY BE STIFFENED TO ENABLE THE COMPACTION BY FORM VIBRATORS.  
F) BACKFILL MATERIAL BEHIND GAD WALL SHALL BE SELECTED SOIL HAVING PROPERTIES AS C=0kg/m<sup>3</sup>, Ø=30°, DENSITY OF EARTH FILL γ=18kN/m<sup>3</sup> TO 20kN/m<sup>3</sup>. IT SHALL BE CONFORM WITH IRC-78-2014.  
9) SPECIFICATIONS:  
A) THE SPOUT SHALL OF 100mm DIA. @15.0m C/C AND MADE UP OF CORROSION RESISTANT MATERIAL.  
B) DRAINAGE SPOUTS AS PER MORTH STANDARD DRG NO. SD/305.  
11) IF ANY DISCREPANCY IS FOUND BETWEEN BORE HOLE DATA OF SOIL INVESTIGATION REPORT AND SITE SAME SHALL BE IMMEDIATELY REPORTED TO ENGINEER IN CHARGE.  
12) BED LEVEL SHOULD BE CHECKED WITH GAD BEFORE EXECUTION AT SITE. IF ANY DISCREPANCY FOUND, IMMEDIATELY BROUGHT IT TO THE NOTICE OF DESIGN ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.  
13) PILE & CHANGES WILL BE SUBJECTED TO CORRESPONDING CHANGES IN APPROVED PLAN & PROFILE DRAWING.  
14) IF ANY DISCREPANCY FOUND IN GAD & AT SITE CONDITION THE CONTRACTOR/CLIENT SHALL MUST INFORM TO DESIGN CONSULTANT BEFORE EXECUTION OF WORK.  
15) SIZE OF PIER, ABUTMENT, PIER CAP, BEARING, GROUND & PAVEDAL SHOWN IN THIS DRS. ARE TENTATIVE AND ARE SUBJECT TO CHANGE IN FINAL DESIGN & DRAWING AS PER REQUIREMENT.  
16) WEED HOLES SHALL BE 100mm Ø PVC @1000mm C/C IN STAGGERED FASHION.  
17) ADMINISTRATIVE APPROVAL FOR PROPOSED WORK WAS GIVEN BY GDS VIDE THEIR LETTER NO. PRC/10020248/RC.  
18) GEO GRID SHALL BE PROVIDED BEHIND APPROACH SLAB AS PER GR OF NO. PRC/H/10020201293/C DATED-17/02/2021.  
19) SOIL ENGINEERING WAS CARRIED OUT BY GEO DESIGN AND RESEARCH PRIVATE LIMITED AND SOIL INVESTIGATION REPORT WAS SUBMITTED TO EXECUTIVE ENGINEER, RAJPIPLA (R&B) DIVISION, RAJPIPLA. VIDEO REPORT NO. 8624-120004

- HYDRAULIC DATA
- |                          |                  |
|--------------------------|------------------|
| A) CATCHMENT AREA        | : 105.84 SQ.KM   |
| B) DESIGN DISCHARGE      | : 762.07 CUM/SEC |
| C) HFL                   | : 24.660m        |
| D) AFFLUX                | : 0.400m         |
| E) AHFL                  | : 25.060m        |
| F) RUGOSITY CO-EFFICIENT | : 0.035          |
| G) OBSTRUCTED VELOCITY   | : 4.02m/s        |
- STRUCTURAL AND OTHER DATA
- |                     |   |
|---------------------|---|
| A) SPAN ARRANGEMENT | : A SPAN OF 25m C/C OF PIER                       |
| B) SUB STRUCTURE    | : FOUNDATION, PIERS, RCC ABUTMENT, RETAINING WALL |
| C) BEARING/SUPPORT  | : ELASTOMERIC BEARING                             |
| D) SUPER STRUCTURE  | : PSC I - GIRDER                                  |
| E) WEARING COAT     | : 100mm THICK RCC WEARING COAT                    |
| F) EXPANSION JOINT  | : 40mm MODULAR TYPE EXPANSION JOINT               |
| G) WATER SPOUTS     | : AT 5m C/C                                       |
| H) RAILINGS         | : RCC CRASH BARRIER                               |

CLIENT:- EXECUTIVE ENGINEER, DISTRICT (R&B) DIVISION, BHARUCH

NAME OF WORK:-  
RECONSTRUCTION OF MAJOR BRIDGE AT CH. 30+490 ON  
ANKLESHWAR-RAJPIPLA STATE HIGHWAY (SH-64) IN BHARUCH DISTRICT IN  
THE STATE OF GUJARAT

TITLE:- GENERAL ARRANGEMENT DRAWING OF MAJOR BRIDGE AT  
(4x25.0m SPAN)

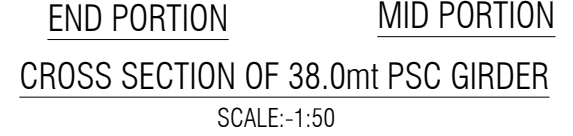
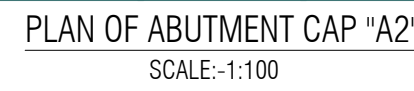
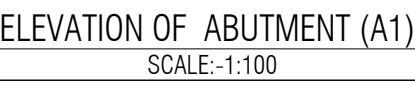
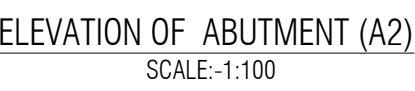
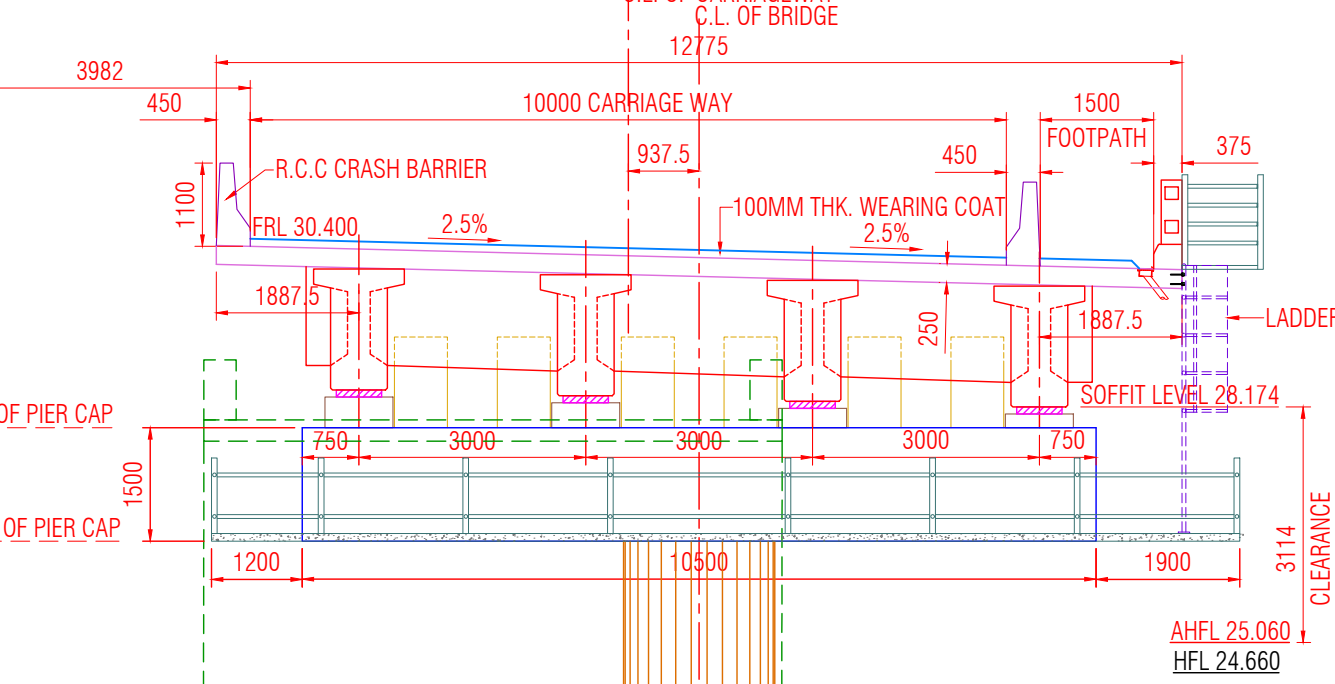
CONSULTANT :-  
  
B/10, KRISHNA INDUSTRIAL ESTATE,  
OPP. B.I.D.C. GORWA ESTATE,  
VADODARA - 390 016  
TELEFAX: 91-265-2290222, 2283081  
E-Mail: geo\_group@yahoo.com  
Web Site: www.geogroup.in

PREPARED BY	SHARIK	DRG NO.	16/001/MJB/GAD/30+490/01 OF 02	Rev	
DESIGNED BY	FAKRUDDIN DHIJAWALA (S-ENGINEER)	DATE	30-12-2025		
CHECKED BY	MEHUL PATEL (DESIGN DIRECTOR)	JOB NO.			

ROAD AUTHORITY :  
EXECUTIVE ENGINEER,  
CITY (R&B) SUB DIVISION,  
BHARUCH

EXECUTIVE ENGINEER  
BHARUCH (R&B) DIVISION,  
BHARUCH





B/10, KRISHNA INDUSTRIAL ESTATE,  
OPP. B.I.D.C. GORWA ESTATE,  
VADODARA - 390 016  
TELEFAX : 91-265-2290222,2283081  
E-Mail : [geo\\_group@yahoo.com](mailto:geo_group@yahoo.com)  
Web Site : [www.geogroup.in](http://www.geogroup.in)

CONSULTANT	DY. EXECUTIVE ENGINEER, CITY (R&B) SUB DIVISION BHARUCH	EXECUTIVE ENGINEER BHARUCH (R&B) DIVISION BHARUCH	Web Site : <a href="http://www.geogroup.in">www.geogroup.in</a>				
			PREPARED BY	SHARIK	DRG NO.	16/001/MJB/GAD/30 + 490/02 OF 02	Rev.
			DESIGNED BY	FAKHRUDDIN DHILAWALA (Sr.ENGINEER)	DATE	30-12-2025	RO
			CHECKED BY	MEHUL PATEL (DESIGN DIRECTOR)	JOB NO.		