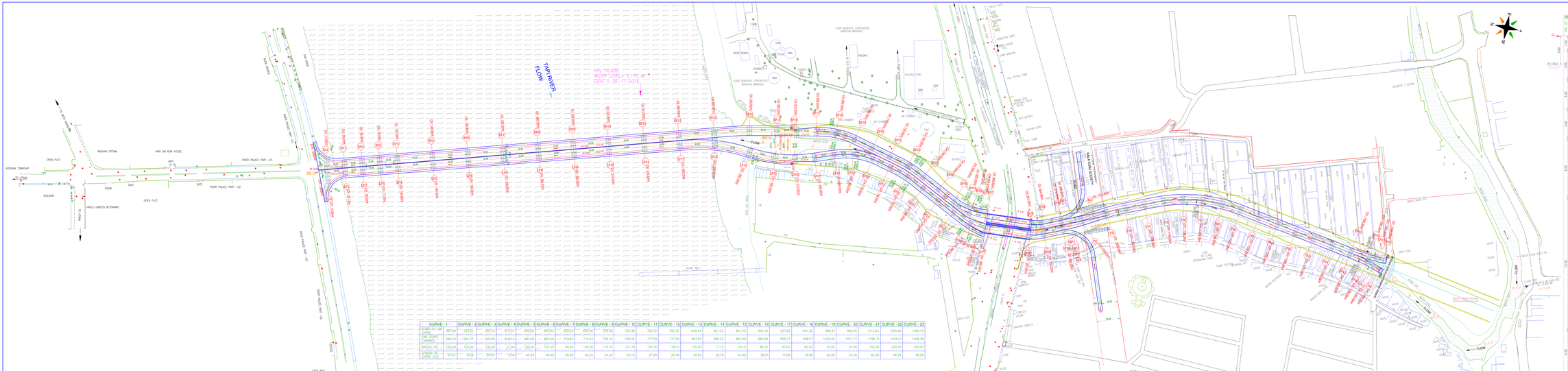
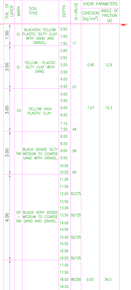


LAYOUT PLAN OF PROP. BRIDGE
SCALE: 1:2500

	CURVE - 1	CURVE - 2	CURVE - 3	CURVE - 4	CURVE - 5	CURVE - 6	CURVE - 7	CURVE - 8	CURVE - 9	CURVE - 10	CURVE - 11	CURVE - 12	CURVE - 13	CURVE - 14	CURVE - 15	CURVE - 16	CURVE - 17	CURVE - 18	CURVE - 19	CURVE - 20	CURVE - 21	CURVE - 22	CURVE - 23
STAND ON CURVE	487.69	553.53	552.53	672.57	640.32	640.32	659.24	659.24	726.36	726.36	750.72	750.72	849.44	851.52	841.73	842.10	937.62	941.36	980.81	980.55	1113.24	1354.90	1369.15
END CURVE CHAINAGE	549.02	541.27	623.60	648.14	680.56	680.56	749.63	719.63	768.34	768.34	777.59	777.59	883.55	880.22	883.96	883.96	955.07	958.51	1029.46	1031.17	1196.71	1404.21	1408.38
RADIUS (R)	130.00	100.00	130.00	51.90	100.00	105.55	94.45	100.00	114.24	121.79	133.78	128.21	125.00	77.15	78.15	88.70	60.00	60.00	35.00	35.00	150.00	200.00	250.00
LENGTH OF CURVE (LC)	61.33	9.25	68.07	5.58	45.94	48.49	56.90	60.25	24.02	25.16	27.64	26.49	30.90	28.79	42.40	38.91	17.60	16.95	48.28	52.26	83.56	49.34	39.24

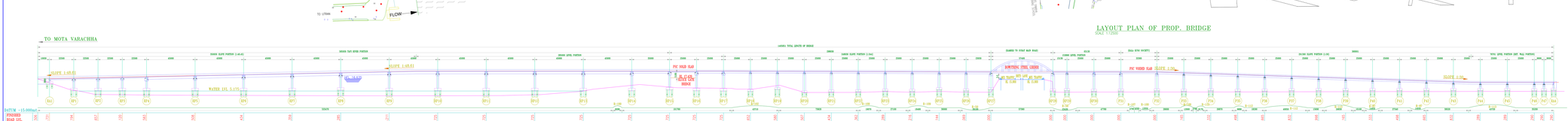
NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS ARE IN M.
2. DO NOT SCALE THIS DRAWING.
3. FOUNDATION LEVEL, SIZE AND DEPTH ARE TENTATIVE AND WILL BE MODIFIED AS MAY BE REQUIRED BASED ON SOIL EXPLORATION TEST RESULTS AND SITE CONDITIONS.
4. THE DIMENSIONS AND DETAILS DIMENSIONS OF ALL STRUCTURAL COMPONENTS SHOWN IN THIS DRAWING ARE TENTATIVE AND MAY CHANGE CHANGE DURING DETAILED DESIGN. THE WORK SHALL BE CARRIED OUT AS PER DESIGN AND DRAWING APPROVED BY DEPARTMENT.
5. THE BRIDGE IS TO BE DESIGNED FOR TWO LANES OF IRC CLASS 70 LOADING WITH ONE LANE OF ONE LINE WHEREVER IS SEVERE FOR EACH TWO LANE CARRIAGEWAY.
6. BEARING: POT-PTFE/ELASTOMERIC TYPE
7. EXPANSION JOINT: STRIP SEAL TYPE (40mm)
8. MINIMUM CONCRETE GRADE:
   PILE:- M-30
   ALL PIER CAP, PIER, PIERTOP, PEDESTAL, SEISMIC ARRESTORS:- M-35
   ABUTMENT, WING, CURVED WING, RETURN:- M-35, CRASH BARRIER:- M-40
   P.S.C. SUPER-STRUCTURE:- M-45
   RCC SUPER STRUCTURE, APPROACH SLAB, KERB, PARAPET:- M-30
9. WEARING COAT:-75mm THK.
10. THE BRIDGE IS DESIGNED FOR SEISMIC FORCES APPLICABLE TO ZONE-III
11. ALL DEFORMED REINFORCEMENT SHALL BE TMT BARS WITH GRADE FE-500 CONFORMING TO IS:1786-2008 WITH LATEST AMENDMENT.
12. BACK FILLING BEHIND ABUTMENT AND RETAINING WALLS SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX-A OF IRC:78-2014 HAVING PROPERTIES C=0, Φ=32° AND ϕ=18kN/m³.
13. WEEP HOLES (SPACE AT 1000c/c BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUTMENTS AND RETAINING WALLS FROM 300mm ABOVE GROUND LEVEL TO HFL.



DETAILS OF BH-4
SCALE:- NTS

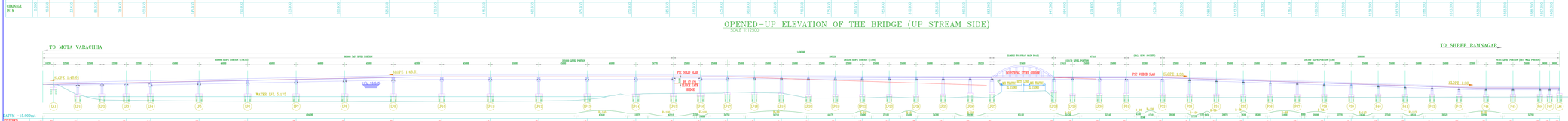
TO MOTA VARACHHA



OPENED-UP ELEVATION OF THE BRIDGE (UP STREAM SIDE)
SCALE: 1:2500

TO MOTA VARACHHA

TO SHREE RAMNAGAR



OPENED-UP ELEVATION OF THE BRIDGE (DOWN STREAM SIDE)
SCALE: 1:2500

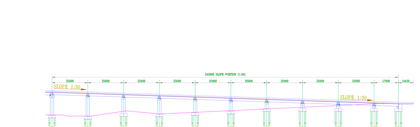
DETAILS OF BH-1
SCALE:- NTS

DETAILS OF BH-7
SCALE:- NTS

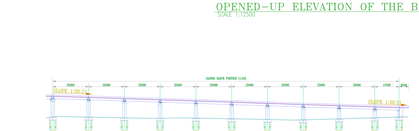
LEGEND OF STRUCTURES

SR.	STRUCTURE TYPE	CODE FOR SURVEY	SYMBOL
01	ELECTRIC POLE	EP	
02	FENCE LINE	FL	
03	COMPOUND WALL	CW	
04	TRIM PILLAR	TRM	
05	MANHOLE/CHAMBER	MH	CH
06	WELL	WELL	
07	TREE	TR	
08	GROUND LEVEL	GL	
09	ROAD		
10	HIGH TENSION LINE	HT	
11	GATE	GT	
12	WATER PORTION		
13	EXISTING BRIDGE PORTION		
14	BRTS LANE PORTION		
15	KHADI SLOPE PORTION		
16	PROP. BRIDGE		
17	RPCP. UP & DN BRIDGE		

WAREHOUSE	BORWELL		
TREE	HT TOWER		ROAD
E.L.C.POLE	UNDER POLE		RAILWAY
TEMPLE	STRUCTURE		CURVE LINE

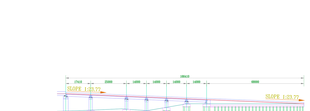


OPENED-UP ELEVATION OF THE BRIDGE
SCALE: 1:2500
(UP STREAM SIDE)

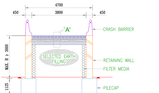


OPENED-UP ELEVATION OF THE BRIDGE
SCALE: 1:2500
(DOWN STREAM SIDE)

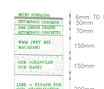
OPENED-UP ELEVATION OF THE BRIDGE
SCALE: 1:2500
(UP STREAM SIDE)



OPENED-UP ELEVATION OF THE BRIDGE
SCALE: 1:2500
(DOWN STREAM SIDE)



SECTION OF
RETAINING WALL-RW2



DETAIL:-'A'
SECTION OF ROAD
SCALE: NTS

01	12/04/18	REVISED AS PER LETTER NO. SR/1/05/199 DATED 12/4/18 OF SURVEYING ENGINEER, DESIGN (R & B) CIRCLE, GANDHINAGAR.
NO.	DATE	REVISION

PROJECT:- PROPOSED BRIDGE ACROSS TAPI RIVER, AND ALONG VARACHCHHA CREEK NEAR VARACHCHHA MAIN ROAD AND NEAR VARACHCHHA WATER BODIES, (4 LANE) AT SURAT.

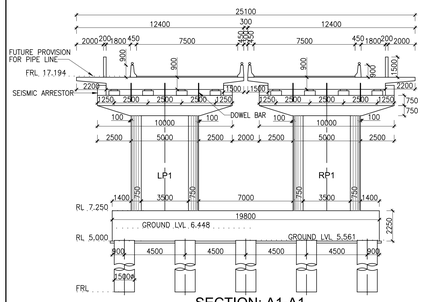
CLIENT:- SURAT MUNICIPAL CORPORATION SURAT.

CONTRACTOR:- VIJAY M. MISTRY CONST. PVT. LTD. AHMEDABAD.

CONSULTANT:- SHAH ASSOCIATES
204, 1ST FLOOR, GRAND U, BETA, NATRAJ CINEMA, OFF. ASHRAM ROAD, AHMEDABAD- 380009.
PHONE No. 079-26587580, 26587581, 26587582, 11314

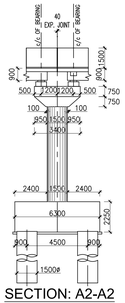
TITLE:- GENERAL ARRANGEMENT DRAWING
(SHEET NO. 01 OF 03)

DRAWN BY:	FAZAN MOMIN	DESIGN BY:	D. H. SHAH	
CHECKED BY:	D. H. SHAH	PROJ. NO.	DRG. NO.	REVISION
SCALE:	AS SHOWN	---	01	R1
DATE:	MARCH-2018			



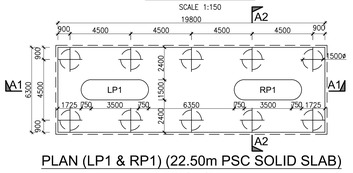
SECTION: A1-A1

SCALE 1:150



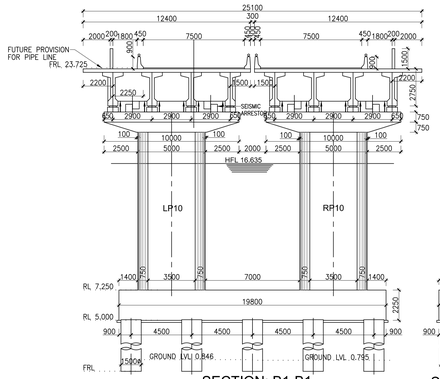
SECTION: A2-A2

SCALE 1:150



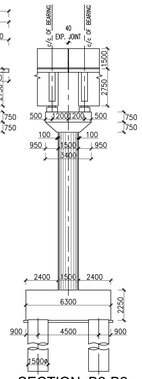
PLAN (LP1 & RP1) (22.50m PSC SOLID SLAB)

SCALE 1:150



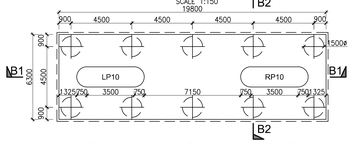
SECTION: B1-B1

SCALE 1:150



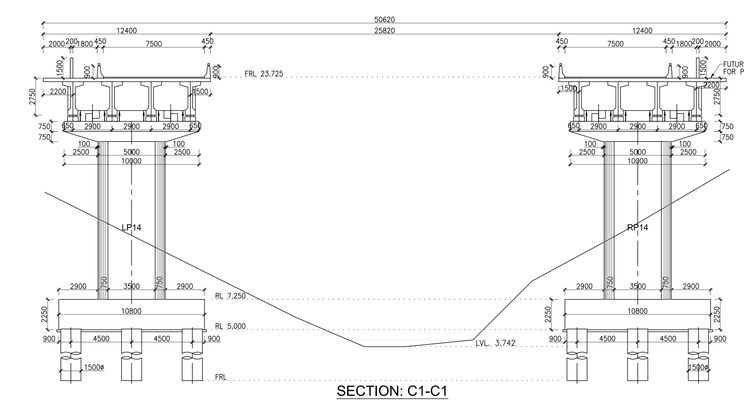
SECTION: B2-B2

SCALE 1:150



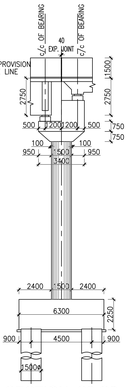
PLAN (LP10 & RP10) (45.00m PSC GIRDER)

SCALE 1:150



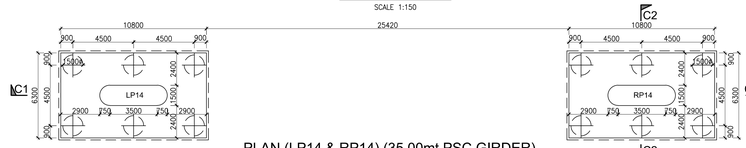
SECTION: C1-C1

SCALE 1:150



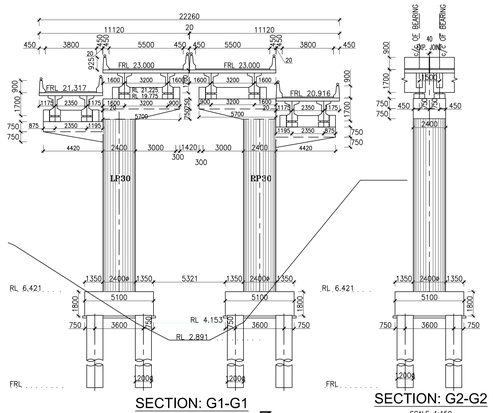
SECTION: C2-C2

SCALE 1:150



PLAN (LP14 & RP14) (35.00mt PSC GIRDER)

SCALE 1:150

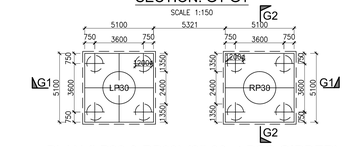


SECTION: G1-G1

SCALE 1:150

SECTION: G2-G2

SCALE 1:150



PLAN (LP30 & RP30) (25.00mt PSC GIRDER)

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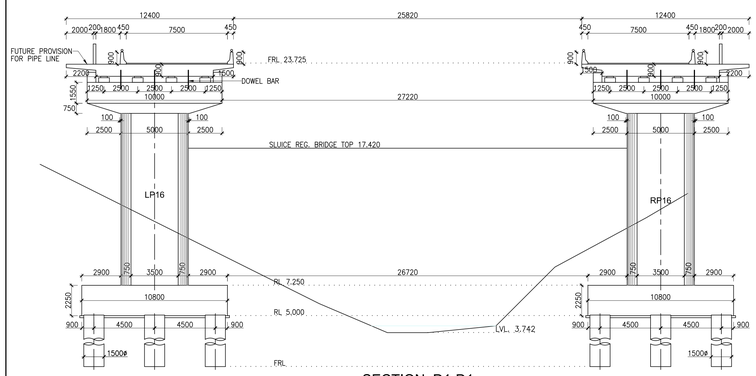
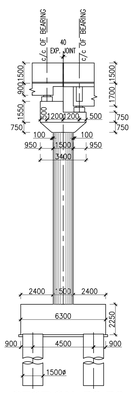


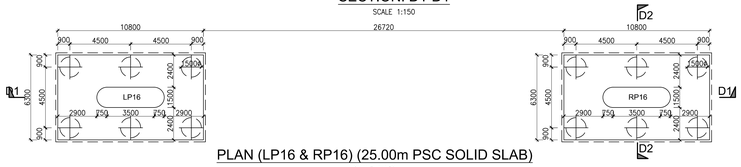
SECTION: D1-D1

SCALE 1:150



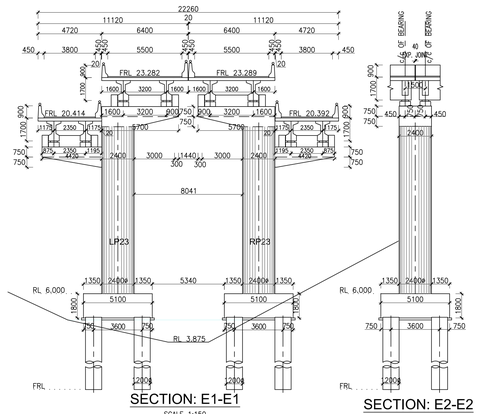
SECTION: D2-D2

SCALE 1:150



PLAN (LP16 & RP16) (25.00m PSC SOLID SLAB)

SCALE 1:150

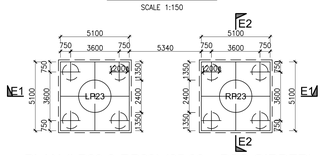


SECTION: E1-E1

SCALE 1:150

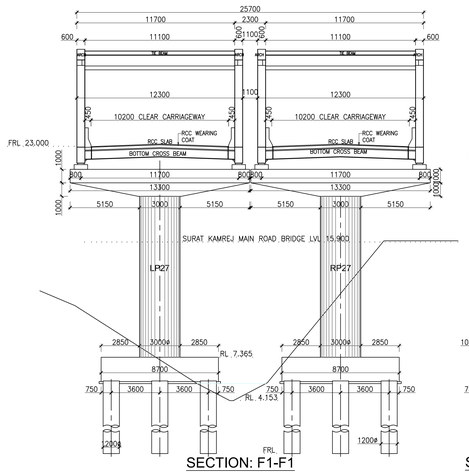
SECTION: E2-E2

SCALE 1:150



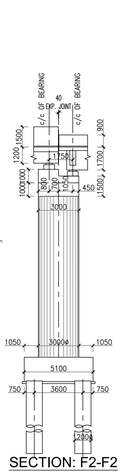
PLAN (LP23 & RP23) (25.00m PSC GIRDER)

SCALE 1:150



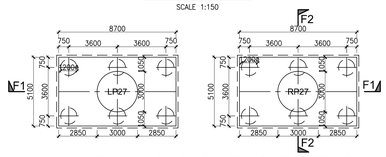
SECTION: F1-F1

SCALE 1:150



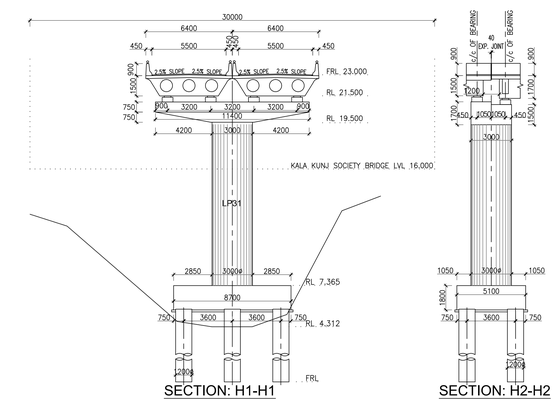
SECTION: F2-F2

SCALE 1:150



PLAN (LP27 & RP27) (57.40mt BOW STARING STEEL GIRDER)

SCALE 1:150

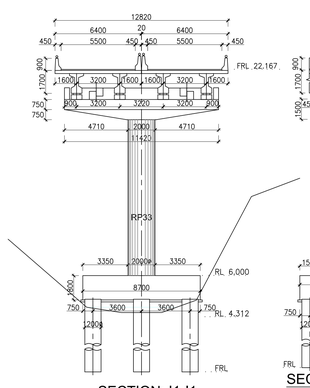


SECTION: H1-H1

SCALE 1:150

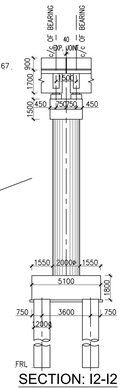
SECTION: H2-H2

SCALE 1:150



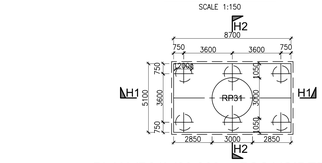
SECTION: I1-I1

SCALE 1:150



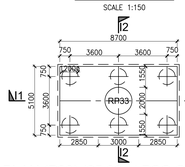
SECTION: I2-I2

SCALE 1:150



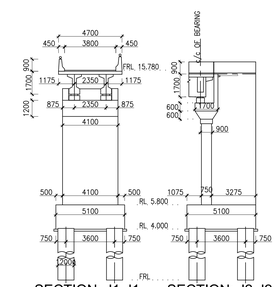
PLAN (P31) (33.360mt PSC VOIDED SLAB)

SCALE 1:150



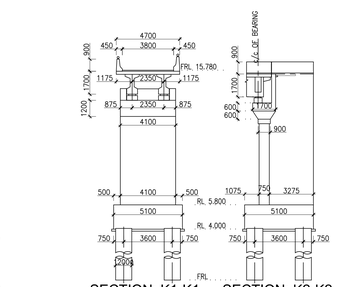
PLAN (P33) (25.00mt PSC GIRDER)

SCALE 1:150



SECTION: J1-J1

SCALE 1:150



SECTION: K1-K1

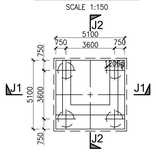
SCALE 1:150

SECTION: J2-J2

SCALE 1:150

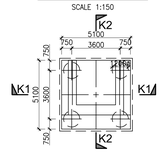
SECTION: K2-K2

SCALE 1:150



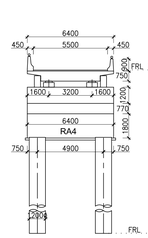
PLAN (LA2 & RA2) (17.00m PSC GIRDER)

SCALE 1:150



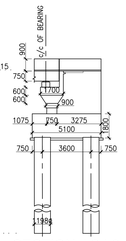
PLAN (LA3 & RA3) (14.00mt PSC GIRDER)

SCALE 1:150



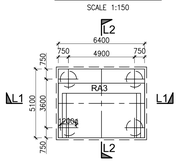
SECTION: L1-L1

SCALE 1:150



SECTION: L2-L2

SCALE 1:150



PLAN (LA4 & RA4) (9.00mt SOLID GIRDER)

SCALE 1:150

REFERENCES :-

1. GENERAL ARRANGEMENT DRAWING (SHEET NO 01 OF 03) ___01 (SH. NO. 01 OF 03)

NO.	DATE	REVISION
R1	12/06/18	REVISED AS PER LETTER NO. SRI/05/199 DATED 07/06/18 OF SUPERINTENDING ENGINEER, DESIGN (R & B) CIRCLE, GANDHINAGAR.

PROJECT:– PROPOSED BRIDGE ACROSS TAPI RIVER, AND ALONG VARACHCHHA CREEK NEAR VARACHCHHA MAIN ROAD AND NEAR VARACHCHHA WATER WORKS (4 LANE) AT SURAT.

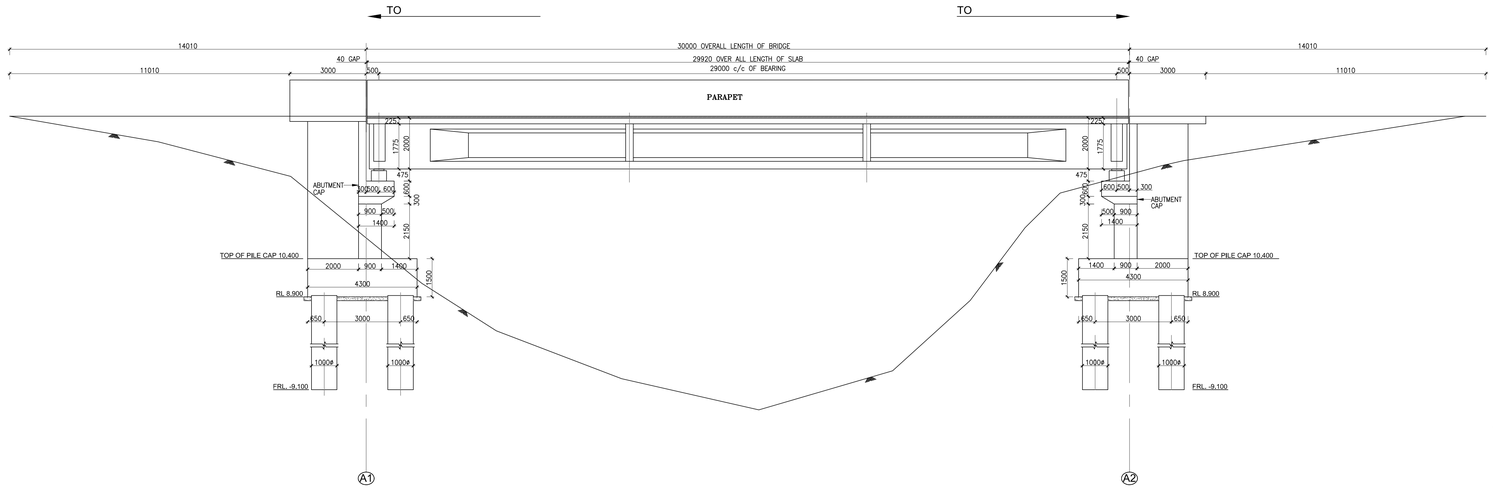
CLIENT:– SURAT MUNICIPAL CORPORATION SURAT.

CONTRACTOR:– VIJAY M. MISTRY CONST. PVT. LTD., AHMEDABAD.

CONSULTANT:– SHAH ASSOCIATES
1005, 10TH FLOOR, SAKAR-V, B/H. NATRAJ CINEMA, OFF. ASHRAM ROAD, AHMEDABAD: 380009.
PHONE NO. 079-26585785, 098250 11314

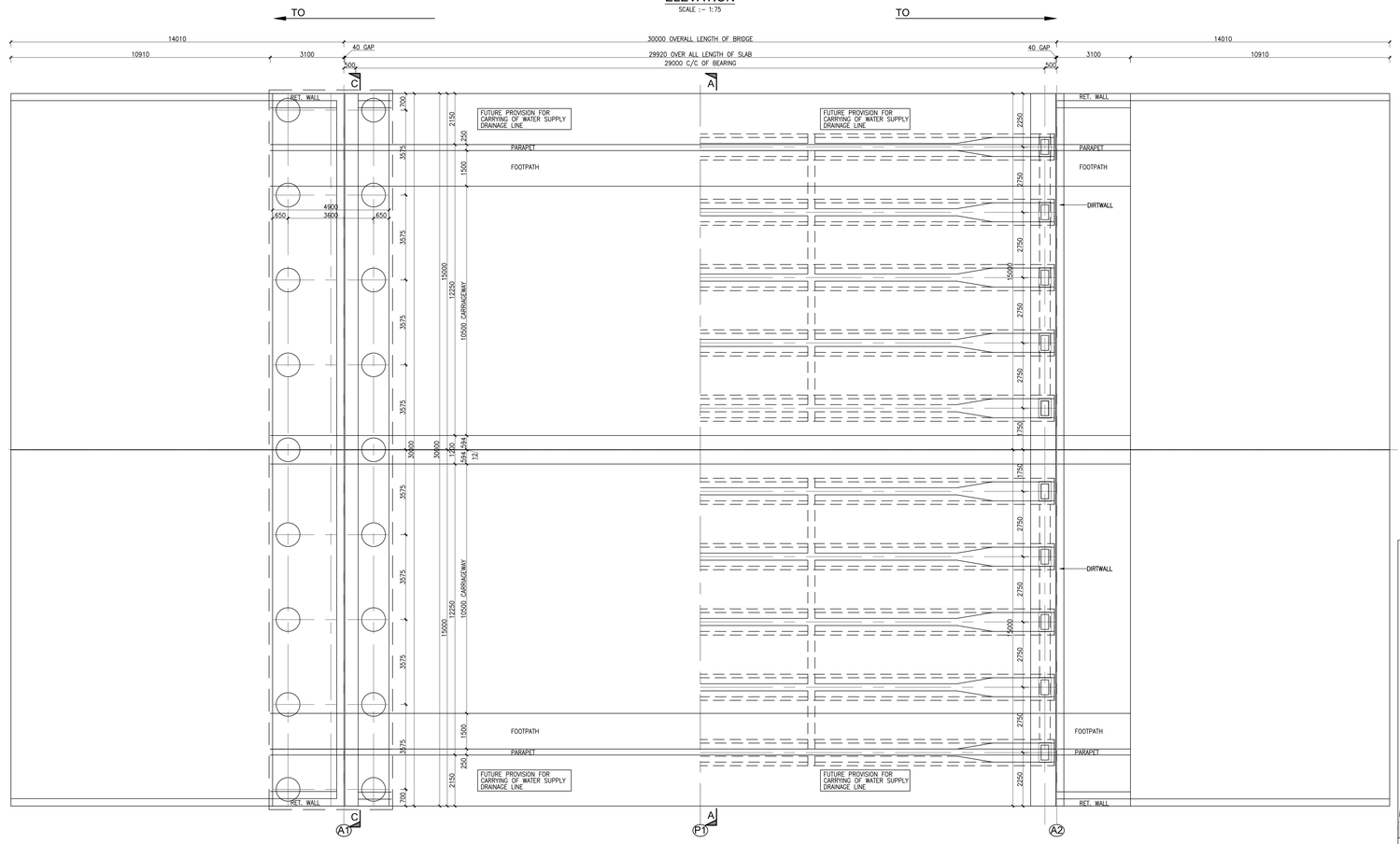
TITLE:– GENERAL ARRANGEMENT DRAWING (SHEET NO. 02 OF 03)

DRAWN BY: K. C. KOSHTI	DESIGN BY: D. H. SHAH		
CHECKED BY: D. H. SHAH	PROJ. NO.	DRG. NO.	REVISION
SCALE: AS SHOWN	---	01	R1
DATE: MARCH–2018			

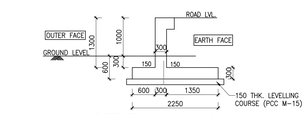


DATUM 0.000 MT														
FINISHED ROAD LVL.	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000
GROUND LVL. (mt.)	16.000	15.221	14.037	11.993	7.512	5.570	4.428	5.653	10.275	13.578	14.572	15.362	16.000	16.000
CHAINAGE (mt.)	29.010	25.000	20.000	15.000	10.000	5.000	0.000	5.000	10.000	15.000	20.000	25.000	29.010	

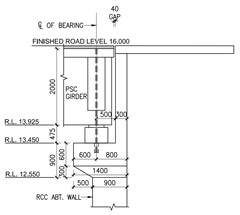
ELEVATION
SCALE :- 1:75



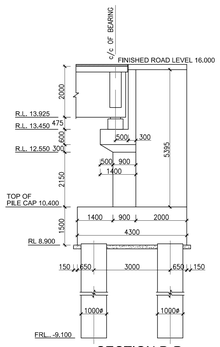
HALF BOTTOM PLAN / HALF TOP PLAN
SCALE: 1:75



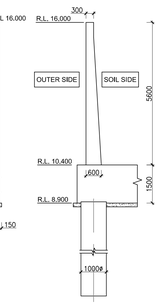
RETURN WALL (1.00mt ht)
SCALE 1:50



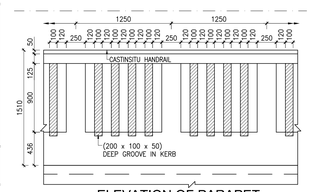
CROSS SECTION OF ABUTMENT
SCALE 1:50



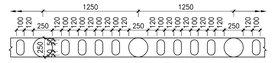
SECTION D-D
SCALE 1:75



SECTION OF RETURN
SCALE 1:75

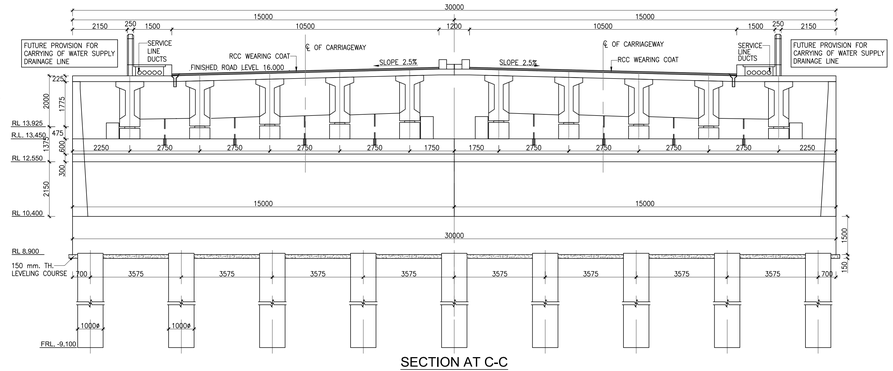


ELEVATION OF PARAPET
SCALE :- 1:25

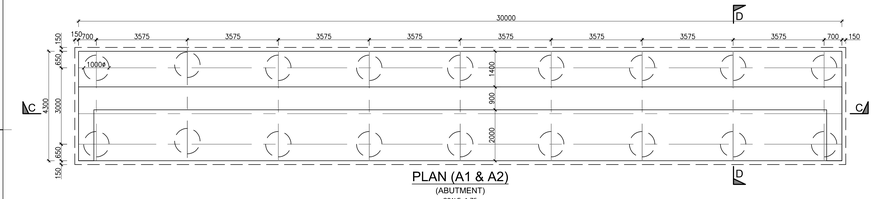


PLAN OF PARAPET
SCALE :- 1:25

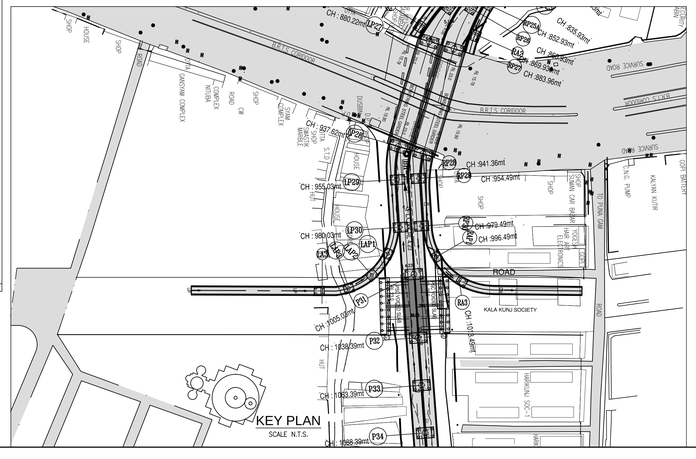
TYPICAL DETAILS OF PARAPET (INDICATIVE ONLY)



SECTION AT C-C
SCALE 1:75



PLAN (A1 & A2)
(ABUTMENT)
SCALE 1:75



NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS ARE IN M.
2. DO NOT SCALE THIS DRAWING.
3. FOUNDATION LEVEL, SIZE AND DEPTH ARE TENTATIVE AND WILL BE BE MODIFIED AS MAY BE REQUIRED BASED ON SOIL EXPLORATION TEST RESULTS AND SITE CONDITION.
4. THE SPAN ARRANGEMENT AND DIMENSIONS OF ALL STRUCTURAL COMPONENTS SHOWN IN THIS DRAWING ARE TENTATIVE AND MAY CHANGE DURING DETAILED DESIGN. THE WORK SHALL BE CARRIED OUT AS PER DESIGN AND DRAWING APPROVED BY DEPARTMENT.
5. THE BRIDGE IS TO BE DESIGNED FOR THREE LANES OF IRC CLASS 'A' LOADING OR CLASS 70R LOADING ONE LANE + CLASS 'A' LOADING ONE LANE WHICHEVER IS SEVERE FOR EACH TWO LANE CARRIAGEWAY.
6. BEARING: ELASTORMERIC TYPE
7. EXPANSION JOINT: STRIP SEAL TYPE (40mm)
8. MINIMUM CONCRETE GRADE:
   P.C.C.:- M:15
   PILE, PILECAP, PIER, PIERCAP, PEDESTAL:- M:35
   ABUTMENT SUB-STRUCTURE, RETURN:- M:35
   P.S.C. SUPER-STRUCTURE:- M:45
   APPROACH SLAB, KERB, PARAPET:- M:30
9. THE BRIDGE IS DESIGNED FOR SEISMIC FORCES APPLICABLE TO ZONE-III.
10. ALL UNTENSIONED REINFORCEMENT SHALL BE TMT BARS WITH GRADE DESIGNATION Fe-500 CONFORMING TO IS:1786 STANDARD.
11. LAYING, COMPACTION AND EXTENT OF BACKFILL BEHIND ABUTMENTS AND RETAINING WALLS SHALL CONFORM TO APPENDIX-6 OF IRC:78-2014.
12. BACK FILLING BEHIND ABUTMENTS AND RETAINING WALLS SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX-6 OF IRC:78-2014 HAVING PROPERTIES C=0, ø=30° AND ø=18KN/m³
13. WEEP HOLES SPACED AT 1000c/c BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUTMENTS AND RETAINING WALLS FROM 300mm ABOVE GROUND LEVEL TO HFL.

REFERENCES :-

1. GENERAL ARRANGEMENT DRAWING ___01 (SH. NO. 01 OF 03) (SHEET NO 01 OF 03)

NO.	DATE	REVISION
R2	03/08/18	CHANGE IN SPAN ARRANGEMENT.
R1	12/06/18	REVISED AS PER LETTER NO. SRT/05/199 DATED 07/06/18 OF SUPERINTENDING ENGINEER, DESIGN (R & B) CIRCLE, GANDHINAGAR.

PROJECT:- PROPOSED BRIDGE ACROSS TAPI RIVER, AND ALONG VARACHCHHA CREEK NEAR VARACHCHHA MAIN ROAD AND NEAR VARACHCHHA WATER WORKS (4 LANE) AT SURAT.

CLIENT:- SURAT MUNICIPAL CORPORATION SURAT.

CONTRACTOR:- VIJAY M. MISTRY CONST. PVT. LTD., AHMEDABAD.

CONSULTANT:- SHAH ASSOCIATES
1005, 10TH FLOOR, SAKAR-V, B/H. NATRAJ CINEMA, OFF. ASHRAM ROAD, AHMEDABAD. 380009.
PHONE NO. 079-26585785, 098250 11314

TITLE:- GENERAL ARRANGEMENT DRAWING (SHEET NO. 03 OF 03)

DRAWN BY:	K. C. KOSHTI	DESIGN BY:	D. H. SHAH	
CHECKED BY:	D. H. SHAH	PROJ. NO.	DRG. NO.	REVISION
SCALE:	AS SHOWN	---	01	R2
DATE:	MARCH-2018			