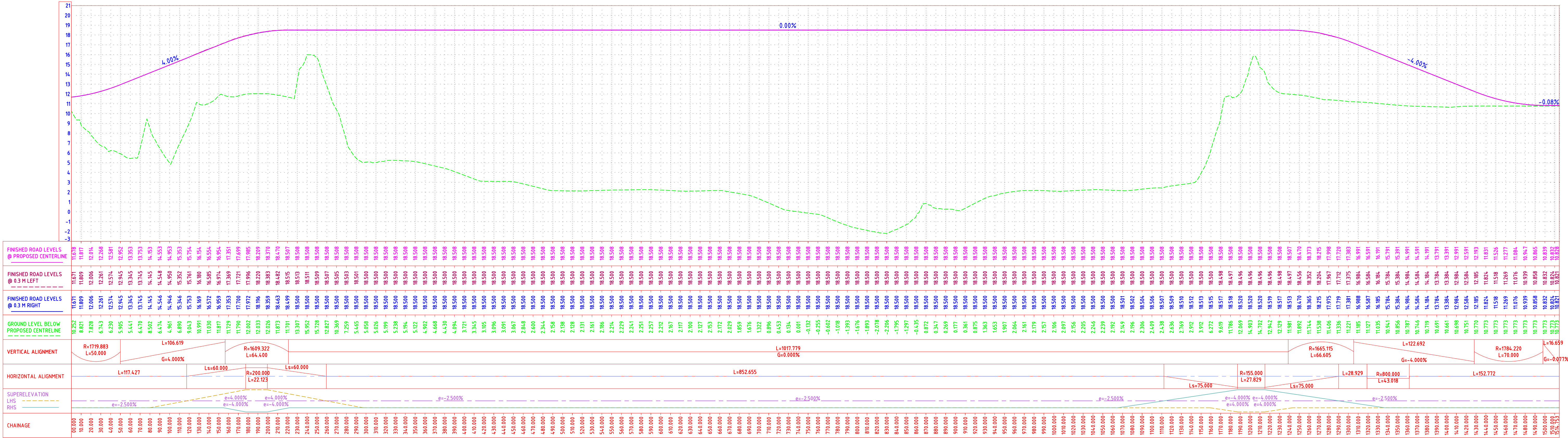
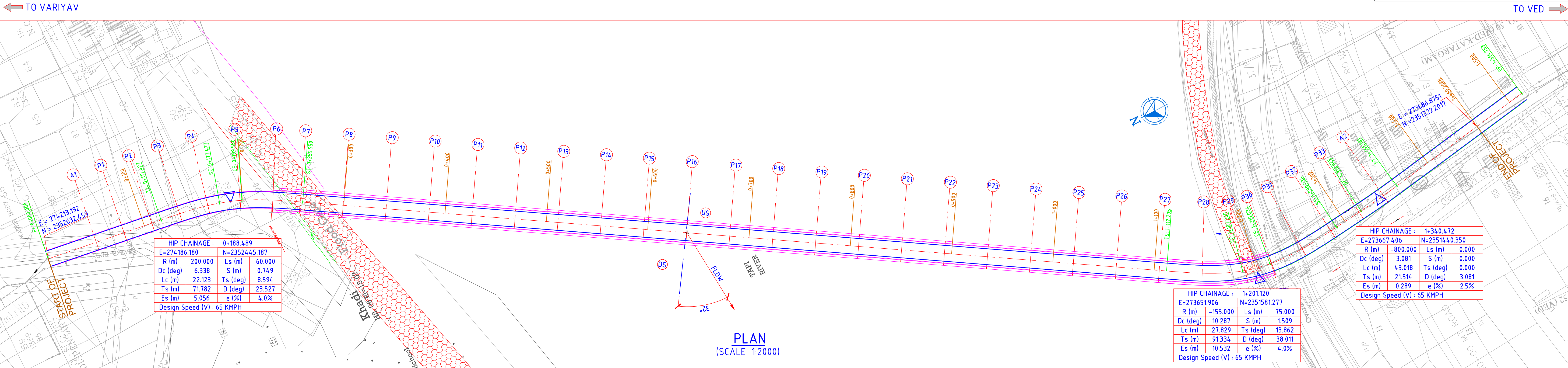




LEGEND:-

HIP	-	HORIZONTAL INTERSECTION POINT
TS	-	BEGINNING OF TRANSITION CURVE (m)
ST	-	END OF TRANSITION CURVE (m)
SC	-	BEGINNING OF CIRCULAR CURVE (m)
CS	-	END OF CIRCULAR CURVE (m)
D	-	TOTAL DEVIATION ANGLE (DEGREES)
Dc	-	DEVIATION AND CENTRAL ANGLE OF CIRCULAR ARC (DEGREES)
Ts(Deg)	-	DEVIATION ANGLE OF TRANSITION CURVE (DEGREES)
R	-	RADIUS OF CIRCULAR CURVE (m)
	-	(-Ve=ANTICLOCKWISE; +Ve=CLOCKWISE DIRECTION FOR HORIZONTAL CURVE)
	-	(-ve=SUMMIT CURVE; +ve=VALLEY CURVE FOR VERTICAL CURVE)
S	-	SHIFT (m)
Ts	-	TANGENT DISTANCE (m)
Ls	-	LENGTH OF TRANSITION (m)
Lc	-	LENGTH OF CIRCULAR CURVE (m)
Es	-	APEX DISTANCE (m)
G	-	VERTICAL GRADIENT
	-	+ve = ASCENDING GRADE; -ve = DESCENDING GRADE
VIP	-	VERTICAL INTERSECTION POINT
L	-	LENGTH

LONGITUDINAL PROFILE
(SCALE 1:2000, 1:200)

NOTES:

1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

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- DESIGN AND DRAWING IS CHECKED AND APPROVED BY ME HEREWITHTH AND CORRECT, SOUND AND ADEQUATE TO ADAPT FOR EXECUTION.

THE STRUCTURAL DESIGN PHILOSOPHY, CALCULATIONS AND THE DRAWING (DRG. NO:DDP001) DT. 22.07.19) HAVE BEEN SCRUTINISED BY THIS OFFICE AND ARE GENERALLY FOUND ACCEPTABLE SUBJECT TO COMPLIANCE AND OBSERVATIONS CONTAINED IN THIS OFFICE LETTER NO. DT. WHICH MAY BE APPROVED BY THE CONCERNED "COMPETENT AUTHORITY".

M. N. S. CHENNAI

L&T INFRA ENGINEERING

SHAH ASSOCIATES

AE DESIGNS (R & B)

EE DESIGNS (R & B)

S.E. DESIGNS CIRCLE

FOR APPROVAL

CLIENT:



SURAT MUNICIPAL CORPORATION
BRIDGE CELL, SURAT.

PROOF CHECKING
CONSULTANT:

SHAH ASSOCIATES
1005, 10th Floor, Sakar-V,
Nr. Mithakali Railway Crossing, Off.
Ashram Road, Ahmedabad-380005
Email: shahassos@consultant.com
Ph No: 079-26585785 /
Mo. 9825019134

EPC CONTRACTOR:



**VIJAY M. MISTRY
CONSTRUCTION PVT. LTD.**
Mistry House,
Ambawadi,
Ahmedabad-380015,
Gujarat

DESIGN CONSULTANT:



L&T Infra Engineering

TC-2 Building, 3rd Floor,
Mount poonamallee Road, Manapakkam,
P.O Box - 979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail: intielchn@intiel.com

PROJECT:

CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING
VED - VARIYAV, SURAT.

TITLE:

ALIGNMENT PLAN AND PROFILE FROM CH:0+000
TO CH:1+515

DRG. NO.: DDP001

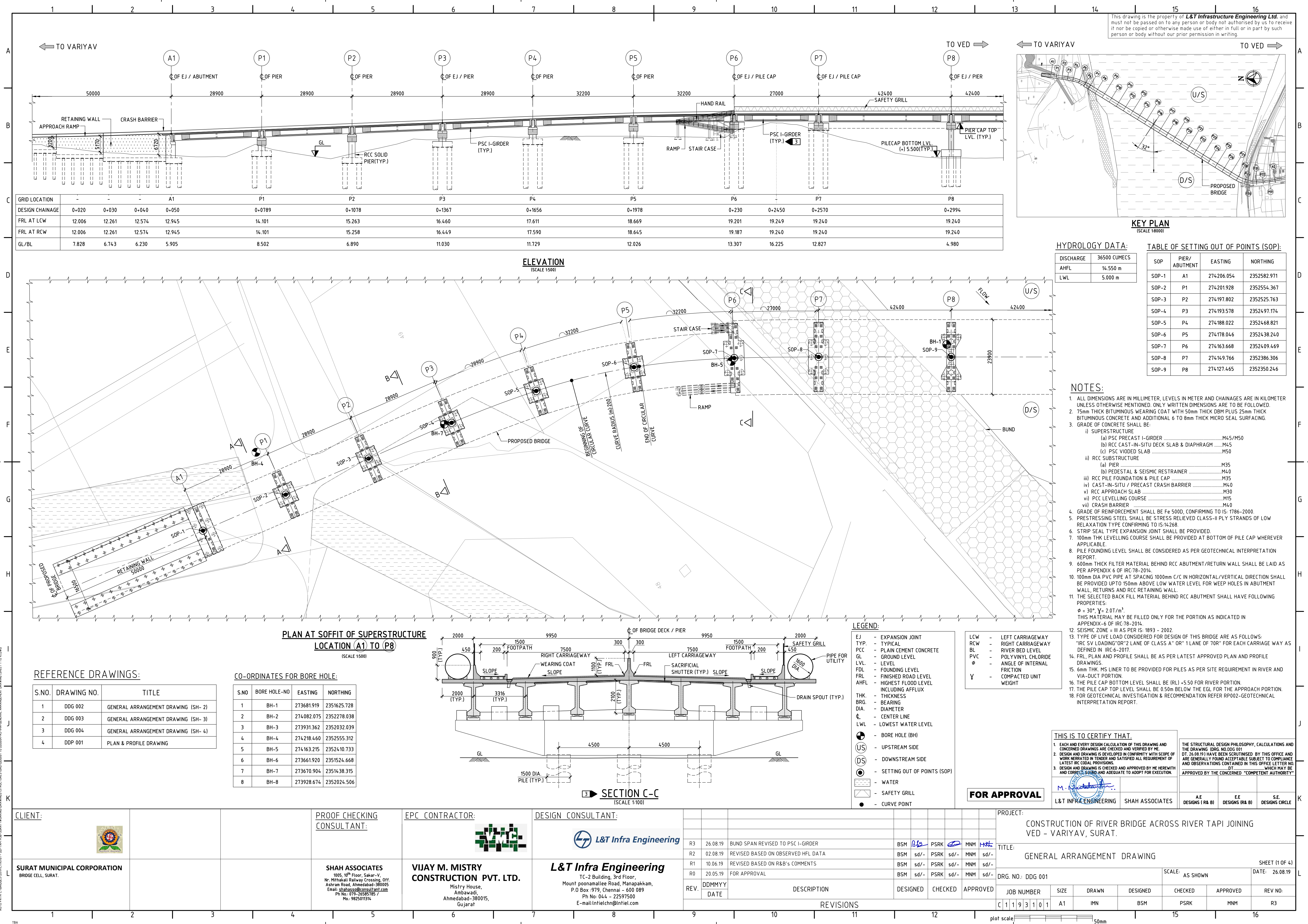
SCALE:
H : 1:2000 V : 1:200

DATE:
22.07.19

JOB NUMBER	SIZE	DRAWN	DESIGNED	CHECKED	APPROVED	REV NO.
C 1193101	A1	BKP	VSV	VSV	MNM	1

REVISIONS

plot scale 1:50mm



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KEY PLAN
(SCALE 18000)

HYDROLOGY DATA:

DISCHARGE	36500 CUMECs
AHFL	14.550 m
LWL	5.000 m

TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER/ABUTMENT	EASTING	NORTHING
SOP-1	A1	274206.054	2352582.971
SOP-2	P1	274201.928	2352554.367
SOP-3	P2	274197.802	2352525.763
SOP-4	P3	274193.578	2352497.174
SOP-5	P4	274188.022	2352468.821
SOP-6	P5	274178.046	2352438.240
SOP-7	P6	274163.668	2352409.469
SOP-8	P7	274149.766	2352386.306
SOP-9	P8	274127.465	2352350.246

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETER, LEVELS IN METER AND CHAINAGES ARE IN KILOMETER UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
- 75mm THICK BITUMINOUS WEARING COAT WITH 50mm THICK DBM PLUS 25mm THICK BITUMINOUS CONCRETE AND ADDITIONAL 6 TO 8mm THICK MICRO SEAL SURFACING.
- GRADE OF CONCRETE SHALL BE:
 - SUPERSTRUCTURE
 - PSC PRECAST I-GIRDERM45/M50
 - RCC CAST-IN-SITU DECK SLAB & DIAPHRAGMM45
 - PSC VOIDED SLABM50
 - RCC SUBSTRUCTURE
 - PIERM35
 - PEDESTAL & SEISMIC RESTRAINERM40
 - RCC PILE FOUNDATION & PILE CAPM35
 - CAST-IN-SITU / PRECAST CRASH BARRIERM40
 - RCC APPROACH SLABM30
 - PCC LEVELLING COURSEM15
 - CRASH BARRIERM40
- GRADE OF REINFORCEMENT SHALL BE F_y 5000, CONFORMING TO IS: 1786-2000.
- PRESTRESSING STEEL SHALL BE STRESS RELIEVED CLASS-II PLY STRANDS OF LOW RELAXATION TYPE CONFORMING TO IS:14268.
- STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED.
- 100mm THK LEVELLING COURSE SHALL BE PROVIDED AT BOTTOM OF PILE CAP WHEREVER APPLICABLE.
- PILE FOUNDING LEVEL SHALL BE CONSIDERED AS PER GEOTECHNICAL INTERPRETATION REPORT.
- 600mm THICK FILTER MATERIAL BEHIND RCC ABUTMENT/RETURN WALL SHALL BE LAID AS PER APPENDIX 6 OF IRC-78-2014.
- 100mm DIA PVC PIPE AT SPACING 1000mm C/C IN HORIZONTAL/VERTICAL DIRECTION SHALL BE PROVIDED UPTO 150mm ABOVE LOW WATER LEVEL FOR WEEP HOLES IN ABUTMENT WALL, RETURNS AND RCC RETAINING WALL.
- THE SELECTED BACK FILL MATERIAL BEHIND RCC ABUTMENT SHALL HAVE FOLLOWING PROPERTIES:
 $\phi = 30^\circ$, $Y = 2.0T/m^2$.
THIS MATERIAL MAY BE FILLED ONLY FOR THE PORTION AS INDICATED IN APPENDIX-6 OF IRC-78-2014.
- SEISMIC ZONE - II AS PER IS: 1893 - 2002.
- TYPE OF LIVE LOAD CONSIDERED FOR DESIGN OF THIS BRIDGE ARE AS FOLLOWS: "IRC SV LOADING" OR "2 LANE OF CLASS A" OR "1 LANE OF 70R" FOR EACH CARRIAGE WAY AS DEFINED IN IRC-6-2017.
- FRL, PLAN AND PROFILE SHALL BE AS PER LATEST APPROVED PLAN AND PROFILE DRAWINGS.
- 6mm THK. MS LINER TO BE PROVIDED FOR PILES AS PER SITE REQUIREMENT IN RIVER AND VIA-DUCT PORTION.
- THE PILE CAP TOP LEVEL SHALL BE 0.50m BELOW THE EGL FOR THE APPROACH PORTION.
- FOR GEOTECHNICAL INVESTIGATION & RECOMMENDATION REFER RP002-GEOTECHNICAL INTERPRETATION REPORT.

THIS IS TO CERTIFY THAT,

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THE STRUCTURAL DESIGN PHILOSOPHY, CALCULATIONS AND THE DRAWING (DRG. NO. DDG 001 DT. 26.08.19) HAVE BEEN SCRUTINISED BY THIS OFFICE AND ARE GENERALLY FOUND ACCEPTABLE SUBJECT TO COMPLIANCE AND OBSERVATIONS CONTAINED IN THIS OFFICE LETTER NO. DT. WHICH MAY BE APPROVED BY THE CONCERNED "COMPETENT AUTHORITY".

M. N. Natarajan

L&T INFRA ENGINEERING

SHAH ASSOCIATES

A.E. DESIGNS (R & B) E.E. DESIGNS (R & B) S.E. DESIGNS CIRCLE

FOR APPROVAL

REFERENCE DRAWINGS:

S.NO.	DRAWING NO.	TITLE
1	DDG 002	GENERAL ARRANGEMENT DRAWING (SH- 2)
2	DDG 003	GENERAL ARRANGEMENT DRAWING (SH- 3)
3	DDG 004	GENERAL ARRANGEMENT DRAWING (SH- 4)
4	DDP 001	PLAN & PROFILE DRAWING

CO-ORDINATES FOR BORE HOLE:

S.NO.	BORE HOLE-NO	EASTING	NORTHING
1	BH-1	273681.919	2351625.128
2	BH-2	274082.075	2352278.038
3	BH-3	273931.362	2352032.039
4	BH-4	274218.460	2352555.312
5	BH-5	274163.215	2352410.733
6	BH-6	273661.920	2351524.668
7	BH-7	273670.904	2351438.315
8	BH-8	273928.674	2352024.506

SECTION C-C
(SCALE 1:100)

LEGEND:

- EJ - EXPANSION JOINT
- TYP. - TYPICAL
- PCC - PLAIN CEMENT CONCRETE
- GL - GROUND LEVEL
- LVL. - LEVEL
- FDL - FOUNDING LEVEL
- FRL - FINISHED ROAD LEVEL
- AHFL - HIGHEST FLOOD LEVEL INCLUDING AFFLUX
- THK - THICKNESS
- BRG. - BEARING
 DIA. | DIA. |

- LCW - LEFT CARRIAGEWAY
- RCW - RIGHT CARRIAGEWAY
- BL - RIVER BED LEVEL
- PVC - POLYVINYL CHLORIDE
- ϕ - ANGLE OF INTERNAL FRICTION
- Y - COMPACTED UNIT WEIGHT

CLIENT:

SURAT MUNICIPAL CORPORATION
BRIDGE CELL, SURAT.

PROOF CHECKING CONSULTANT:

SHAH ASSOCIATES
1005, 10th Floor, Sakar-V,
Nr. Mithakali Railway Crossing, Off.
Ashram Road, Ahmedabad-380005
Email: shahasso@consultant.com
Ph No: 079-26585785 /
No. 9825911314

EPC CONTRACTOR:

VIJAY M. MISTRY CONSTRUCTION PVT. LTD.
Mistry House,
Ambawadi,
Ahmedabad-380015,
Gujarat

DESIGN CONSULTANT:

L&T Infra Engineering
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Mount poonamallee Road, Manapakkam,
P.O Box :979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail:inf@ltnet.in

PROJECT:
CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING VED - VARIYAV, SURAT.

TITLE:
GENERAL ARRANGEMENT DRAWING

DRG. NO.: DDG 001

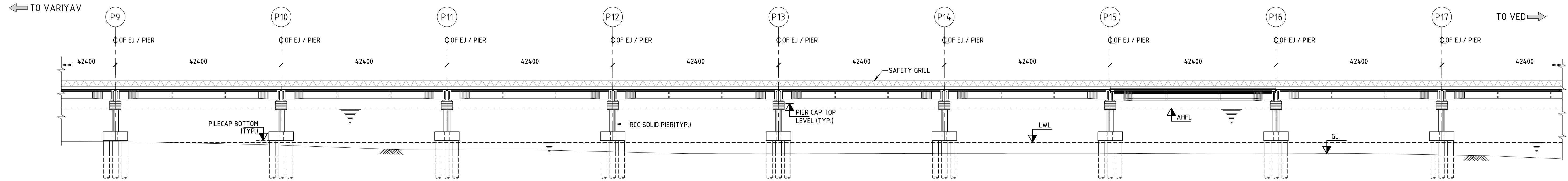
SCALE: AS SHOWN

DATE: 26.08.19

REV.	DDMMYY DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
R3	26.08.19	BUND SPAN REVISED TO PSC I-GIRDER	BSM	PSRK	MNM
R2	02.08.19	REVISED BASED ON OBSERVED HFL DATA	BSM	sd/-	PSRK
R1	10.06.19	REVISED BASED ON R&B's COMMENTS	BSM	sd/-	PSRK
R0	20.05.19	FOR APPROVAL	BSM	sd/-	PSRK

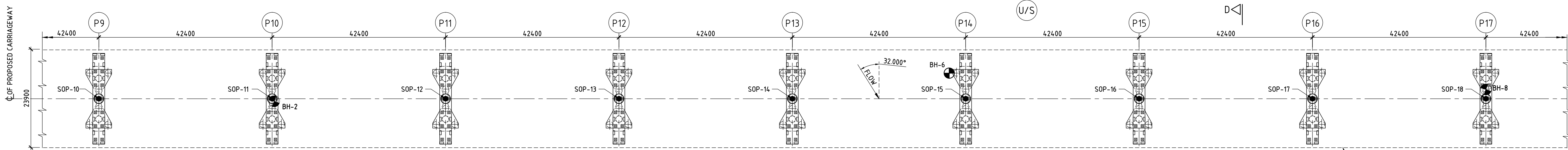
REVISIONS
C 1 1 9 3 1 0 1
JOB NUMBER: A1
SIZE: IMN
DRAWN: BSM
DESIGNED: PSRK
CHECKED: MNM
APPROVED: R3

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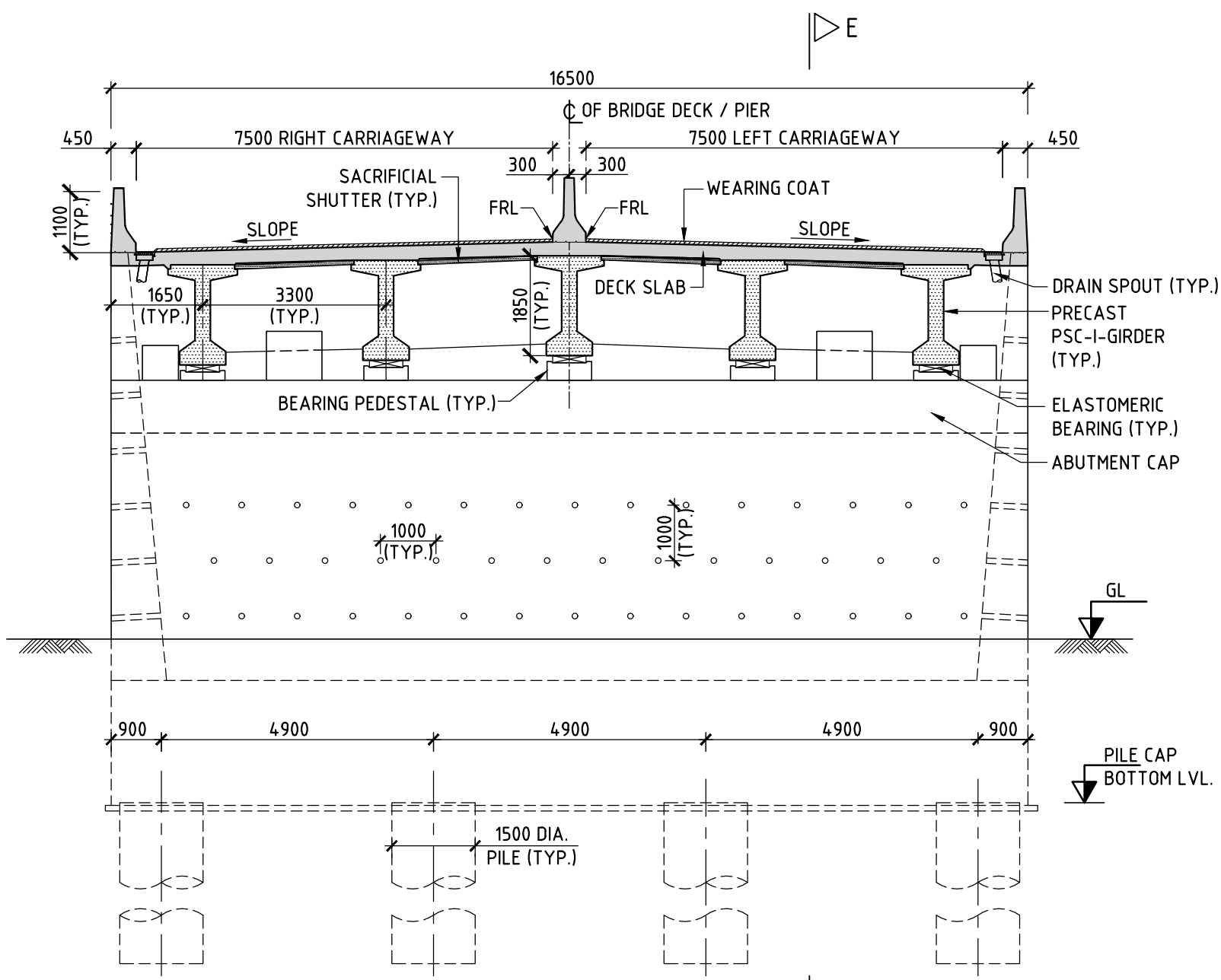


GRID LOCATION	P9	P10	P11	P12	P13	P14	P15	P16	P17
DESIGN CHAINAGE	0+3418	0+3842	0+4266	0+4690	0+5114	0+5538	0+5962	0+6386	0+6810
FRL AT LCW	18.500	18.500	18.500	18.500	18.500	18.500	18.500	18.500	18.500
FRL AT RCW	18.500	18.500	18.500	18.500	18.500	18.500	18.500	18.500	18.500
GL	5.100	4.430	3.096	2.600	2.128	2.214	2.212	2.127	1.828

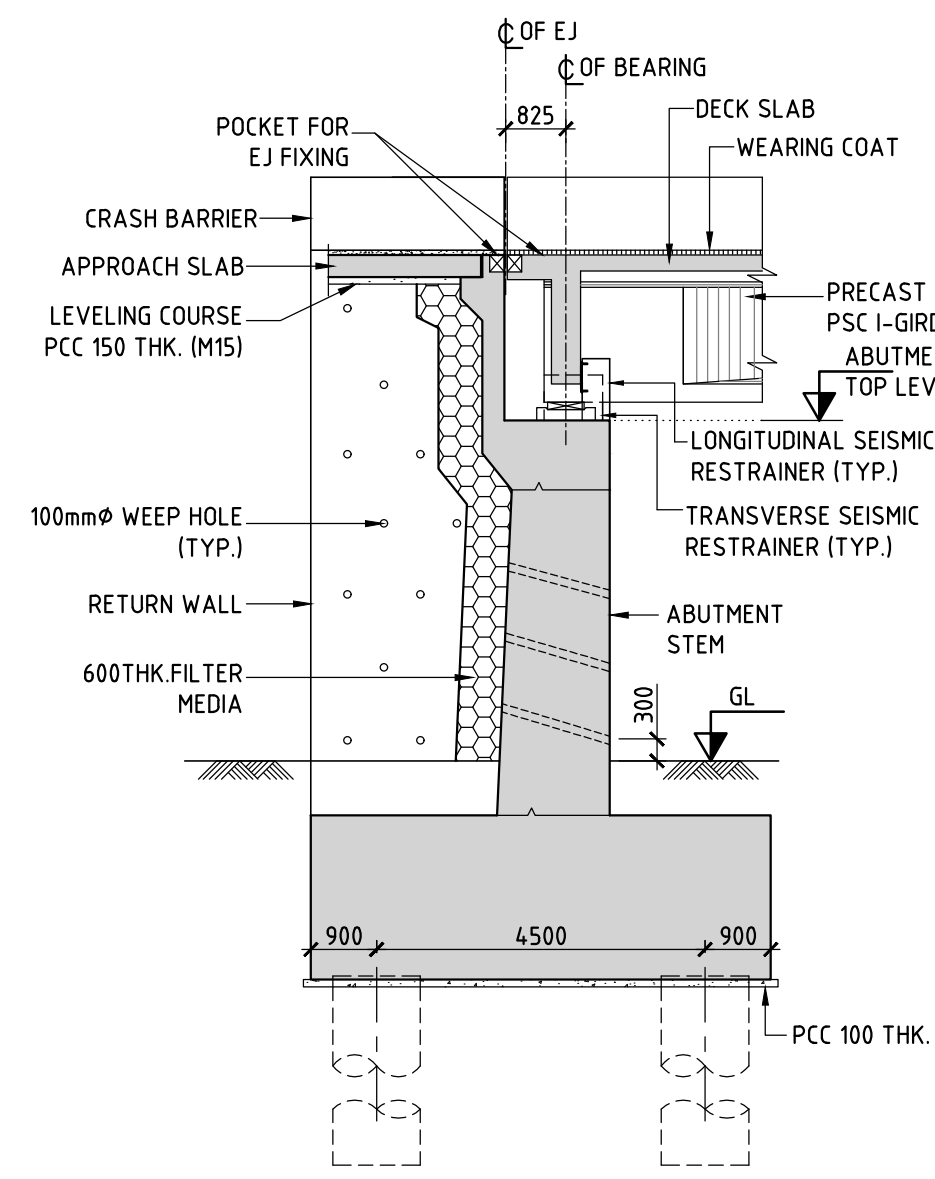
ELEVATION
(SCALE 1500)



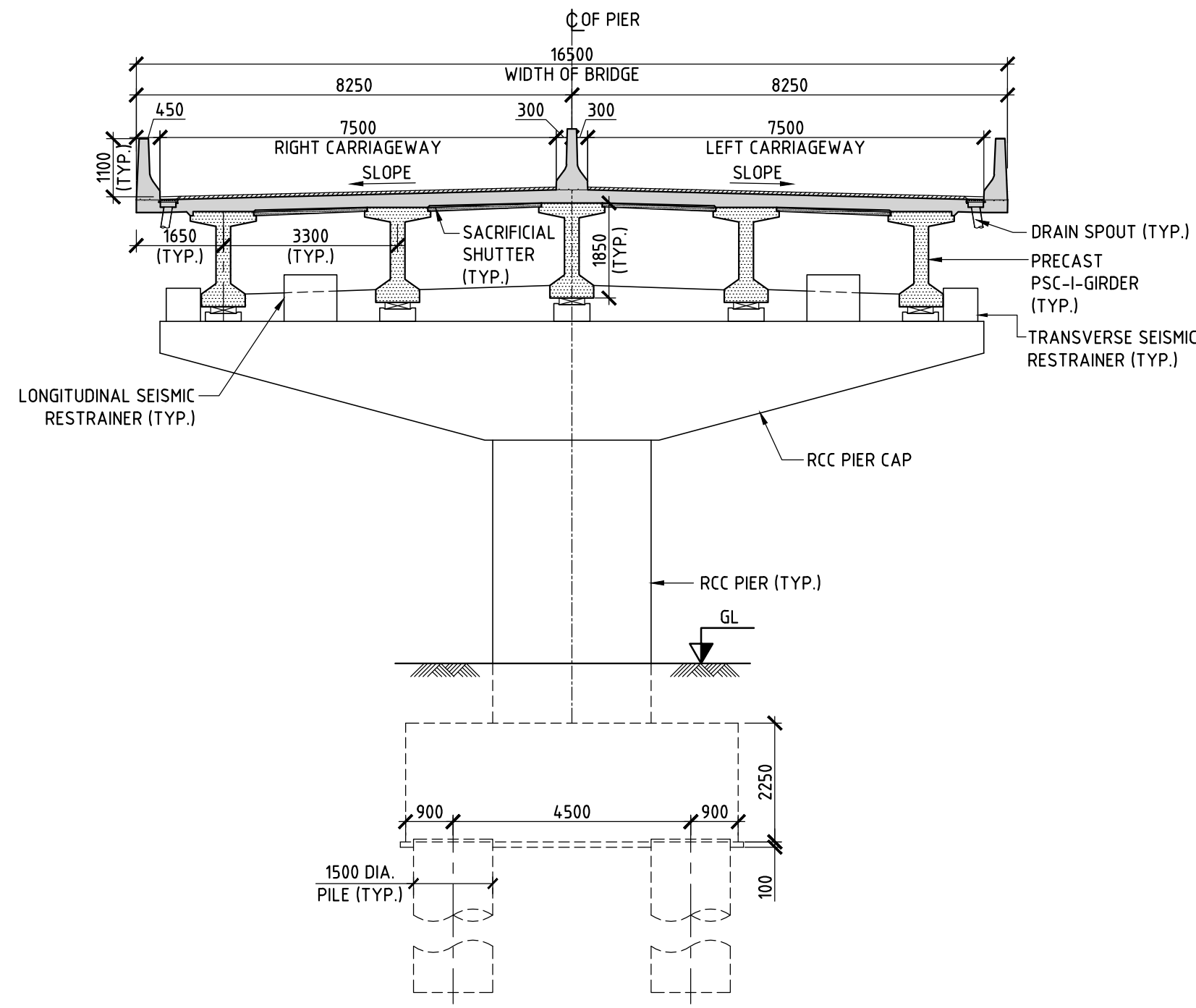
PLAN AT SOFFIT OF SUPERSTRUCTURE AT LOCATION (P9) TO (P17)
(SCALE 1500)



SECTION A-A
(AT ABUTMENT A1 & A2)
(SCALE 1:100)



SECTION E-E
(SCALE 1:100)



SECTION B-B
(FOR PIERS P1 TO P5, P31 TO P32)
(SCALE 1:100)

TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER / ABUTMENT	EASTING	NORTHING
SOP-10	P9	274105.164	2352314.185
SOP-11	P10	274082.862	2352278.125
SOP-12	P11	274060.561	2352242.064
SOP-13	P12	274038.260	2352206.004
SOP-14	P13	274015.959	2352169.943
SOP-15	P14	273993.658	2352133.882
SOP-16	P15	273971.357	2352097.822
SOP-17	P16	273949.055	2352061.761
SOP-18	P17	273926.754	2352025.701

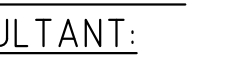
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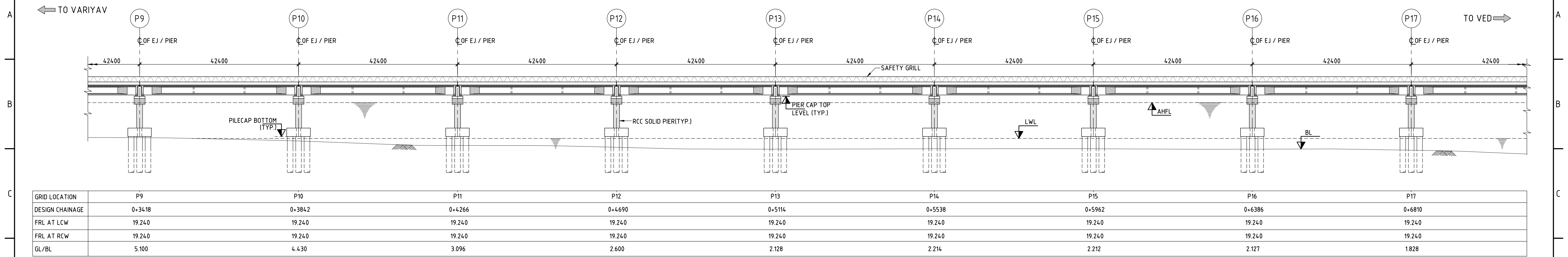
L&T INFRA ENGINEERING	SHAH ASSOCIATES	A.E DESIGNS (R&B)	E.E DESIGNS (R&B)	S.E DESIGNS CIRCLE
-----------------------	-----------------	----------------------	----------------------	-----------------------

FOR APPROVAL

CLIENT:  SURAT MUNICIPAL CORPORATION BRIDGE CELL, SURAT.		PROOF CHECKING CONSULTANT:  SHAH ASSOCIATES 1005, 10th floor, Sakar-V, Nr. Mithakali Railway Crossing, Off. Ashram Road, Ahmedabad-380005 Email: shahasso@consultant.com Ph No: 079-26585785 / Mo: 9825011314		EPC CONTRACTOR:  VIJAY M. MISTRY CONSTRUCTION PVT. LTD. Mistry House, Ambawadi, Ahmedabad-380015, Gujarat		DESIGN CONSULTANT:  L&T Infra Engineering TC-2 Building, 3rd Floor, Mount poonamallee Road, Manapakkam, P.O Box -979, Chennai - 600 089 Ph No: 044 - 22597500 E-mail:inf@lntelchn@lntel.com		PROJECT: CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING VED - VARIYAV, SURAT. TITLE: GENERAL ARRANGEMENT DRAWING DRG. NO.: DDG 002 SCALE: AS SHOWN DATE: 22.07.19 SHEET (2 OF 4)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
R2		22.07.19		REVISED BASED ON REVISED PLAN & PROFILE				BSM		PSRK		MNM		R2		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED		REVISED			

plot scale 50mm

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ELEVATION
(SCALE 1500)

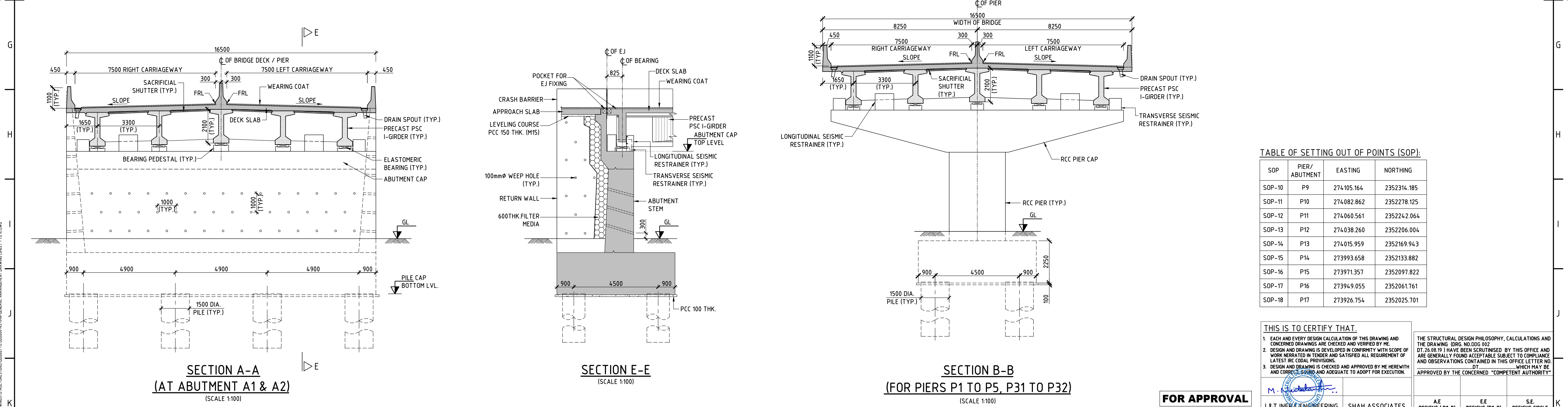
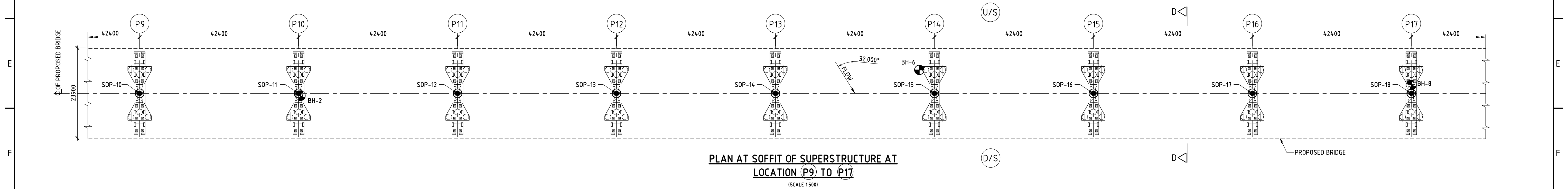


TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER/ ABUTMENT	EASTING	NORTHING
SOP-10	P9	274105.164	2352314.185
SOP-11	P10	274082.862	2352278.125
SOP-12	P11	274060.561	2352242.064
SOP-13	P12	274038.260	2352206.004
SOP-14	P13	274015.959	2352169.943
SOP-15	P14	273993.658	2352133.882
SOP-16	P15	273971.357	2352097.822
SOP-17	P16	273949.055	2352061.761
SOP-18	P17	273926.754	2352025.701

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- DESIGN AND DRAWING IS CHECKED AND APPROVED BY ME HERewith AND CORRECTED, SOUND AND ADEQUATE TO ADOPT FOR EXECUTION.

M. N. N. N.

L&T INFRA ENGINEERING

SHAH ASSOCIATES

THE STRUCTURAL DESIGN PHILOSOPHY, CALCULATIONS AND THE DRAWING (DRG. NO. DDG 002 DT. 26.08.19) HAVE BEEN SCRUTINISED BY THIS OFFICE AND ARE GENERALLY FOUND ACCEPTABLE SUBJECT TO COMPLIANCE AND OBSERVATIONS CONTAINED IN THIS OFFICE LETTER NO. DT. WHICH MAY BE APPROVED BY THE CONCERNED "COMPETENT AUTHORITY".

A.E

E.E

S.E

DESIGNS (R&B)

DESIGNS (R&B)

DESIGNS CIRCLE

FOR APPROVAL

PROJECT: CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING VED - VARIYAV, SURAT.

TITLE: GENERAL ARRANGEMENT DRAWING

SHEET (2 OF 4)

DRG. NO.: DDG 002

SCALE: AS SHOWN

DATE: 26.08.19

JOB NUMBER	SIZE	DRAWN	DESIGNED	CHECKED	APPROVED	REV NO.
C1193101	A1	IMN	BSM	PSRK	MNM	R3

REVISIONS

plot scale 50mm

CLIENT:



SURAT MUNICIPAL CORPORATION
BRIDGE CELL, SURAT.

PROOF CHECKING
CONSULTANT:

SHAH ASSOCIATES
1005, 10th Floor, Sakar-V,
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Email: shahasso@consultant.com
Ph No: 079-26585785 /
Mo: 9825011314

EPC CONTRACTOR:



VIJAY M. MISTRY
CONSTRUCTION PVT. LTD.
Mistry House,
Ambawadi,
Ahmedabad-380015,
Gujarat

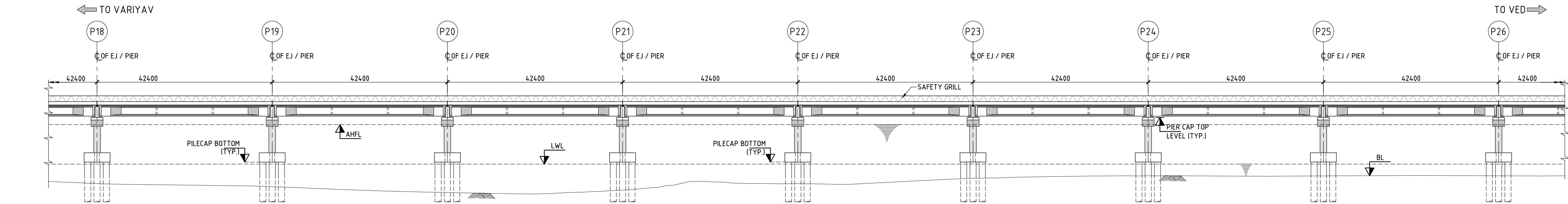
DESIGN CONSULTANT:



L&T Infra Engineering
TC-2 Building, 3rd Floor,
Mount poonamallee Road, Manapakkam,
P.O Box :979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail: lntielchn@lntiel.com

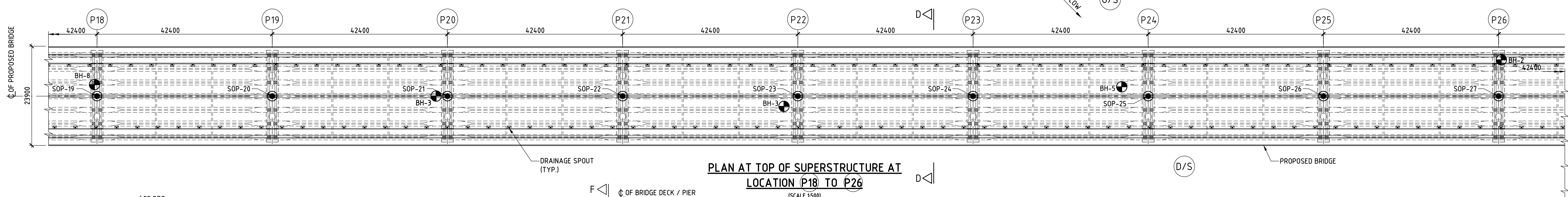
REV.	DDMMYY DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
R3	26.08.19	BUND SPAN REVISED TO PSC I-GIRDER	BSM	PSRK	MNM
R2	02.08.19	REVISED BASED ON OBSERVED HFL DATA	BSM	sd/-	MNM
R1	10.06.19	REVISED BASED ON R&B's COMMENTS	BSM	sd/-	MNM
R0	20.05.19	FOR APPROVAL	BSM	sd/-	MNM

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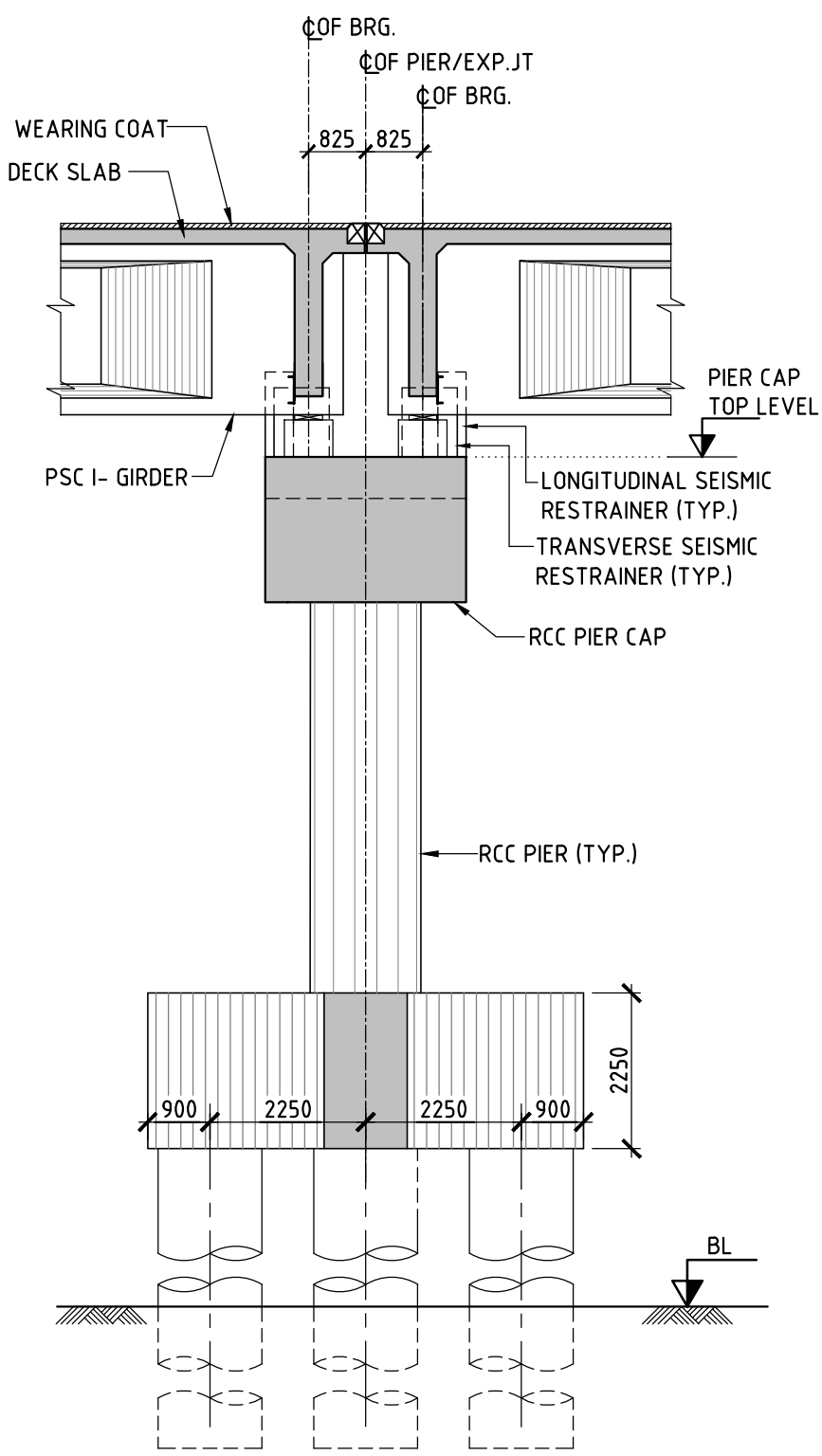


GRID LOCATION	P18	P19	P20	P21	P22	P23	P24	P25	P26
DESIGN CHAINAGE	0+7234	0+7658	0+8082	0+8506	0+8930	0+9354	0+9778	1+0202	1+0626
FRL AT LCW	19.240	19.240	19.240	19.240	19.240	19.240	19.240	19.240	19.240
FRL AT RCW	19.240	19.240	19.240	19.240	19.240	19.240	19.240	19.240	19.240
GL/BL	0.442	0.602	(-1)1.893	(-1)1.297	0.269	1.653	2.179	2.156	2.192

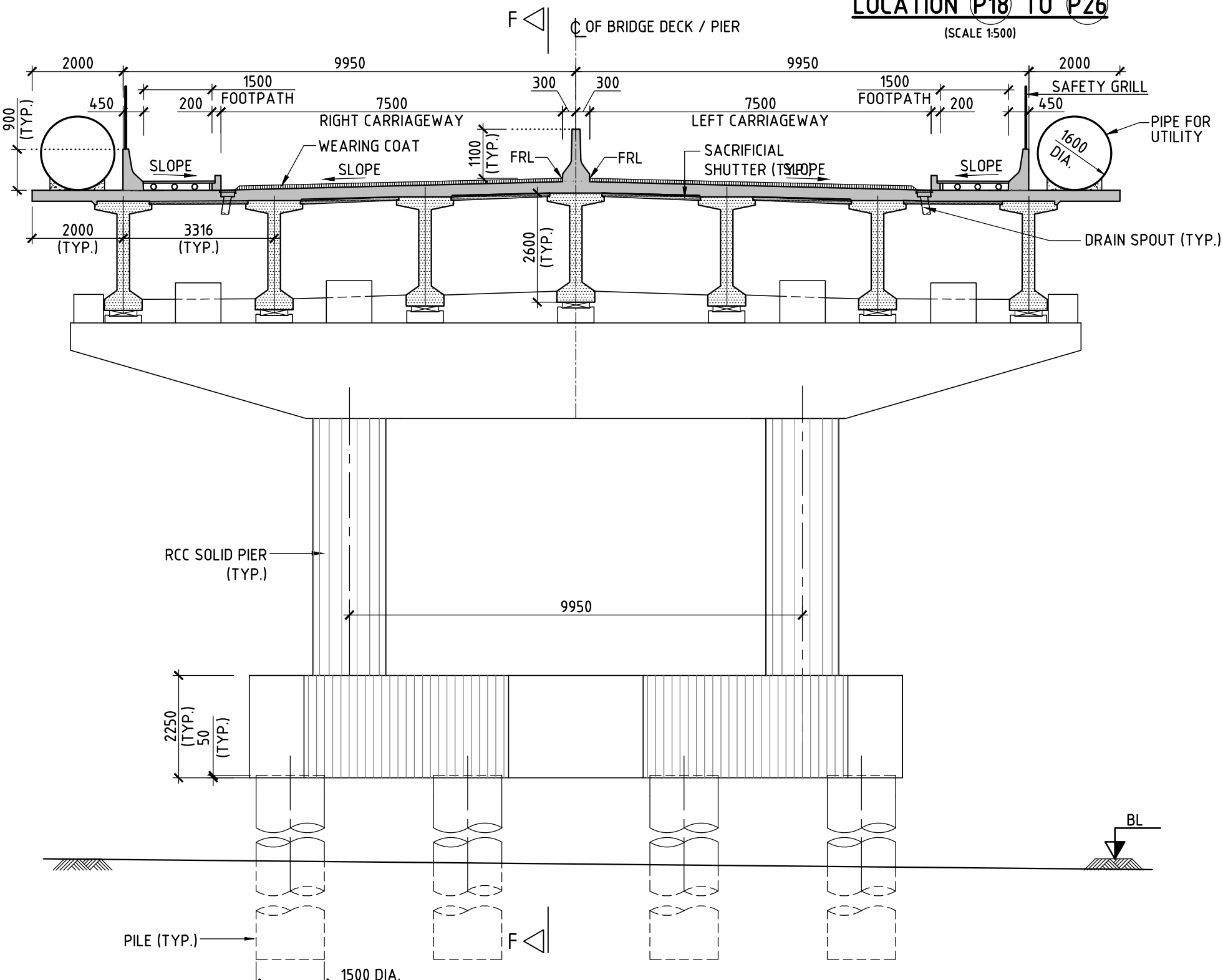
ELEVATION
(SCALE 1:500)



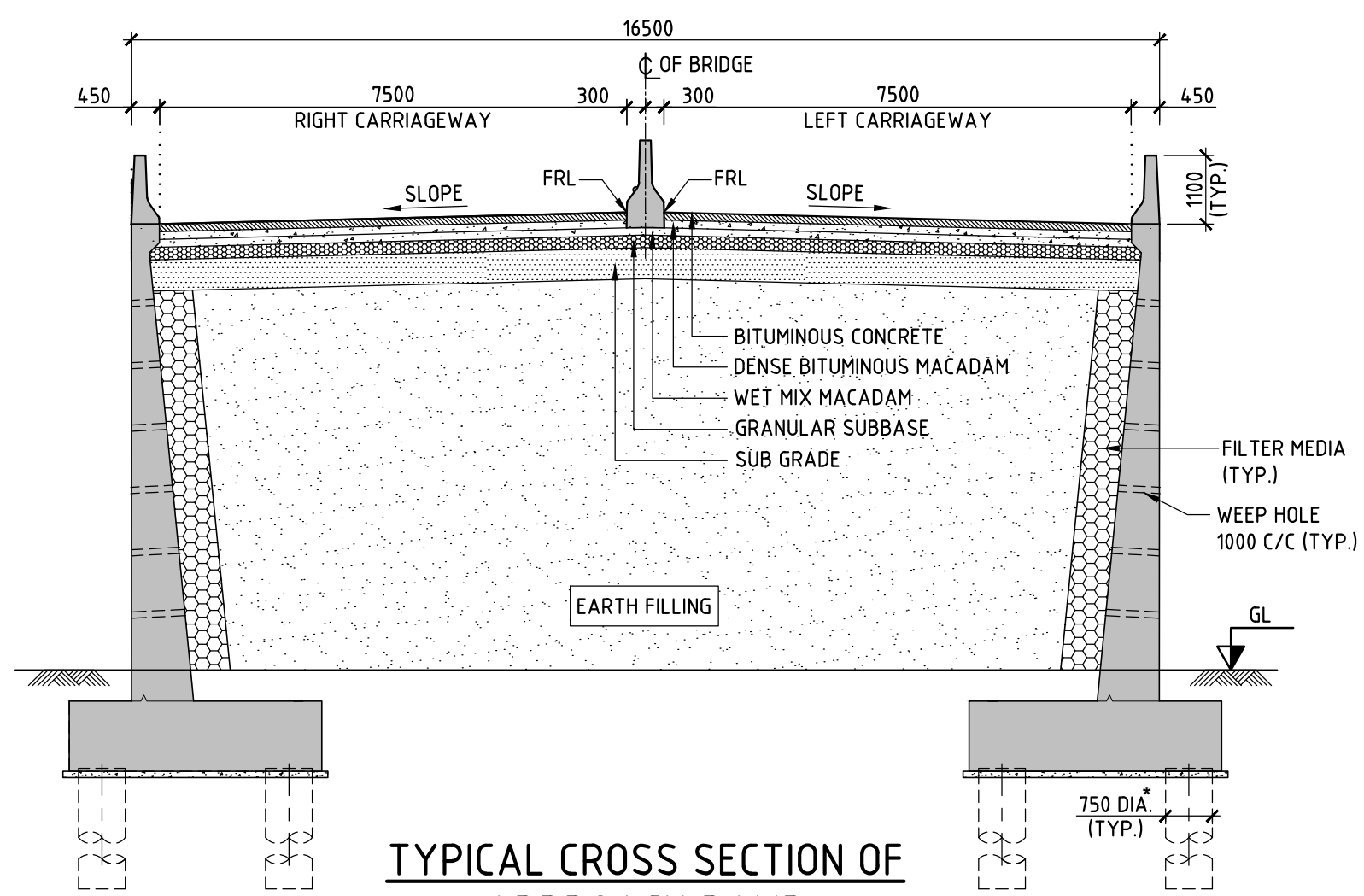
PLAN AT TOP OF SUPERSTRUCTURE AT LOCATION P18 TO P26
(SCALE 1:500)



SECTION F-F
(SCALE 1:100)



**SECTION D-D
(FOR PIER P7 TO P29)**
(SCALE 1:100)



**TYPICAL CROSS SECTION OF
APPROACH RAMP**
(SCALE 1:100)

TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER/ ABUTMENT	EASTING	NORTHING
SOP-19	P18	273904.453	2351989.640
SOP-20	P19	273882.152	2351953.580
SOP-21	P20	273859.851	2351917.519
SOP-22	P21	273837.550	2351881.459
SOP-23	P22	273815.248	2351845.398
SOP-24	P23	273792.947	2351809.338
SOP-25	P24	273770.646	2351773.277
SOP-26	P25	273748.345	2351737.217
SOP-27	P26	273726.044	2351701.156

* FOUNDATION DETAILS WILL BE REVISED
BASED ON GEO-TECHNICAL RECOMMENDATION

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M. Nishant
M. Nishant

L&T INFRA ENGINEERING

THE STRUCTURAL DESIGN PHILOSOPHY, CALCULATIONS AND THE DRAWING (DRG. NO. DDG 003 DT. 26.08.19) HAVE BEEN SCRUTINISED BY THIS OFFICE AND ARE GENERALLY FOUND ACCEPTABLE SUBJECT TO COMPLIANCE AND OBSERVATIONS CONTAINED IN THIS OFFICE LETTER NO. DT. WHICH MAY BE APPROVED BY THE CONCERNED "COMPETENT AUTHORITY"

A.E. DESIGNS (R&B) E.E. DESIGNS (R&B) S.E. DESIGNS CIRCLE

FOR APPROVAL

CLIENT:



SURAT MUNICIPAL CORPORATION
BRIDGE CELL, SURAT.

PROOF CHECKING
CONSULTANT:

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Ph No: 079-26585785 /
Mo: 9825911314

EPC CONTRACTOR:



**VIJAY M. MISTRY
CONSTRUCTION PVT. LTD.**
Mistry House,
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Ahmedabad-380015,
Gujarat

DESIGN CONSULTANT:



L&T Infra Engineering
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P.O Box :979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail: lntielchn@lntiel.com

PROJECT:

CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING
VED - VARIYAV, SURAT.

TITLE:

GENERAL ARRANGEMENT DRAWING

SHEET (3 OF 4)

DRG. NO.: DDG 003

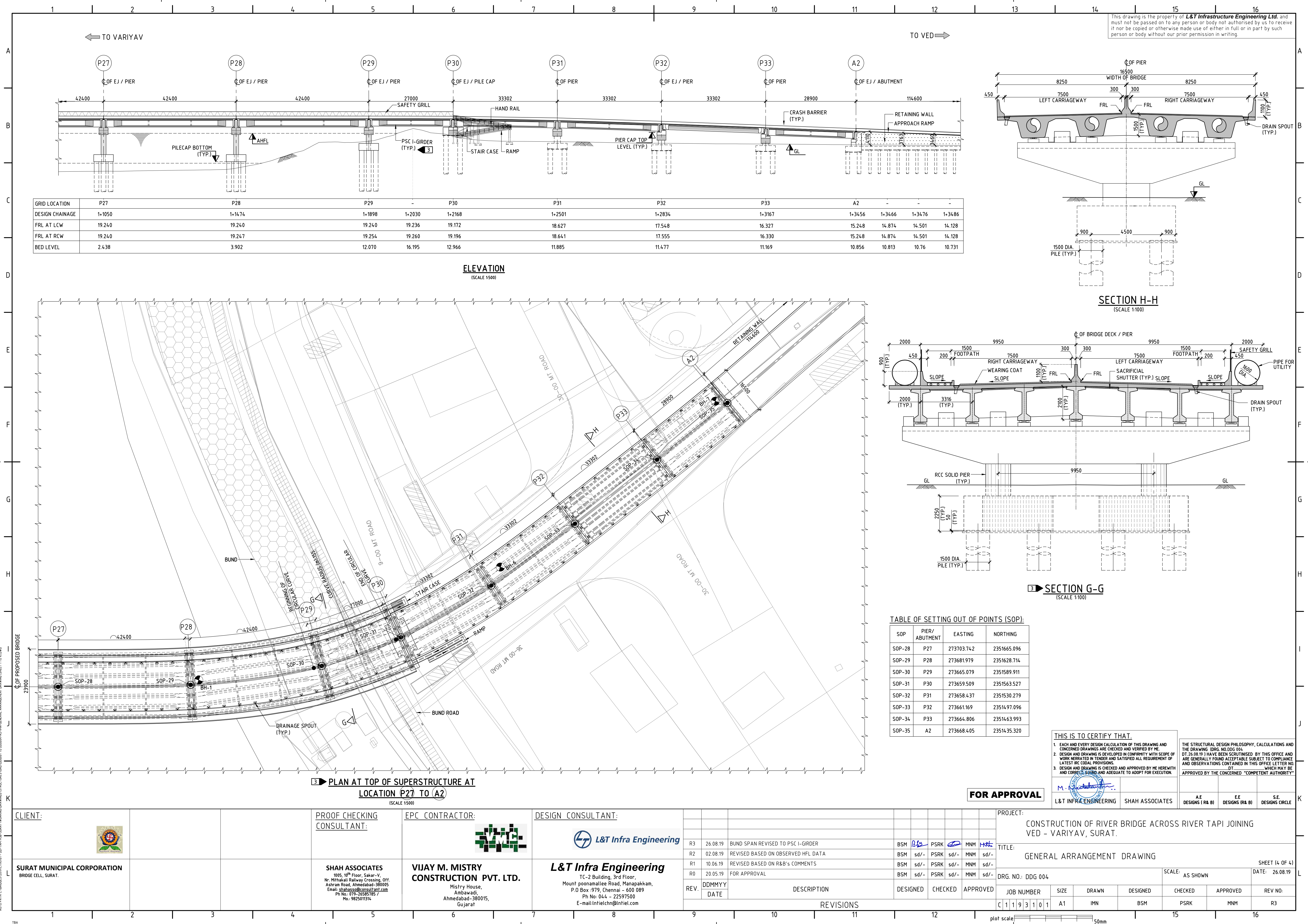
SCALE: AS SHOWN

DATE: 26.08.19

JOB NUMBER	SIZE	DRAWN	DESIGNED	CHECKED	APPROVED	REV NO:
C1193101	A1	IMN	BSM	PSRK	MNM	R3

REVISIONS

plot scale: 50mm



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GRID LOCATION	P27	P28	P29	-	P30	P31	P32	P33	A2	-	-	-
DESIGN CHAINAGE	1+1050	1+1474	1+1898	1+2030	1+2168	1+2501	1+2834	1+3167	1+3456	1+3466	1+3476	1+3486
FRL AT LCW	19.240	19.240	19.240	19.236	19.172	18.627	17.548	16.327	15.248	14.874	14.501	14.128
FRL AT RCW	19.240	19.247	19.254	19.260	19.196	18.641	17.555	16.330	15.248	14.874	14.501	14.128
BED LEVEL	2.438	3.902	12.070	16.195	12.966	11.885	11.477	11.169	10.856	10.813	10.76	10.731

ELEVATION
(SCALE 1500)

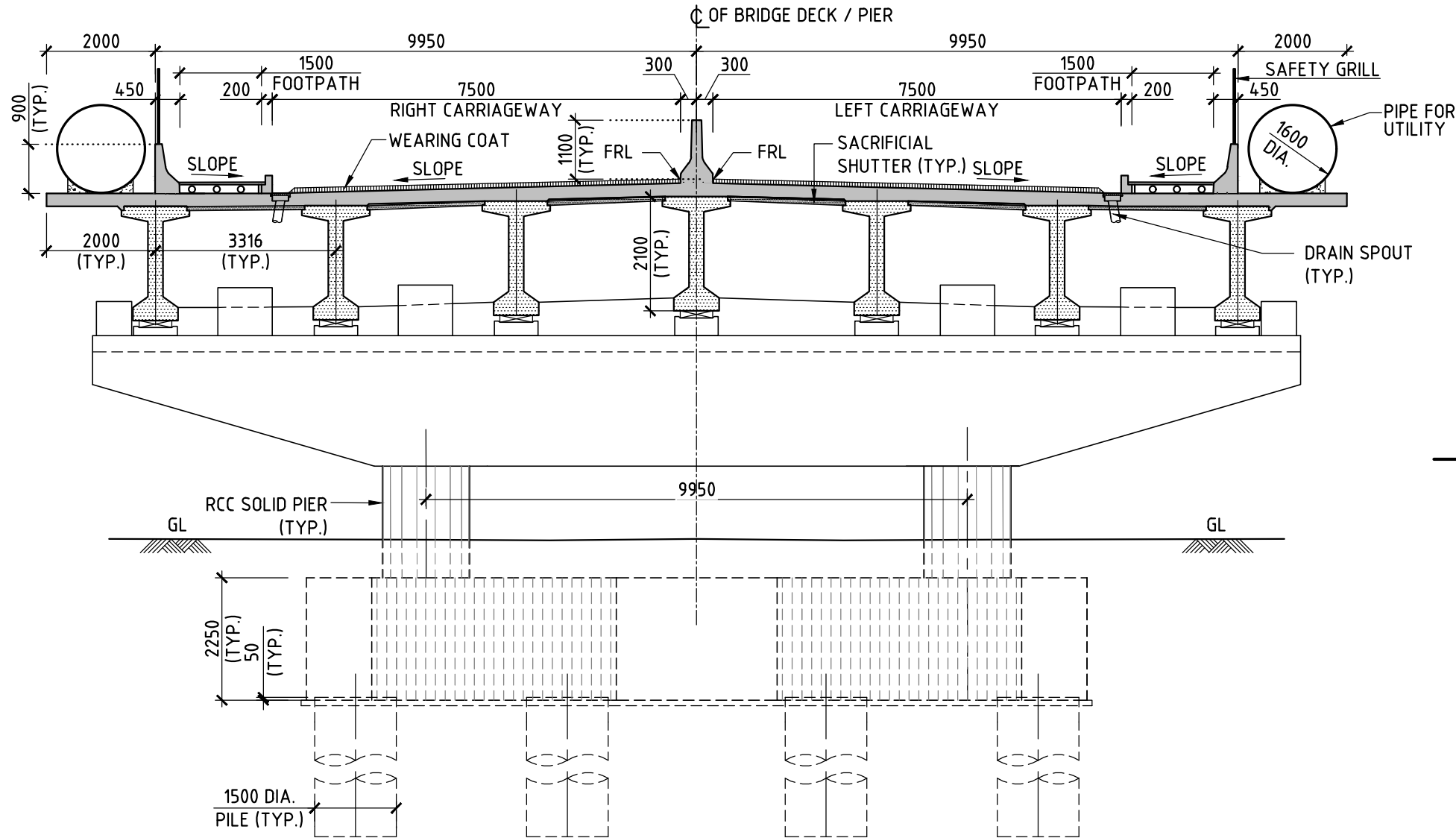
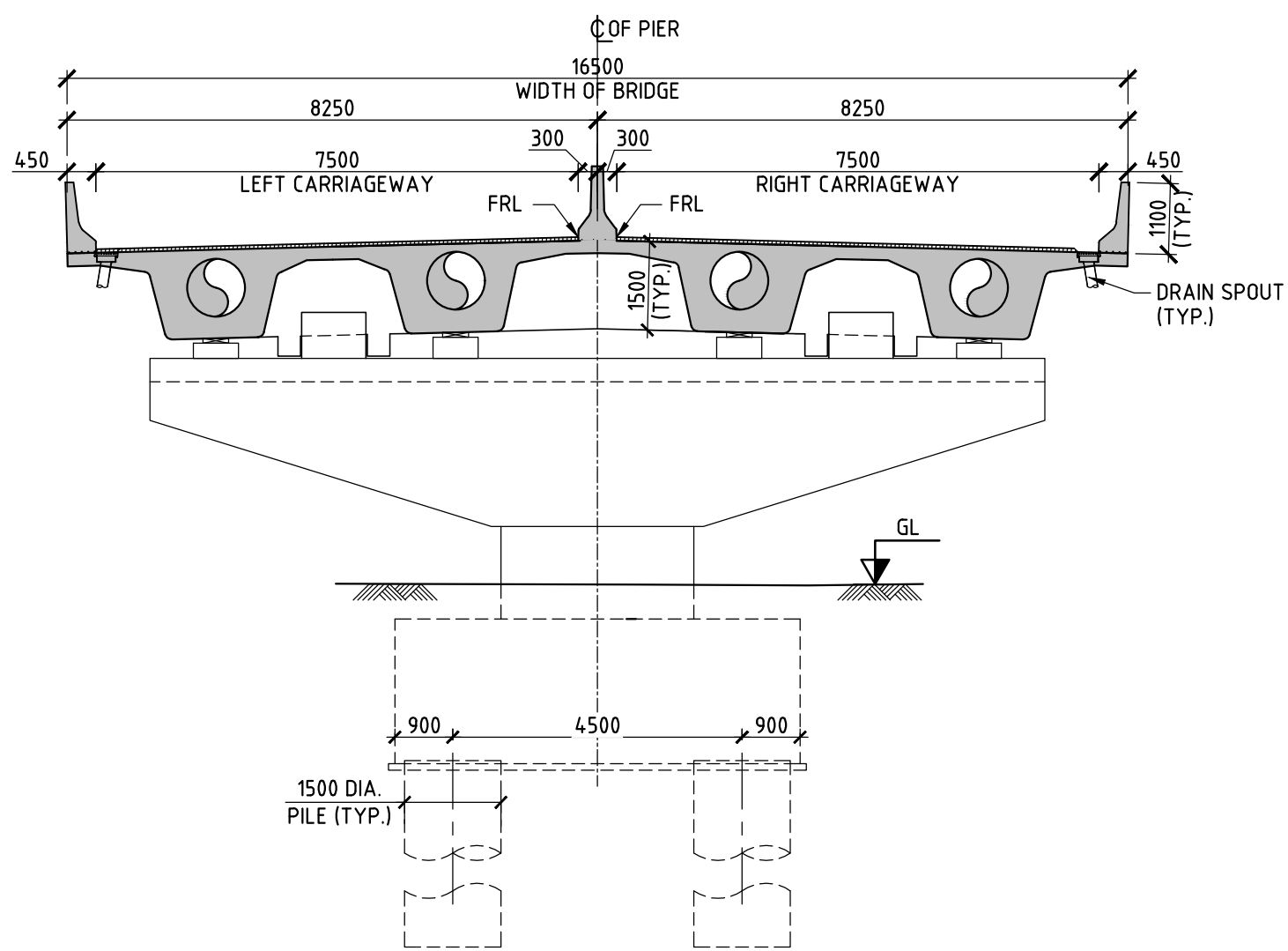


TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER/ABUTMENT	EASTING	NORTHING
SOP-28	P27	273703.742	2351665.096
SOP-29	P28	273681.979	2351628.714
SOP-30	P29	273665.079	2351589.911
SOP-31	P30	273659.509	2351563.527
SOP-32	P31	273658.437	2351530.279
SOP-33	P32	273661.169	2351497.096
SOP-34	P33	273664.806	2351463.993
SOP-35	A2	273668.405	2351435.320

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- EACH AND EVERY DESIGN CALCULATION OF THIS DRAWING AND THE DRAWING (DRG. NO. DDG 004) HAVE BEEN SCRUTINISED BY THIS OFFICE AND ARE GENERALLY FOUND ACCEPTABLE SUBJECT TO COMPLIANCE AND OBSERVATIONS CONTAINED IN THIS OFFICE LETTER NO. DT. 26.08.19 WHICH MAY BE APPROVED BY THE CONCERNED "COMPETENT AUTHORITY".
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M. N. N. N.

L&T INFRA ENGINEERING

SHAH ASSOCIATES

AE DESIGNS (R&B) EE DESIGNS (R&B) SE DESIGNS CIRCLE

FOR APPROVAL

PROJECT: CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING VED - VARIYAV, SURAT.

TITLE: GENERAL ARRANGEMENT DRAWING

SHEET (4 OF 4)

DRG. NO.: DDG 004

SCALE: AS SHOWN

DATE: 26.08.19

JOB NUMBER	SIZE	DRAWN	DESIGNED	CHECKED	APPROVED	REV NO.
C1193101	A1	IMN	BSM	PSRK	MNM	R3

REVISIONS

plot scale 50mm

CLIENT:



SURAT MUNICIPAL CORPORATION
BRIDGE CELL, SURAT.

PROOF CHECKING
CONSULTANT:

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Email: shahasso@consultant.com
Ph No: 079-26585785 /
Mo: 9825011314

EPC CONTRACTOR:



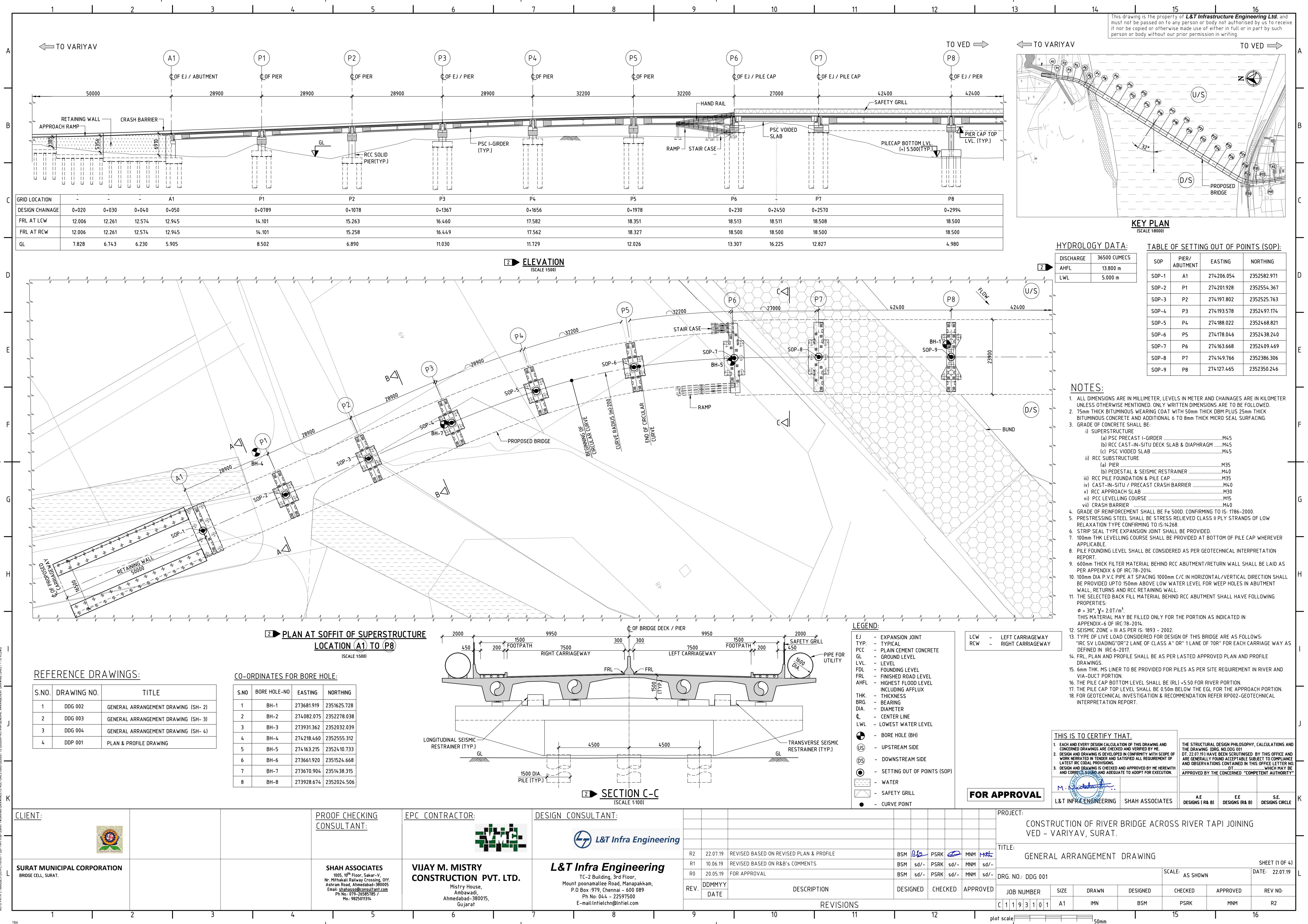
VIJAY M. MISTRY
CONSTRUCTION PVT. LTD.
Mistry House,
Ambawadi,
Ahmedabad-380015,
Gujarat

DESIGN CONSULTANT:

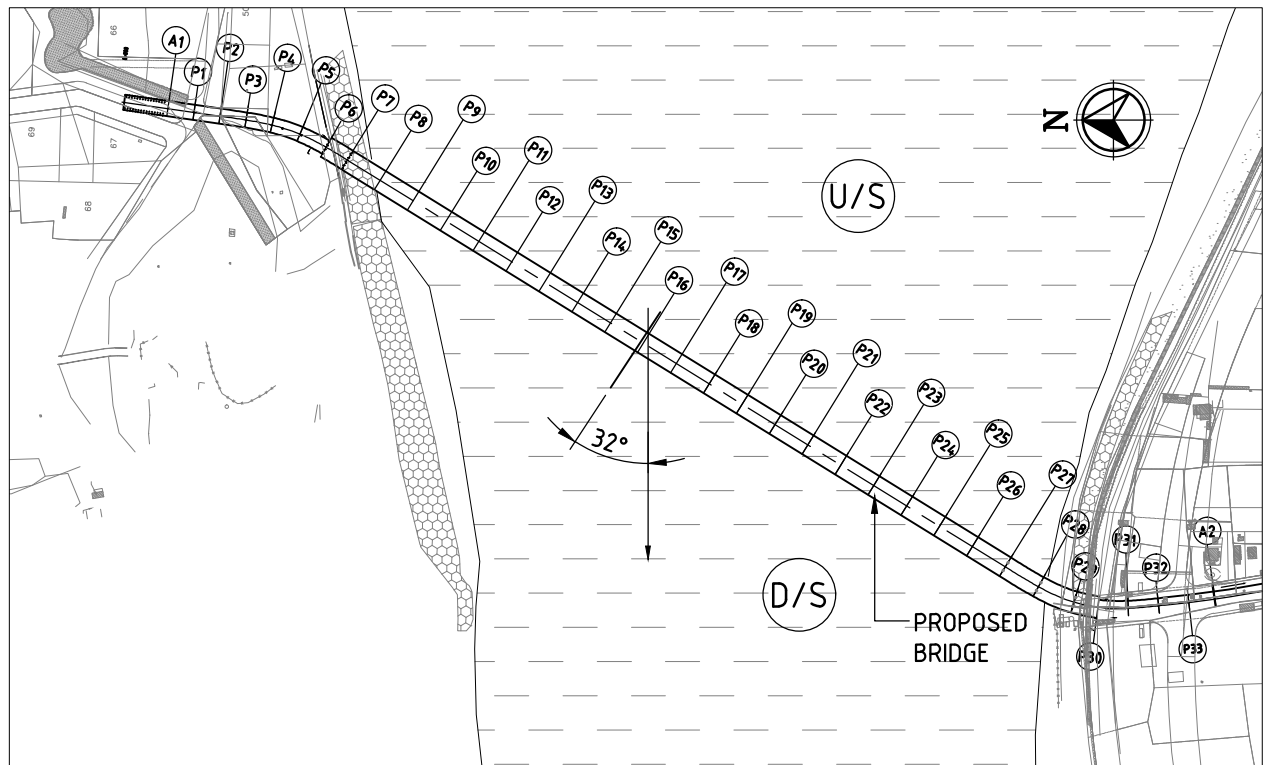


L&T Infra Engineering
TC-2 Building, 3rd Floor,
Mount poonamallee Road, Manapakkam,
P.O Box -979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail:inf@ltnet.in

REV.	DDMMYY DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
R3	26.08.19	BUND SPAN REVISED TO PSC I-GIRDER	BSM	PSRK	MNM
R2	02.08.19	REVISED BASED ON OBSERVED HFL DATA	BSM	sd/-	MNM
R1	10.06.19	REVISED BASED ON R&B's COMMENTS	BSM	sd/-	MNM
R0	20.05.19	FOR APPROVAL	BSM	sd/-	MNM



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KEY PLAN
(SCALE 18000)

HYDROLOGY DATA:

DISCHARGE	36500 CUMECs
AHFL	13.800 m
LWL	5.000 m

TABLE OF SETTING OUT OF POINTS (SOP):

SOP	PIER/ABUTMENT	EASTING	NORTHING
SOP-1	A1	274206.054	2352582.971
SOP-2	P1	274201.928	2352554.367
SOP-3	P2	274197.802	2352525.763
SOP-4	P3	274193.578	2352497.174
SOP-5	P4	274188.022	2352468.821
SOP-6	P5	274178.046	2352438.240
SOP-7	P6	274163.668	2352409.469
SOP-8	P7	274149.766	2352386.306
SOP-9	P8	274127.465	2352350.246

- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETER, LEVELS IN METER AND CHAINAGES ARE IN KILOMETER UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
 - 75mm THICK BITUMINOUS WEARING COAT WITH 50mm THICK DBM PLUS 25mm THICK BITUMINOUS CONCRETE AND ADDITIONAL 6 TO 8mm THICK MICRO SEAL SURFACING.
 - GRADE OF CONCRETE SHALL BE:
 - i) SUPERSTRUCTURE
 - (a) PSC PRECAST I-GIRDERM45
 - (b) RCC CAST-IN-SITU DECK SLAB & DIAPHRAGMM45
 - (c) PSC VOIDED SLABM45
 - ii) RCC SUBSTRUCTURE
 - (a) PIERM35
 - (b) PEDESTAL & SEISMIC RESTRAINERM40
 - iii) RCC PILE FOUNDATION & PILE CAPM35
 - iv) CAST-IN-SITU / PRECAST CRASH BARRIERM40
 - v) RCC APPROACH SLABM30
 - vi) PCC LEVELLING COURSEM15
 - vii) CRASH BARRIERM40
 - GRADE OF REINFORCEMENT SHALL BE Fe 500D, CONFORMING TO IS: 1786-2000.
 - PRESTRESSING STEEL SHALL BE STRESS RELIEVED CLASS II PLY STRANDS OF LOW RELAXATION TYPE CONFORMING TO IS:14268.
 - STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED.
 - 100mm THK LEVELLING COURSE SHALL BE PROVIDED AT BOTTOM OF PILE CAP WHEREVER APPLICABLE.
 - PILE FOUNDING LEVEL SHALL BE CONSIDERED AS PER GEOTECHNICAL INTERPRETATION REPORT.
 - 600mm THICK FILTER MATERIAL BEHIND RCC ABUTMENT/RETURN WALL SHALL BE LAID AS PER APPENDIX 6 OF IRC-78-2014.
 - 100mm DIA P.V.C PIPE AT SPACING 1000mm C/C IN HORIZONTAL/VERTICAL DIRECTION SHALL BE PROVIDED UPTO 150mm ABOVE LOW WATER LEVEL FOR WEEP HOLES IN ABUTMENT WALL, RETURNS AND RCC RETAINING WALL.
 - THE SELECTED BACK FILL MATERIAL BEHIND RCC ABUTMENT SHALL HAVE FOLLOWING PROPERTIES:
 - $\phi = 30^\circ$, $\gamma = 2.0T/m^3$.
 - THIS MATERIAL MAY BE FILLED ONLY FOR THE PORTION AS INDICATED IN APPENDIX-6 OF IRC-78-2014.
 - SEISMIC ZONE - II AS PER IS: 1893 - 2002.
 - TYPE OF LIVE LOAD CONSIDERED FOR DESIGN OF THIS BRIDGE ARE AS FOLLOWS: "IRC SV LOADING" OR "2 LANE OF CLASS A" OR "1 LANE OF 70R" FOR EACH CARRIAGE WAY AS DEFINED IN IRC-6-2017.
 - FRL, PLAN AND PROFILE SHALL BE AS PER LATEST APPROVED PLAN AND PROFILE DRAWINGS.
 - 6mm THK. MS LINER TO BE PROVIDED FOR PILES AS PER SITE REQUIREMENT IN RIVER AND VIA-DUCT PORTION.
 - THE PILE CAP BOTTOM LEVEL SHALL BE (RL) +5.50 FOR RIVER PORTION.
 - THE PILE CAP TOP LEVEL SHALL BE 0.50m BELOW THE EGL FOR THE APPROACH PORTION.
 - FOR GEOTECHNICAL INVESTIGATION & RECOMMENDATION REFER RP002-GEOTECHNICAL INTERPRETATION REPORT.

REFERENCE DRAWINGS:

S.NO.	DRAWING NO.	TITLE
1	DDG 002	GENERAL ARRANGEMENT DRAWING (SH- 2)
2	DDG 003	GENERAL ARRANGEMENT DRAWING (SH- 3)
3	DDG 004	GENERAL ARRANGEMENT DRAWING (SH- 4)
4	DDP 001	PLAN & PROFILE DRAWING

CO-ORDINATES FOR BORE HOLE:

S.NO.	BORE HOLE-NO	EASTING	NORTHING
1	BH-1	273681.919	2351625.128
2	BH-2	274082.075	2352278.038
3	BH-3	273931.362	2352032.039
4	BH-4	274218.460	2352555.312
5	BH-5	274163.215	2352410.733
6	BH-6	273661.920	2351524.668
7	BH-7	273670.904	2351438.315
8	BH-8	273928.674	2352024.506

- LEGEND:**
- EJ - EXPANSION JOINT
 - TYP. - TYPICAL
 - PCC - PLAIN CEMENT CONCRETE
 - GL - GROUND LEVEL
 - LVL. - LEVEL
 - FDL - FOUNDING LEVEL
 - FRL - FINISHED ROAD LEVEL
 - AHFL - HIGHEST FLOOD LEVEL
 - THK - INCLUDING AFFLUX
 - BRG. - THICKNESS
| DIA. | - BEARING |
| CL | - CENTER LINE |
| LWL | - LOWEST WATER LEVEL |
| BH | - BORE HOLE (BH) |
| US | - UPSTREAM SIDE |
| DS | - DOWNSTREAM SIDE |
| SOP | - SETTING OUT OF POINTS (SOP) |
| W | - WATER |
| SG | - SAFETY GRILL |
| CP | - CURVE POINT |

FOR APPROVAL

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M. N. Chaudhary
L&T INFRA ENGINEERING

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AE DESIGNS (R & B)	EE DESIGNS (R & B)	SE DESIGNS CIRCLE
-----------------------	-----------------------	----------------------

CLIENT:

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BRIDGE CELL, SURAT.

PROOF CHECKING CONSULTANT:

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P.O Box :979, Chennai - 600 089
Ph No: 044 - 22597500
E-mail:inf@ltnet.in

PROJECT:

CONSTRUCTION OF RIVER BRIDGE ACROSS RIVER TAPI JOINING VED - VARIYAV, SURAT.

TITLE:

GENERAL ARRANGEMENT DRAWING

DRG. NO.: DDG 001

SCALE: AS SHOWN

DATE: 22.07.19

JOB NUMBER	SIZE	DRAWN	DESIGNED	CHECKED	APPROVED	REV NO.
C1193101	A1	IMN	BSM	PSRK	MNM	R2

REV.	DDMMYY DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
R2	22.07.19	REVISED BASED ON REVISED PLAN & PROFILE	BSM	PSRK	MNM
R1	10.06.19	REVISED BASED ON R&B's COMMENTS	BSM	sd/-	PSRK
R0	20.05.19	FOR APPROVAL	BSM	sd/-	PSRK

REVISIONS

plot scale: 1:1000