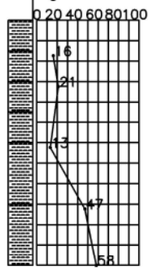
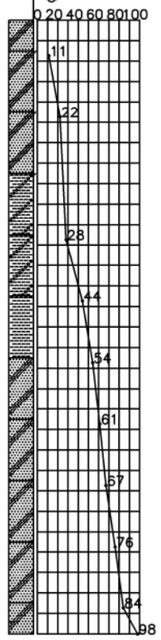
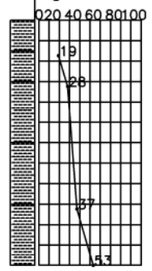


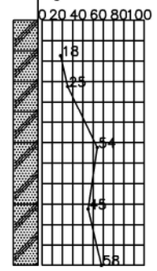
BORE HOLE PROFILE
BRIDGE NO. 214



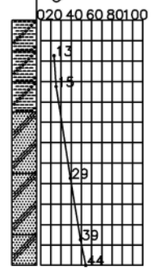
BORE HOLE PROFILE
BRIDGE NO. 225



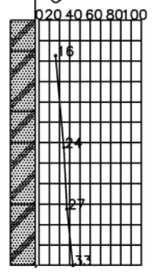
BORE HOLE PROFILE
BRIDGE NO. 230, 234



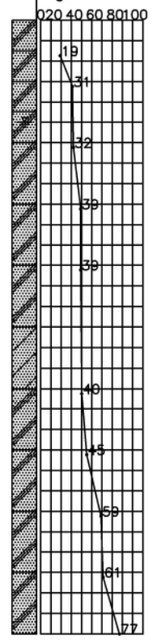
BORE HOLE PROFILE
BRIDGE NO. 273



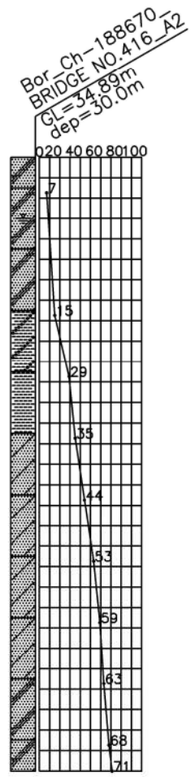
BORE HOLE PROFILE
BRIDGE NO. 277



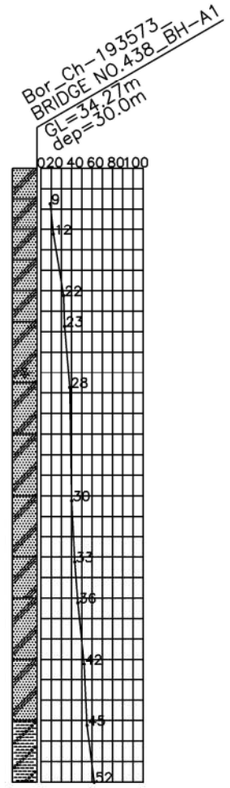
BORE HOLE PROFILE
BRIDGE NO. 315



BORE HOLE PROFILE
BRIDGE NO. 360

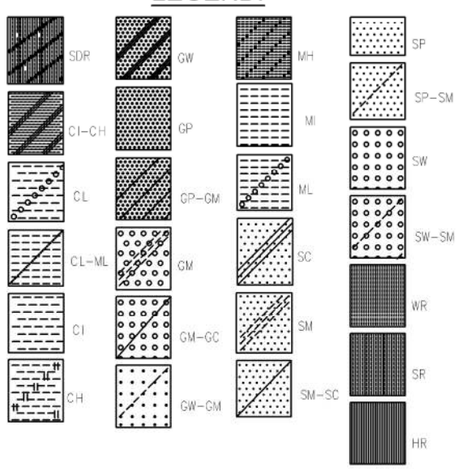


BORE HOLE PROFILE
BRIDGE NO. 414



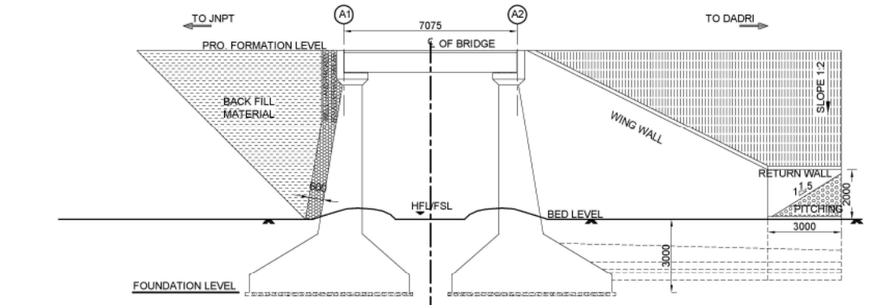
BORE HOLE PROFILE
BRIDGE NO. 433

LEGEND:

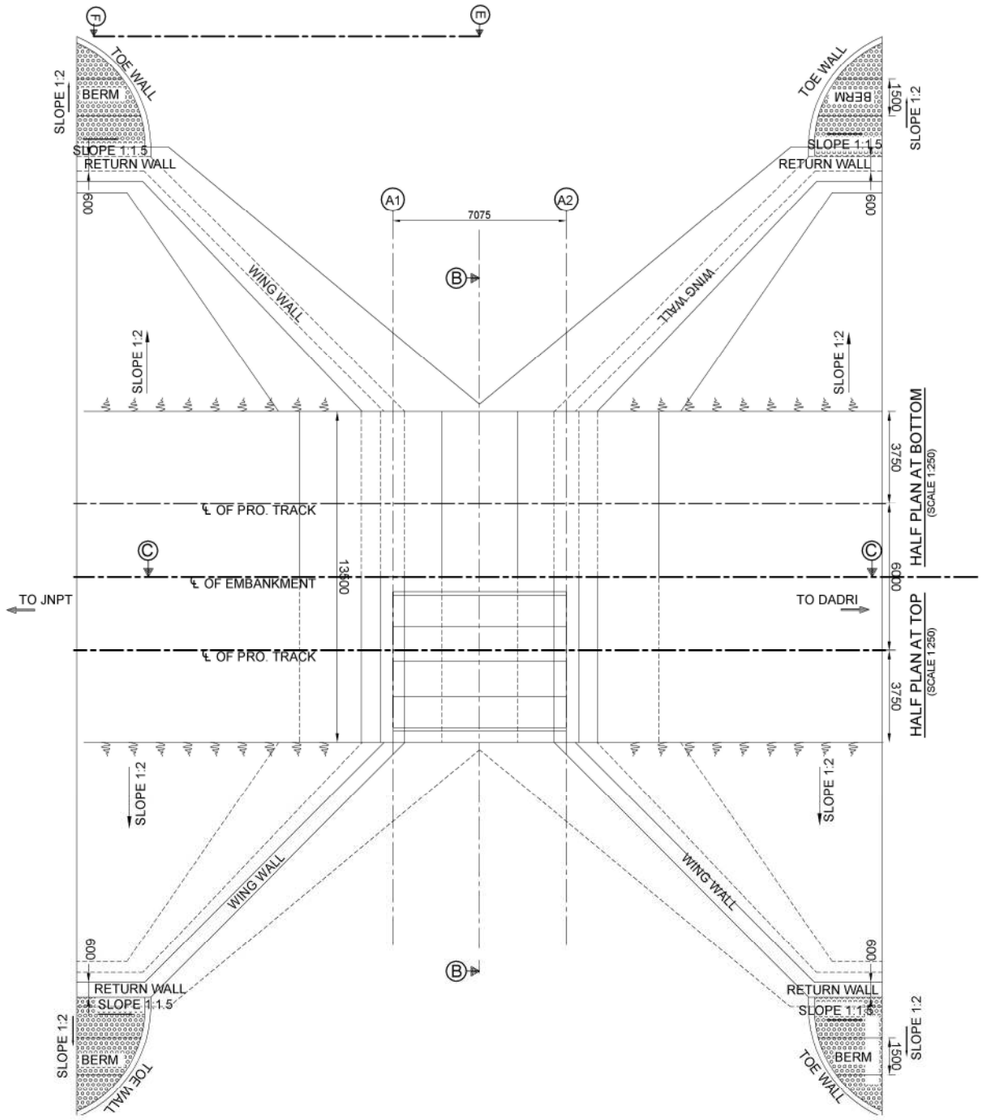


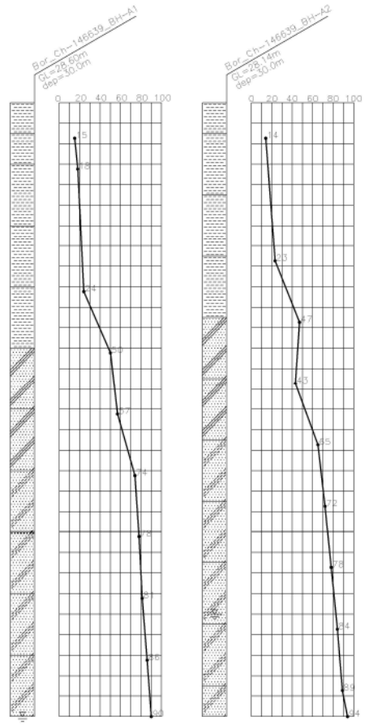
Formation width of 13.5m to be read as 13.8m. Respective dimensons are to be corrected according by the Bidder.

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR 1X6.1m PSC SLAB TYPE MINOR BRIDGE MAIN LINE 02	NKC -CTS -BRD -VD -00006 (SHEET 3 OF 3) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin, Date : 30th, Sept, 2012 Checked By : M. N. Ahmad, Date : 1st, Oct, 2012 Approved By : H. Kawahara, Date : 3rd, Oct, 2012	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

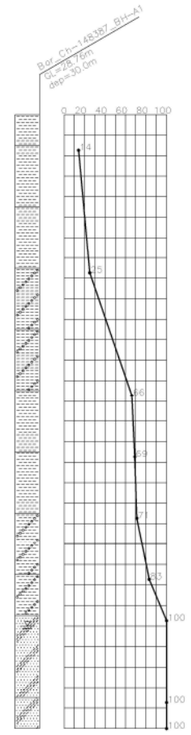


SECTION AT C-D-E-F
(SCALE 1:250)





BORE HOLE DETAIL
FOR BR. NO.247A



BORE HOLE DETAIL
FOR BR. NO.260A

V-4-2-199

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.

2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.

3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS,SPECIFICATIONS AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER / EMPLOYER.

4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALINGNMENT AND RECONCILED BEFORE EXECUTION.

5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.

6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.

7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAINS ON THE EXISTING IR TRACKS IS TO BE ENSURED BY THE CONTRACTOR. EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL BE CARRIED OUT WITH THE PRIOR WRITTEN APPROVAL OF THE ENGINEER / EMPLOYER.

SUPERSTRUCTURE & SUBSTRUCTURE

1) SUPERSTRUCTURE DETAIL IS INDICATIVE ONLY AND SHOULD BE DESIGNED AS PER CODAL PROVISION.

2) SUBSTRUCTURE OF BRIDGE SHALL BE DESIGNED AS PER DFCCI LOADING (32.5T AXLE LOAD) BRIDGE RULE, ISSUED BY RDSO. (WITH LATEST CORRECTION SLIP).

3) SUBSTRUCTURE SHALL BE DESIGNED TO TAKE CARE OF TEMPERORAY STAGE LOADS ALSO.

4) SUBSTRUCTURE OF THE BRIDGE SHALL BE DESIGNED AS PER THE SEISMIC ZONE FOR THE AREA

5) SEISMIC ARRANGEMENT (RESTAINER) SHALL BE PROVIDED IN SUBSTRUCTURE AS PER SEISMIC FORCES.

FOUNDATION

1) SCOUR LEVEL SHALL BE AS PER IRS SUB STRUCTURE & FOUNDATION CODE.

2) FOUNDATION LEVEL OF BRIDGE SHALL BE BELOW THE SCOUR LEVEL.

3) SETTLEMENT OF FOUNDATION SHALL BE CHECKED SO THAT IT IS WITHIN ACCEPTABLE LIMIT OF TOTAL & DIFFERENTIAL SETTLEMENTS AS PER CLAUSE 6.1 OF IRS: BRIDGE SUB STRUCTURE & FOUNDATION CODE.

4) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STRUCTURES IF REQUIRED.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.

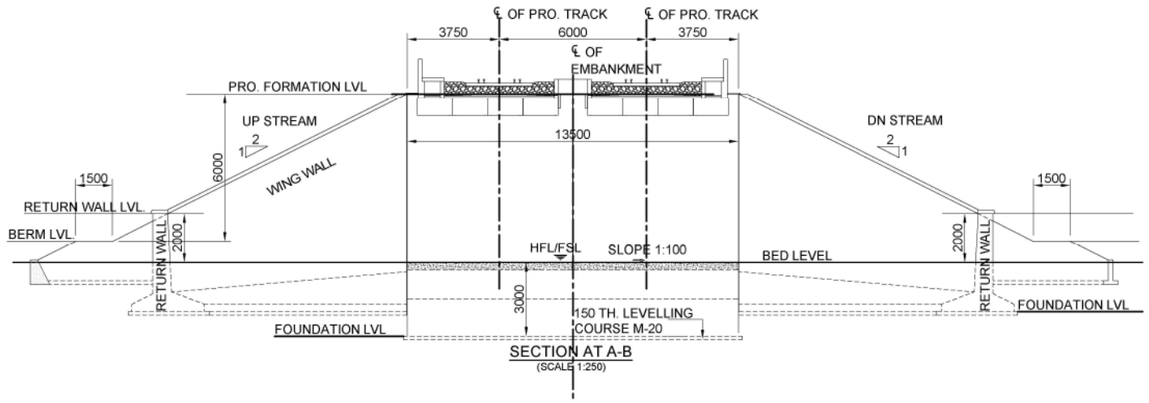
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.

3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE.

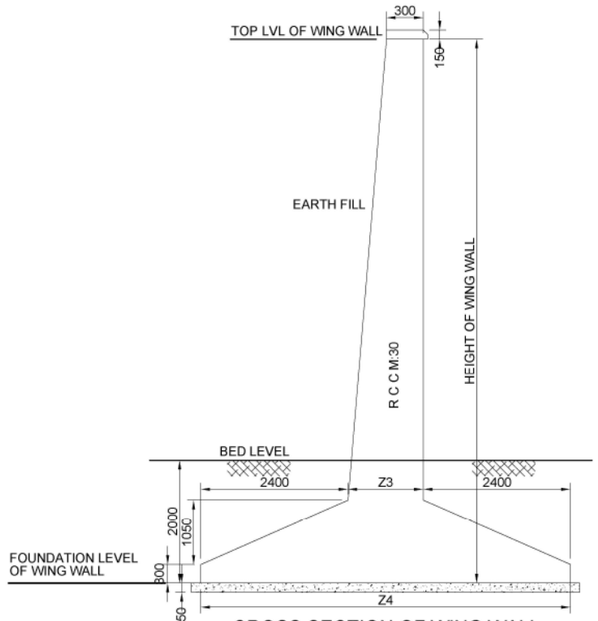
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE NO. 247A & 260A	NKC -CTS -BRD -VD -00007 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : / / Checked By : / / Approved By : / /	

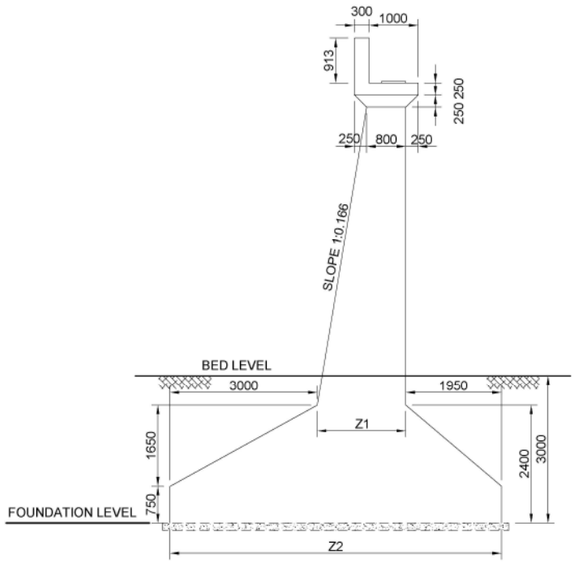
V-4-2-200



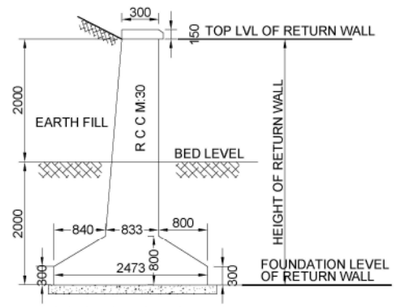
SECTION AT A-B
(SCALE 1:250)



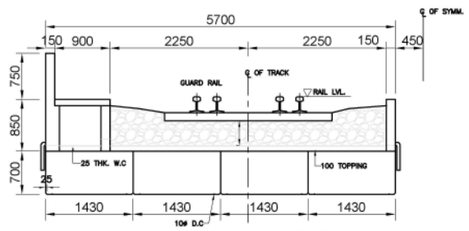
CROSS SECTION OF WING WALL
(SCALE 1:100)



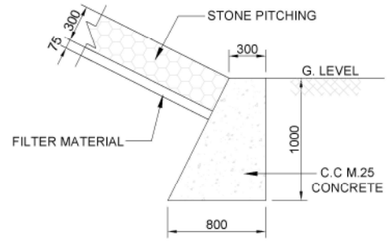
ABUTMENT
(SCALE 1:125)



CROSS SECTION OF RETURN WALL
(SCALE 1:100)



TYP. CROSS SECTION.
(SCALE 1:50)
6.10 m SPAN (SOLID SLAB OPTION)



SECTION OF TOE WALL
(SCALE 1:50)

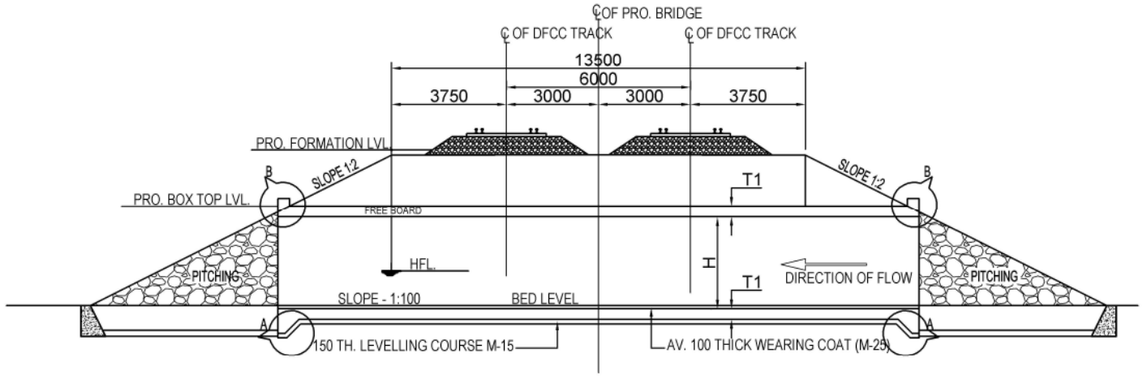
Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level (m)	Proposed Span (m)	No. of tracks Proposed for DFCC	Skew Angle	Type of Structure	Structure configuration	Type of Crossing	Barrel Length	Return Wall TOP LVL (m)	Return Wall FDN LVL (m)	Return Wall Height (m)	Wing Wall TOP LVL (m)	Wing Wall FDN LVL (m)	Wing Wall BERM LVL (m)	Wing Wall Height (m)	Wing Wall Length (m)	Wing Wall Z3(m)	Wing Wall Z4(m)	Abutment Z1(m)	Abutment Z2(m)
5	146,358.000	247A	36.665	28.390	1 x 6.1m	2	0	Minor Bridge	PSC Solid Slab	Gas Pipe Line	13.50	30.390	26.390	4.000	36.665	26.390	30.665	10.275	18.201	1.788	6.588	2.044	6.994
5	148,500.000	260A	35.060	29.077	1 x 6.1m	2	0	Minor Bridge	PSC Solid Slab	Gas Pipe Line	13.50	31.077	27.077	4.000	35.060	27.077	-	7.983	11.718	1.406	6.206	1.662	6.612

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

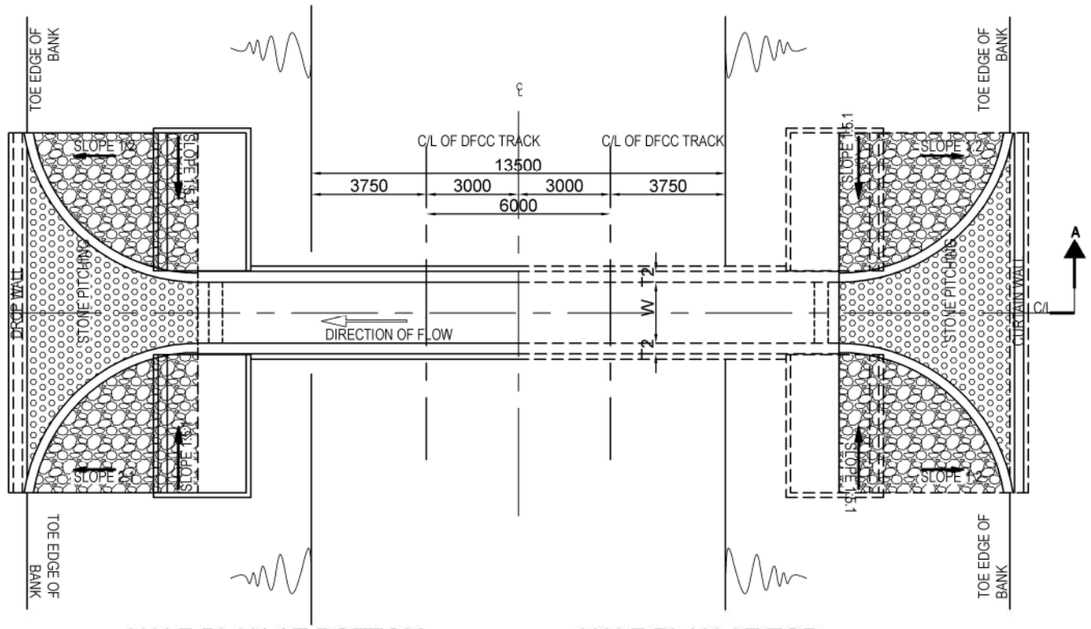
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE NO. 247A & 260A	NKC -CTS -BRD -VD -00007 (SHEET 2 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : / / Checked By : / / Approved By : / /	

V-4-2-201

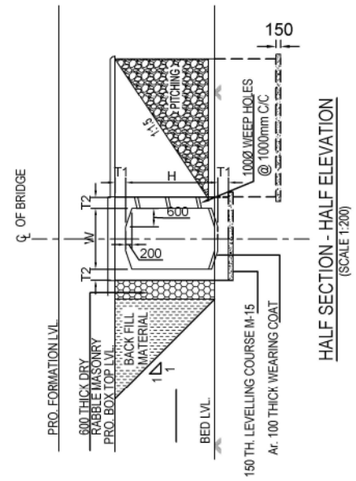


SECTION A-A
(SCALE 1:200)

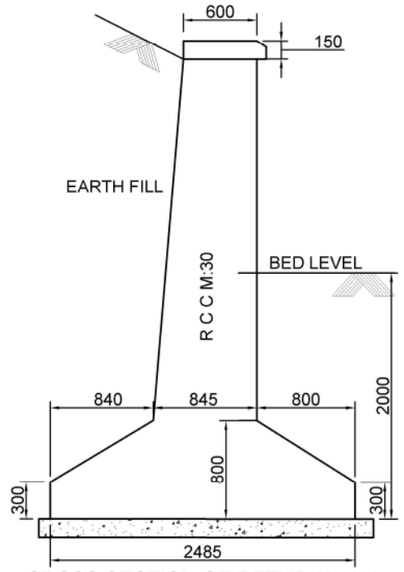


HALF PLAN AT BOTTOM
(SCALE 1:200)

HALF PLAN AT TOP
(SCALE 1:200)



HALF SECTION - HALF ELEVATION
(SCALE 1:200)



CROSS SECTION OF RETURN WALL
(SCALE 1:50)

GENERAL NOTES:

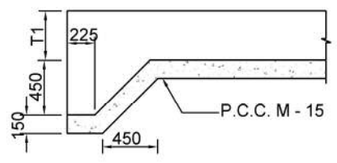
1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

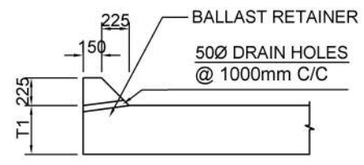
FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.



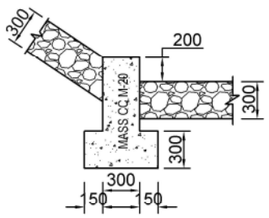


DETAIL AT A & B
(SCALE 1:50)

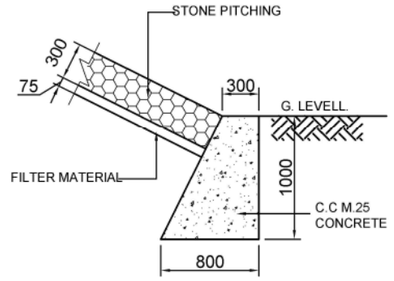
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 01	NKC -CTS -BRD -VD -00008 (SHEET 1 OF 4)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-202



SECTION OF TOE WALL
(SCALE 1:50)



SECTION OF CURTAIN/DROP WALL
(SCALE 1:50)

Sect. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)		HFL/FSL (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration n	W (m)	H (m)	T1 (m)	T2 (m)	A (m)	B (m)	Barrel Length-Z	FILL(m)	Return Wall(U/S;D/S) TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)	BERM LVL (m)
5	131,550.000	202A	26.399	21.669	23.122	23.122	23.622	Minor Bridge	Rcc Box	3	0	Canal	1	2.000	2.000	0.350	0.350	0.600	0.200	29.770	2.380	24.019	19.669	4.350	3.525	-
5	133,365.267	209	25.670	21.464	23.139	23.139	23.339	Minor Bridge	Rcc Box	8	0	Drain	1	4.000	3.000	0.400	0.400	0.600	0.200	53.874	0.906	24.764	19.464	5.300	4.950	-
5	140,683.052	228	30.081	25.296	25.296	25.296	25.545	Minor Bridge	Rcc Box	2	0	Canal	1	3.000	3.000	0.350	0.350	0.600	0.200	20.390	1.535	28.546	23.296	5.250	4.875	-
5	142,006.240	231	31.876	26.759	26.759	26.759	27.890	Minor Bridge	Rcc Box	2	0	Canal	1	3.000	3.000	0.350	0.350	0.600	0.200	21.718	1.867	30.009	24.759	5.250	4.875	-
5	144,253.228	242	31.953	27.297	27.297	27.297	27.297	Minor Bridge	Rcc Box	2	0	Drain	1	6.100	2.500	0.600	0.600	0.600	0.200	20.874	1.656	30.297	25.297	5.000	4.500	-
5	145,351.214	244	32.392	27.829	27.829	27.829	28.232	Minor Bridge	Rcc Box	2	0	Canal	1	3.000	3.000	0.350	0.350	0.600	0.200	19.502	1.313	31.079	25.829	5.250	4.875	-
5	147,697.609	256	34.686	28.601	28.601	28.601	28.601	Minor Bridge	Rcc Box	2	40	Canal	1	9.150	4.500	1.000	0.650	0.600	0.200	16.990	0.685	34.001	26.601	7.400	8.100	28.686
5	147,847.799	258	34.776	28.917	28.917	28.917	28.917	Minor Bridge	Rcc Box	2	60	Canal + Cart Track	1	9.150	4.500	0.850	0.650	0.600	0.200	16.686	0.609	34.167	26.917	7.250	7.875	-
5	148,387.393	260	35.099	28.829	28.829	28.829	29.154	Minor Bridge	Rcc Box	2	10	Canal + Road (WBM)	1	6.100	4.750	0.850	0.650	0.600	0.200	17.330	0.770	34.329	26.829	7.500	8.250	29.099
5	151,283.715	272	35.913	30.513	31.373	31.373	33.760	Minor Bridge	Rcc Box	2	45	Nalla	1	9.150	4.500	1.000	0.650	0.600	0.200	13.500	0.000	35.913	28.513	7.400	8.100	-
5	156,000.000	290A	39.603	33.917	33.917	33.917	33.617	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	27.994	3.436	36.167	31.917	4.250	3.375	-
5	156,830.394	292	40.758	35.278	35.278	35.278	37.023	Minor Bridge	Rcc Box	2	0	Passing Services	1	2.000	2.000	0.300	0.300	0.600	0.200	27.370	3.280	37.478	33.278	4.200	3.300	-
5	158,188.340	296A	41.350	22.040	22.040	22.040	25.040	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	77.290	15.010	26.340	20.040	6.300	6.450	35.350
5	158,928.340	297A	38.614	23.530	23.530	23.530	26.530	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	60.386	10.784	27.830	21.530	6.300	6.450	32.614
5	159,348.340	297B	36.598	21.470	21.470	21.470	24.470	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	60.562	10.828	25.770	19.470	6.300	6.450	30.598
5	159,708.340	297C	35.419	29.540	29.540	29.540	32.540	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	20.566	1.579	33.840	27.540	6.300	6.450	-
5	161,108.340	300B	34.664	15.220	15.220	15.220	18.220	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	77.826	15.144	19.520	13.220	6.300	6.450	28.664
5	161,188.340	300C	34.264	22.720	22.720	22.720	25.720	Minor Bridge	Rcc Box	2	0	Balancing Culvert	1	4.000	4.000	0.400	0.400	0.600	0.200	46.226	7.244	27.020	20.720	6.300	6.450	28.264
5	163,849.517	310	37.020	32.620	33.920	33.920	35.928	Minor Bridge	Rcc Box	2	0	Canal	1	4.000	4.000	0.500	0.500	0.600	0.200	13.500	0.000	37.020	30.620	6.400	6.600	-
5	169,624.428	336	43.601	35.378	35.378	35.378	35.956	Minor Bridge	Rcc Box	2	0	Canal + Cart Track	1	6.100	4.500	0.700	0.700	0.600	0.200	26.742	3.123	40.478	33.378	7.100	7.650	37.601
5	191,976.396	430	41.280	30.006	30.006	30.006	30.560	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	53.346	9.024	32.256	28.006	4.250	3.375	35.280
5	192,878.393	436	41.470	34.476	34.476	34.476	34.721	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	33.226	4.744	36.726	32.476	4.250	3.375	35.470
5	196,548.393	451	39.925	31.314	31.314	31.314	31.740	Minor Bridge	Rcc Box	4	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	54.694	6.361	33.564	29.314	4.250	3.375	33.925
5	197,598.397	454	38.381	32.482	32.482	32.482	32.830	Minor Bridge	Rcc Box	4	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	40.846	3.649	34.732	30.482	4.250	3.375	-
5	199,110.994	466	38.617	32.140	32.140	32.140	32.441	Minor Bridge	Rcc Box	2	60	Kutcha Canal	1	6.100	3.000	0.700	0.700	0.600	0.200	25.758	2.877	35.740	30.140	5.600	5.400	32.617
5	199,333.396	467	38.889	31.933	31.933	31.933	32.420	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.300	0.300	0.600	0.200	33.274	4.756	34.133	29.933	4.200	3.300	32.889
5	199,680.615	469	38.160	32.287	32.287	32.287	32.488	Minor Bridge	Rcc Box	2	45	Canal	1	6.100	3.000	0.700	0.700	0.600	0.200	23.342	2.273	35.887	30.287	5.600	5.400	-
5	201,712.581	478	36.461	31.061	31.827	31.827	32.120	Minor Bridge	Rcc Box	2	0	Canal	1	9.150	4.500	1.000	0.650	0.600	0.200	13.500	0.000	36.461	29.061	7.400	8.100	-
5	201,758.779	479	36.429	31.029	32.178	32.178	31.878	Minor Bridge	Rcc Box	2	20	Canal	1	9.150	4.500	1.000	0.650	0.600	0.200	13.500	0.000	36.429	29.029	7.400	8.100	-
5	202,728.396	483	34.076	29.201	29.201	29.201	29.650	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	24.750	2.625	31.451	27.201	4.250	3.375	-
5	203,438.396	484	32.784	27.698	27.698	27.698	28.153	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	25.594	2.836	29.948	25.698	4.250	3.375	-
5	205,128.389	490	35.904	27.152	27.152	27.152	24.342	Minor Bridge	Rcc Box	2	0	Drain	1	2.000	2.000	0.350	0.350	0.600	0.200	43.258	6.502	29.402	25.152	4.250	3.375	29.904

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :
Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

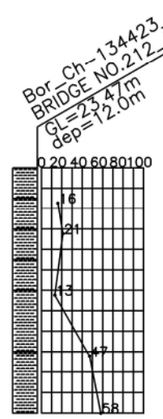
Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

Drawing Title :
GENERAL ARRANGEMENT DRAWING
FOR RCC BOX TYPE MINOR BRIDGE

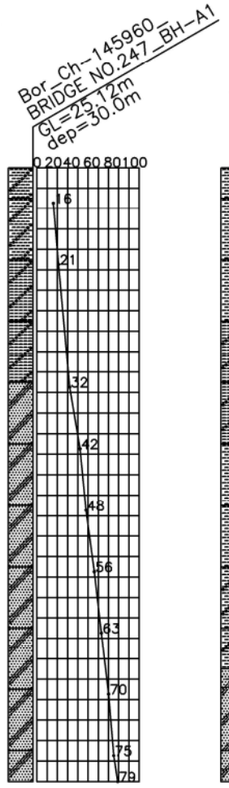
Drawing Number : NKC -CTS -BRD -VD -00008 (SHEET 2 OF 4)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA

Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

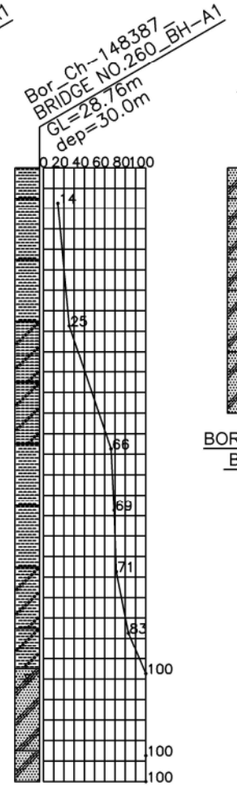
Consultant :
NK Consortium
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA



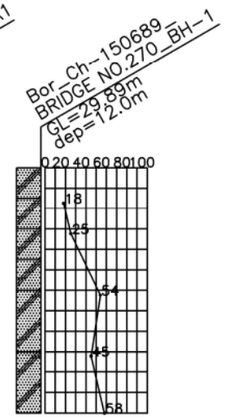
BORE HOLE PROFILE
BRIDGE NO. 209



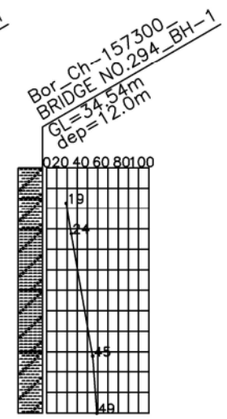
BORE HOLE PROFILE
BRIDGE NO. 242



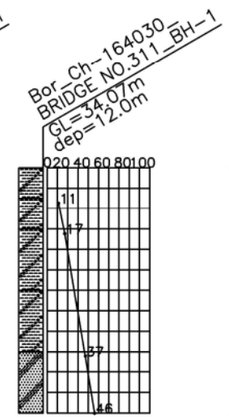
BORE HOLE PROFILE
BRIDGE NO. 256 & 258



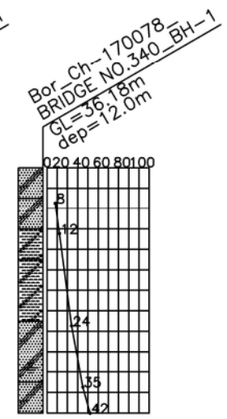
BORE HOLE PROFILE
BRIDGE NO. 272



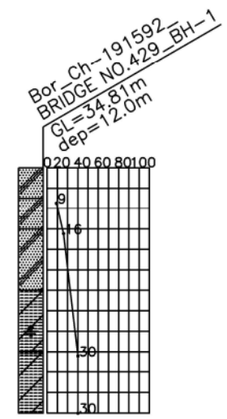
BORE HOLE PROFILE
BRIDGE NO. 292



BORE HOLE PROFILE
BRIDGE NO. 310

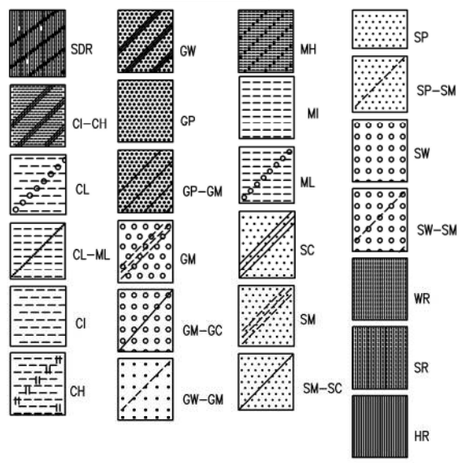


BORE HOLE PROFILE
BRIDGE NO. 336



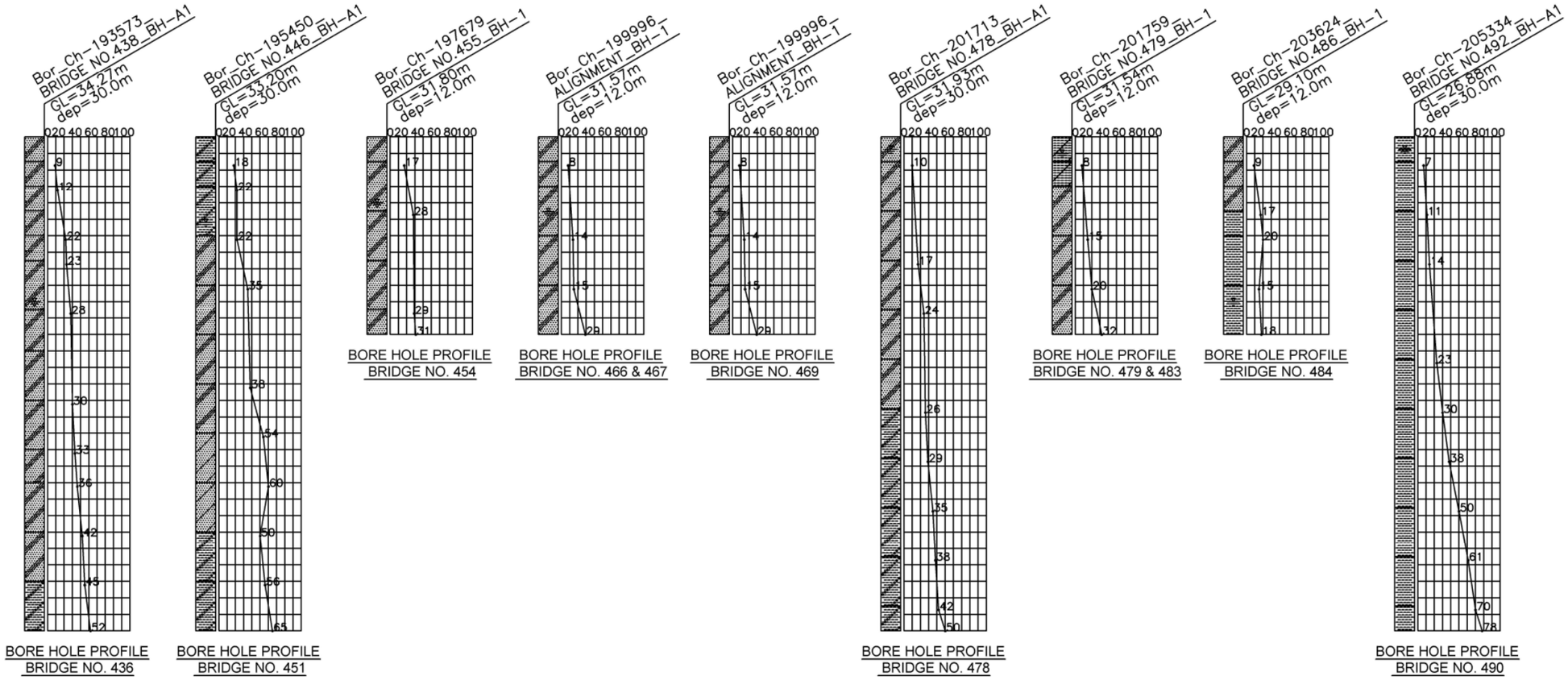
BORE HOLE PROFILE
BRIDGE NO. 430

LEGEND:

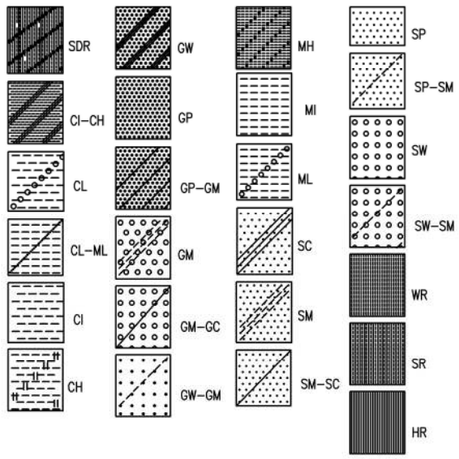


Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number : NKC -CTS -BRD -VD -00008 (SHEET 3 OF 4)	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE	Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin, Date : 30th, Sept, 2012 Checked By : M. N. Ahmad, Date : 1st, Oct, 2012 Approved By : H. Kawahara, Date : 3rd, Oct, 2012	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA



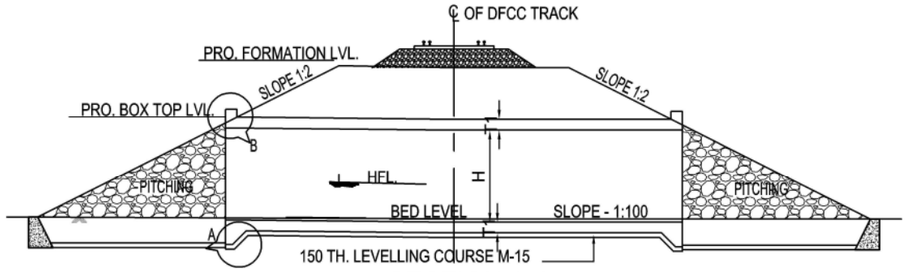
LEGEND:



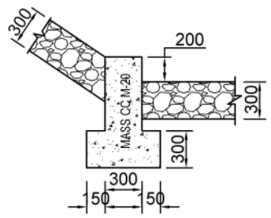
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE	NKC -CTS -BRD -VD -00008 (SHEET 4 OF 4)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

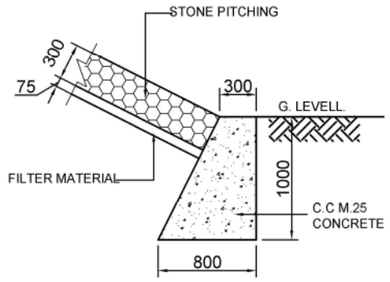
V-4-2-205



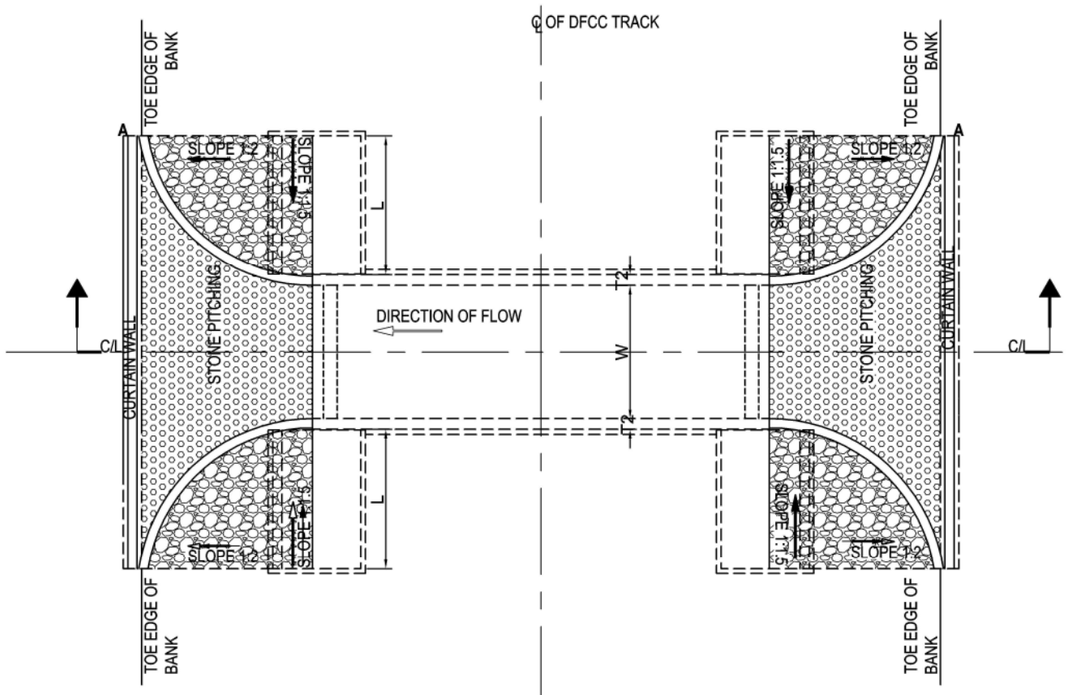
SECTION A-A
(SCALE 1:200)



SECTION OF TOE WALL
(SCALE 1:50)

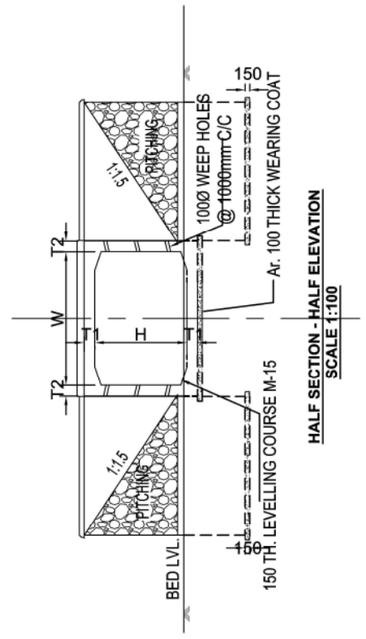


SECTION OF CURTAIN/DROP WALL
(SCALE 1:50)

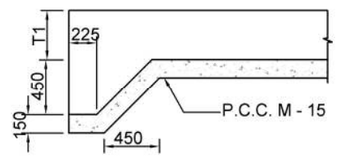


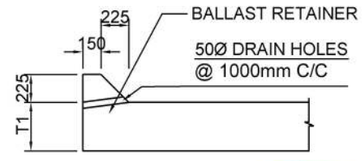
HALF PLAN AT BOTTOM
(SCALE 1:200)

HALF PLAN AT TOP
(SCALE 1:200)



HALF SECTION - HALF ELEVATION
SCALE 1:100





DETAIL AT A & B
(SCALE 1:50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

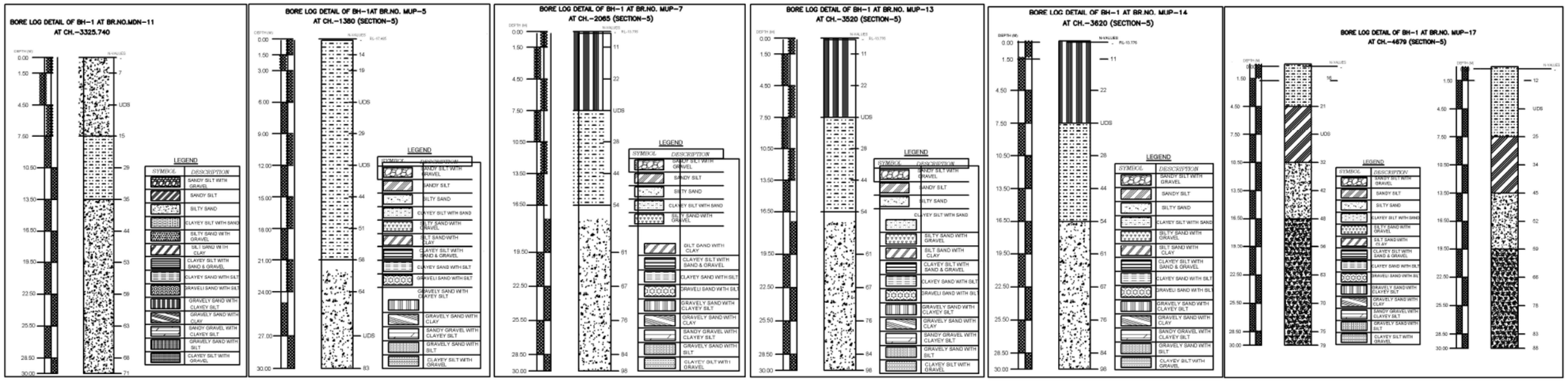
FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE-01	NKC -CTS -BRD -VD -00009 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	



Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL	Type of Structure	DFCC Track Number	Skew Angle	Structure configuration	Type of Crossing	Box Configuration									Return Wall				BERM LVL
												n	W	H	T1	T2	A	B	Barrel Length-Z	FILL(m)	TOP LVL	FDN LVL	Height (m)	Length (m)	
5Co.-M/Dn	1,000.700	MDN-4	27.727	16.100	16.100	17.325	Minor Bridge	1	0	RCC Box	Nalla	1	6.10	3.00	0.85	0.55	0.60	0.20	42.358	7.777	19.950	14.100	5.850	5.775	21.727
5Co.-M/Dn	3,325.740	MDN-10	27.207	24.287	13.920	24.567	Minor Bridge	1	20	RCC Box	Lined channel	1	3.00	2.00	0.35	0.35	0.60	0.20	10.530	0.570	26.637	22.287	4.350	3.525	21.207
5Co.-M/Up	977.500	MUP-3	30.565	24.754	24.754	25.180	Minor Bridge	1	0	RCC Box	Nalla	1	6.10	3.00	0.85	0.55	0.60	0.20	16.094	1.961	28.604	22.754	5.850	5.775	24.565
5Co.-M/Up	1,380.000	MUP-5	31.410	22.810	22.810	23.213	Minor Bridge	1	0	RCC Box	Drain	1	9.15	4.50	1.00	1.00	0.60	0.20	20.650	3.100	28.310	20.810	7.500	8.250	25.410
5Co.-M/Up	1,676.720	MUP-6	32.121	22.141	22.141	22.525	Minor Bridge	1	0	RCC Box	Channel	1	6.10	3.00	0.85	0.55	0.60	0.20	35.770	6.130	25.991	20.141	5.850	5.775	26.121
5Co.-M/Up	2,453.140	MUP-9	35.615	24.512	24.512	25.039	Minor Bridge	1	0	RCC Box	Channel	1	6.10	3.00	0.85	0.55	0.60	0.20	40.262	7.253	28.362	22.512	5.850	5.775	29.615

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :
Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

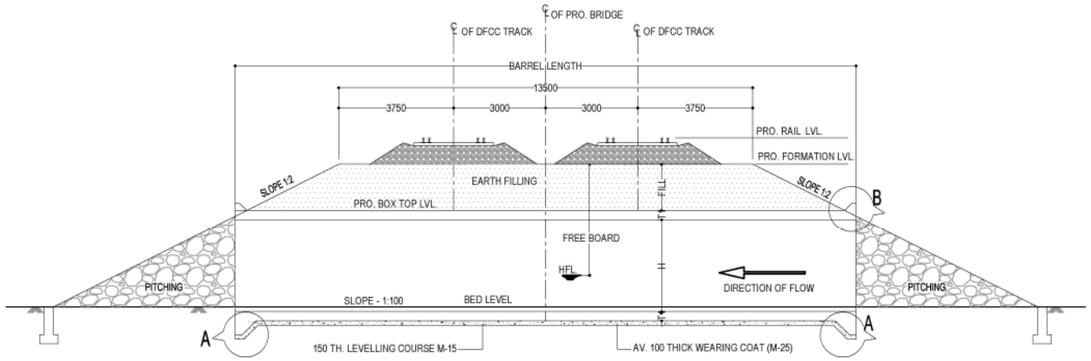
Drawing Title :
GENERAL ARRANGEMENT DRAWING
FOR RCC BOX TYPE MINOR BRIDGE-01

Drawing Number : NKC -CTS -BRD -VD -00009 (SHEET 2 OF 2)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA

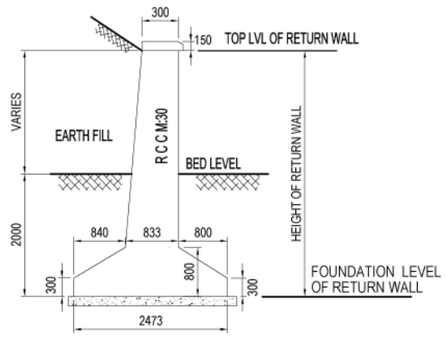
Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

Consultant :
NK Consortium
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

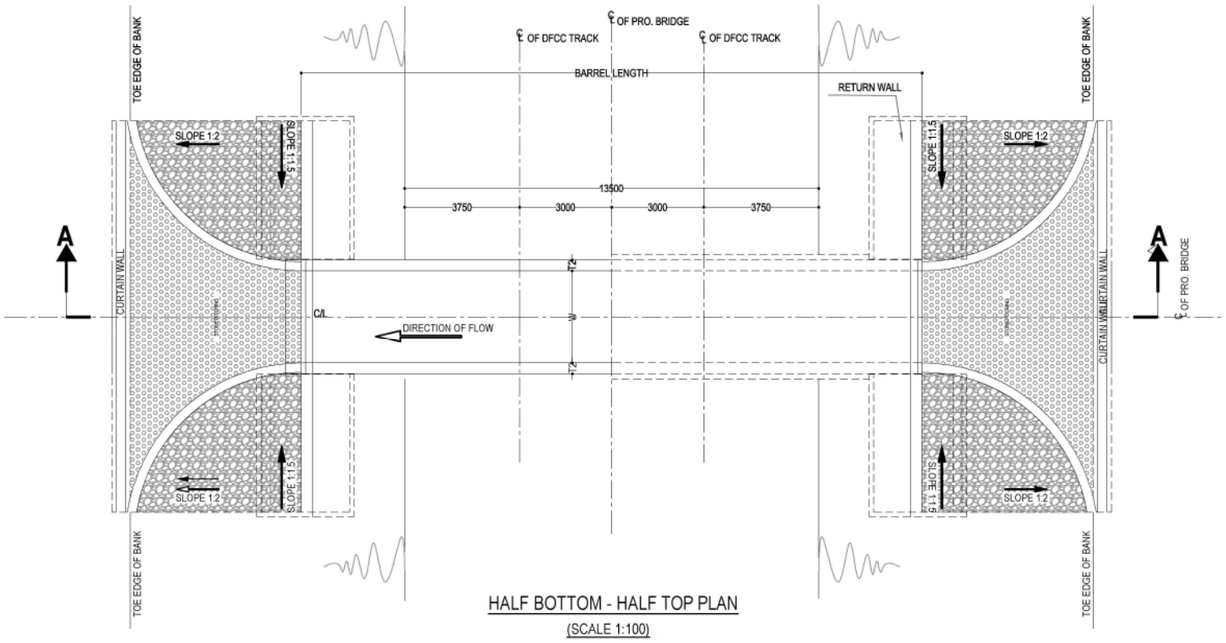
V-4-2-207



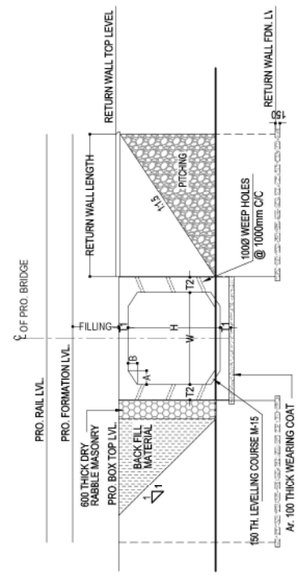
SECTION A-A
SCALE 1:100



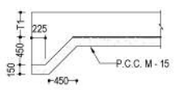
CROSS SECTION OF RETURN WALL
(SCALE 1:60)



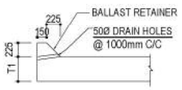
HALF BOTTOM - HALF TOP PLAN
(SCALE 1:100)

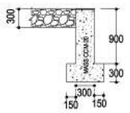


HALF SECTION - HALF ELEVATION
SCALE 1:100

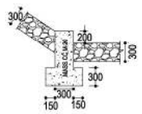


DETAILS AT A & B
SCALE 1:50





SECTION OF CURTAIN /DROP WALL
(SCALE :- 1: 50)



SECTION OF TOE WALL
(SCALE :- 1: 50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS,SPECIFICATIONS AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER / EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALINGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAINS ON THE EXISTING IR TRACKS IS TO BE ENSURED BY THE CONTRACTOR. EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL BE CARRIED OUT WITH THE PRIOR WRITTEN APPROVAL OF THE ENGINEER / EMPLOYER.

SUPERSTRUCTURE & SUBSTRUCTURE

1) SUPERSTRUCTURE SPAN IS 3x7.40m (NON-STANDARD) PSC SOILID SLAB , SPAN LENGTH 7.40 EXPANSION JOINT TO EXPANSION JOINT .
2) SUBSTRUCTURE OF BRIDGE SHALL BE DESIGNED AS PER DFCCI LOADING (32.5T AXLE LOAD) BRIDGE RULE, ISSUED BY RDSO. (WITH LATEST CORRECTION SLIP).
3) SUBSTRUCTURE SHALL BE DESIGNED TO TAKE CARE OF TEMPERORAY STAGE LOADS ALSO.
4) SUBSTRUCTURE OF THE BRIDGE SHALL BE DESIGNED AS PER THE SEISMIC ZONE FOR THE AREA
5) SEISMIC ARRANGEMENT (RESTAINER) SHALL BE PROVIDED IN SUBSTRUCTURE AS PER SEISMIC FORCES.

FOUNDATION

1) SCOUR LEVEL SHALL BE AS PER IRS SUB STRUCTURE & FOUNDATION CODE.
2) FOUNDATION LEVEL OF BRIDGE SHALL BE BELOW THE SCOUR LEVEL.
3) SETTLEMENT OF FOUNDATION SHALL BE CHECKED SO THAT IT IS WITHIN ACCEPTABLE LIMIT OF TOTAL & DIFFERENTIAL SETTLEMENTS AS PER CLAUSE 6.1 OF IRS: BRIDGE SUB STRUCTURE & FOUNDATION CODE.
4) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STRUCTURES IF REQUIRED .

GEO-TECHNICAL

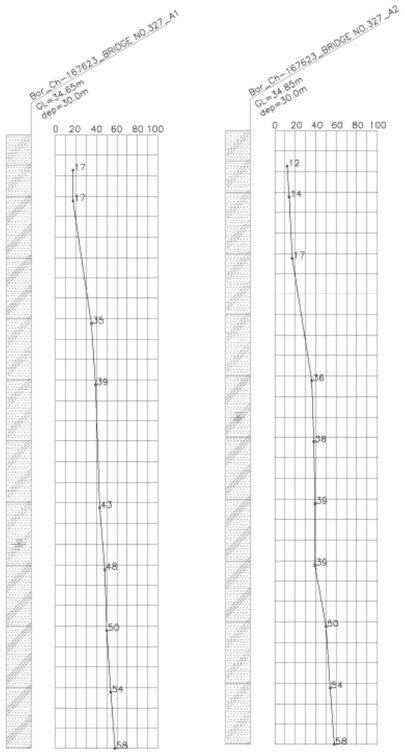
1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE.

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE NO. 327 & 340A (RCC BOX)	Drawing Number : NKC -CTS -BRD -VD -00010 (SHEET 1 OF 2)
			Scale : AS SHOWN
			Reference : GAD PREPARED BY CPM VADODARA
			Drawn By : / / Checked By : / / Approved By : / /
			Consultant : NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

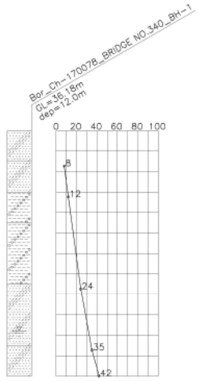
V-4-2-208

S.No	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level (m)	Bed Level (m)		Proposed Span (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Box Configuration n	W (m)	H (m)	T1 (m)	T2 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	Return Wall TOP LVL (m)	FDN LVL (m)	C	D	E	F	G	H	I	J	K	Height L(m)	Length M(m)
5	167,622.723	327	45.343	33.355	33.355	33.355	1 x 9.15 m x 5.0 m	Minor Bridge	RCC Box	2	0	1	9.15	5.00	1.00	0.75	0.60	0.20	38.202	5.988	45.34	31.355	-2.4	-1.301	0.8	0.95	0.5	0.3	0.449	11.988	13.188	13.99	17.232
5	170,150.000	340A	44.428	34.444	34.344	34.344	1 x 6.1m x 4.0m	Minor Bridge	RCC Box	2	0	1	6.10	4.00	0.75	0.75	0.60	0.20	35.586	5.334	44.43	32.344	-1.4	-0.4597	0.8	0.95	0.5	0.3	1.290333	10.084	11.284	12.08	14.376

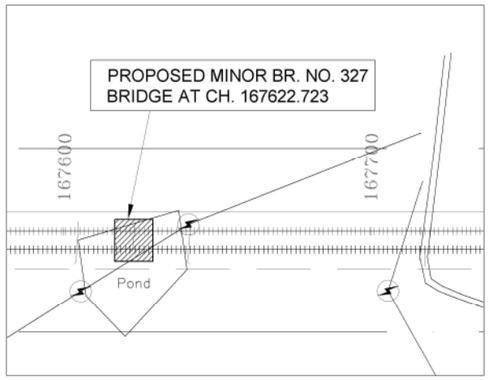
NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.



BORE HOLE FOR BR. NO. 327
AT CHAINAGE 167622.723



BORE HOLE FOR BR. NO. 340A
AT CHAINAGE 170150.00

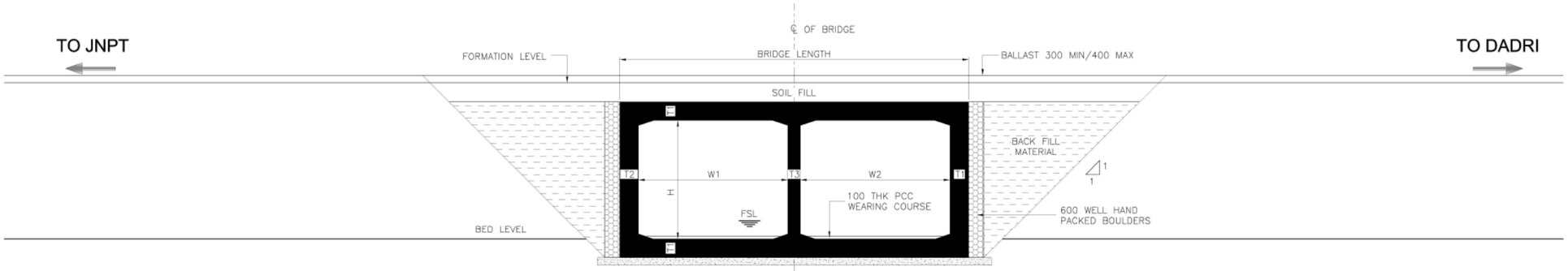


KEY PLAN FOR BR. NO. 327

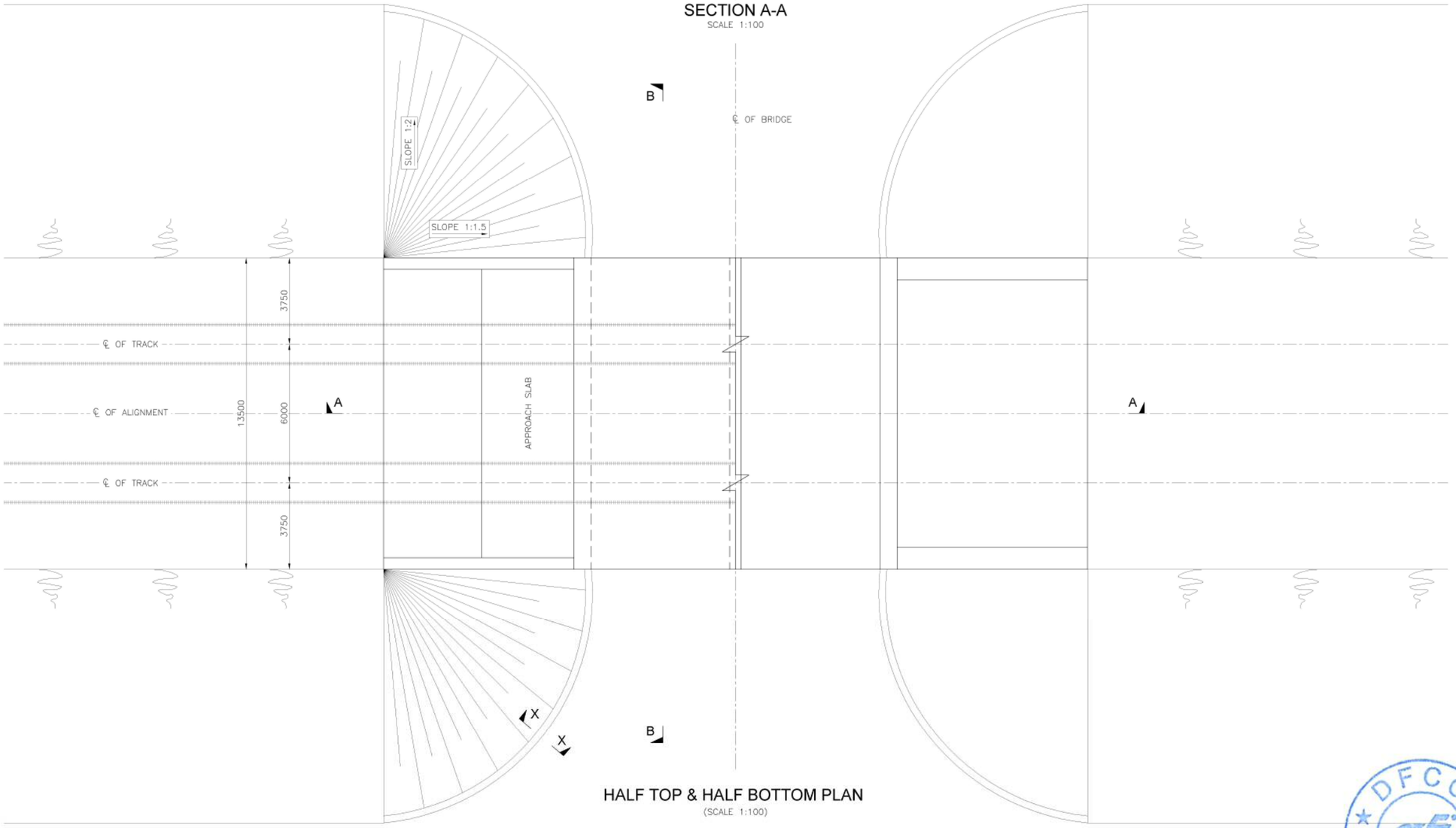
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE NO. 327, 340A (RCC BOX)	NKC -CTS -BRD -VD -00010 (SHEET 2 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : / / Checked By : / / Approved By : / /	

V-4-2-209



SECTION A-A
SCALE 1:100



HALF TOP & HALF BOTTOM PLAN
(SCALE 1:100)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

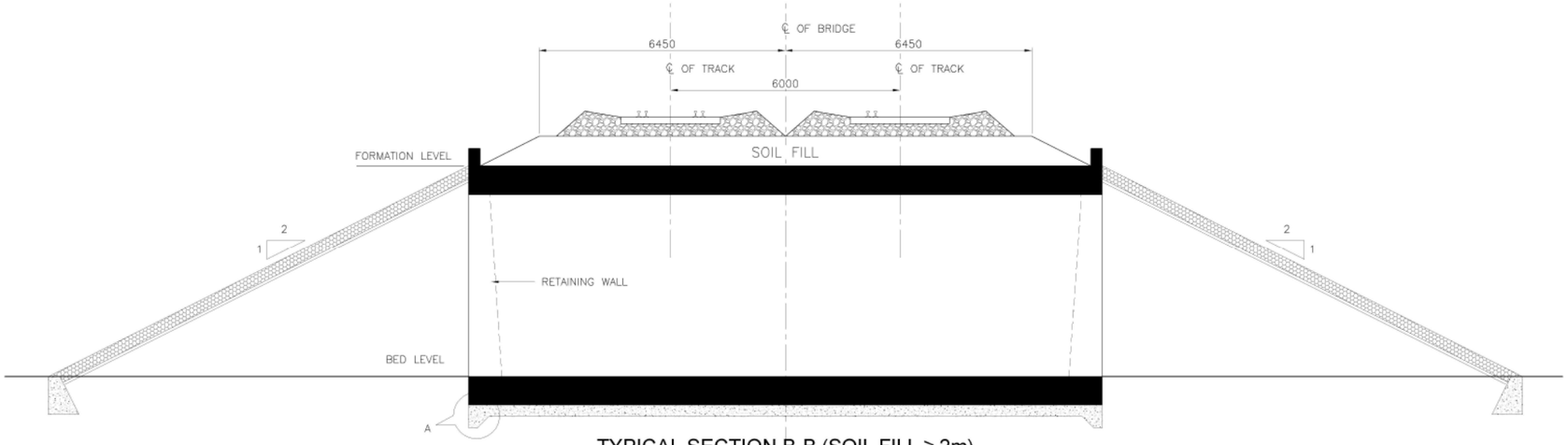
1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

DFCC NEW DELHI

NK CONSORTIUM NJPI

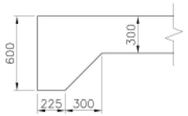
Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 02	NKC -CTS -BRD -VD -00011 (SHEET 1 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-210



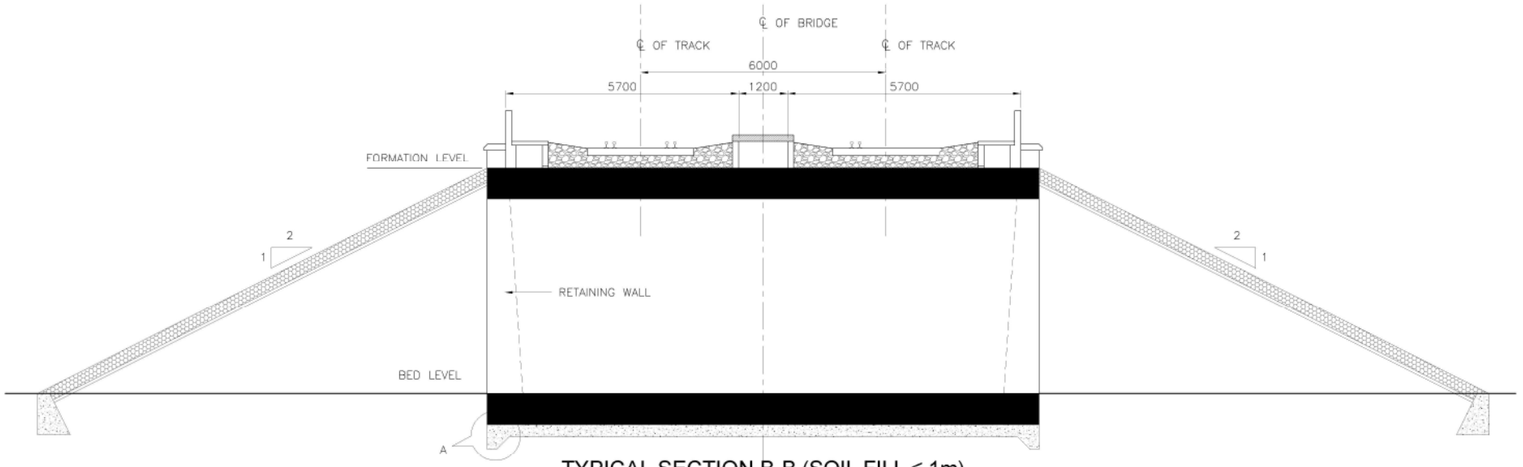
TYPICAL SECTION B-B (SOIL FILL ≥ 2m)

SCALE 1:75



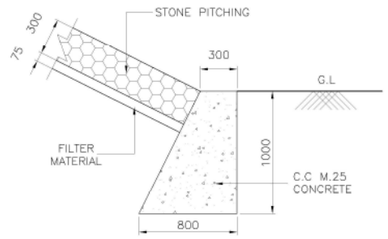
DETAIL - A (SHOWING REINFORCEMENT)

(SCALE 1:25)



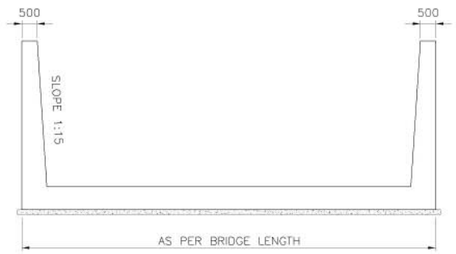
TYPICAL SECTION B-B (SOIL FILL ≤ 1m)

SCALE 1:75



DETAIL X-X

(SCALE 1:25)



SECTION OF RETAINING WALL

(SCALE 1:150)

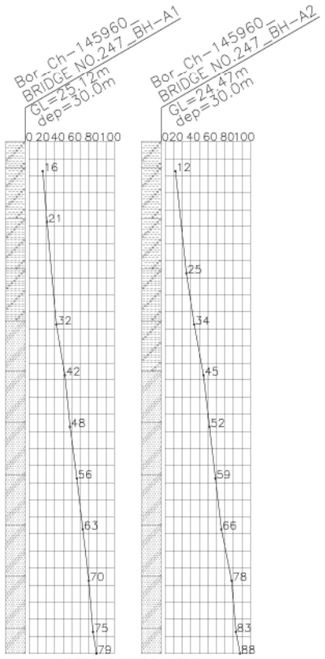
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 02	NKC -CTS -BRD -VD -00011 (SHEET 2 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin; Date : 30th, Sept, 2012	Checked By : M. N. Ahmad; Date : 1st, Oct, 2012
			Approved By : H. Kawahara; Date : 3rd, Oct, 2012	

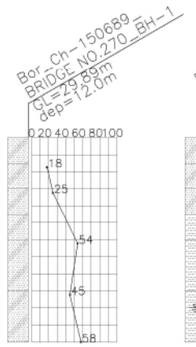
V-4-2-211

Sect. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration n	W1 (m)	W2 (m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	Return Wall(U/S;D/S) TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)	BERM LVL (m)
5	143,453.049	238	31.940	27.670	27.670	27.941	Minor Bridge	Rcc Box	2	0	Canal	2	4.000	4.000	3.700	0.400	0.400	0.400	0.600	0.200	14.930	0.170	31.770	25.670	6.100	6.150	-
5	145,960.394	247	34.776	27.605	27.605	28.110	Minor Bridge	Rcc Box	2	0	Canal + Cart Track	2	9.150	4.500	4.500	1.000	1.000	1.000	0.600	0.200	20.934	1.671	33.105	25.605	7.500	8.250	28.776
5	150,678.582	269	36.337	29.000	30.678	31.216	Minor Bridge	Rcc Box	2	13	Canal + Road	2	6.100	6.100	4.750	0.850	0.850	0.850	0.600	0.200	21.198	1.737	34.600	27.000	7.600	8.400	30.337
5	190,581.397	425	42.208	36.112	36.112	38.060	Minor Bridge	Rcc Box	2	30	Canal + Cart Track	2	4.000	4.000	5.000	0.850	0.850	0.850	0.600	0.200	15.234	0.246	41.962	34.112	7.850	8.775	36.208
5	203,708.984	487	32.784	26.457	28.157	27.857	Minor Bridge	Rcc Box	2	45	Canal + Cart Track	2	6.100	6.100	5.500	0.800	0.800	0.850	0.600	0.200	14.358	0.027	32.757	24.457	8.300	9.450	26.784

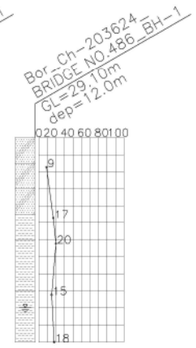
NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.



BORE HOLE PROFILE
BRIDGE NO. 247

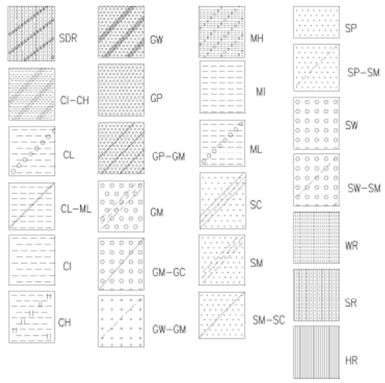


BORE HOLE PROFILE
BRIDGE NO. 269



BORE HOLE PROFILE
BRIDGE NO. 487

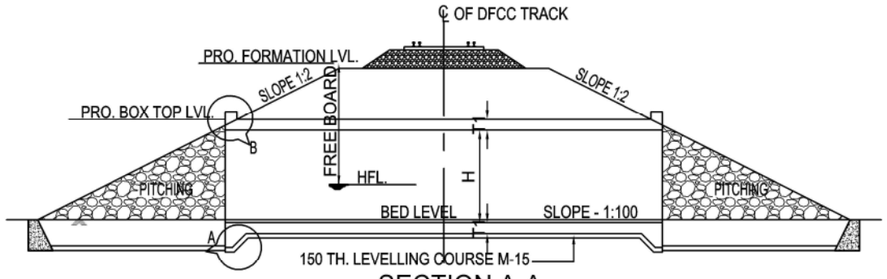
LEGEND:



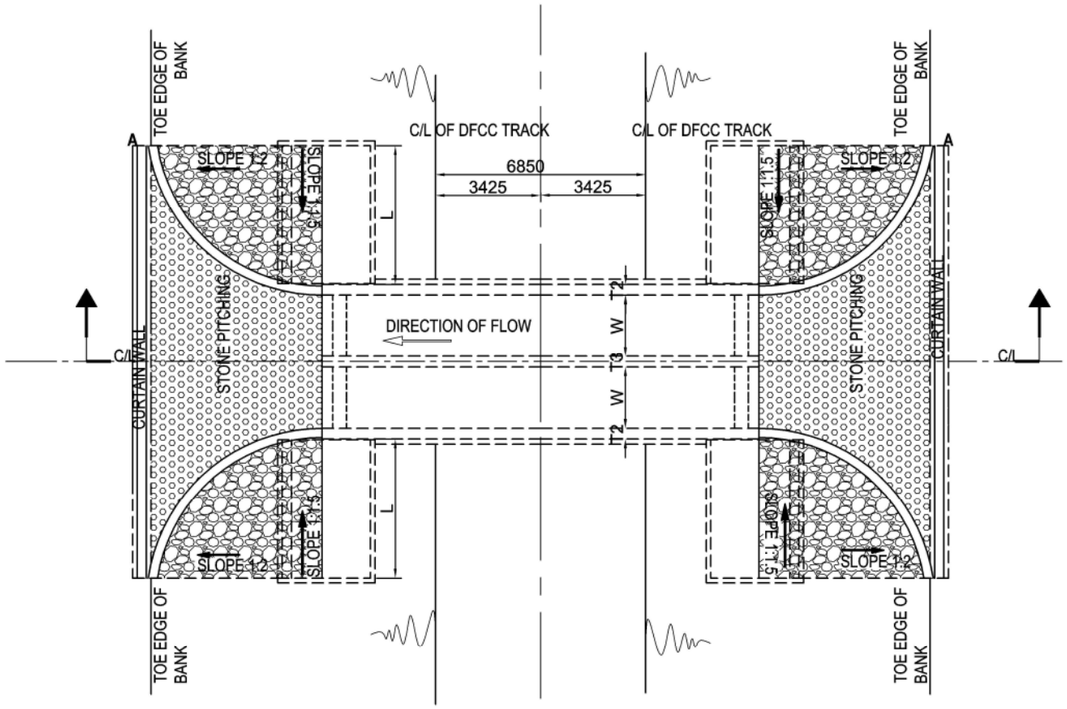
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 02	NKC -CTS -BRD -VD -00011 (SHEET 3 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-212

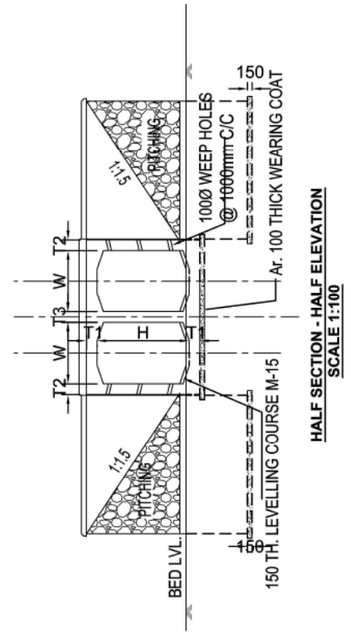


SECTION A-A
(SCALE 1:200)

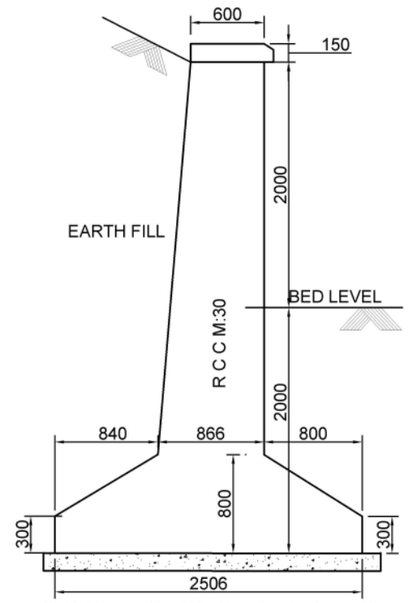


HALF PLAN AT BOTTOM
(SCALE 1:200)

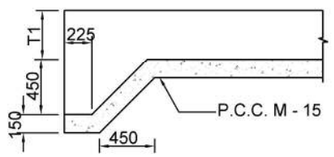
HALF PLAN AT TOP
(SCALE 1:200)

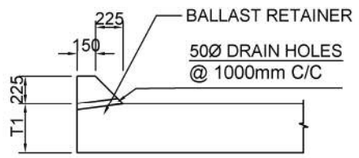


HALF SECTION - HALF ELEVATION
SCALE 1:100

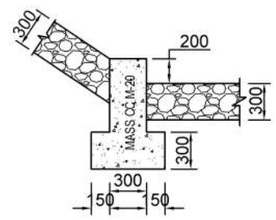


CROSS SECTION OF RETURN WALL
(SCALE 1:50)

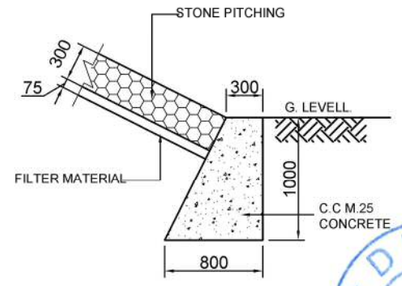




DETAIL AT A & B
(SCALE 1:50)



SECTION OF TOE WALL
(SCALE 1:50)



SECTION OF CURTAIN/DROP WALL
(SCALE 1:50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 02	Drawing Number : NKC -CTS -BRD -VD -00012 (SHEET 1 OF 2)
			Scale : AS SHOWN
			Reference : GAD PREPARED BY CPM VADODARA
			Drawn By : S. Salamuddin; Checked By : M. N. Ahmad; Approved By : H. Kawahara
			Date : 30th, Sept, 2012; Date : 1st, Oct, 2012; Date : 3rd, Oct, 2012

Consultant : NK Consortium
4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-213

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL	Type of Structure	DFCC Track Number	Skew Angle	Structure configuration	Type of Crossing	Box Configuration											Return Wall				BERM LVL
												n	W1(m)	W2(m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z	FILL(m)	TOP LVL	FDN LVL	Height (m)	Length (m)	
5Co.-M/Dn	5,299.409	MDN-14	27.860	23.710	24.190	26.756	Minor Bridge	1	0	RCC Box	Drain	2	4.00	4.00	3.70	0.45	0.45	0.45	0.60	0.20	8.250	0.000	27.860	21.710	6.150	6.225	21.860

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

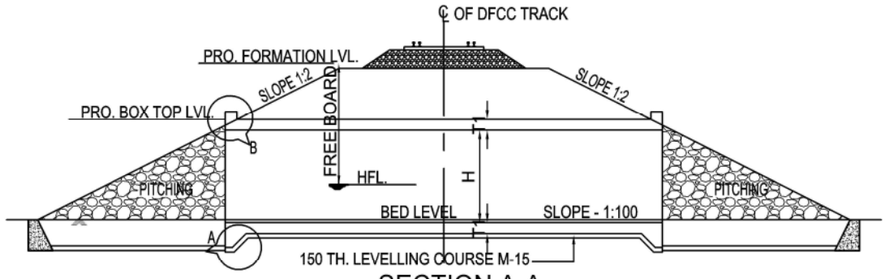
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

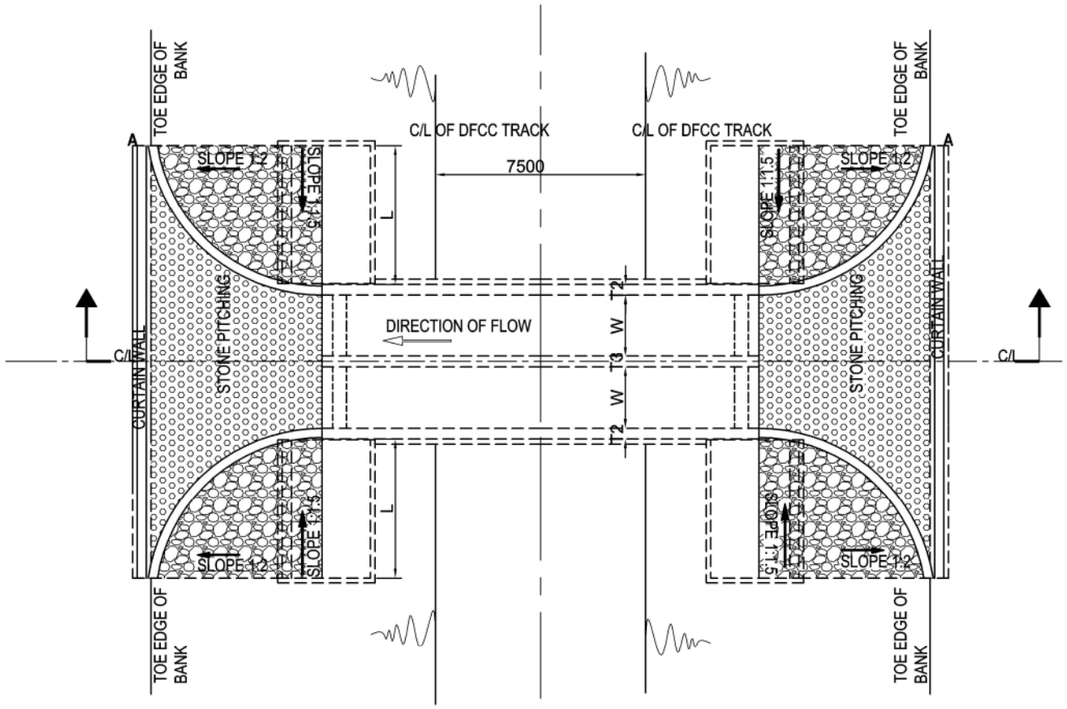
NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 02	NKC -CTS -BRD -VD -00012 (SHEET 2 OF 2) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin Date : 30th, Sept, 2012 Checked By : M. N. Ahmad Date : 1st, Oct, 2012 Approved By : H. Kawahara Date : 3rd, Oct, 2012	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-214

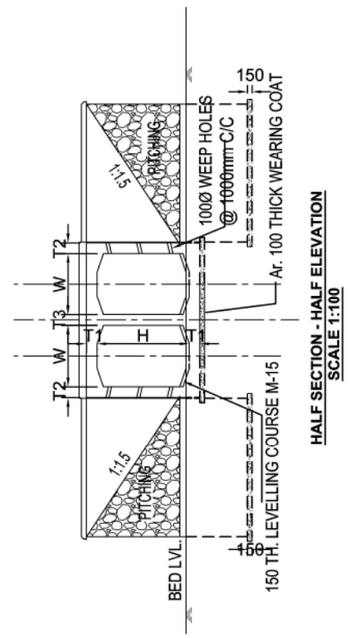


SECTION A-A
(SCALE 1:200)

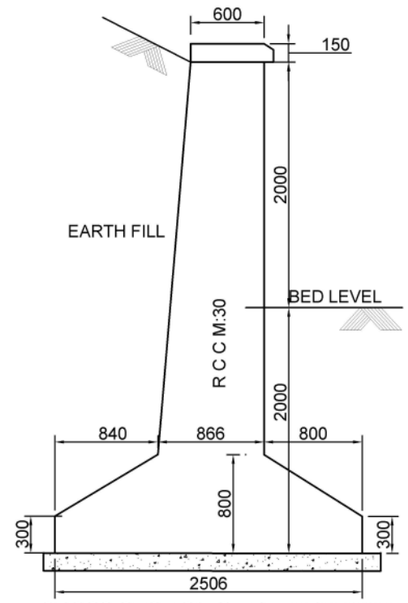


HALF PLAN AT BOTTOM
(SCALE 1:200)

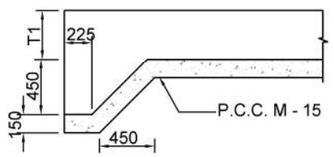
HALF PLAN AT TOP
(SCALE 1:200)

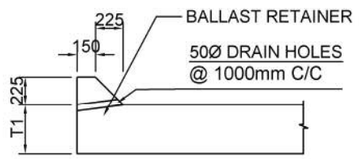


HALF SECTION - HALF ELEVATION
SCALE 1:100

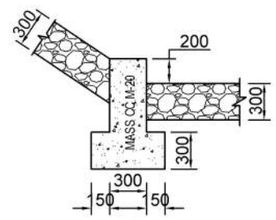


CROSS SECTION OF RETURN WALL
(SCALE 1:50)

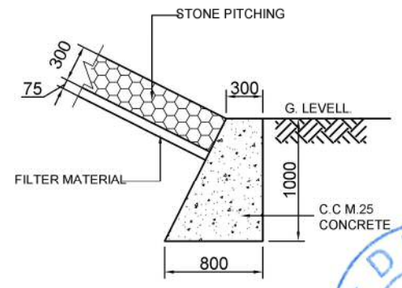




DETAIL AT A & B
(SCALE 1:50)



SECTION OF TOE WALL
(SCALE 1:50)



SECTION OF CURTAIN/DROP WALL
(SCALE 1:50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 03	Drawing Number : NKC -CTS -BRD -VD -00013 (SHEET 1 OF 2)
			Scale : AS SHOWN
			Reference : GAD PREPARED BY CPM VADODARA
			Drawn By : S. Salamuddin; Checked By : M. N. Ahmad; Approved By : H. Kawahara
			Date : 30th, Sept, 2012; Date : 1st, Oct, 2012; Date : 3rd, Oct, 2012

Consultant : NK Consortium
4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

Sec. No.	Structure Chainage		Proposed Bridge No.		Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL	Type of Structure	DFCC Track Number	Skew Angle	Structure configuration	Type of Crossing	Box Configuration											Return Wall				BERM LVL
	IR	DFC	IR	DFC										n	W1(m)	W2(m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z	FILL(m)	TOP LVL	FDN LVL	Height (m)	Length (m)	
5Co.-M/Dn	385.438	5,024.569	573	MDN-13	28.041	23.996	23.996	26.786	Minor Bridge	1	0	RCC Box	Exist bridge extension	2	4.00	4.00	3.25	0.45	0.45	0.45	0.60	0.20	9.630	0.345	27.696	21.996	5.700	5.550	22.041
5Co.-M/Dn	386.379	5,965.499	575	MDN-16	27.381	23.231	23.713	26.226	Minor Bridge	1	0	RCC Box	Exist bridge extension	2	4.00	4.00	3.70	0.45	0.45	0.45	0.60	0.20	8.250	0.000	27.381	21.231	6.150	6.225	21.381
5Co.-M/Dn	386.795	6,381.139	576	MDN-17	26.697	23.747	24.010	25.559	Minor Bridge	1	0	RCC Box	Exist bridge extension	2	4.57	4.57	2.50	0.45	0.45	0.45	0.60	0.20	8.250	0.000	26.697	21.747	4.950	4.425	20.697
5Co.-M/Up	386.379	5,434.550	575	MUP-20	27.217	23.067	23.756	26.226	Minor Bridge	1	0	RCC Box	Exist bridge extension	2	4.00	4.00	3.70	0.45	0.45	0.45	0.60	0.20	8.250	0.000	27.217	21.067	6.150	6.225	21.217
5Co.-M/Up	386.795	5,850.120	576	MUP-21	26.740	23.790	24.010	25.559	Minor Bridge	1	0	RCC Box	Exist bridge extension	2	4.57	4.57	2.50	0.45	0.45	0.45	0.60	0.20	8.250	0.000	26.740	21.790	4.950	4.425	20.740

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

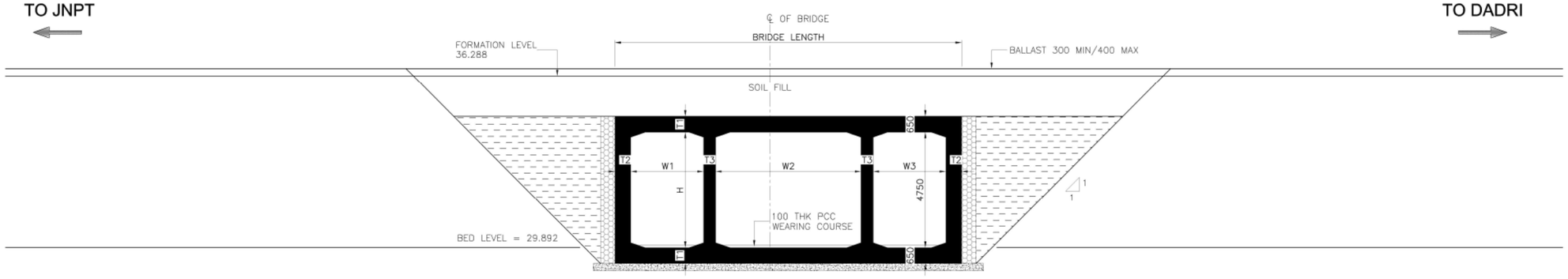
NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 03	NKC -CTS -BRD -VD -00013 (SHEET 2 OF 2) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin Date : 30th, Sept, 2012 Checked By : M. N. Ahmad Date : 1st, Oct, 2012 Approved By : H. Kawahara Date : 3rd, Oct, 2012	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-216

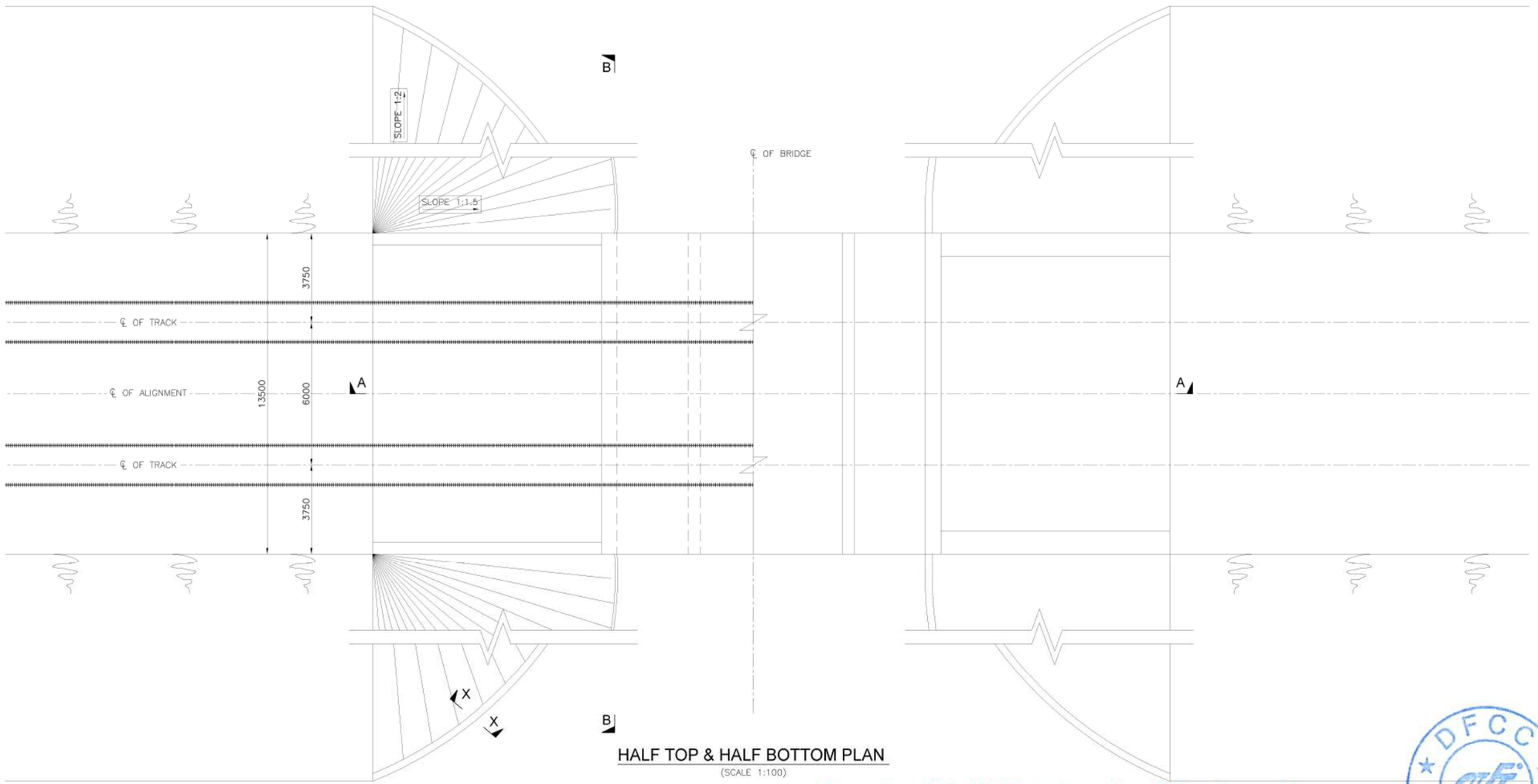
TO JNPT

TO DADRI



SECTION A-A

(SCALE 1:100)



HALF TOP & HALF BOTTOM PLAN

(SCALE 1:100)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

DFCC NEW DELHI

NK CONSORTIUM NJPI

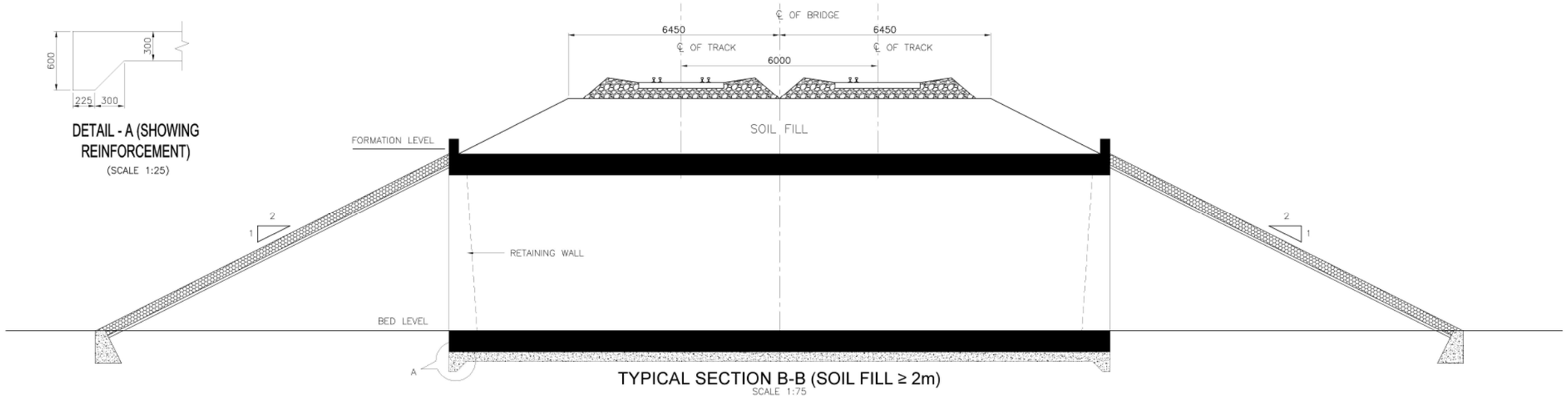
Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 03	NKC -CTS -BRD -VD -00014 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

Scale :	Reference :
AS SHOWN	GAD PREPARED BY CPM VADODARA

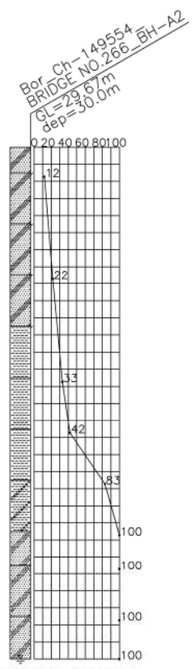
Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

V-4-2-217

DETAIL - A (SHOWING REINFORCEMENT)
(SCALE 1:25)

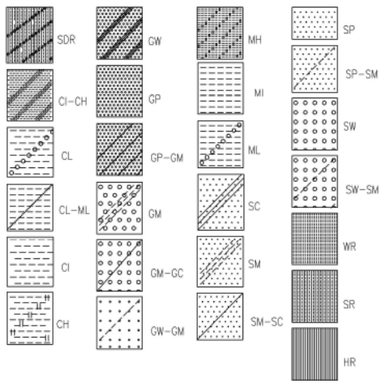


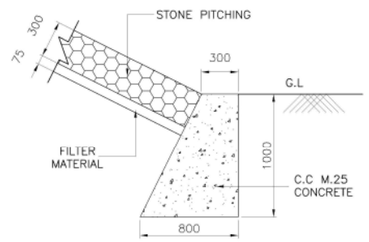
TYPICAL SECTION B-B (SOIL FILL ≥ 2m)
SCALE 1:75



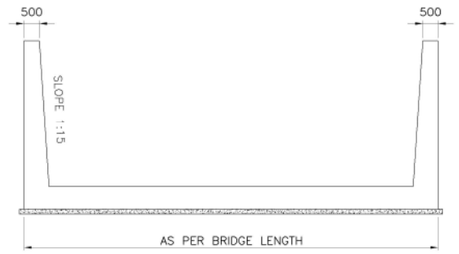
BORE HOLE PROFILE
BRIDGE NO. 267

LEGEND:





DETAIL X-X
(SCALE 1:25)



SECTION OF RETAINING WALL
(SCALE 1:150)

Sect. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration n	W1 (m)	W2 (m)	W3 (m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	Return Wall(U/S;D/S) TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)	BERM LVL (m)
5	149,900.394	267	36.288	29.892	29.892	29.892	Minor Bridge	Rcc Box	2	18	Nalla + B.T.Road	3	3.000	6.000	3.000	4.750	0.700	0.700	0.700	0.600	0.200	18.034	0.946	35.342	27.892	7.450	8.175	30.288
5	167,378.439	326	45.190	35.365	35.365	35.830	Minor Bridge	Rcc Box	4	30	Canal + B.T.Road	3	4.000	4.000	6.100	4.000	0.700	0.700	0.700	0.600	0.200	46.750	5.125	40.065	33.365	6.700	7.050	39.190

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

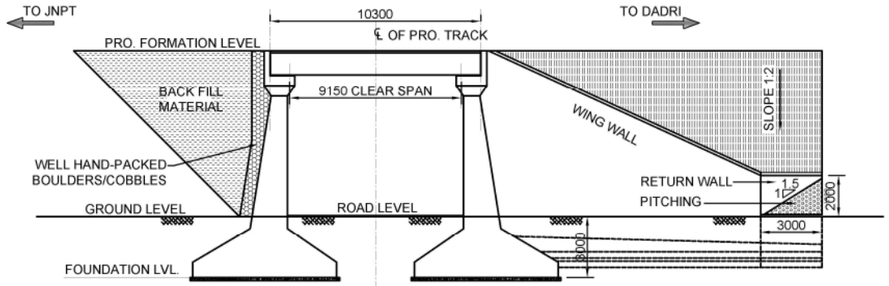
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

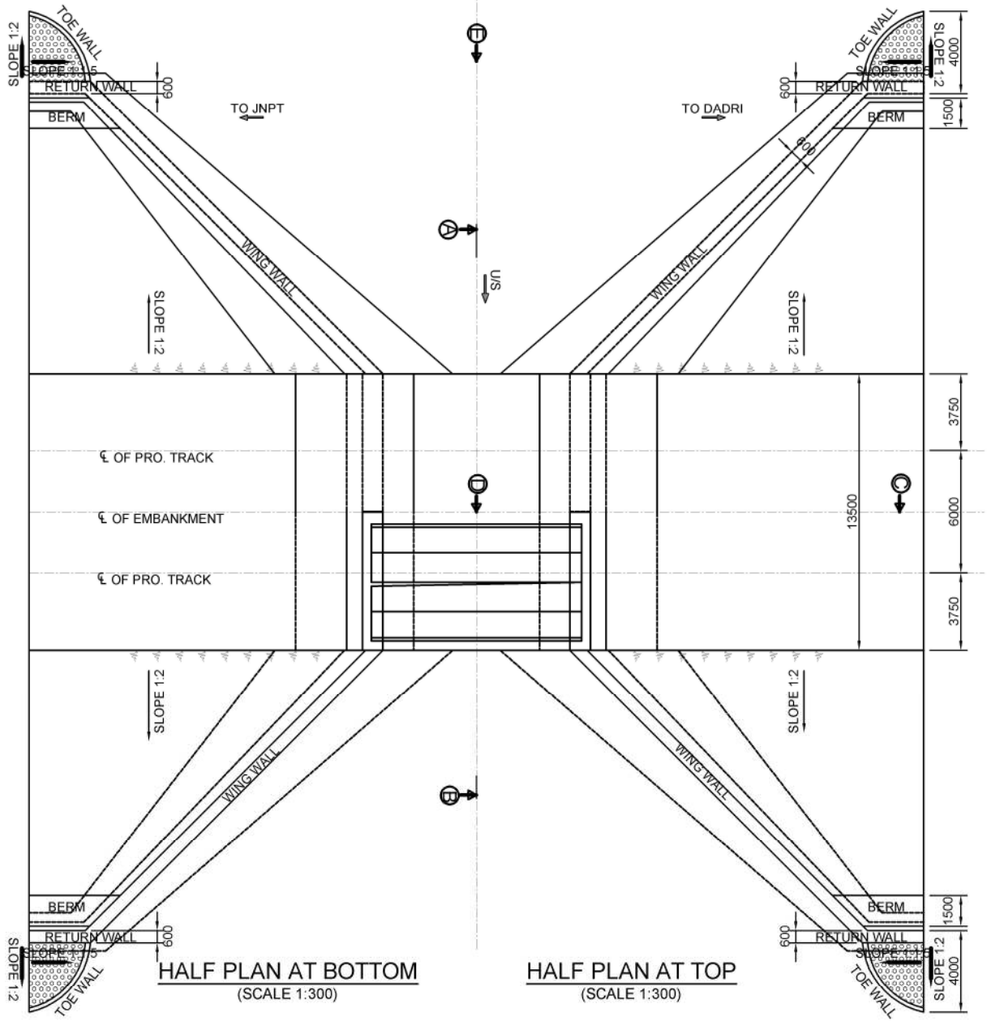
NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MINOR BRIDGE 03	NKC -CTS -BRD -VD -00014 (SHEET 2 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-218

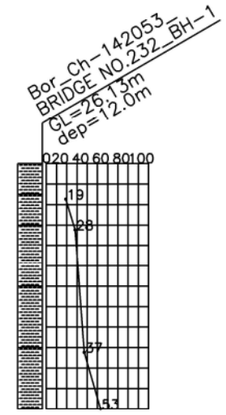


SECTION AT C-D-E-F
(SCALE 1:300)

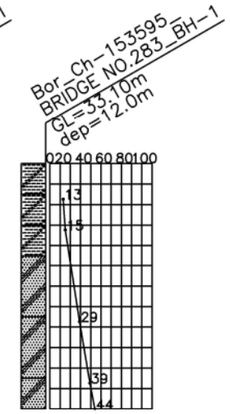


HALF PLAN AT BOTTOM
(SCALE 1:300)

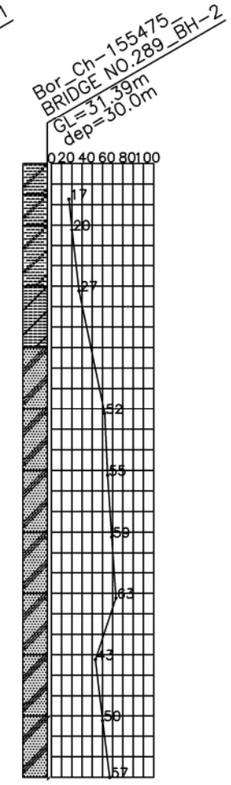
HALF PLAN AT TOP
(SCALE 1:300)



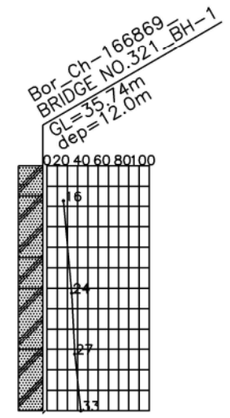
BORE HOLE PROFILE
BRIDGE NO. 232



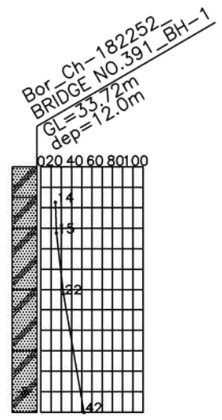
BORE HOLE PROFILE
BRIDGE NO. 280A & 285A



BORE HOLE PROFILE
BRIDGE NO. 290B & 293

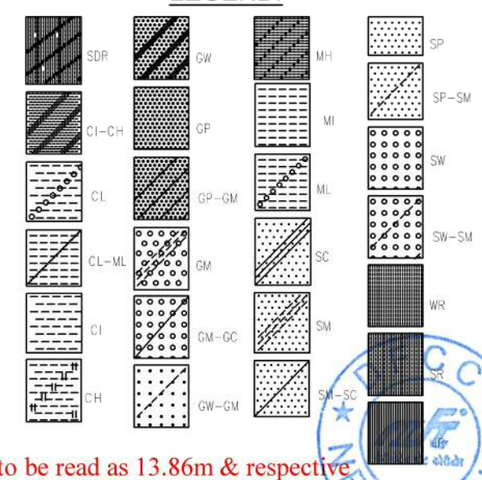


BORE HOLE PROFILE
BRIDGE NO. 317



BORE HOLE PROFILE
BRIDGE NO. 389A

LEGEND:



Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.

2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.

3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER / EMPLOYER.

4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALINGNMENT AND RECONCILED BEFORE EXECUTION.

5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.

6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.

7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAINS ON THE EXISTING IR TRACKS IS TO BE ENSURED BY THE CONTRACTOR. EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL BE CARRIED OUT WITH THE PRIOR WRITTEN APPROVAL OF THE ENGINEER / EMPLOYER.

SUPERSTRUCTURE & SUBSTRUCTURE

1) SUPERSTRUCTURE DETAIL IS INDICATIVE ONLY AND SHOULD BE DESIGNED AS PER CODAL PROVISION.

2) SUBSTRUCTURE OF BRIDGE SHALL BE DESIGNED AS PER DFCCI LOADING (32.5T AXLE LOAD) BRIDGE RULE, ISSUED BY RDSO. (WITH LATEST CORRECTION SLIP).

3) SUBSTRUCTURE SHALL BE DESIGNED TO TAKE CARE OF TEMPERORAY STAGE LOADS ALSO.

4) SUBSTRUCTURE OF THE BRIDGE SHALL BE DESIGNED AS PER THE SEISMIC ZONE FOR THE AREA

5) SEISMIC ARRANGEMENT (RESTAINER) SHALL BE PROVIDED IN SUBSTRUCTURE AS PER SEISMIC FORCES.

FOUNDATION

1) FOUNDATION LEVEL OF BRIDGE SHALL BE BELOW THE SCOUR LEVEL.

2) SETTLEMENT OF FOUNDATION SHALL BE CHECKED SO THAT IT IS WITHIN ACCEPTABLE LIMIT OF TOTAL & DIFFERENTIAL SETTLEMENTS AS PER CLAUSE 6.1 OF IRS: BRIDGE SUB STRUCTURE & FOUNDATION CODE.

3) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STRUCTURES IF REQUIRED.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL INVESTIGATION REPORT IN DATA BOOK 2/2.

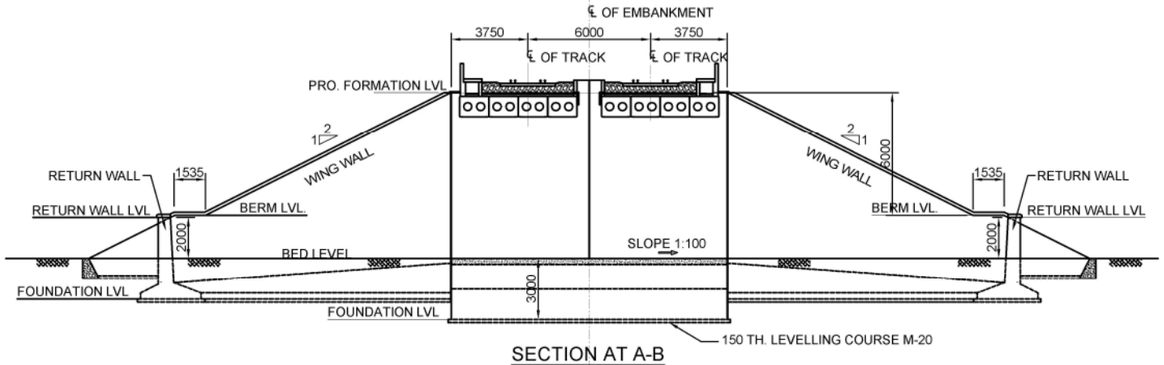
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.

3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE.

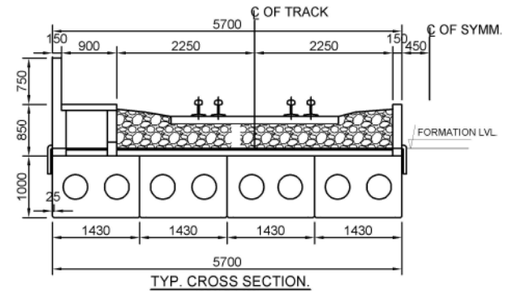
Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR 1X9.15m PSC VOIDED SLAB TYPE RUB MAIN LINE 01	Drawing Number : NKC -CTS -RUB -VD -00015 (SHEET 1 OF 2)
			Scale : AS SHOWN
			Reference : GAD PREPARED BY CPM VADODARA
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012 / Checked By : M. N. Ahmad, Date : 1st, Oct, 2012 / Approved By : H. Kawahara, Date : 3rd, Oct, 2012

Consultant : NK Consortium
4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-219

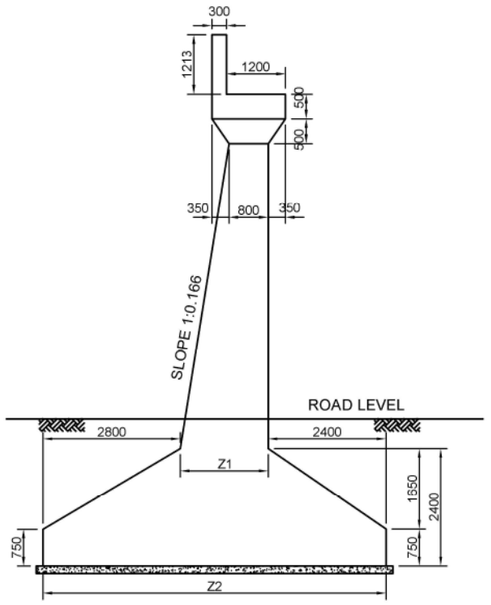


SECTION AT A-B
(SCALE 1:300)

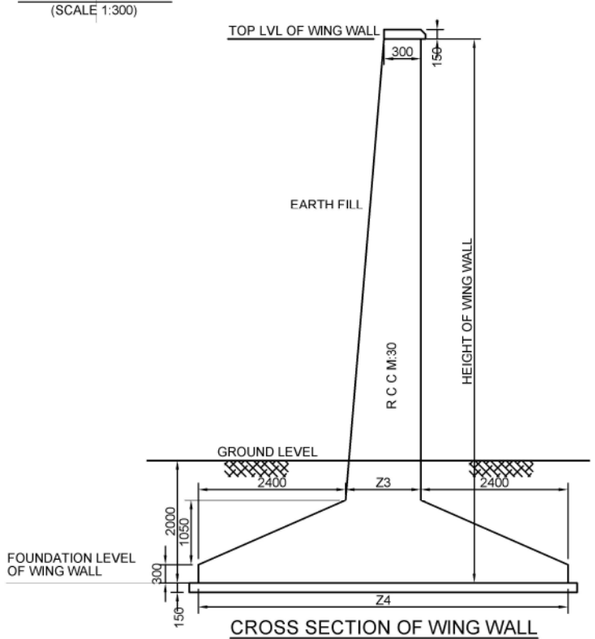


TYP. CROSS SECTION.
(SCALE 1:100)

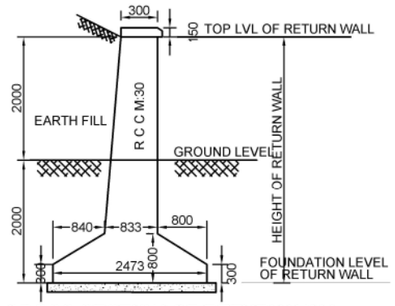
9.15 m SPAN VOIDED SLAB OPTION



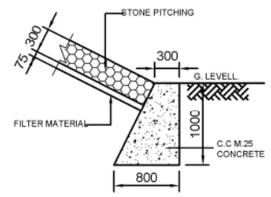
ABUTMENT DETAIL
(SCALE 1:125)



CROSS SECTION OF WING WALL
(SCALE 1:100)



CROSS SECTION OF RETURN WALL
(SCALE 1:100)



SECTION AT X-X
(SCALE 1:50)

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Road Level (m)	Ground Level (m)	Proposed Span (m)	No. of tracks Proposed for DFCC	Type of Structure	Structure configuration	Type of Crossing	Skew Angle	Barrel Length	Return Wall				Wing Wall							Abutment	
													TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)	TOP LVL (m)	FDN LVL (m)	BERM LVL (m)	Height (m)	Length (m)	Z3(m)	Z4(m)	Z1(m)	Z2(m)
5	153,230.311	280A	37.756	32.065	32.065	1 x 9.15m	2	RUB-Minor	PSC Voided Slab	Gas Pipe & Field Track	0	13.50	34.065	30.065	4.000	3.000	37.756	30.065	-	7.691	11.317	1.357	6.157	1.860	6.660
5	154,169.856	285A	39.959	32.690	32.690	1 x 9.15m	2	RUB-Minor	PSC Voided Slab	Gas Pipe + Road	60	27.00	34.690	30.690	4.000	4.000	39.959	30.690	33.959	9.269	15.780	1.620	6.420	2.123	6.923
5	156378.69	290B	40.130	34.466	34.466	1 x 9.15m	2	RUB-Minor	PSC Voided Slab	Gas Pipe + Road	60	27.00	36.466	32.466	4.000	5.000	40.130	32.466	-	7.664	11.240	1.352	6.152	1.855	6.655
5	165,761.532	317	39.501	33.259	33.259	1 x 9.15m	2	RUB-Minor	PSC Voided Slab	S.H (Vasad-Anklav)	40	17.62	35.259	31.259	4.000	3.000	39.501	31.259	33.501	8.242	12.875	1.449	6.249	1.952	7.752
5	182,033.681	389A	40.409	33.707	33.707	1 x 9.15m	2	RUB-Minor	PSC Voided Slab	Gas Pipe Line+Road	0	13.50	35.707	31.707	4.000	3.000	40.409	31.707	34.409	8.702	15.590	1.525	6.325	2.028	7.828

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :
Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

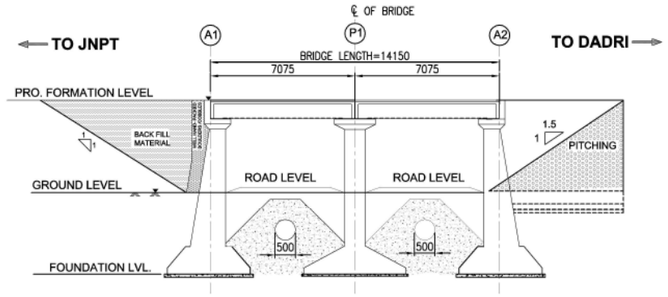
Drawing Title :
GENERAL ARRANGEMENT DRAWING FOR
1X9.15m PSC VOIDED SLAB
TYPE RUB MAIN LINE 01

Drawing Number : NKC -CTS -RUB -VD -00015 (SHEET 2 OF 2)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA

Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

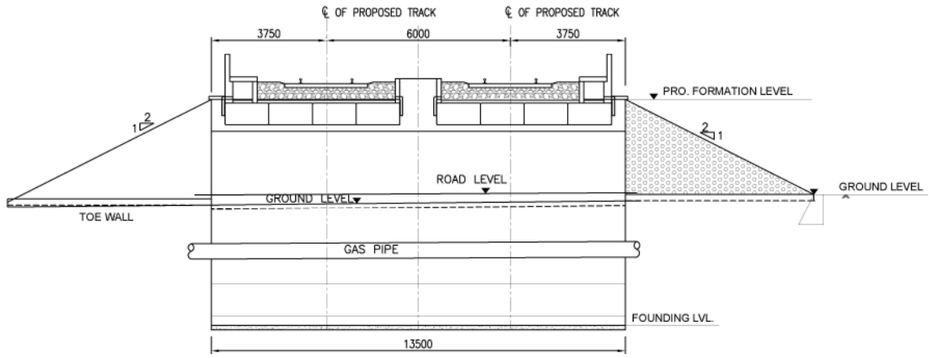
Consultant :
NJPI NK Consortium
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

V-4-2-220



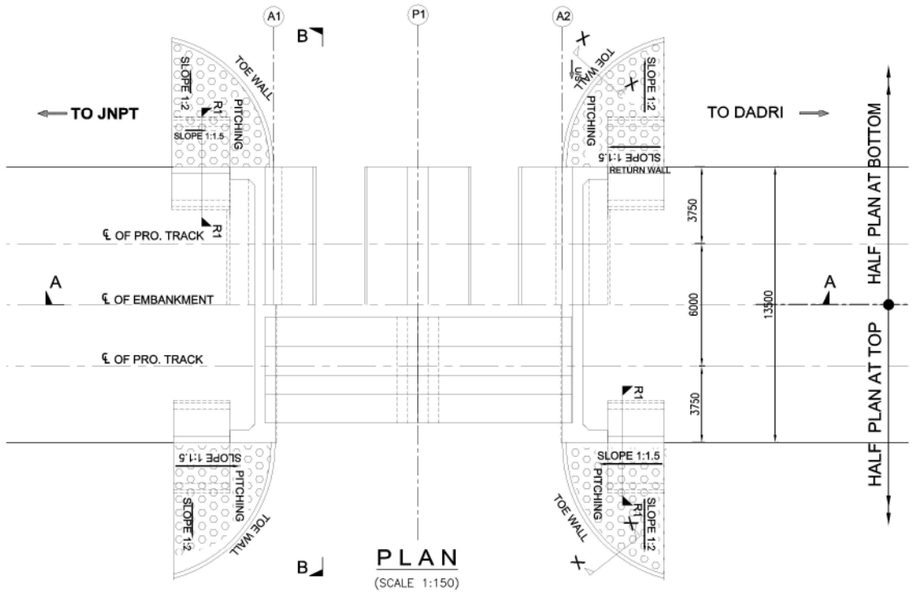
SECTIONAL ELEVATION A - A

(SCALE 1:150)



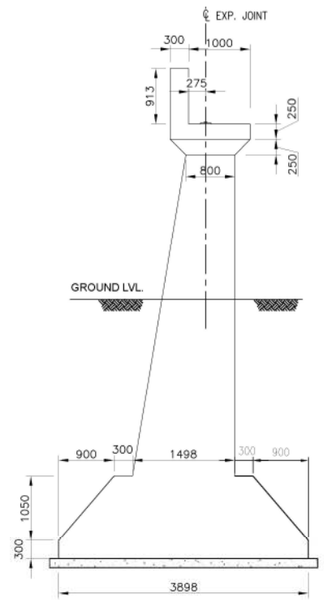
SECTION B-B
LONGITUDINAL SECTION

(SCALE 1:100)



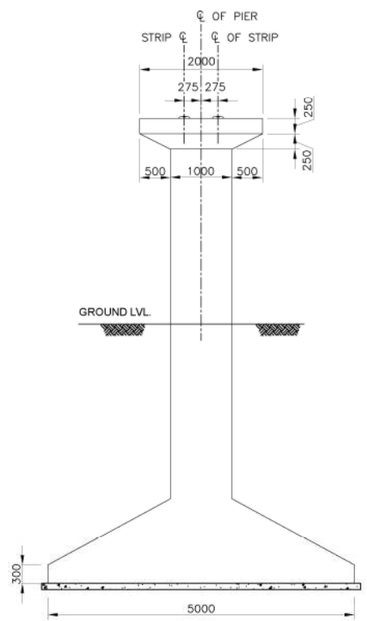
PLAN

(SCALE 1:150)



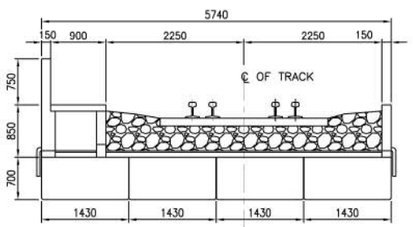
DETAIL OF ABUTMENT A1

(SCALE 1:50)



DETAIL OF PIER

(SCALE 1:50)



TYP. CROSS SECTION.
6.10 m SPAN (SOLID SLAB OPTION)

(SCALE 1:50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. ALL DIMENSIONS AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
4. THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS,SPECIFICATIONS AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER / EMPLOYER.
5. ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARALLEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
6. FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
7. LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
8. GROUND PROFILE SHOULD BE VERIFIED BEFORE EXECUTION.

SUPERSTRUCTURE & SUBSTRUCTURE

1) THE BRIDGE SHALL BE DESIGNED AS PER DFCCI LOADING (32.5T AXLE LOAD) BRIDGE RULE, ISSUED BY RDSO. (WITH LATEST CORRECTION SLIP).
2) THE BRIDGE SHALL BE DESIGNED AS PER THE SEISMIC ZONE FOR THE AREA
3) BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
4) WEEP HOLES SHALL BE OF PROVIDED IN RETURN WALL & ABUTMENT.
5) OHE FOUNDATION BOLTS SHALL BE PROVIDED IN CONSULTATION WITH THE CONTRACTOR OF EMP-4.
6) RAILING EXPANSION JOINTS, BEARING, WEARING COAT, FOOTPATH, SERVICE DUCT, DRAINAGE SHALL BE PROVIDED AS PER SPECIFICATION.
7) FOR INSPECTION OF BEARING / SUPERSTRUCTURE, SUITABLE ARRANGEMENT SHALL BE PROVIDED.
8) FOR CHANGING OF BEARING SUITABLE ARRANGEMENT SHALL BE PROVIDED.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL INVESTIGATION REPORT.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE.

TABLE-1

DETAILS	PROPOSED DFC	PROPOSED DFC
PACKAGE	3	3
SECTOR	5	5
BRIDGE NO.	300A	389B
CHAINAGE	160647.337	182060.885
SPAN CONFIGURATION (C/C) OF PIER	2X6.10m	2X6.10m
OVERALL SPAN (mm)	7050	7050
EFFECTIVE SPAN (mm)	6525	6525
CLEAR SPAN (mm)	6100	6100
TYPE OF STRUCTURE	PSC SOLID SLAB	PSC SOLID SLAB
DEPTH OF SUPERSTRUCTURE (mm)	880	880
TYPE OF CROSSING	GAS PIPE+ROAD	GAS PIPE+ROAD
BRIDGE (STRAIGHT/CURVE/SKEW)	35°	STRAIGHT
FORMATION LEVEL R.L. (METER)	36.968	40.381
ROAD LEVEL R.L. (METER)	33.522	33.604
TYPE OF FOUNDATION	OPEN FOUNDATION	OPEN FOUNDATION

Project Title :

Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

Client :

Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)

5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

Drawing Title :

GENERAL ARRANGEMENT DRAWING
FOR PSC SOLID SLAB TYPE
RUB

Drawing Number : NKC -CTS -RUB -VD -00016 (SHEET 1 OF 2)

Scale : AS SHOWN

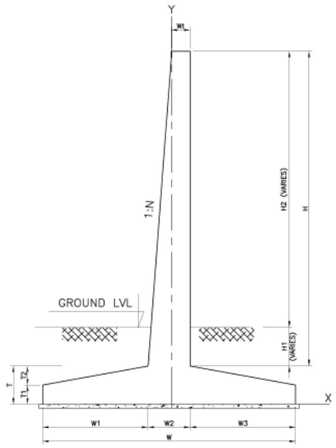
Reference : GAD PREPARED BY CPM VADODARA

Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

Consultant :

NK Consortium

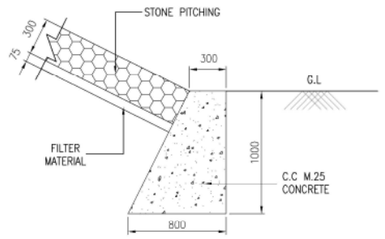
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA



DETAIL (R1-R1)

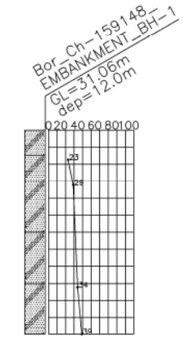
(SCALE 1:80)

DETAIL (R1-R1)								
ITEM	UNIT	H=9.0m	H=8.0m	H=7.0m	H=6.0m	H=5.0m	H=4.0m	H=3.0m
Wt	m	0.8	0.6	0.4	0.4	0.35	0.3	0.3
H1	m	0.5	0.5	0.5	0.5	0.5	0.5	0.5
H2	m	8.5	7.5	6.5	5.5	4.5	3.5	2.5
H	m	9.0	8.0	7.0	6.0	5.0	4.0	3.0
T1	m	0.4	0.4	0.4	0.3	0.3	0.25	0.2
T2	m	0.7	0.5	0.4	0.3	0.3	0.25	0.2
T	m	1.1	0.9	0.8	0.6	0.6	0.5	0.4
W1	m	3.9	3.0	2.5	2.0	2.0	2.0	1.7
W2	m	1.25	1.0	0.8	0.8	0.35	0.3	0.3
W3	m	1.5	1.5	1.0	1.0	1.0	0.5	0.3
W	m	6.65	5.5	4.25	3.4	3.35	2.8	2.3
1:1/n		20.0	20.0	20.0	20.0	0.0	0.0	0.0



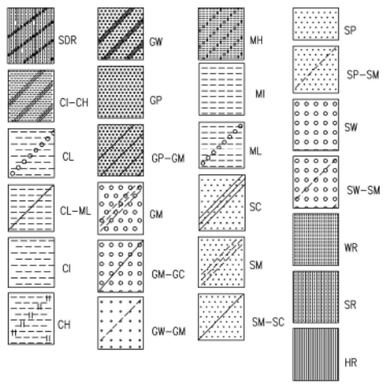
DETAIL X-X

(SCALE 1:25)



BORE HOLE PROFILE
BRIDGE NO. 300A

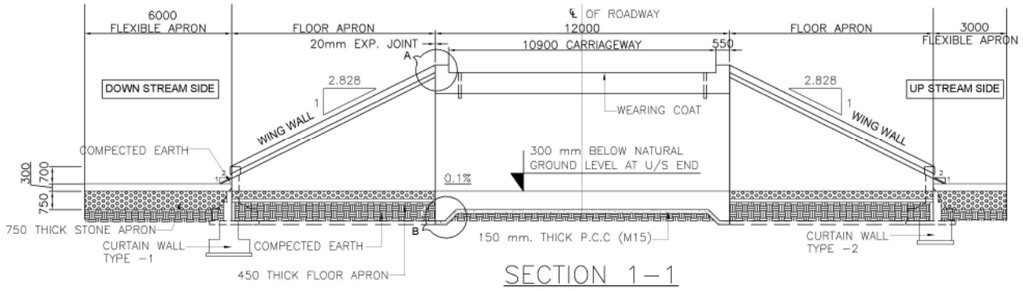
LEGEND:



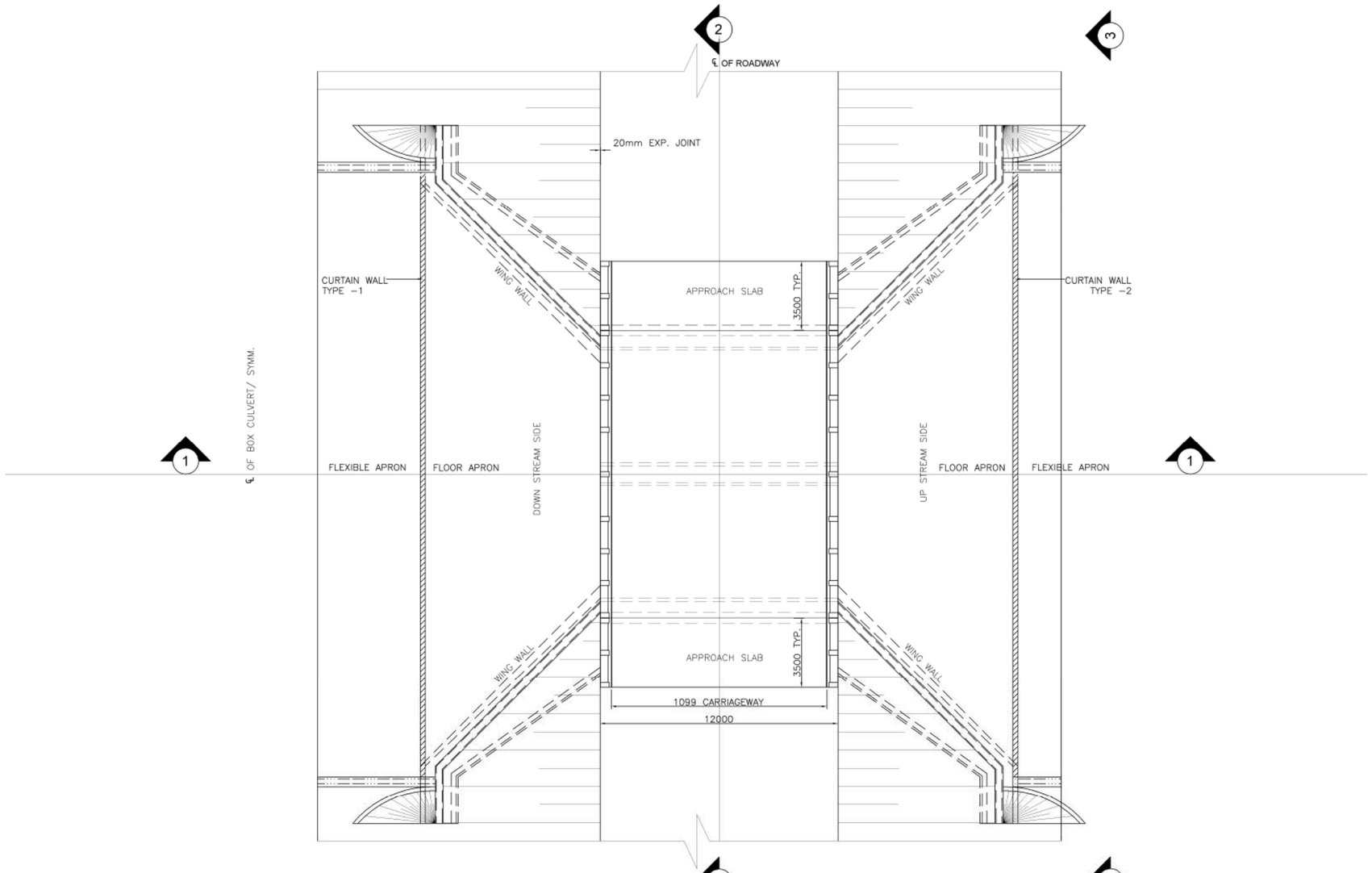
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR PSC SOLID SLAB TYPE RUB	NKC -CTS -RUB -VD -00016 (SHEET 2 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-222



SECTION 1-1
SCALE : 1:125



PLAN
(SCALE 1:125)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENTIONS ARE TO BE FOLLOWED. NO DRAWING SHALL BE SCALED.
2. DESIGN CRITERIA:
   (1.) THIS DESIGN IS ACCORDING TO THE FOLLOWING CODES:
   a. IRC : 5- 1985
   b. IRC : 6 - 1966 (1985 REPRINT)
   c. IRC : 21- 1987 (1997 REPRINT)
   d. IRC : 78 - 1985
   (2.) THE FOLLOWING LOADS HAVE BEEN CONSIDERED IN THE DESIGN:
   (a) ONE LANE OF IRC CLASS 70R OR TWO LANES OF CLASS A ON CARRIAGE WAY. WHICH EVER GAVERNS.
   (b) WEARING COAT LOAD OF 3 KN/Sq.M.
   (3.) THE DESIGN ARE APPLICABLE FOR 'MODERATE' AND 'SEVERE' CONDITIONS OF EXPOSURE.
3. TYPE/POSITION OF RETURN WALLS RAILINGS , GUARDS, POSTS, RAMP, ETC. IN APPROACH PORTION SHALL BE DECIDED BY THE ENGINEER-IN-CHARGE.
4. INVERT LEVEL OF TOP SURFACE OF BOTTOM SLAB IS ASSUMED AS BED LEVEL.
5. BACK FILLING MATERIAL SHOULD CONFIRM TO CL 305.2 OF MOST SPECIFICATION AND EARTH CUSHION EMBANKMENT SHOULD BE CONSTRUCTED IN ACCORDANCE TO SECTION 300 OF MOST SPECIFICATION (THIRD REVISION 1995).
6. THE ASPHALT PLUG EXPENTION JOINT SHALL BE PROVIDED IN ACCORDANCE WITH MOST SPECIFICATION AND SHALL BE PROCURED FROM MANUFACTURERS AS APPROVED BY MOST
7. THE WORK SHALL BE EXECUTED IN ACCORDANCE WITH MOST'S SPECIFICATION FOR ROAD AND BRIDGE WORKS (THIRD REVISION, 1994) EXCEPT WHEREVER OTHERWISE MENTIONED.

TABLE-1

DETAILS	PROPOSED DFC
PACKAGE	3
SECTOR	5
BRIDGE NO.	202C
CHAINAGE	131760
SPAN CONFIGURATION	1 x 2.0m x 2.0m
TYPE OF STRUCTURE	RCC BOX (FOR ROAD)
TYPE OF CROSSING	CANAL
BED LEVEL R.L. (METER)	22.700

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)

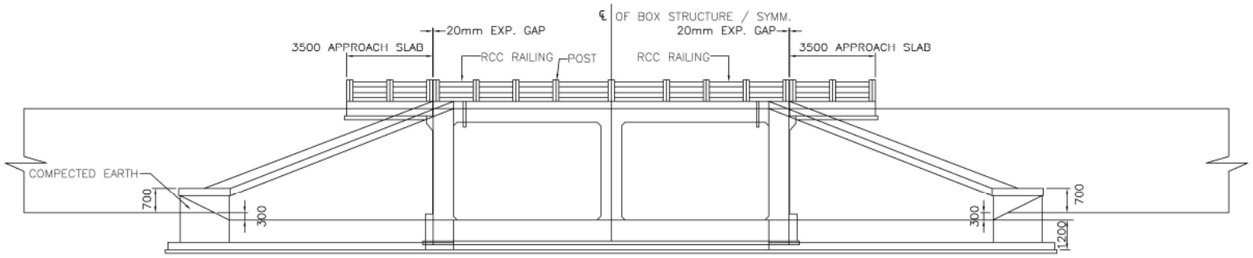
Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

Drawing Title :
STANDARD DRAWING FOR DOUBLE CELL BOX CULVERT (FOR ROAD LOADING)

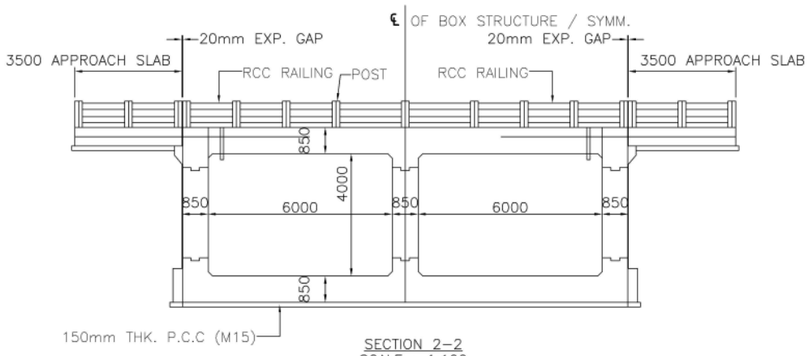
Drawing Number : NKC -CTS -ROAD -VD -00017 (SHEET 1 OF 2)
Scale : AS SHOWN
Reference :

Drawn By :	Checked By :	Approved By :
RADHA	DINESH SHARMA	T-NAKANO

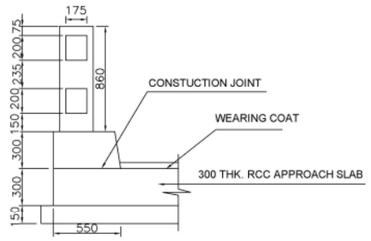
NK Consortium
4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA



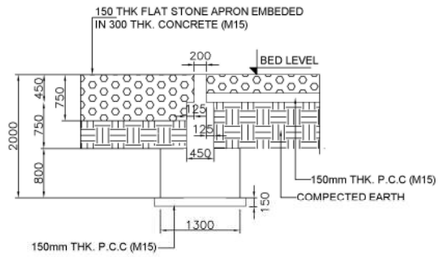
VIEW 3-3
SCALE : 1:100



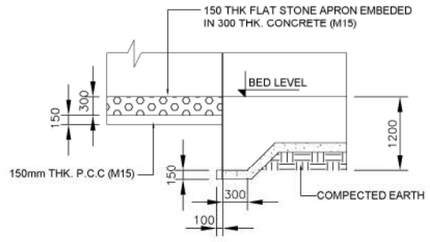
SECTION 2-2
SCALE : 1:100



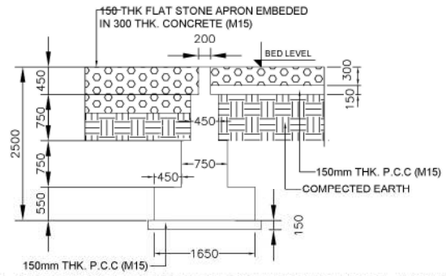
DETAILS AT 'A'



TYPICAL CROSS SECTION OF CURTAIN WALL TYPE - 2
SCALE 1:50



DETAILS AT 'B'
SCALE 1:50

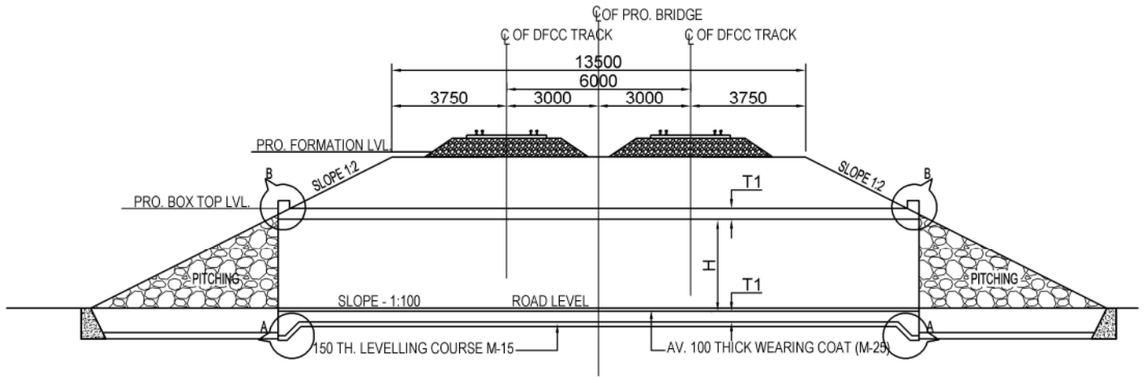


TYPICAL CROSS SECTION OF CURTAIN WALL TYPE - 1
SCALE 1:50

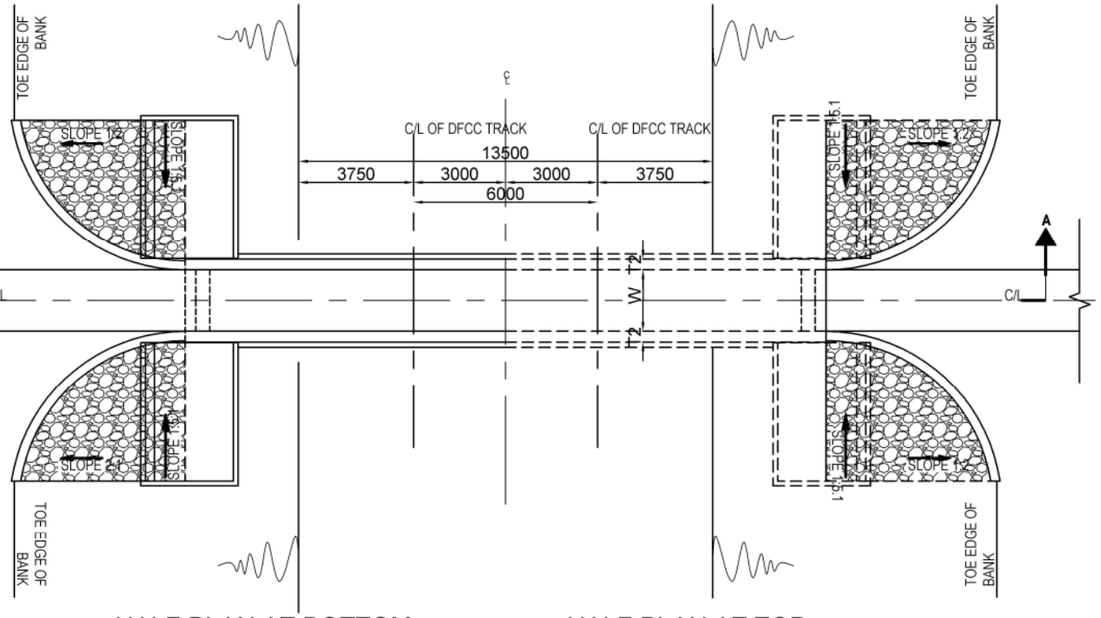
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number : NKC -CTS -ROAD -VD -00017 (SHEET 2 OF 2)		
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	STANDARD DRAWING FOR DOUBLE CELL BOX CULVERT (FOR ROAD LOADING)	Scale : AS SHOWN		NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Reference :		
			Drawn By : RADHA	Checked By : DINESH SHARMA	Approved By : T-NAKANO

V-4-2-224

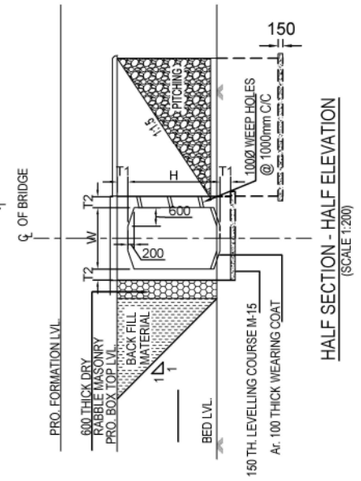


SECTION A-A
(SCALE 1:200)

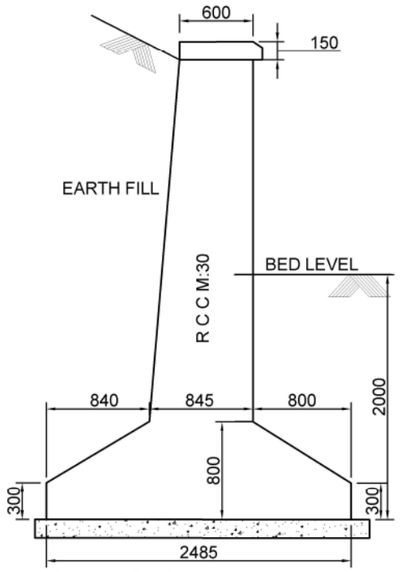


HALF PLAN AT BOTTOM
(SCALE 1:200)

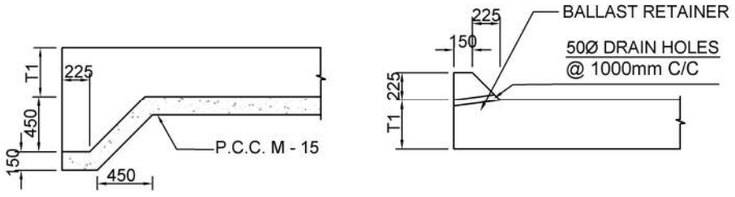
HALF PLAN AT TOP
(SCALE 1:200)



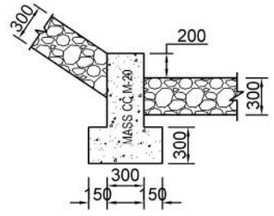
HALF SECTION - HALF ELEVATION
(SCALE 1:200)



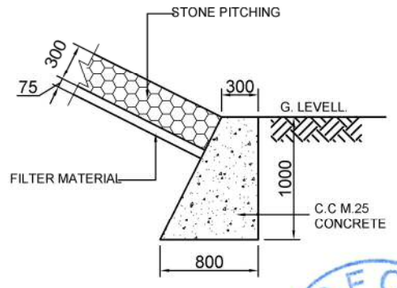
CROSS SECTION OF RETURN WALL
(SCALE 1:50)



DETAIL AT A & B
(SCALE 1:50)



SECTION OF TOE WALL
(SCALE 1:50)



SECTION OF CURTAIN/DROP WALL
(SCALE 1:50)

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB MAIN LINE 01	NKC -CTS -RUB -VD -00018 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-225

S.No	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level	Road Level (m)	Type of Structure	Structure configuration	No. of tracks Proposed for	Skew Angle	Type of Crossing	Box Configuration									Return Wall			
											n	W (m)	H (m)	T1 (m)	T2 (m)	A (m)	B (m)	Barrel Length-	FILL(m)	TOP	FDN LVL	Height	Length
5	131,708.340	202B	26.336	23.210	22.086	RUB-Minor	RCC Box	6	0	Road	1	4.00	3.70	0.55	0.75	0.60	0.20	38.250	0.000	26.34	20.086	6.25	5.625
5	132,415.000	202D	26.050	22.880	21.800	RUB-Minor	RCC Box	8	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	50.250	0.000	26.05	19.8	6.25	5.625
5	135,515.393	215	29.482	24.527	24.527	RUB-Minor	RCC Box	4	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	29.070	0.705	29.48	22.527	6.96	6.683
5	137,338.672	219	33.008	24.157	24.157	RUB-Minor	RCC Box	2	0	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	32.654	4.601	33.01	22.157	10.85	12.527
5	139,063.393	224	29.774	24.298	24.298	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	19.154	1.226	29.77	22.298	7.48	7.464
5	139,819.832	227	29.045	24.001	24.001	RUB-Minor	RCC Box	2	0	Road	1	6.10	5.10	0.85	0.75	0.60	0.20	10.626	-0.906	29.05	22.001	7.04	6.816
5	141,023.804	229	30.501	25.672	25.672	RUB-Minor	RCC Box	2	0	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.566	0.579	30.50	23.672	6.83	6.494
5	142,675.413	235	31.991	27.140	27.140	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.654	0.601	31.99	25.14	6.85	6.527
5	143,408.069	237	31.943	27.160	27.165	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.362	0.528	31.94	25.165	6.78	6.417
5	143,985.413	240	31.935	27.158	27.172	RUB-Minor	RCC Box	2	0	Road	1	4.00	3.70	0.55	0.75	0.60	0.20	16.302	0.513	31.94	25.172	6.76	6.395
5	145,492.737	246	32.555	27.670	27.670	RUB-Minor	RCC Box	2	0	Road (B.T. Road)	1	4.00	3.70	0.55	0.75	0.60	0.20	16.790	0.635	32.56	25.67	6.89	6.578
5	146,556.276	249	37.607	28.372	28.372	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	34.190	4.985	37.61	26.372	11.24	13.103
5	147,408.989	255	35.157	27.966	27.966	RUB-Minor	RCC Box	2	0	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	26.014	2.941	35.16	25.966	9.19	10.037
5	148,873.836	263	34.723	29.609	29.609	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	17.706	0.864	34.72	27.609	7.11	6.921
5	149,246.658	264	34.654	29.334	29.334	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	18.530	1.070	34.65	27.334	7.32	7.230
5	149,489.678	265	35.261	29.299	29.251	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	21.290	1.760	35.26	27.251	8.01	8.265
5	153,032.452	280	37.380	32.682	32.682	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.042	0.448	37.38	30.682	6.70	6.297
5	153,595.394	283	38.814	32.128	32.128	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	23.994	2.436	38.81	30.128	8.69	9.279
5	155,117.734	287	38.288	33.357	33.357	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.974	0.681	38.29	31.357	6.93	6.646
5	155,988.374	290	39.587	34.010	34.010	RUB-Minor	RCC Box	2	60	Sub Road	1	4.00	3.70	0.55	0.75	0.60	0.20	19.558	1.327	39.59	32.01	7.58	7.616
5	157,580.000	294A	42.400	40.690	37.850	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	4.00	0.55	0.75	0.60	0.20	14.250	0.000	42.40	35.85	6.55	6.075
5	160,338.273	299	38.164	32.913	32.913	RUB-Minor	RCC Box	2	40	Road (B.T. Road)	1	9.15	5.10	1.00	1.00	0.60	0.20	10.854	-0.849	38.16	30.913	7.25	6.877
5	162,321.550	302	33.264	18.822	18.822	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	55.018	10.192	33.26	16.822	16.44	20.913
5	162,800.814	305	33.430	17.966	17.966	RUB-Minor	RCC Box	2	50	Sub Road	1	4.00	3.70	0.55	0.75	0.60	0.20	59.106	11.214	33.43	15.966	17.46	22.446
5	163,135.397	306	33.598	26.875	27.086	RUB-Minor	RCC Box	2	40	Sub Road	1	6.10	5.10	0.85	0.75	0.60	0.20	16.498	0.562	33.60	25.086	8.51	9.018
5	163,525.547	309	35.400	31.914	31.150	RUB-Minor	RCC Box	2	50	Sub Road	1	4.00	3.70	0.55	0.75	0.60	0.20	14.250	0.000	35.40	29.15	6.25	5.625
5	164,889.056	313	38.503	33.622	33.622	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.774	0.631	38.50	31.622	6.88	6.572
5	166,104.342	319	40.880	34.306	34.306	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	23.546	2.324	40.88	32.306	8.57	9.111
5	167,024.630	324	44.968	34.720	34.720	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	38.242	5.998	44.97	32.72	12.25	14.622
5	167,969.559	330	45.569	35.124	35.124	RUB-Minor	RCC Box	5	0	Mud road	1	4.00	3.70	0.55	0.75	0.60	0.20	57.030	6.195	45.57	33.124	12.45	14.918
5	169,266.660	335	46.361	35.449	35.499	RUB-Minor	RCC Box	3	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	46.698	6.612	46.36	33.499	12.86	15.543
5	170,078.357	340	44.838	34.830	34.830	RUB-Minor	RCC Box	2	0	Road (B.T. Road)	1	6.10	3.70	0.85	0.75	0.60	0.20	36.082	5.458	44.84	32.83	12.01	14.262
5	170,614.532	342	42.485	34.724	34.724	RUB-Minor	RCC Box	2	30	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	28.294	3.511	42.49	32.724	9.76	10.892
5	171,108.357	345	42.210	35.070	35.070	RUB-Minor	RCC Box	2	40	Field Track	1	6.10	3.70	0.85	0.75	0.60	0.20	24.610	2.590	42.21	33.07	9.14	9.960
5	172,376.090	351	41.028	36.034	36.034	RUB-Minor	RCC Box	2	25	B.T.Road	1	9.15	5.10	1.00	1.00	0.60	0.20	9.826	-1.106	41.03	34.034	6.99	6.491
5	174,260.240	358	41.974	36.777	36.791	RUB-Minor	RCC Box	2	50	Sub Road	1	6.10	3.70	0.85	0.75	0.60	0.20	16.782	0.633	41.97	34.791	7.18	7.025
5	174,885.935	361	41.510	35.960	35.925	RUB-Minor	RCC Box	2	20	Field Track	1	6.10	3.70	0.85	0.75	0.60	0.20	18.390	1.035	41.51	33.925	7.59	7.628
5	175,428.557	366	41.835	37.164	37.164	RUB-Minor	RCC Box	2	0	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	15.934	0.421	41.84	35.164	6.67	6.256
5	175,984.090	368	41.429	35.079	35.079	RUB-Minor	RCC Box	2	40	Mud road	1	6.10	4.10	0.85	0.75	0.60	0.20	19.850	1.400	41.43	33.079	8.35	8.775
5	176,425.425	369	41.429	36.573	36.573	RUB-Minor	RCC Box	2	30	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.674	0.606	41.43	34.573	6.86	6.534
5	176,740.000	369A	41.429	36.405	36.405	RUB-Minor	RCC Box	2	0	Canal Service road	1	4.00	4.00	0.55	0.75	0.60	0.20	16.146	0.474	41.43	34.405	7.02	6.786
5	177,162.638	372	41.539	36.647	36.647	RUB-Minor	RCC Box	2	40	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.818	0.642	41.54	34.647	6.89	6.588
5	178,651.425	378	40.019	35.241	35.241	RUB-Minor	RCC Box	2	55	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	16.362	0.528	40.02	33.241	6.78	6.417
5	179,216.425	380	38.154	33.182	33.182	RUB-Minor	RCC Box	2	40	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	17.138	0.722	38.15	31.182	6.97	6.708
5	180,257.899	384	40.424	33.236	33.236	RUB-Minor	RCC Box	2	20	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	26.002	2.938	40.42	31.236	9.19	10.032
5	182,819.522	393	39.622	34.811	34.811	RUB-Minor	RCC Box	2	30	Sub Road	1	4.00	3.70	0.55	0.75	0.60	0.20	16.494	0.561	39.62	32.811	6.81	6.467
5	183,370.468	395	40.226	35.451	34.795	RUB-Minor	RCC Box	2	30	Sub road	1	6.10	4.10	0.85	0.75	0.60	0.20	16.174	0.481	40.23	32.795	7.43	7.396
5	183,821.495	397	40.856	32.711	32.828	RUB-Minor	RCC Box	2	30	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	29.362	3.778	40.86	30.828	10.03	11.292
5	184,556.404	399	42.289	33.420	33.420	RUB-Minor	RCC Box	2	30	Mud road	1	4.00	3.70	0.55	0.75	0.60	0.20	32.726	4.619	42.29	31.42	10.87	12.554
5	185,431.388	404	38.264	35.653	34.014	RUB-Minor	RCC Box	2	0	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	14.250	0.000	38.26	32.014	6.25	5.625
5	186,393.185	408	38.560	30.002	30.002	RUB-Minor	RCC Box	2	30	Street road	1	6.10	4.60	0.85	0.75	0.60	0.20	26.682	3.108	38.56	28.002	10.56	12.087
5	187,687.594	413	36.532	31.142	31.143	RUB-Minor	RCC Box	2	30	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	18.806	1.139	36.53	29.143	7.39	7.333
5	188,976.397	419	41.228	37.382	36.978	RUB-Minor	RCC Box	2	20	Field Track	1	4.00	3.70	0.55	0.75	0.60	0.20	14.250	0.000	41.23	34.978	6.25	5.625
5	189,491.397	421	41.228	36.046	36.046	RUB-Minor	RCC Box	2	30	Metalled road	1	6.10	3.70	0.85	0.75	0.60	0.20	16.778	0.632	41.23	34.046	7.18	7.023
5	191,006.397	427	42.208	34.951	34.951	RUB-Minor	RCC Box	2	30	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	26.278	3.007	42.21	32.951	9.26	10.136
5	192,130.224	431	40.511	33.517	33.517	RUB-Minor	RCC Box	2	0	Road	1	6.10	3.70	0.85	0.75	0.60	0.20	24.026	2.444	40.51	31.517	8.99	9.741
5	193,212.360	437	40.492	35.951	34.376	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	21.714	1.866	40.49	32.376	8.12	8.424
5	194,056.194	440	37.856	32.847	32.847	RUB-Minor	RCC Box	2	25	Road	1	6.10	3.70	0.85	0.75	0.60	0.20	16.086	0.459	37.86	30.847	7.01	6.764
5	197,134.163	453	39.064	31.161	31.161	RUB-Minor	RCC Box	4	0	Road	1	4.00	3.70	0.55	0.75	0.60	0.20	40.862	3.653	39.06	29.161	9.90	11.105
5	198,017.248	458	38.143	32.260	31.839	RUB-Minor	RCC Box	2	0	Road	1	4.00	3.70	0.55	0.75	0.60	0.20	22.466	2.054	38.14	29.839	8.30	8.706
5	198,413.787	461	38.044	32.400	31.179	RUB-Minor	RCC Box	2	0	Road	1	4.00	3.70	0.55	0.75	0.60	0.20	24.710	2.615	38.04	29.179	8.87	9.548
5	199,408.000	468	38.733	31.964	30.162	RUB-Minor	RCC Box	2	0	Cart Track	1	6.10	3.70	0.85	0.75	0.60	0.20	30.334	4.021	38.73	28.162	10.57	12.107
5	200,580.679	471	36.842	30.839	30.839	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	21.262	1.753	36.84	28.839	8.00	8.255
5	202,066.153	480	36.214	31.345	30.162	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	21.458	1.802	36.21	28.162	8.05	8.328
5	202,707.601	482	34.147	29.611	29.611	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	15.394	0.286	34.15	27.611	6.54	6.054
5	205,208.000	491	36.223	27.488	27.488	RUB-Minor	RCC Box	2	0	Cart Track	1	4.00	3.70	0.55	0.75	0.60	0.20	32.190	4.485	36.22	25.488	10.74	12.353

NOTE (i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

NK CONSORTIUM

Project Title :
Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

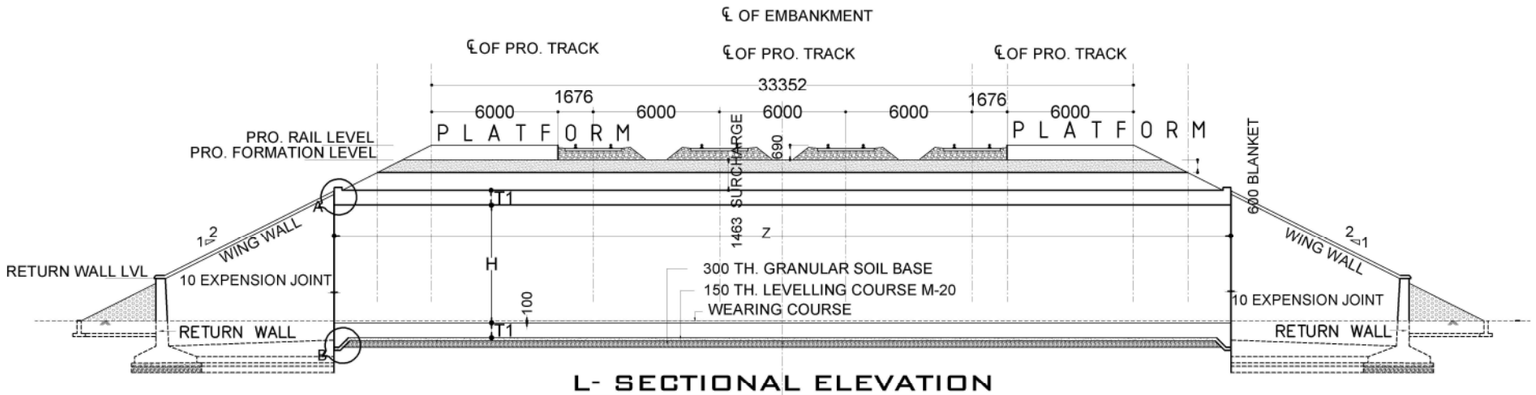
Drawing Title :
GENERAL ARRANGEMENT DRAWING
FOR RCC BOX TYPE RUB MAIN LINE 01

Drawing Number : NKC -CTS -RUB -VD -00018 (SHEET 2 OF 2)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA

Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd , Oct , 2012

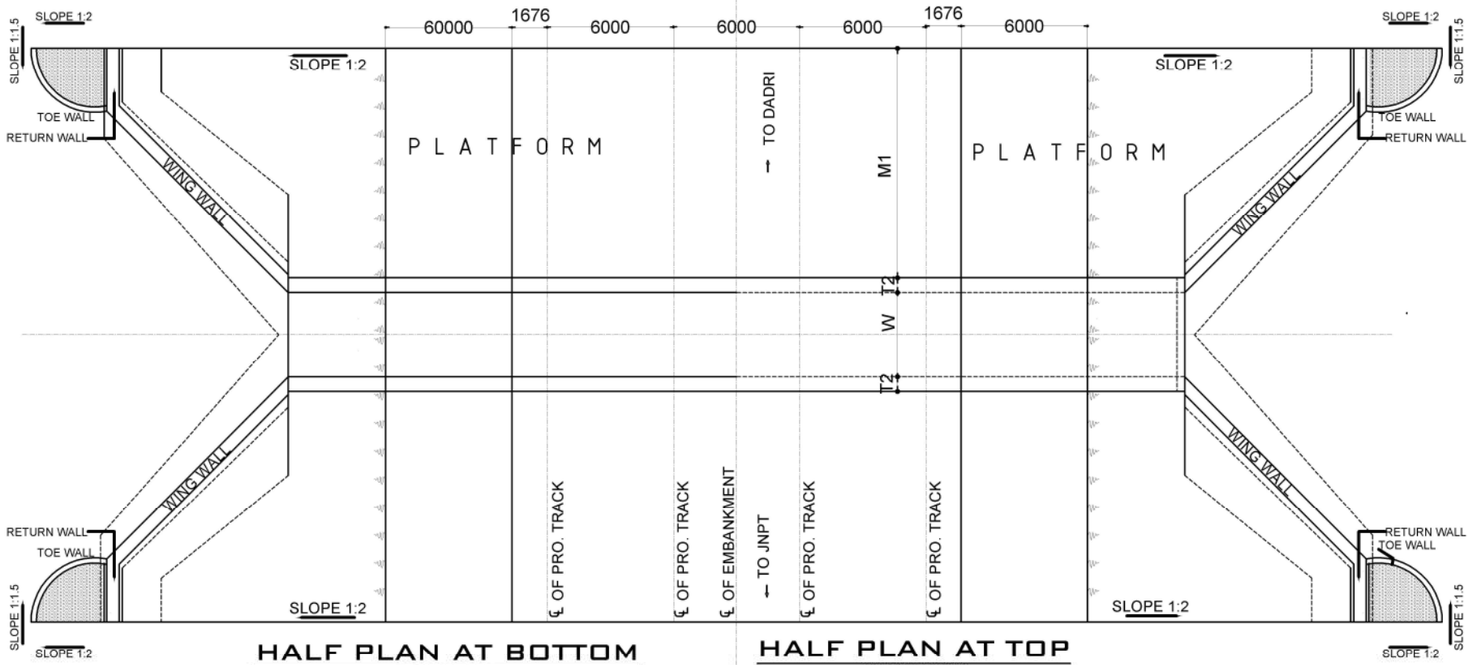
Consultant :
NK Consortium
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

V-4-2-226



L- SECTIONAL ELEVATION

SCALE : 1:300

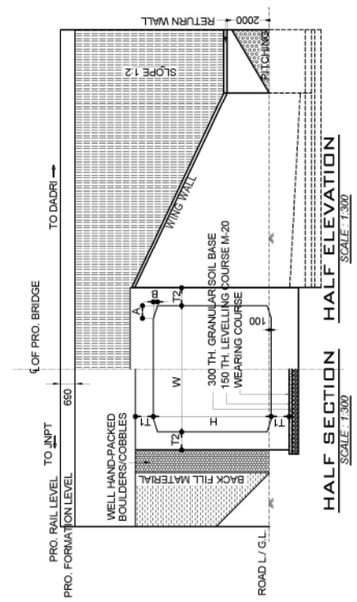


HALF PLAN AT BOTTOM

SCALE : 1:300

HALF PLAN AT TOP

SCALE : 1:300

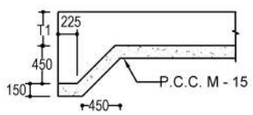


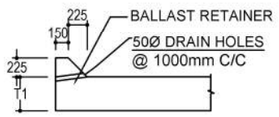
HALF ELEVATION

SCALE : 1:300

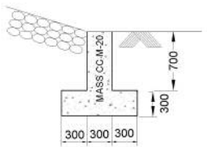
HALF SECTION

SCALE : 1:300

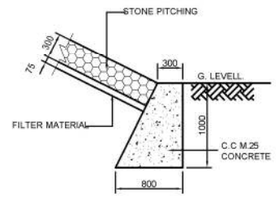




DETAILS AT A & B
SCALE 1:75



SECTION OF TOE WALL
SCALE : 1:75



SECTION AT X-X
(SCALE 1:75)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

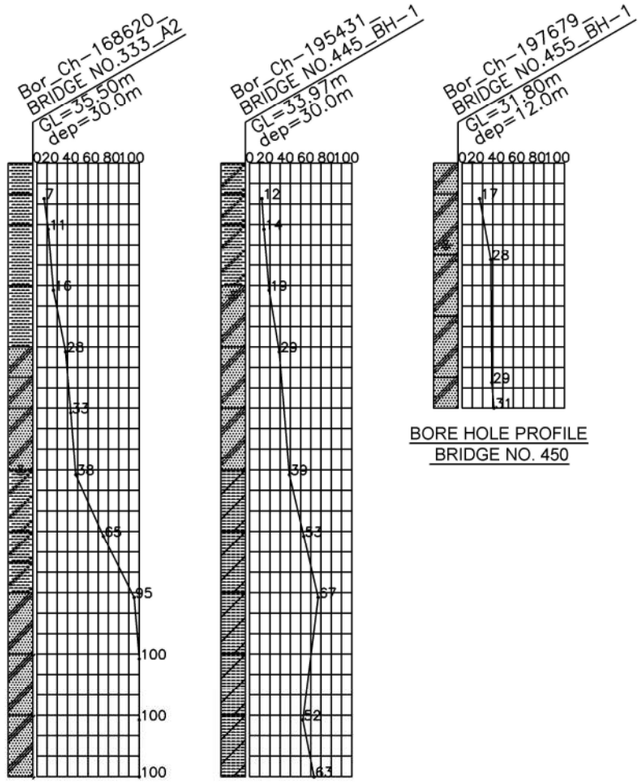
1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB MAIN LINE 02	Drawing Number : NKC-CTS-RUB-VD-00019 (Sheet 1 of 2) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA	Consultant : NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-227

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level (m)	Road Level (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration n	W (m)	H (m)	T1 (m)	T2 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	Return Wall TOP LVL (m)	FDN LVL (m)	Height L(m)	Length M(m)
5	168635.000	334	45.970	35.547	35.699	RUB-Minor	RCC Box	4	0	cart track	1	6.1	3.7	0.85	0.65	0.3	0.2	56.986	5.721	37.70	33.699	4.00	3.00
5	195639.537	447	41.261	32.715	32.715	RUB-Minor	RCC Box	4	0	Road	1	4.0	3.7	0.6	0.65	0.3	0.2	51.086	4.246	34.72	30.715	4.00	3.00
5	196502.643	450	39.992	31.669	31.669	RUB-Minor	RCC Box	4	0	Road	1	4.0	3.7	0.6	0.65	0.3	0.2	50.194	4.023	33.67	29.669	4.00	3.00

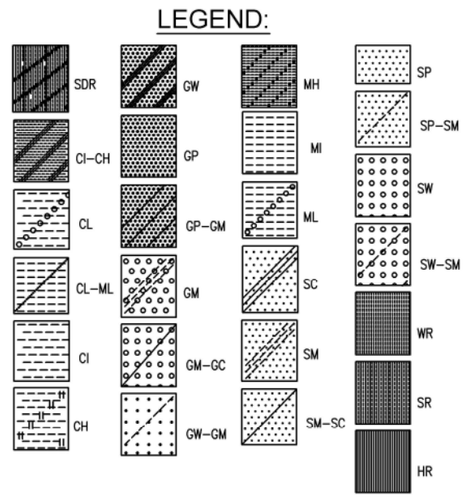
NOTE
(i) F.L is based on the alignment drawing modified by NKC
(ii) G.L is based on GAD prepared by CPM
(ii) Barrel Length may varry as per site condition.
(iv) Nos. of Track shall be confirmed from FLS & Station Yard Plan.



BORE HOLE PROFILE
BRIDGE NO. 334

BORE HOLE PROFILE
BRIDGE NO. 447

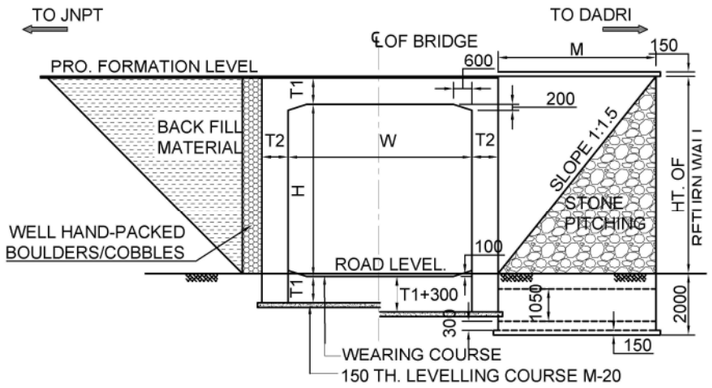
BORE HOLE PROFILE
BRIDGE NO. 450



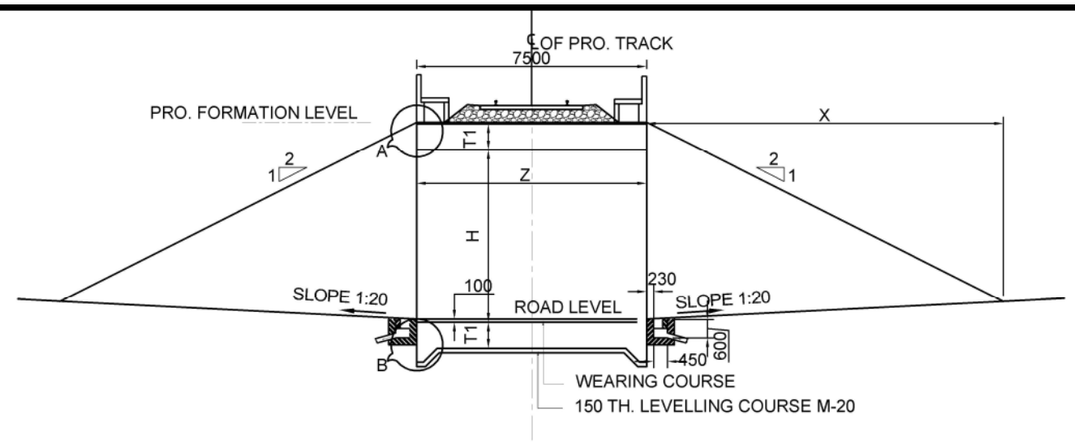
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB MAIN LINE 02	NKC-CTS-RUB-VD-00019 (Sheet 2 of 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

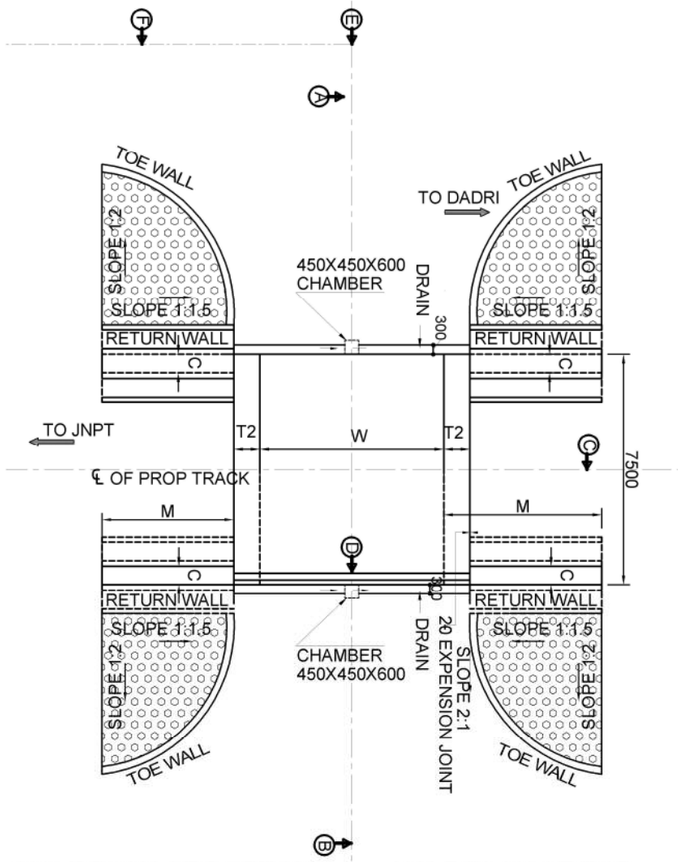
V-4-2-228



SECTION AT C-D-E-F
(SCALE 1:200)

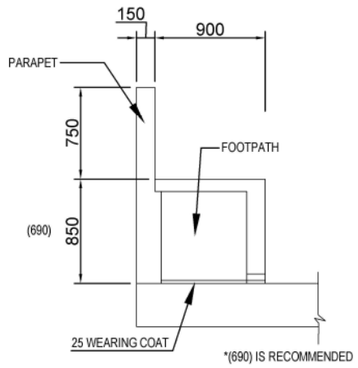


SECTION AT A-B
(SCALE 1:200)

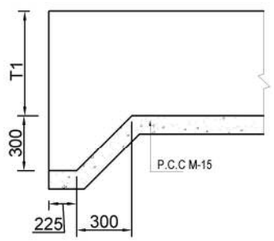


HALF PLAN AT BOTTOM
(SCALE 1:200)

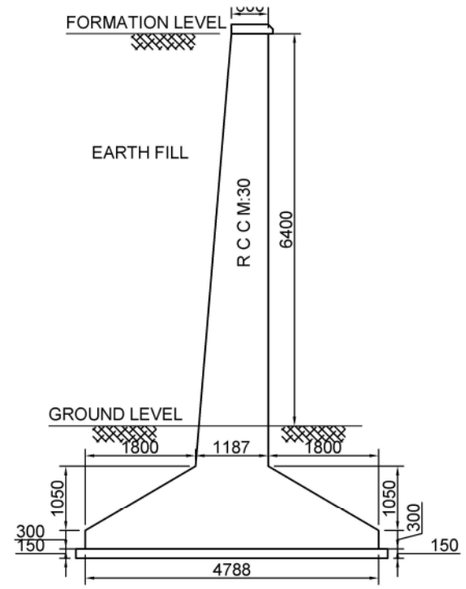
HALF PLAN AT TOP
(SCALE 1:200)



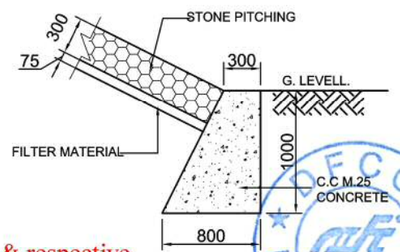
DETAIL AT A
SCALE 1:50



DETAILS AT 'B'
SCALE 1:50



CROSS SECTION OF RETURN WALL
(SCALE 1:100)



SECTION AT X-X
(SCALE 1:50)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICALE INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB CONNECTING LINE 01	Drawing Number : NKC -CTS -RUB -VD -00020 (SHEET 1 OF 2)
			Scale : AS SHOWN
			Reference : GAD PREPARED BY CPM VADODARA
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012 / Checked By : M. N. Ahmad, Date : 1st, Oct, 2012 / Approved By : H. Kawahara, Date : 3rd, Oct, 2012
			Consultant : NK Consortium, 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-229

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Road Level (m)	GL (m)	DFCC Track Number	Type of Structure	Structure configuration	Type of Crossing	Box Configuration								Return Wall			
										W (m)	H (m)	T1 (m)	T2 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)
5Co.-M/Dn	470.000	MDN-1	30.381	24.155	24.155	1	RUB-Minor	RCC Box	Road	6.100	4.100	0.850	0.850	0.600	0.200	13.354	1.276	30.381	22.155	8.226	8.489
5Co.-M/Dn	2,250.000	MDN-8	24.857	20.557	21.615	1	RUB-Minor	RCC Box	Cart Track	4.000	3.700	0.600	0.600	0.600	0.200	7.500	0.000	24.857	18.557	6.300	5.850
5Co.-M/Dn	3,171.750	MDN-9	26.850	22.550	23.409	1	RUB-Minor	RCC Box	Cart Track	4.000	3.700	0.600	0.600	0.600	0.200	7.500	0.000	26.850	20.550	6.300	5.850
5Co.-M/Dn	4,479.009	MDN-12	27.936	21.814	21.814	1	RUB-Minor	RCC Box	Cart Track	4.000	4.100	0.550	0.550	0.600	0.200	14.138	1.472	27.936	19.814	8.122	8.633
5Co.-M/Up	1,100.000	MUP-4	30.822	23.170	23.170	1	RUB-Minor	RCC Box	Cart Track	4.000	3.700	0.600	0.600	0.600	0.200	21.658	3.352	30.822	21.170	9.652	10.878
5Co.-M/Up	2,400.000	MUP-8	35.376	23.910	23.910	1	RUB-Minor	RCC Box	Road	6.100	3.700	0.850	0.850	0.600	0.200	35.914	6.916	35.376	21.910	13.466	16.349
5Co.-M/Up	3,197.000	MUP-11	33.911	23.890	23.890	1	RUB-Minor	RCC Box	Road	4.000	3.700	0.600	0.600	0.600	0.200	31.134	5.721	33.911	21.890	12.021	14.432
5Co.-M/Up	4,218.000	MUP-15	29.604	24.544	24.544	1	RUB-Minor	RCC Box	Road	4.000	3.700	0.600	0.600	0.600	0.200	11.290	0.760	29.604	22.544	7.060	6.990
5Co.-M/Up	4,800.000	MUP-18	28.212	23.912	23.924	1	RUB-Minor	RCC Box	Road	4.000	3.700	0.600	0.600	0.600	0.200	7.500	0.000	28.212	21.912	6.300	5.850

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

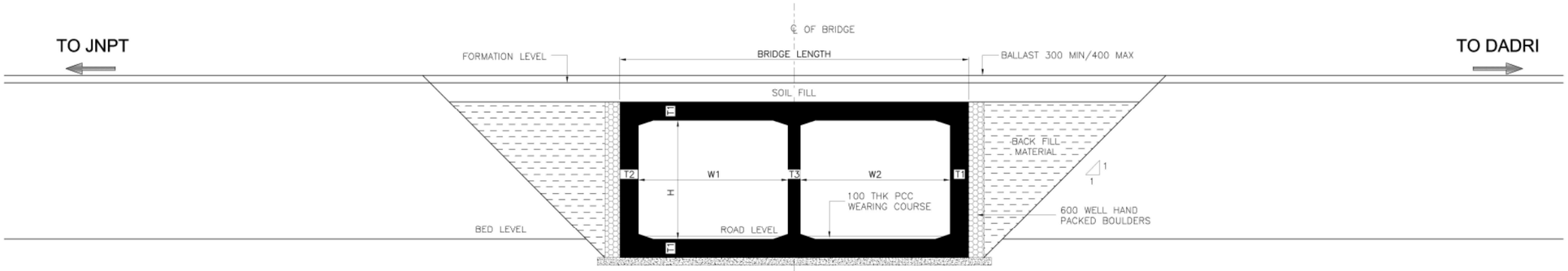
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

NK CONSORTIUM NJPI

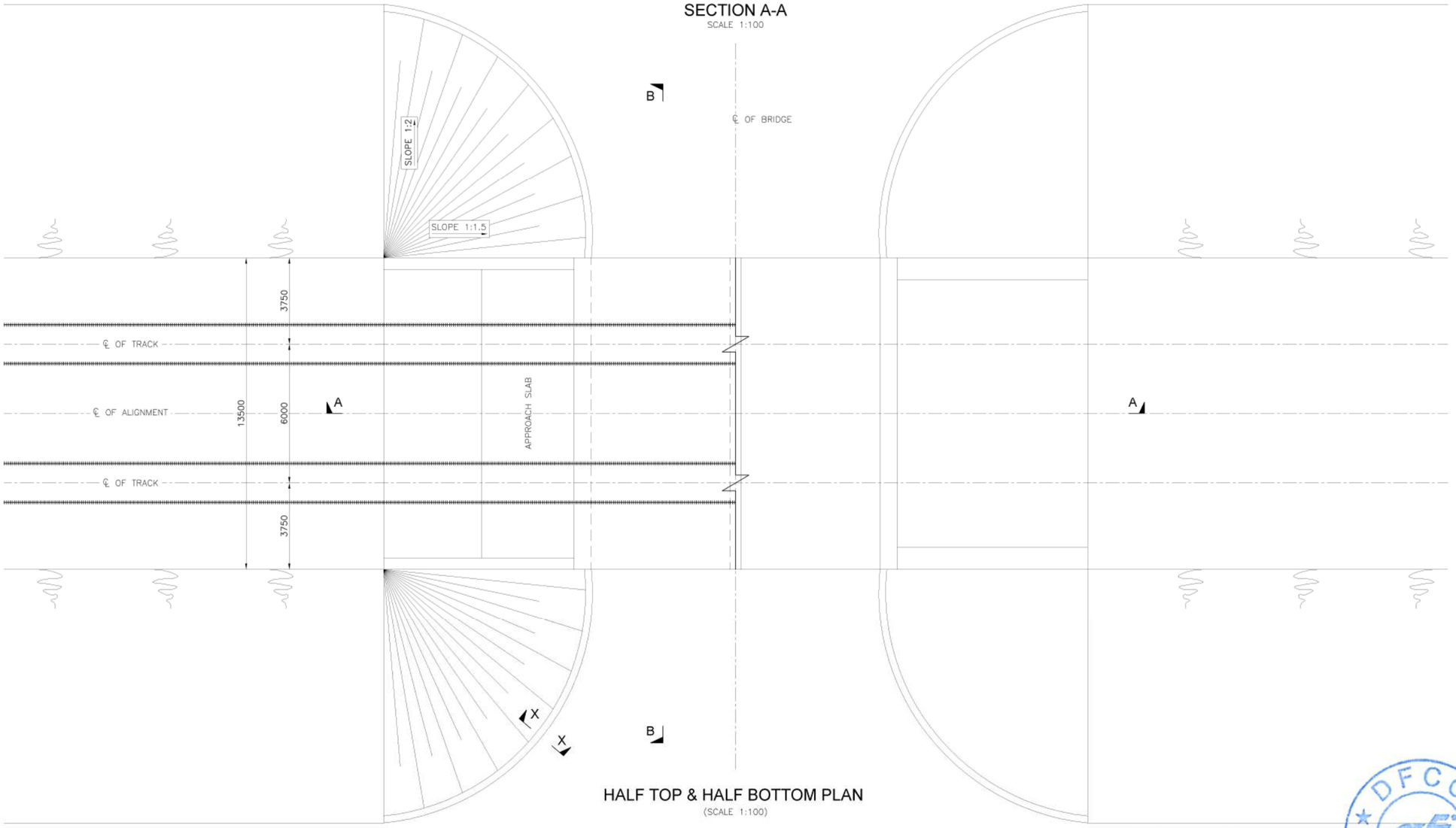
Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB CONNECTING LINE 01	NKC -CTS -RUB -VD -00020 (SHEET 2 OF 2) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin Date : 30th, Sept, 2012 Checked By : M. N. Ahmad Date : 1st, Oct, 2012 Approved By : H. Kawahara Date : 3rd, Oct, 2012	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-230



SECTION A-A

SCALE 1:100



HALF TOP & HALF BOTTOM PLAN

(SCALE 1:100)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

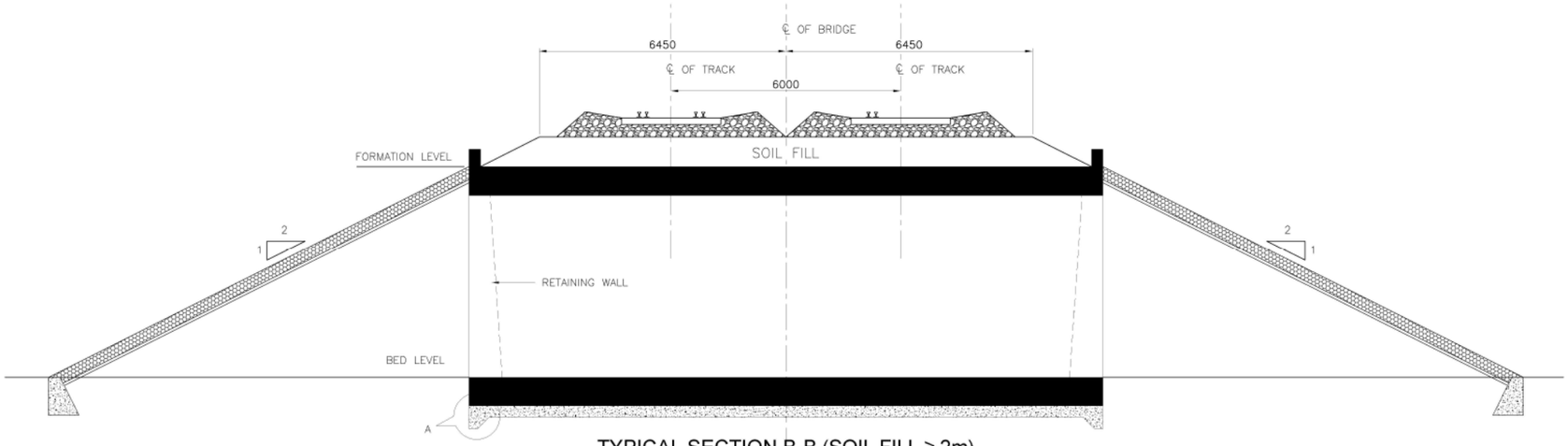
1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB	NKC -CTS -RUB-VD -00021 (SHEET 1 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	
			Checked By : M. N. Ahmad, Date : 1st, Oct, 2012	
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-231

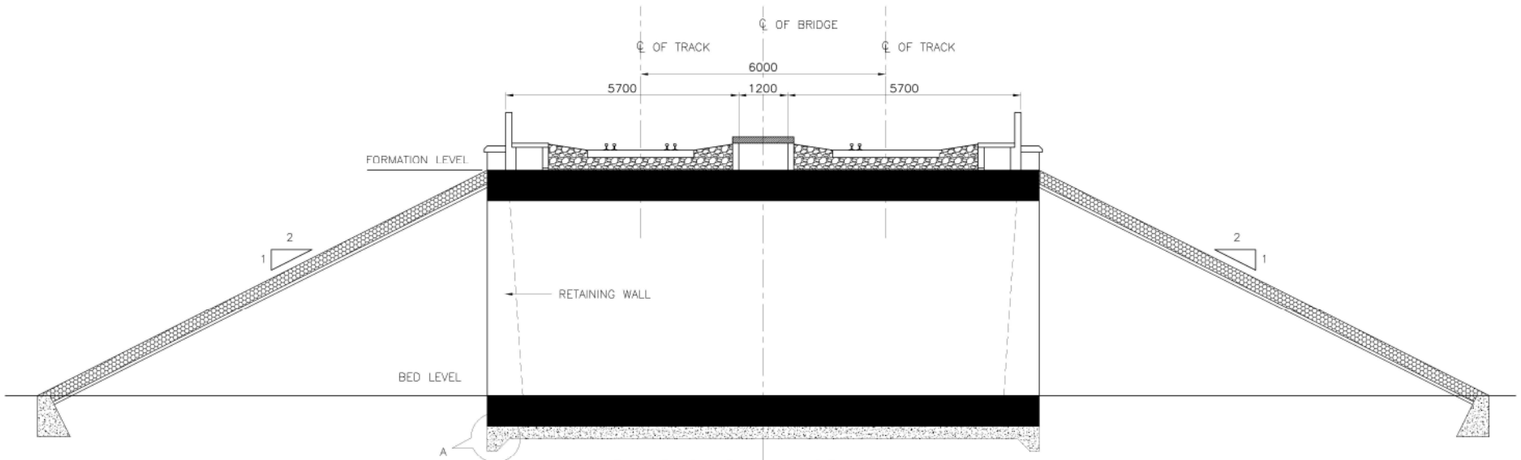


TYPICAL SECTION B-B (SOIL FILL ≥ 2m)

SCALE 1:75

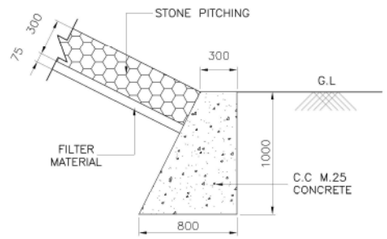
DETAIL - A (SHOWING REINFORCEMENT)

(SCALE 1:25)



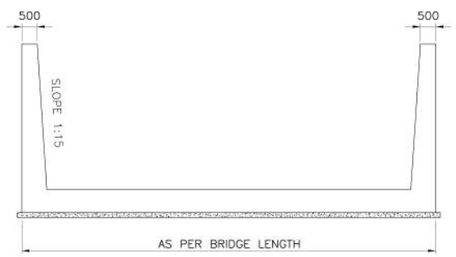
TYPICAL SECTION B-B (SOIL FILL ≤ 1m)

SCALE 1:75



DETAIL X-X

(SCALE 1:25)



SECTION OF RETAINING WALL

(SCALE 1:150)

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB	NKC -CTS -RUB -VD -00021 (SHEET 2 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin, Date : 30th, Sept, 2012	Checked By : M. N. Ahmad, Date : 1st, Oct, 2012
			Approved By : H. Kawahara, Date : 3rd, Oct, 2012	

V-4-2-232

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level (m)	Road Level (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration											Return Wall			
											n	W1(m)	W2(m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	TOP LVL (m)	FDN LVL (m)	Height L(m)	Length M(m)
5	136,941.974	217	31.342	22.665	22.665	RUB-Minor	RCC Box	2	0	Road	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	25.16	2.727	31.342	20.665	10.677	12.1655
5	142,052.980	232	31.941	26.121	26.000	RUB-Minor	RCC Box	2	0	Cart Track	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	14.21	-0.009	31.941	24.0000	7.941	8.0615
5	152,377.751	275	37.165	32.416	32.416	RUB-Minor	RCC Box	2	0	Road (B.T.Road)	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	9.45	-1.201	37.165	30.416	6.749	6.2735
5	156,860.405	293	40.800	34.903	34.903	RUB-Minor	RCC Box	2	60	M.D. Road (B.T.Road)	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	14.04	-0.053	40.8	32.903	7.897	7.9955
5	157,300.394	294	41.411	34.666	34.666	RUB-Minor	RCC Box	2	60	M.D. Road	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	17.43	0.795	41.411	32.666	8.745	9.2675
5	185,928.928	406	37.929	31.564	31.564	RUB-Minor	RCC Box	2	30	District Road (Borsad-Anand)	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	15.91	0.415	37.929	29.564	8.365	8.6975
5	197679.060	455	38.262	32.259	31.762	RUB-Minor	RCC Box	3	15	District Road Near Changa	2	9.15	6.10	5.50	1.00	1.00	1.00	0.600	0.200	20.25	0.000	38.262	29.762	8.5	8.75
5	201198.134	475	36.816	31.419	31.450	RUB-Minor	RCC Box	2	15	District Road	2	4.00	4.00	5.10	0.55	0.55	0.55	0.600	0.200	13.11	-0.284	36.816	29.45	7.366	7.499
5Co.-M/Dn	945.000	MDN-3	28.006	19.807	19.778	RUB-Minor	RCC Box	1	0	Road	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	17.36	2.278	28.006	17.778	10.228	11.492
5Co.-M/Up	429.000	MUP-1	29.688	23.179	23.179	RUB-Minor	RCC Box	1	0	Road	2	6.10	6.10	5.10	0.85	0.85	0.85	0.600	0.200	10.49	0.559	29.688	21.179	8.509	8.9135

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

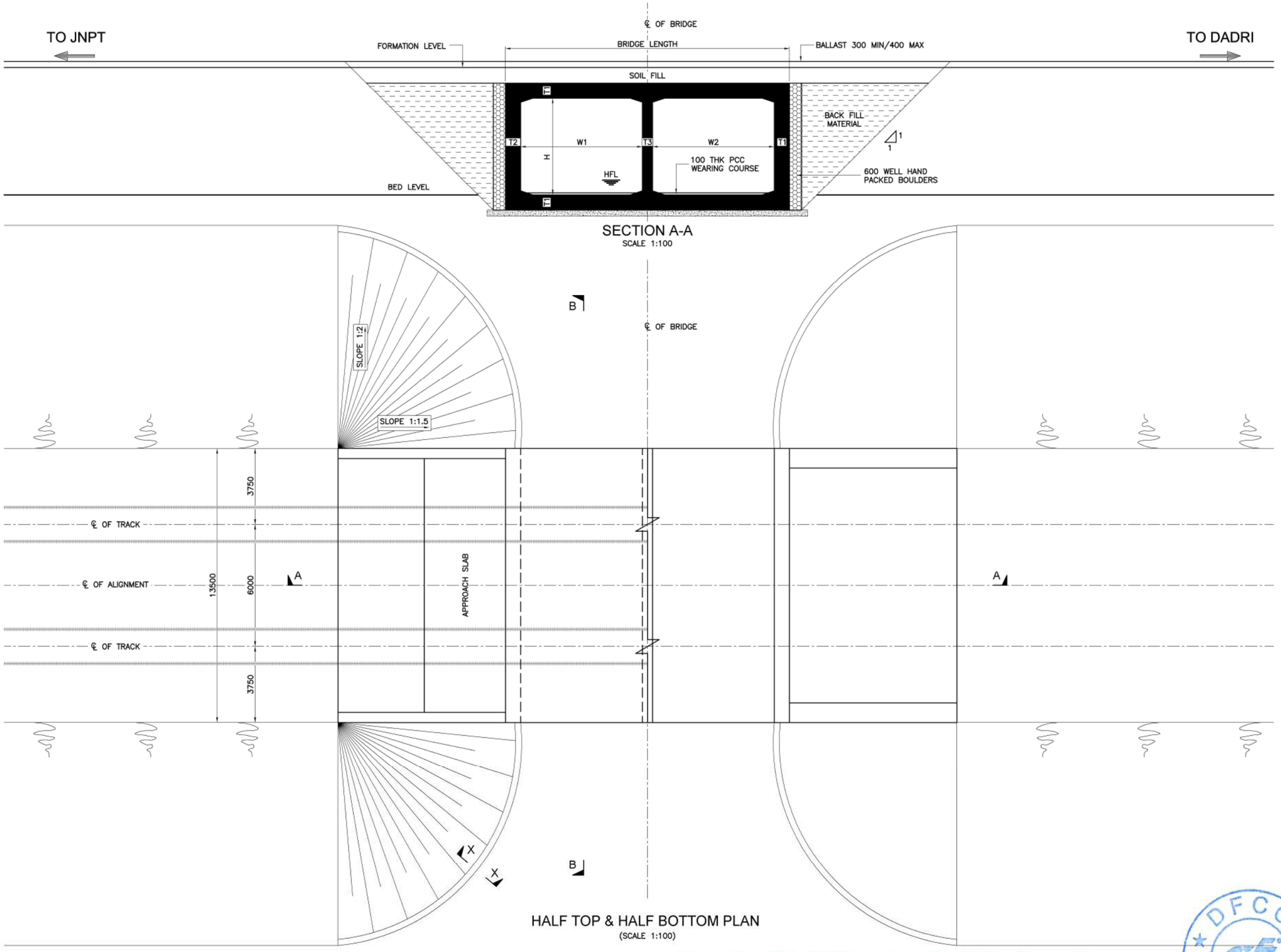
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE RUB	NKC -CTS -RUB -VD -00021 (SHEET 3 OF 3)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : S. Salamuddin Date : 30th, Sept, 2012	Checked By : M. N. Ahmad Date : 1st, Oct, 2012
			Approved By : H. Kawahara Date : 3rd, Oct, 2012	

V-4-2-233



Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

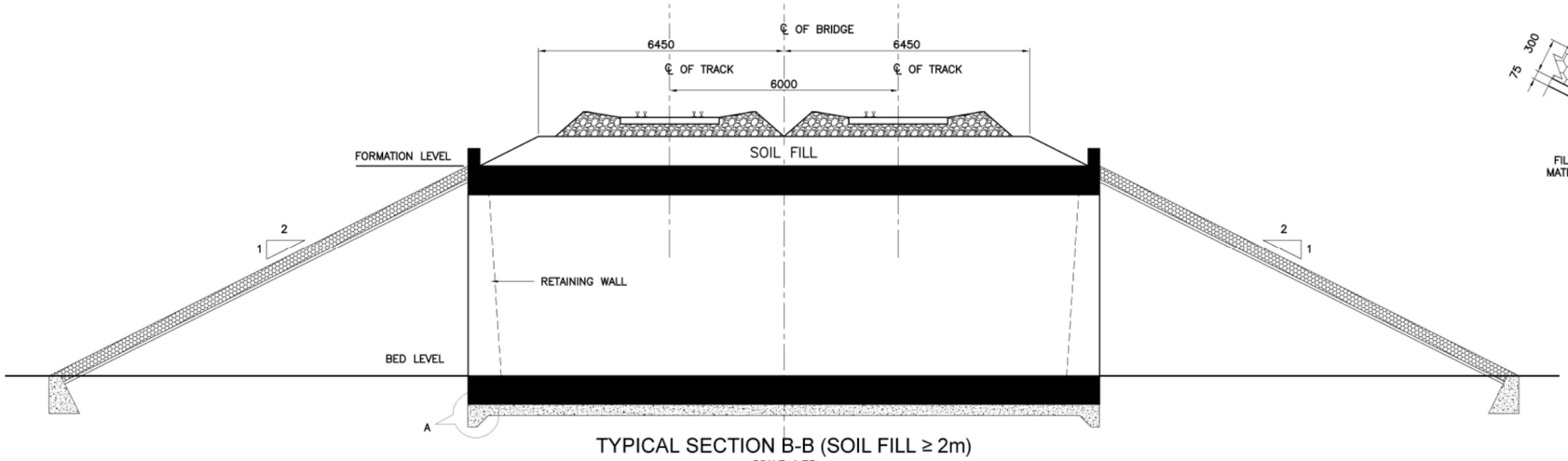
1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

GEO-TECHNICAL

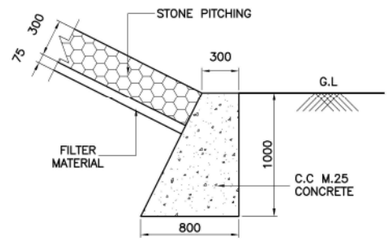
1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MAJOR BRIDGE 01	NKC -CTS -BRD -VD -00022 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : Date : / /	Checked By : Date : / / Approved By : Date : / /

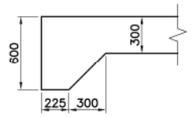
V-4-2-234



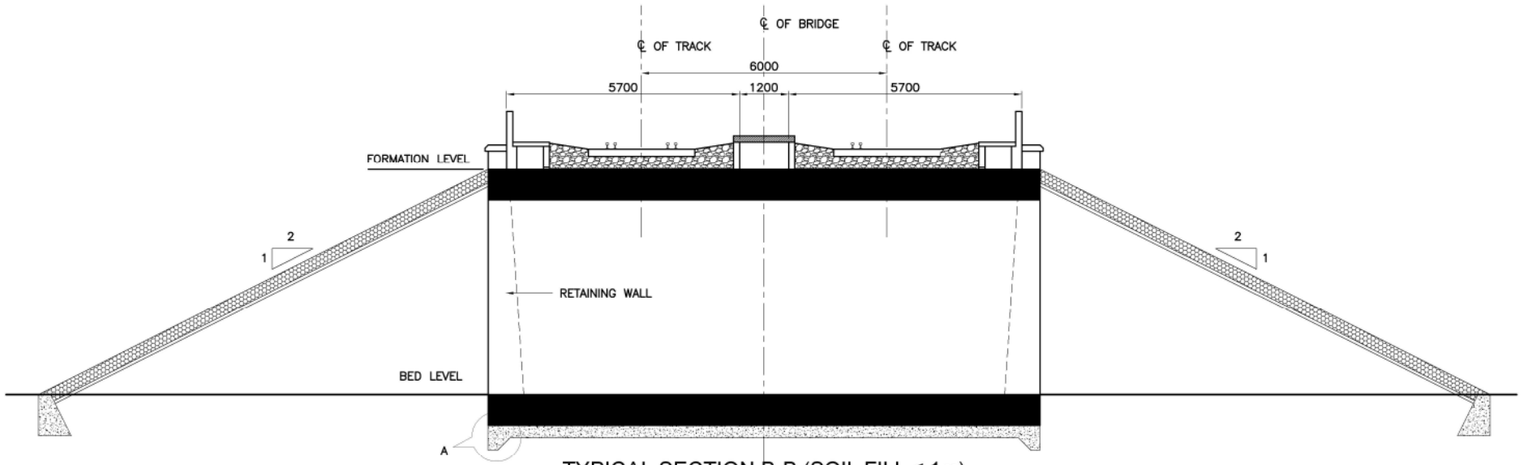
TYPICAL SECTION B-B (SOIL FILL ≥ 2m)
SCALE 1:75



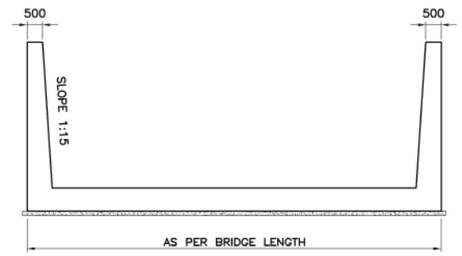
DETAIL X-X
(SCALE 1:25)



DETAIL - A (SHOWING REINFORCEMENT)
(SCALE 1:25)



TYPICAL SECTION B-B (SOIL FILL ≤ 1m)
SCALE 1:75



SECTION OF RETAINING WALL
(SCALE 1:150)

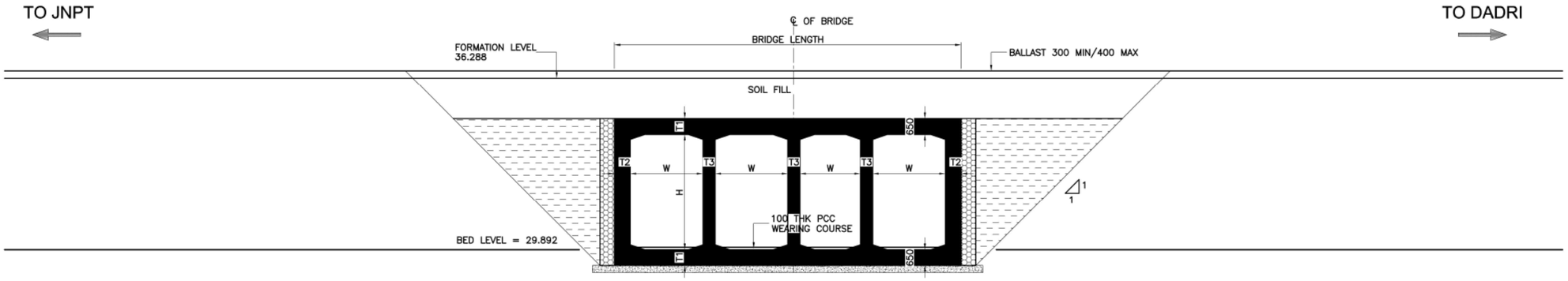
Sect. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL (m)	Type of Structure	Structure configuration	No. of tracks Proposed for DFCC	Skew Angle	Type of Crossing	Box Configuration n	W1 (m)	W2 (m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z (m)	FILL(m)	Return Wall(U/S;D/S) TOP LVL (m)	FDN LVL (m)	Height (m)	Length (m)	BERM LVL (m)
5	137,039.524	218	31.751	19.760	19.760	30.356	Major Bridge	Rcc Box	2	0	Drain	2	9.150	9.150	4.500	1.000	1.000	1.000	0.600	0.200	40.214	6.491	25.260	17.760	7.500	8.250	25.751

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

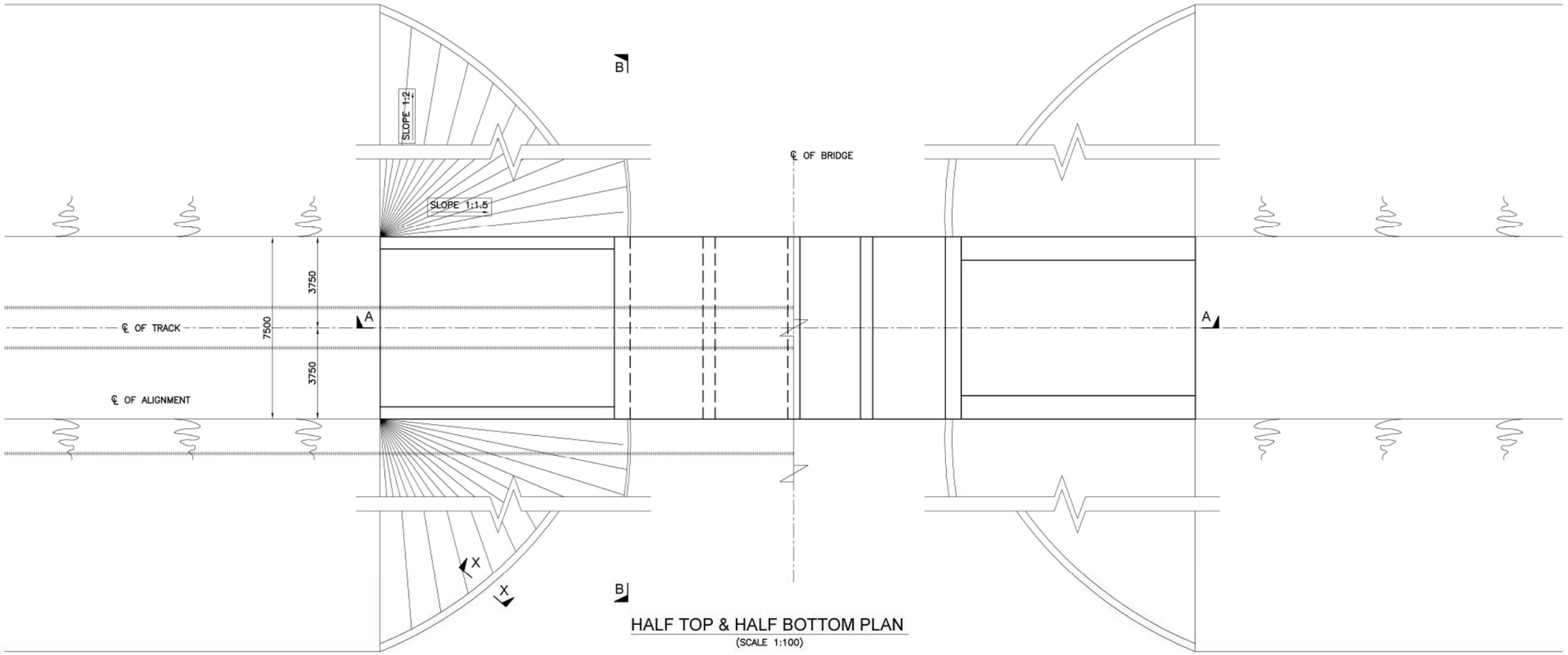
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MAJOR BRIDGE 01	NKC -CTS -BRD -VD -00022 (SHEET 2 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : Date : / /	Checked By : Date : / / Approved By : Date : / /

V-4-2-235



SECTION A-A
(SCALE 1:100)



HALF TOP & HALF BOTTOM PLAN
(SCALE 1:100)

GENERAL NOTES:

1) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2) ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3) THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDERS. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS, SPECIFICATIONS, AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER/EMPLOYER.
4) ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARRALEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
5) FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
6) LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
7) DURING THE COURSE OF CONSTRUCTION, SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON THE EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR
8) EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING THE SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER/EMPLOYER.

FOUNDATION

1) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STUCTURES.

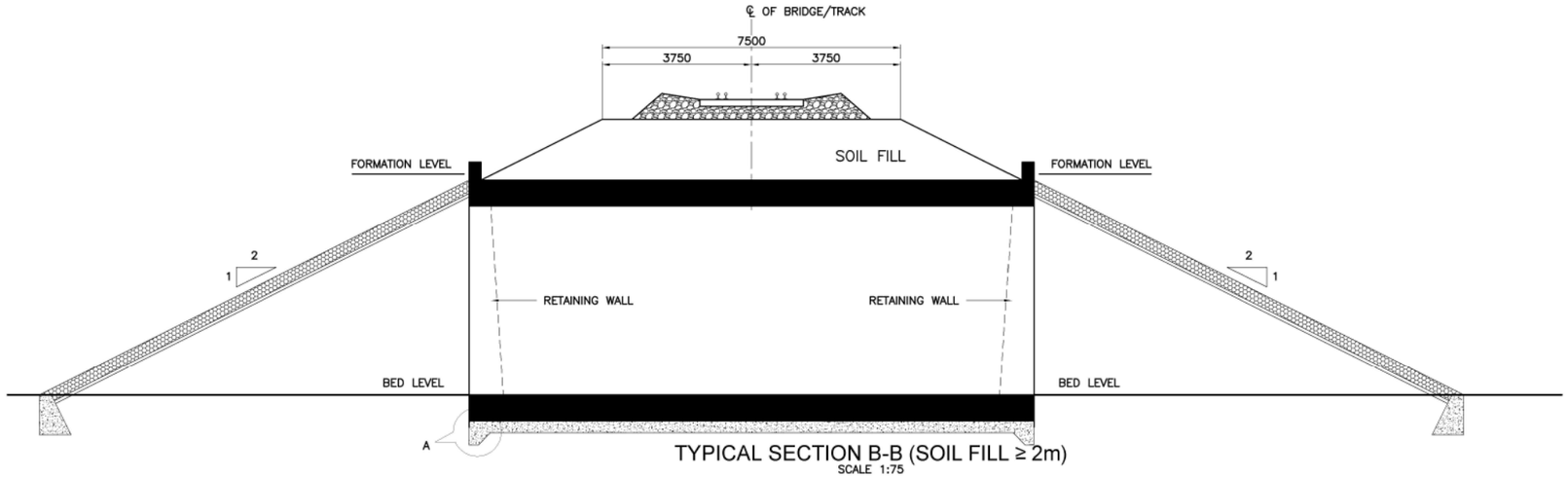
GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT IN DATA BOOK 2/2.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE IF REQUIRED.

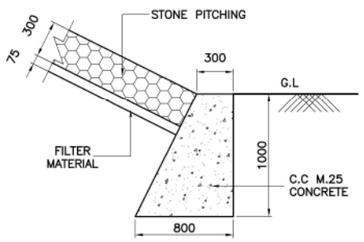
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title : Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	Client : Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	Drawing Title : GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MAJOR BRIDGE FOR CONNECTING LINE 01	Drawing Number : NKC -CTS -BRD -VD -00023 (SHEET 1 OF 2) Scale : AS SHOWN Reference : GAD PREPARED BY CPM VADODARA Drawn By : S. Salamuddin Date : 30th, Sept, 2012 Checked By : M. N. Ahmad Date : 1st, Oct, 2012 Approved By : H. Kawahara Date : 3rd, Oct, 2012	Consultant : NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

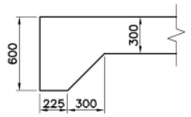
V-4-2-236



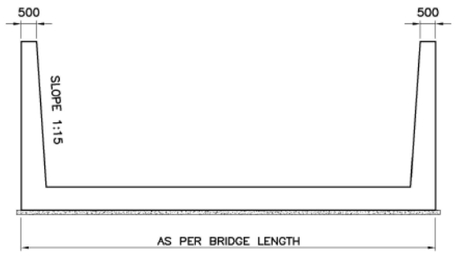
TYPICAL SECTION B-B (SOIL FILL ≥ 2m)
SCALE 1:75



DETAIL X-X
(SCALE 1:25)



DETAIL - A (SHOWING REINFORCEMENT)
(SCALE 1:25)



SECTION OF RETAINING WALL
(SCALE 1:150)

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Bed Level (m)	Ground Level (m)	HFL/FSL	Type of Structure	DFCC Track Number	Skew Angle	Structure configuration	Type of Crossing	Box Configuration										Return Wall				BERM LVL
												n	W(m)	H (m)	T1 (m)	T2 (m)	T3 (m)	A (m)	B (m)	Barrel Length-Z	FILL(m)	TOP LVL	FDN LVL	Height (m)	Length (m)	
5Co.-M/Up	529	MUP-2	29.688	22.107	22.107	26.070	Major Bridge	1	0	RCC Box	Drain	4	4.50	2.50	0.60	0.60	0.60	0.60	0.20	26.174	4.481	25.207	20.107	5.100	4.650	23.688
5Co.-M/Dn	1410	MDN-6	25.699	22.599	23.500	24.167	Major Bridge	1	0	RCC Box	Drain	4	4.50	2.50	0.60	0.60	0.60	0.60	0.20	8.250	0.000	25.699	20.599	5.100	4.650	19.699

NOTE
(i) F.L is based on the alignment drawing modified by NKC and should be reconfirmed in detailed design survey.
(ii) G.L is based on GAD prepared by CPM and should be reconfirmed in detailed design and survey.
(iii) Nos. of Track shall be confirmed from FLS & Station Yard Plan
(iv) Berm of 1.5 m width shall be provided on the slope of every 6 m height.
(v) Barrel Length may varry as per site condition.

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

NK CONSORTIUM NJPI

Project Title :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)

Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

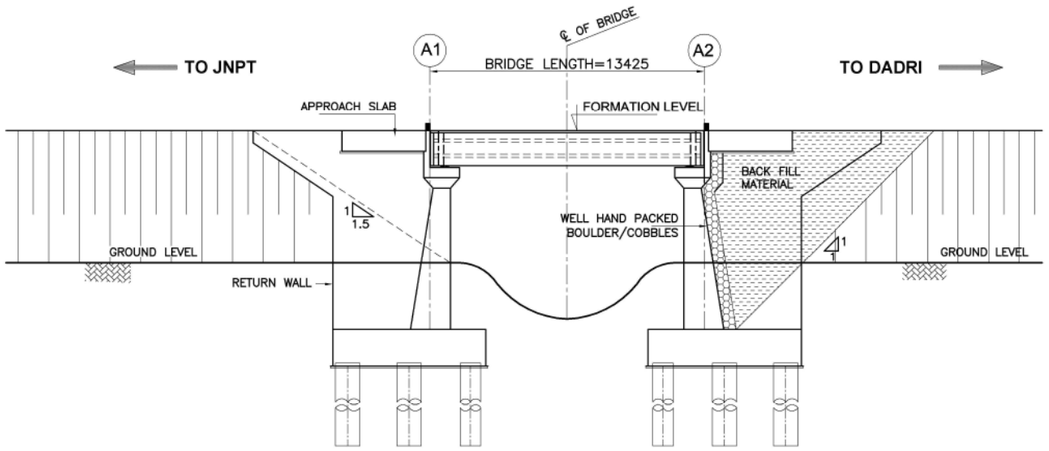
Drawing Title :
GENERAL ARRANGEMENT DRAWING FOR RCC BOX TYPE MAJOR BRIDGE FOR CONNECTING LINE 01

Drawing Number : NKC -CTS -BRD -VD -00023 (SHEET 2 OF 2)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA

Drawn By : S. Salamuddin	Checked By : M. N. Ahmad	Approved By : H. Kawahara
Date : 30th , Sept , 2012	Date : 1st , Oct , 2012	Date : 3rd, Oct, 2012

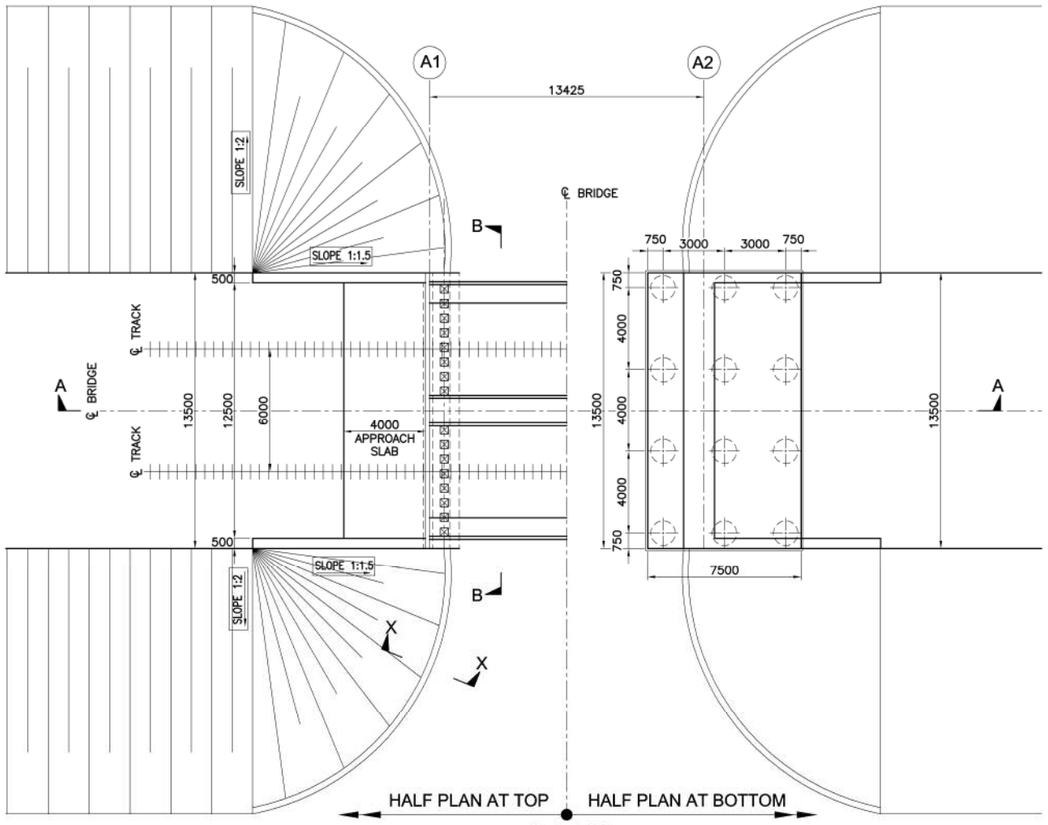
Consultant :
NK Consortium
4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA

V-4-2-237



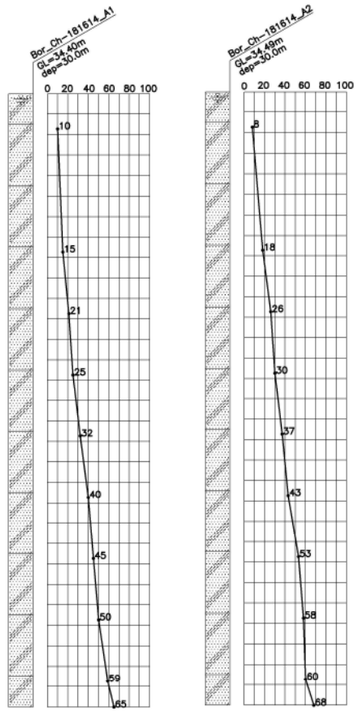
LONGITUDINAL SECTION A-A

(SCALE 1:150)

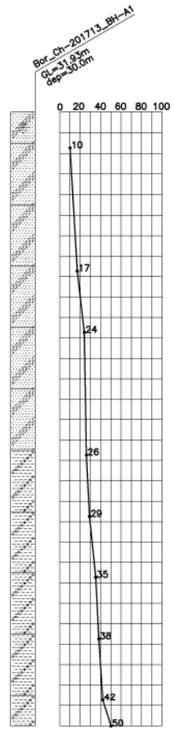


PLAN

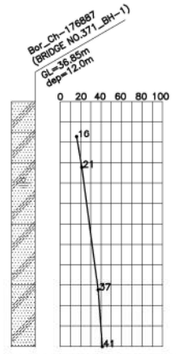
(SCALE 1:150)



BORE HOLE PROFILE FOR
BRIDGE NO. 386A
AT CHAINAGE 181500

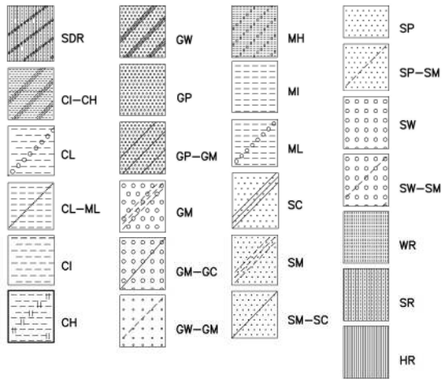


BORE HOLE PROFILE FOR
BRIDGE NO. 474A
AT CHAINAGE 201114



BORE HOLE PROFILE FOR
BRIDGE NO. 369B
AT CHAINAGE 176780.00

LEGEND:



GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. ALL DIMENSIONS AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
4. THIS GENERAL ARRANGEMENT DRAWING IS INDICATIVE AND IS MEANT ONLY FOR GUIDANCE FOR THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DEVELOPED & DESIGNED BY THE CONTRACTOR AS PER THE EMPLOYER'S REQUIREMENTS,SPECIFICATIONS AND SITE DIMENSIONS / CONDITIONS AND SHALL BE APPROVED BY ENGINEER / EMPLOYER.
5. ALL DIMENSIONS SHALL BE VERIFIED WITH RESPECT TO EXISTING IR BRIDGES ON THE PARALLEL ALIGNMENT AND RECONCILED BEFORE EXECUTION.
6. FORMATION LEVEL SHOWN IN GAD IS AS PER PROPOSED LONGITUDINAL SECTION OF THE ALIGNMENT AND MAY CHANGE DURING DEVELOPMENT OF DETAILED DESIGN STAGE.
7. LENGTH OF RETURN WALL / WING WALL / TOE WALL / PITCHING ETC. IS TO BE DECIDED AS PER THE SITE CONDITION.
8. GROUND PROFILE SHOULD BE VERIFIED BEFORE EXECUTION.

SUPERSTRUCTURE & SUBSTRUCTURE

1) THE BRIDGE SHALL BE DESIGNED AS PER DFCCI LOADING (32.5T AXLE LOAD) BRIDGE RULE, ISSUED BY RDSO. (WITH LATEST CORRECTION SLIP).
2) THE BRIDGE SHALL BE DESIGNED AS PER THE SEISMIC ZONE FOR THE AREA
3) BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
4) WEEP HOLES SHALL BE OF PROVIDED IN RETURN WALL & ABUTMENT.
5) OHE FOUNDATION BOLTS SHALL BE PROVIDED IN CONSULTATION WITH THE CONTRACTOR OF EMP-4.
6) RAILING EXPANSION JOINTS, BEARING, WEARING COAT, FOOTPATH, SERVICE DUCT, DRAINAGE SHALL BE PROVIDED AS PER SPECIFICATION.
7) FOR INSPECTION OF BEARING / SUPERSTRUCTURE, SUITABLE ARRANGEMENT SHALL BE PROVIDED.
8) FOR CHANGING OF BEARING SUITABLE ARRANGEMENT SHALL BE PROVIDED.

FOUNDATION

1) SETTLEMENT OF FOUNDATION SHALL BE CHECKED SO THAT IT IS WITHIN ACCEPTABLE LIMIT OF TOTAL & DIFFERENTIAL SETTLEMENTS AS PER CLAUSE 6.1 OF IRS BRIDGE SUB STRUCTURE & FOUNDATION CODE.
2) SAFE BEARING CAPACITY OF SOIL SHALL BE DETERMINED BY SUITABLE METHOD BEFORE DESIGN OF STRUCTURES IF REQUIRED.

GEO-TECHNICAL

1) FOR TENDER PURPOSE REFER TO GEOTECHNICAL & HYDROLOGICAL INVESTIGATION REPORT.
2) GEO-TECHNICAL BORE HOLE DATA REFERED IN GAD IS INDICATIVE ONLY.
3) DETAILED GEO-TECHNICAL INVESTIGATION SHALL BE CARRIED OUT DURING DETAILED DESIGN STAGE.

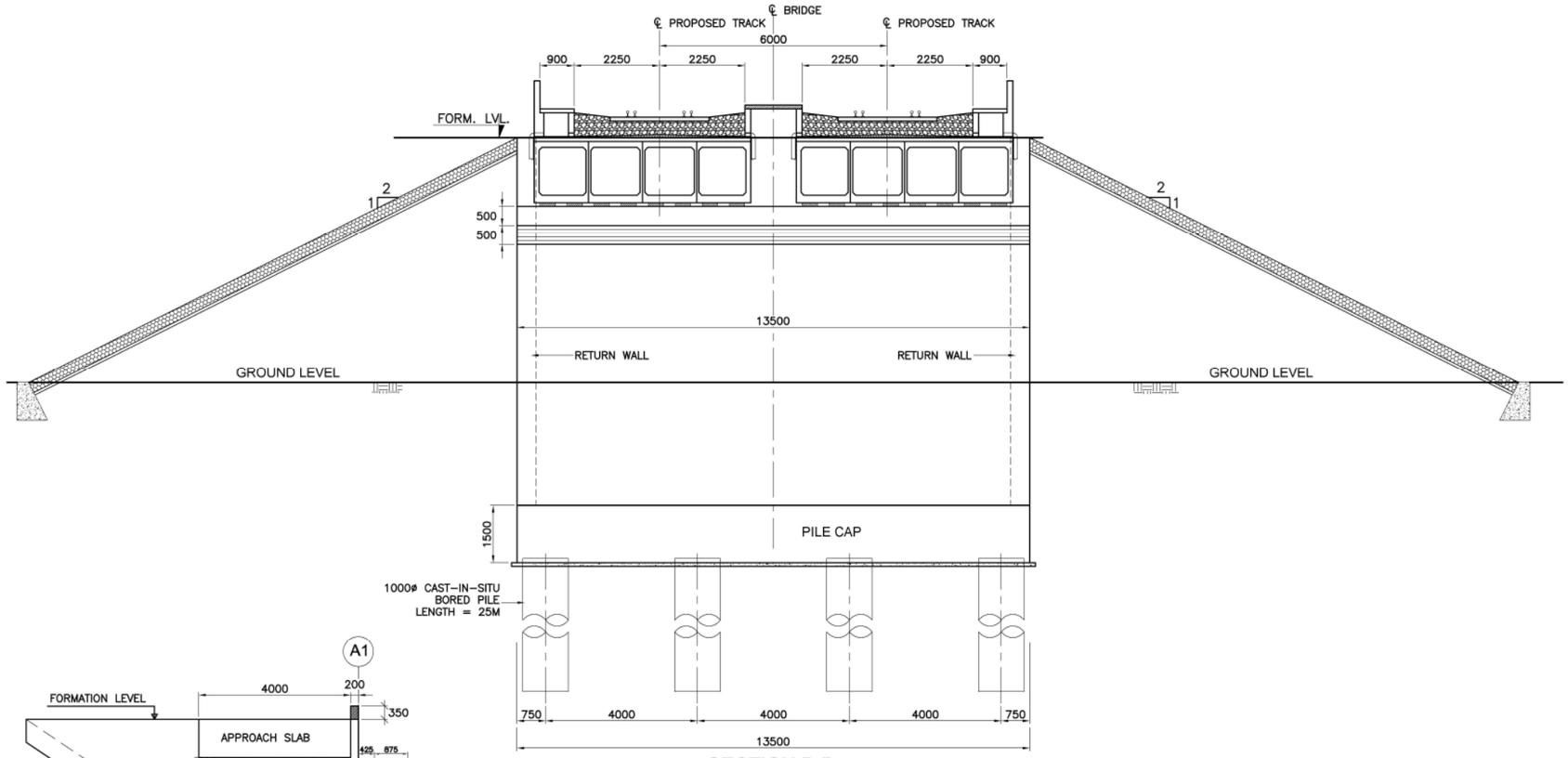
Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

DFCC NEW DELHI

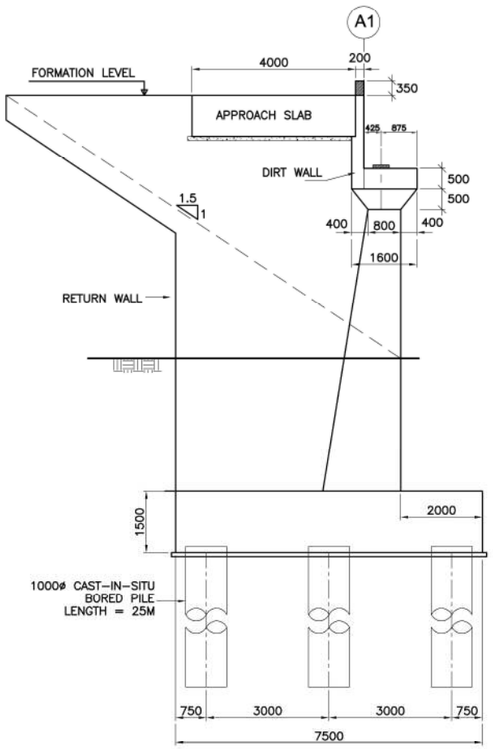
NK CONSORTIUM NJPI

Project Title :	Client :	Drawing Title :	Drawing Number :	Consultant :
Dedicated Freight Corridor Project (Western Corridor Phase-1: Rewari - Vadodara Section)	DFCC Dedicated Freight Corridor Corporation of India (A GOVERNMENT OF INDIA UNDERTAKING) 5th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA	TYPICAL DRAWING OF MAJOR BRIDGE NO. 369B, 386A & 474A FOR SPAN 1X12.20m. PRESTRESSED CONTIGUOUS BOX	NKC -CTS -BRD -VD -00024 (SHEET 1 OF 2)	NK Consortium 4th Floor, Pragati Maidan Metro Station Building, New Delhi-110001, INDIA
			Scale : AS SHOWN	
			Reference : GAD PREPARED BY CPM VADODARA	
			Drawn By : / /	Checked By : / / Approved By : / /

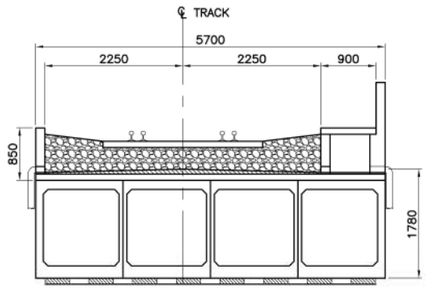
V-4-2-238



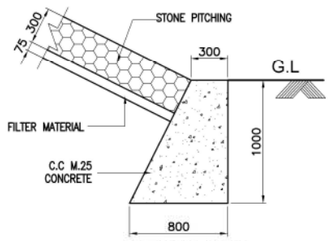
SECTION B-B
(SCALE 1:75)



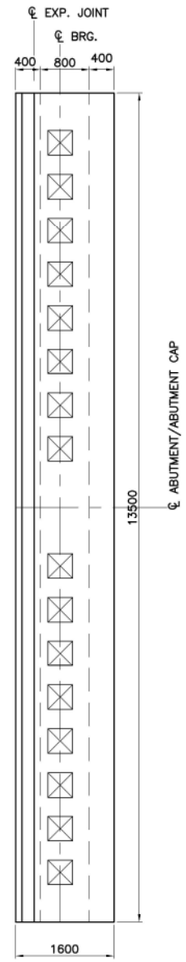
DETAIL OF ABUTMENT - A1
(SCALE 1:75)



12.2m SPAN (PRESTRESSED CONTIGUOUS BOX)
(SCALE 1:50)



DETAIL X-X
(SCALE 1:25)



PLAN AT ABUTMENT CAP LEVEL
(SCALE 1:50)

Sec. No.	Structure Chainage	Proposed Bridge No.	Formation Level (m)	Ground Level (m)	Bed Level (m)	Clear Spans	Type of Structure	Type of Crossing	Structure configuration	No. of Tracks
5	176,780	369B	41.429	36.531	33.531	1 x 12.2 m	Major Bridge	Pond	Prestressed Contiguous Box	2
5	181,500	386A	40.710	33.939	30.939	1 x 12.2 m	Major Bridge	Pond	Prestressed Contiguous Box	2
5	201,114	474A	36.842	30.893	27.893	1 x 12.2 m	Major Bridge	Pond	Prestressed Contiguous Box	2

Formation width of 13.5m to be read as 13.86m & respective dimensons are to be corrected according by the Bidder

Project Title :
Dedicated Freight Corridor Project
(Western Corridor Phase-1:
Rewari - Vadodara Section)

Client :
Dedicated Freight Corridor Corporation of India
(A GOVERNMENT OF INDIA UNDERTAKING)
5th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA

Drawing Title :
TYPICAL DRAWING OF MAJOR BRIDGE
NO. 369B, 386A & 474A
FOR SPAN 1X12.20m.
PRESTRESSED CONTIGUOUS BOX

Drawing Number : NKC -CTS -BRD -VD -00024 (SHEET 2 OF 2)
Scale : AS SHOWN
Reference : GAD PREPARED BY CPM VADODARA
Drawn By : / /
Checked By : / /
Approved By : / /

Consultant :
NK Consortium
4th Floor, Pragati Maidan Metro Station Building,
New Delhi-110001, INDIA