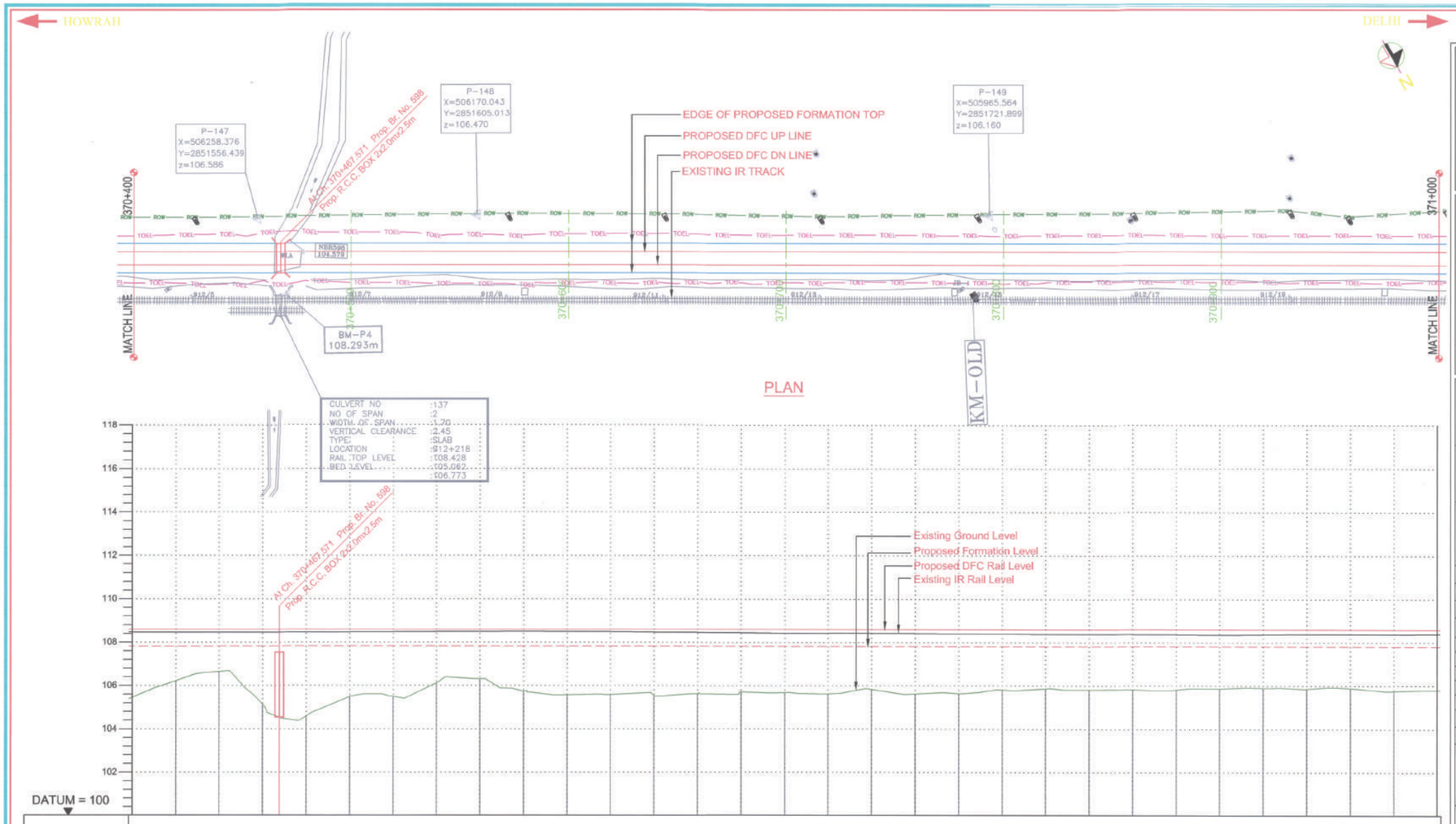
HOWRAH ← → DELHI

SECTION-B-202



LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 370+400 TO CH. 371+000

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 4	E	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO.-PMCS/EDFC2/LTT/2015/570DATED23.11.15

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	27.11.2015	A.Das	
CHKD.	27.11.2015	SP	
APPD.	27.11.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	27.11.2015	Y. Wadhwa	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	7.12.15	S. S. PATEL	
NOC	7.12.15	P. AMERS KANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	15/12/15	R. YADAV	

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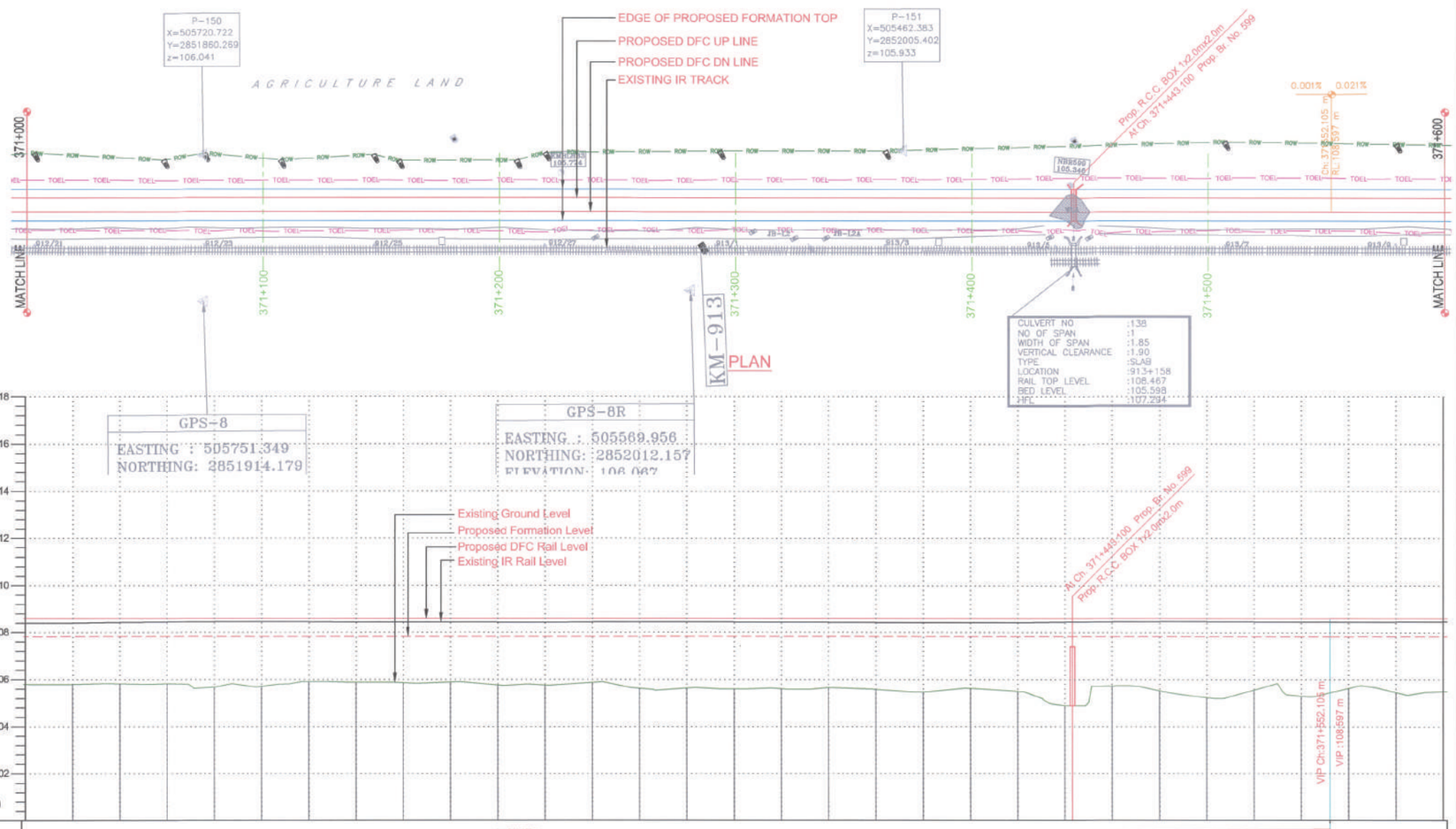
Nov 29, 2015 - 11:43am (2) PP_Km 362+000 to Km 377+000_REV-E.dwg

HOWRAH ← → DELHI

SECTION-B-202



VERTICAL ALIGNMENT: L=1352.105m G=0.001% ; L=1047.855m G=0.021%

HORIZONTAL ALIGNMENT

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
371+000	16.078	108.397	+2.225	108.599	107.819	105.793		
371+020	16.133	108.402	+2.224	108.590	107.819	105.795		
371+040	16.129	108.43	+2.023	108.590	107.819	105.816		
371+060	16.159	108.451	+2.024	108.590	107.819	105.815		
371+080	16.181	108.459	+2.149	108.591	107.820	105.672		
371+100	16.139	108.462	+2.173	108.591	107.820	105.707		
371+120	16.153	108.457	+1.919	108.591	107.820	105.905		
371+140	16.159	108.438	+1.944	108.591	107.820	105.876		
371+160	16.095	108.442	+1.964	108.592	107.821	105.887		
371+180	15.142	108.45	+1.934	108.592	107.821	105.887		
371+200	15.116	108.437	+2.081	108.592	107.821	105.760		
371+220	16.121	108.434	+2.087	108.593	107.822	105.755		
371+240	16.118	108.448	+1.857	108.593	107.822	105.885		
371+260	16.153	108.445	+2.101	108.593	107.822	105.629		
371+280	15.151	108.452	+2.161	108.593	107.822	105.642		
371+300	15.157	108.447	+2.118	108.594	107.823	105.605		
371+320	16.19	108.437	+2.209	108.594	107.823	105.614		
371+340	16.142	108.438	+2.194	108.594	107.823	105.659		
371+360	16.154	108.433	+2.239	108.595	107.823	105.685		
371+380	16.159	108.419	+2.259	108.595	107.823	105.469		
371+400	15.151	108.42	+2.194	108.595	107.823	105.630		
371+420	15.15	108.418	+2.323	108.595	107.823	105.502		
371+440	16.138	108.447	+2.325	108.595	107.823	104.699		
371+460	16.149	108.462	+2.267	108.596	107.824	105.728		
371+480	16.156	108.471	+2.289	108.596	107.824	105.527		
371+500	16.158	108.471	+2.291	108.597	107.825	105.255		
371+520	16.134	108.458	+2.270	108.597	107.825	105.556		
371+540	16.129	108.448	+2.329	108.597	107.825	105.289		
371+560	16.159	108.453	+2.300	108.598	107.824	105.529		
371+580	16.196	108.457	+2.276	108.603	107.832	105.457		
371+600	16.21	108.469	+2.341	108.607	107.836	105.465		

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 371+000 TO CH. 371+600

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 5	E	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO.-PMC/S/EDFC/2/LT/2015/570DATED23.11.15

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	27.11.2015	A.Das	
CHKD.	27.11.2015	SP	
APPD.	27.11.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	27.11.2015	Y. Wadhwa	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	7.12.15	S.S. PATEL	
NOC	7.12.15	P. AMERISHANAS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	18/12/15	R. YADAV	

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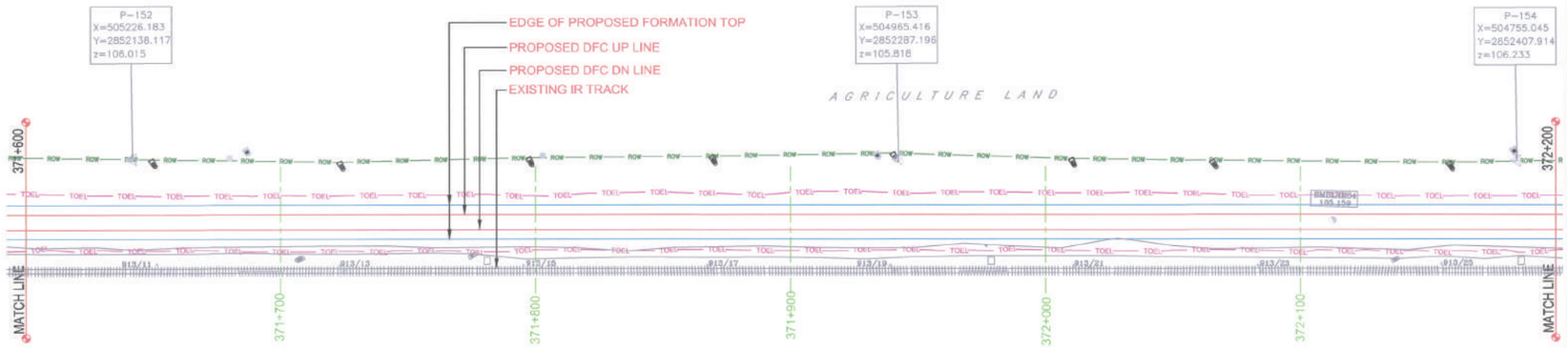
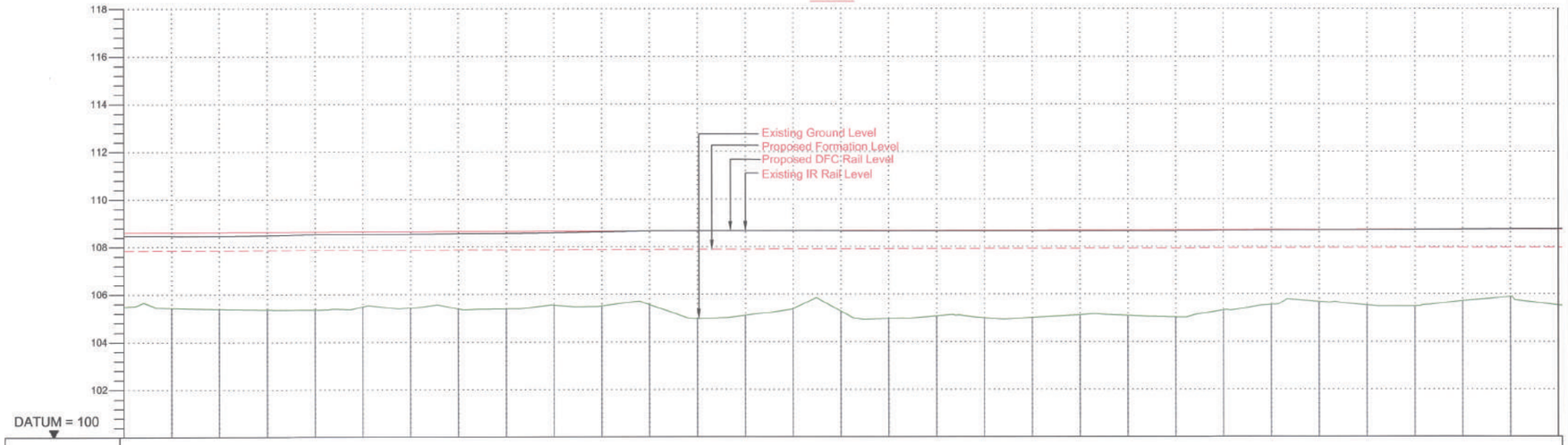
Nov 26, 2015 - 11:44am (2) PP_Km 362+000 to Km 377+000_REV-E.dwg

HOWRAH ← → DELHI

SECTION–B–202



PLAN



VERTICAL ALIGNMENT: L=1947.885m, G=0.021%

HORIZONTAL ALIGNMENT

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
371+600	16.21	108.489	+2.341	108.637	107.836	105.495
371+620	16.189	108.464	+2.402	108.611	107.848	105.437
371+640	16.193	108.461	+2.401	108.611	107.844	105.383
371+660	16.158	108.489	+2.400	108.620	107.849	105.359
371+680	16.171	108.519	+2.485	108.634	107.855	105.369
371+700	16.155	108.551	+2.374	108.629	107.855	105.493
371+720	16.178	108.541	+2.423	108.635	107.865	105.438
371+740	16.167	108.56	+2.477	108.639	107.865	105.388
371+760	16.17	108.565	+2.450	108.640	107.865	105.389
371+780	16.175	108.584	+2.325	108.644	107.867	105.548
371+800	16.169	108.629	+2.364	108.649	107.867	105.513
371+820	16.182	108.66	+2.377	108.653	107.869	105.565
371+840	16.179	108.662	+2.316	108.657	107.869	104.970
371+860	16.165	108.666	+2.776	108.661	107.869	105.112
371+880	16.181	108.657	+2.506	108.663	107.869	105.385
371+900	16.189	108.656	+2.525	108.669	107.869	105.275
371+920	16.187	108.657	+2.302	108.672	107.870	104.970
371+940	16.178	108.658	+2.330	108.677	107.870	105.076
371+960	16.181	108.654	+2.310	108.681	107.870	105.000
371+980	16.181	108.658	+2.302	108.685	107.870	105.012
372+000	16.167	108.657	+2.302	108.690	107.870	105.117
372+020	16.172	108.657	+2.325	108.694	107.870	105.068
372+040	16.17	108.663	+2.339	108.699	107.870	105.035
372+060	16.160	108.687	+2.612	108.702	107.870	105.319
372+080	16.165	108.663	+2.362	108.706	107.870	105.563
372+100	16.154	108.666	+2.258	108.710	107.870	105.881
372+120	16.137	108.711	+2.405	108.714	107.870	105.534
372+140	16.146	108.718	+2.412	108.718	107.870	105.505
372+160	16.149	108.726	+2.229	108.722	107.870	105.712
372+180	16.154	108.714	+2.357	108.727	107.870	105.369
372+200	16.167	108.75	+2.421	108.731	107.870	105.339

CANT (mm)

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 371+600 TO CH. 372+200

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 6	E	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO.-PMC/S/DFC2/LTT/2015/573DATED23.11.15

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	27.11.2015	A.Das	
CHKD.	27.11.2015	SP	
APPD.	27.11.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	27.11.2015	Y. Wadhwa	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	7.12.15	S. S PATEL	
NOC	7.12.15	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	15.12.15	R. YADAV	

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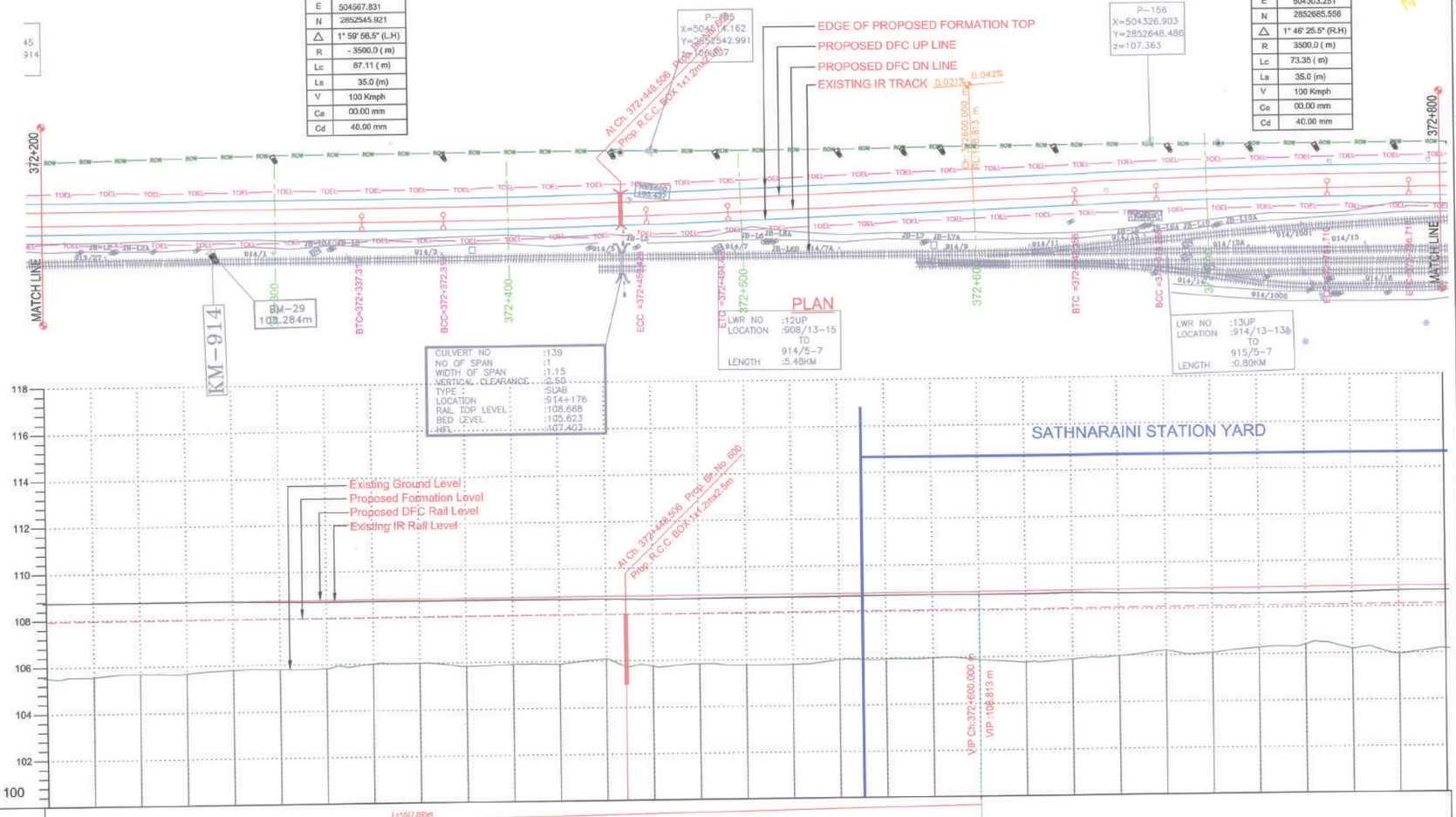
Nov 29, 2015 – 11:45am (2) PP_Km 372+000 to Km 371+000_REV-E.dwg

HOWRAH ← → DELHI

SECTION-B-202

HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 05	
HIP CH : 372+415.9 Km	
E	504567.831
N	2852545.921
△	1° 59' 56.5" (L.H)
R	- 3500.0 (m)
Lc	87.11 (m)
Ls	35.0 (m)
V	100 Kmph
Ce	00.00 mm
Cd	40.00 mm

HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 06	
HIP CH : 372+715.0 Km	
E	504303.251
N	2852685.558
△	1° 46' 25.5" (R.H)
R	3500.0 (m)
Lc	73.35 (m)
Ls	35.0 (m)
V	100 Kmph
Ce	00.00 mm
Cd	40.00 mm



VERTICAL ALIGNMENT: L=1047.895m G=0.021% | L=1884.479m G=0.042%

HORIZONTAL ALIGNMENT: L=35.00m | R=-3500.00m L=87.114m | L=35.00m | L 148.93m | L=35.00m | R=3500.00m L=73.352m | L=35.00m

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)
372+200	16.167	108.75	+2.421	108.731	107.960	105.539	
372+220	16.165	108.759	+2.405	108.739	107.964	105.594	
372+240	16.131	108.762	+2.374	108.729	107.966	105.694	
372+260	16.129	108.759	+2.357	108.742	107.967	105.685	
372+280	16.131	108.744	+2.177	108.747	107.970	105.799	
372+300	16.126	108.716	+2.117	108.751	107.969	105.807	
372+320	16.135	108.688	+2.159	108.752	107.969	105.554	
372+340	16.181	108.688	+1.965	108.756	107.969	106.004	Cant = 0.000 Cant Def = 0.000
372+360	16.135	108.682	+1.970	108.754	107.967	106.015	
372+380	16.229	108.678	+2.152	108.756	107.967	105.845	Cant = 0.000 Cant Def = 40.000
372+400	16.363	108.676	+2.005	108.777	108.004	105.905	
372+420	16.681	108.67	+2.111	108.775	108.005	105.894	
372+440	17.131	108.658	+1.907	108.765	108.004	106.102	
372+460	17.618	108.633	+2.241	108.764	108.219	105.764	Cant = 0.000 Cant Def = 40.000
372+480	18.26	108.652	+2.169	108.762	108.217	105.848	
372+500	18.969	108.672	+2.251	108.762	108.224	105.788	Cant = 0.000 Cant Def = 0.000
372+520	19.873	108.671	+2.254	108.761	108.226	105.771	
372+540	20.351	108.674	+2.092	108.801	108.303	105.950	
372+560	21.101	108.69	+2.073	108.805	108.334	105.981	
372+580	21.762	108.705	+2.257	108.859	108.338	105.891	
372+600	22.495	108.693	+2.154	108.813	108.343	105.883	
372+620	22.801	108.698	+2.293	108.821	108.355	105.727	
372+640	22.19	108.728	+2.193	108.832	108.355	105.866	Cant = 0.000 Cant Def = 0.000
372+660	21.237	108.685	+2.089	108.838	108.355	105.981	
372+680	20.11	108.679	+1.871	108.847	108.375	106.137	Cant = 0.000 Cant Def = 40.000
372+700	18.894	108.637	+2.037	108.855	108.353	106.084	
372+720	17.689	108.513	+1.815	108.853	108.325	106.278	
372+740	16.731	108.515	+1.669	108.872	108.319	106.423	
372+760	15.843	108.543	+1.910	108.891	108.311	106.200	Cant = 0.000 Cant Def = 40.000
372+780	15.651	108.598	+2.115	108.885	108.311	105.968	Cant = 0.000 Cant Def = 0.000
372+800	14.342	108.698	+1.945	108.898	108.327	106.162	

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 372+200 TO CH. 372+800

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 7	E	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO.-PMC/B/EDFC/2/LTT/2015/570DATED23.11.15

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.
REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.
OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	27.11.2015	A.Das	
CHKD.	27.11.2015	SP	
APPD.	27.11.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	27.11.2015	Y. Wadhwa	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	7.12.15	S. S. PATEL	
NOC	7.12.15	P. AMERIKANAS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	19/12/15	R. YADAV	

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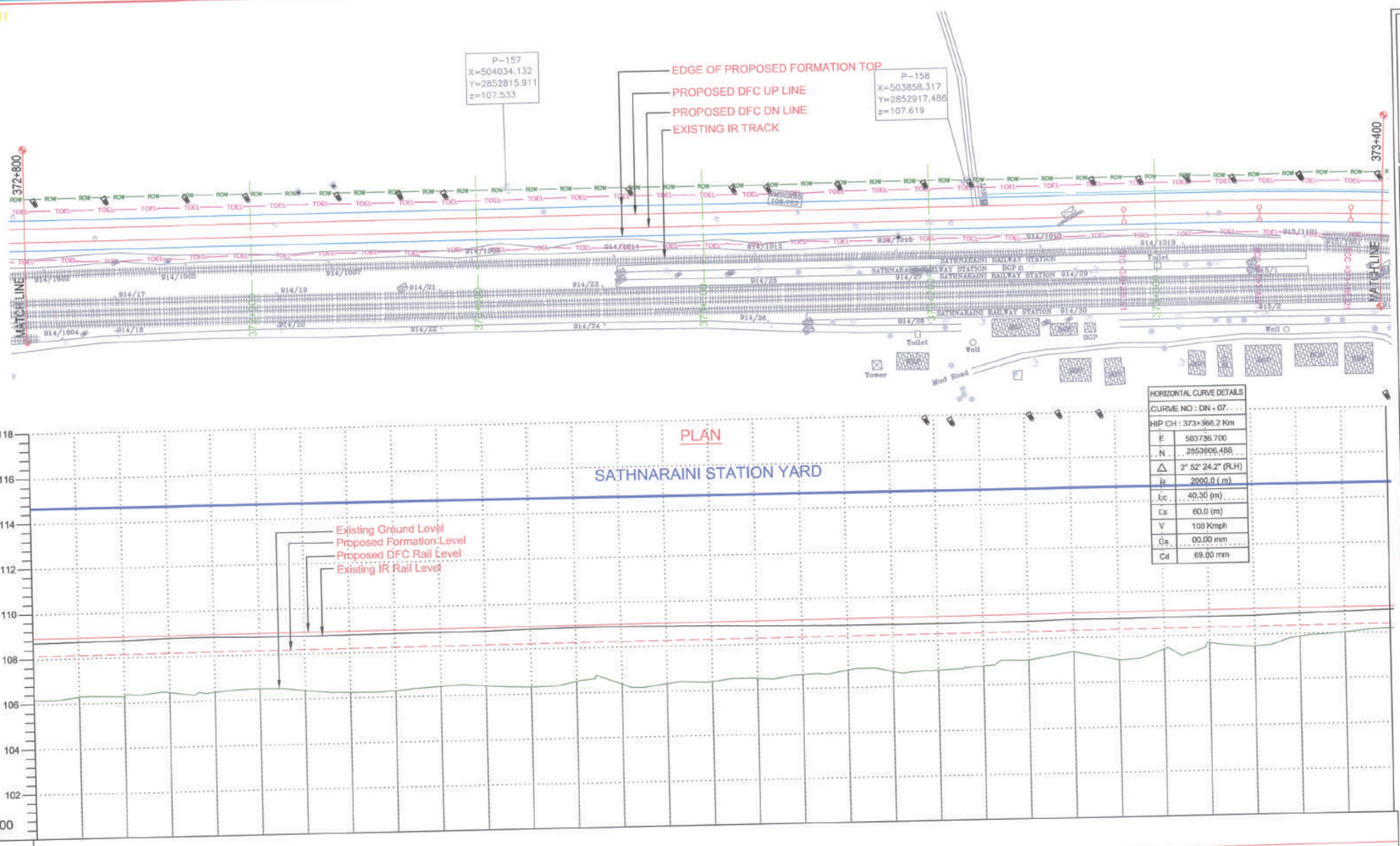
Nov 29, 2015 - 11:46am (2) PP_Km 362+000 to Km 377+000_REV-E.dwg

SECTION–B–202

HOWRAH ← → DELHI



HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 07	
HIP CH : 373+366.2 Km	
E	503736.700
N	2853006.488
Δ	2° 52' 24.2" (R.H)
R	2000.0 (m)
Lc	40.30 (m)
Ls	60.0 (m)
V	100 Kmph
Ca	00.00 mm
Cd	69.00 mm

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 372+800 TO CH. 373+400

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 8	E	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO.-PMC5/EDFC2/LTT/2015/578DATED23.11.15

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	27.11.2015	A.Das	
CHKD.	27.11.2015	SP	
APPD.	27.11.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	27.11.2015	Y. Wadhwa	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	7.12.15	S. S. PATEL	
NOC	7.12.15	P. AMERI KANAS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	19/12/15	R. YADAV	

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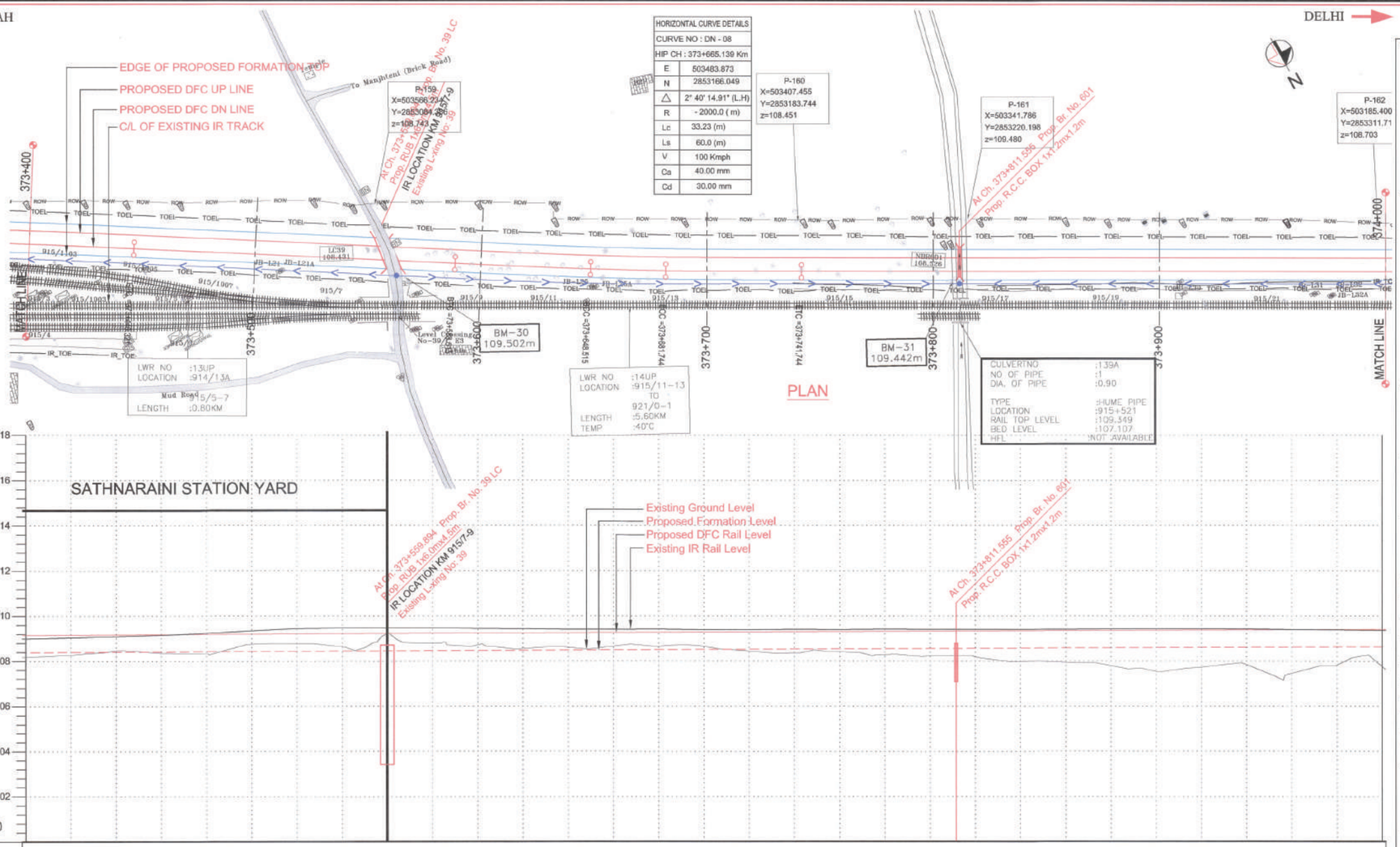
Nov 29, 2015 – 11:46am (2) PP_Km 362+000 to Km 377+000_REV-E.dwg

HOWRAH ← → DELHI

SECTION–B–202



HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 08	
HIP CH : 373+665.139 Km	
E	503483.873
N	2853166.049
△	2° 40' 14.91" (L.H)
R	- 2000.0 (m)
Lc	33.23 (m)
Ls	60.0 (m)
V	100 Kmph
Ca	40.00 mm
Cd	30.00 mm

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 373+400 TO CH. 374+000

DRAWING NO.	REV	SCALE
P 2 AL 0 7 4 9	F	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO. PMC/SE/DFC2/LTT/2015/570 DATED 23.11.2015.
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	28.08.2015	A. DHAR	
CHKD.	28.08.2015	S.P.	
APPD.	28.08.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	14.12.2015	Y. WADHWA	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	14.12.2015	Komal Sharma	
NOC	14.12.2015	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	15/12/15	R. YADAV	

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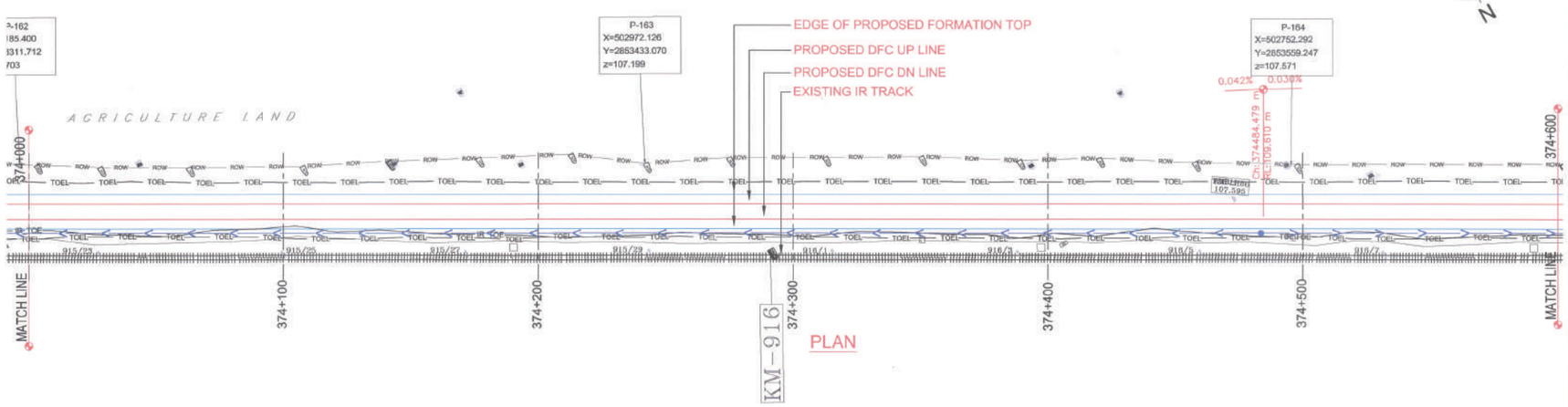
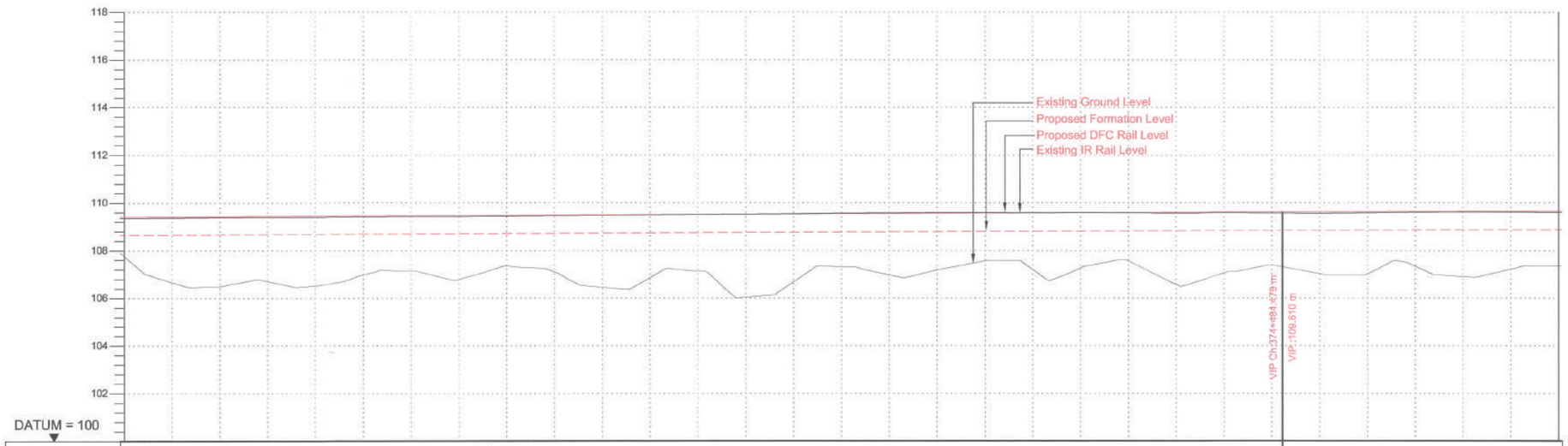
HOWRAH ← → DELHI

SECTION–B–202





VERTICAL ALIGNMENT: L=1884.479m, G=0.042%

HORIZONTAL ALIGNMENT

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
374+000	14.967	109.368	+1.011	109.405	108.894	107.823
374+020	14.965	109.371	+1.879	109.413	108.942	109.783
374+040	14.964	109.388	+2.139	109.422	108.959	109.543
374+060	15.002	109.385	+1.903	109.430	108.959	109.739
374+080	14.982	109.402	+2.145	109.439	108.968	109.528
374+100	14.987	109.416	+1.854	109.447	108.977	107.022
374+120	14.980	109.427	+1.435	109.455	108.985	107.249
374+140	14.980	109.423	+1.203	109.464	108.993	109.773
374+160	14.982	109.438	+1.325	109.473	109.702	107.377
374+180	15.039	109.455	+1.603	109.481	109.711	107.105
374+200	15.037	109.466	+2.259	109.489	109.719	106.459
374+220	14.980	109.491	+1.962	109.498	109.727	106.865
374+240	14.938	109.512	+1.599	109.506	109.735	107.138
374+260	14.963	109.514	+2.652	109.515	109.743	106.002
374+280	14.974	109.539	+2.042	109.523	109.752	106.710
374+300	14.983	109.56	+1.441	109.532	109.761	107.320
374+320	14.984	109.568	+1.822	109.540	109.769	106.947
374+340	14.997	109.588	+1.591	109.548	109.778	107.187
374+360	14.998	109.583	+1.212	109.557	109.786	107.574
374+380	15.021	109.579	+1.553	109.565	109.795	107.242
374+400	14.995	109.59	+1.482	109.574	109.803	107.321
374+420	15.024	109.58	+1.198	109.582	109.811	107.613
374+440	14.995	109.572	+2.151	109.591	109.820	106.869
374+460	14.998	109.577	+1.677	109.599	109.828	107.151
374+480	15.002	109.572	+1.425	109.609	109.837	107.412
374+500	14.996	109.561	+1.782	109.618	109.845	107.051
374+520	15.018	109.582	+1.832	109.626	109.854	107.017
374+540	15.069	109.604	+1.418	109.635	109.862	107.427
374+560	15.061	109.61	+1.563	109.644	109.871	108.098
374+580	15.016	109.609	+1.555	109.653	109.879	107.312
374+600	15.013	109.602	+1.502	109.662	109.888	107.365

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 374+000 TO CH. 374+600

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 0	F	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO. PMC/SE/DFC2/LTT/2015/570 DATED 23.11.2015.
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	28.08.2015	A. DHAR	
CHKD.	28.08.2015	S.P.	
APPD.	28.08.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	14.12.2015	Y. WADHWA	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	14.12.2015	Komal Sharma	
NOC	14.12.2015	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	19/12/15	R. YADAV	

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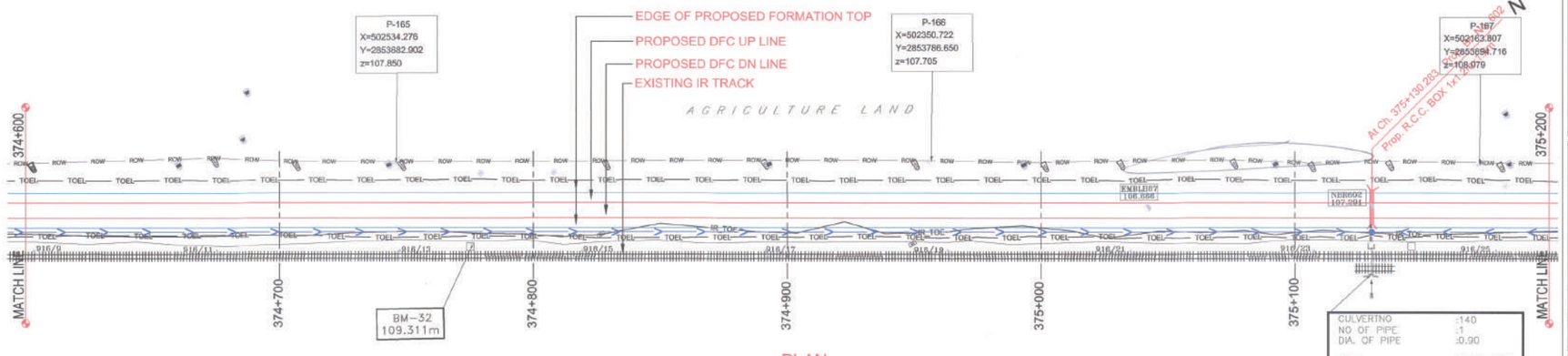
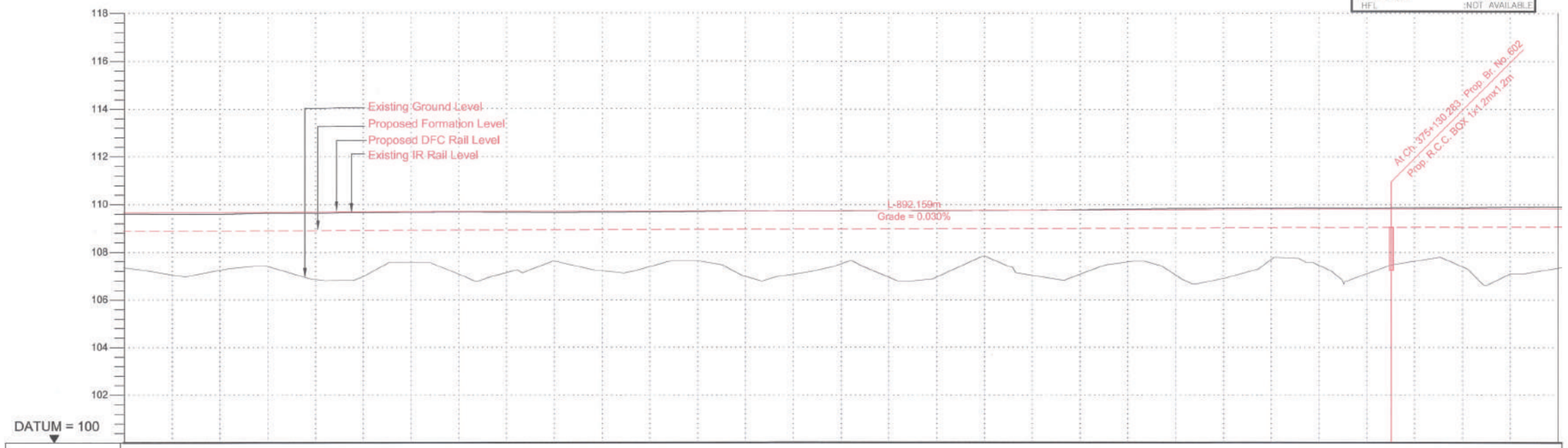
HOWRAH ← → DELHI

SECTION–B–202



PLAN

CULVERTNO	:140
NO OF PIPE	:1
DIA. OF PIPE	:0.90
TYPE	:HUME PIPE
LOCATION	:916+888
RAIL TOP LEVEL	:109.805
BED LEVEL	:107.569
HFL	:NOT AVAILABLE



VERTICAL ALIGNMENT: L=892.159m G=0.030%

HORIZONTAL ALIGNMENT

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
374+600	15.013	106.802	+1.347	106.844	108.873	107.369
374+620	15.004	106.598	+1.804	106.650	108.879	107.375
374+640	15.011	106.591	+1.819	106.650	108.889	107.266
374+660	15.019	106.639	+1.439	106.692	108.891	107.458
374+680	15.008	106.633	+1.911	106.689	108.897	106.986
374+700	14.999	106.648	+1.917	106.674	108.903	106.986
374+720	15.016	106.653	+1.393	106.680	108.909	107.549
374+740	15.025	106.669	+1.845	106.686	108.915	107.070
374+760	15.010	106.66	+1.753	106.672	108.921	107.168
374+780	15.027	106.653	+1.302	106.668	108.927	107.625
374+800	15.017	106.661	+1.672	106.704	108.933	107.261
374+820	15.006	106.674	+1.541	106.710	108.939	107.395
374+840	15.111	106.689	+1.284	106.715	108.944	107.660
374+860	15.080	106.71	+1.507	106.721	108.950	107.023
374+880	15.083	106.72	+1.624	106.727	108.956	107.132
374+900	15.083	106.723	+1.439	106.733	108.962	107.528
374+920	15.079	106.736	+1.583	106.739	108.968	106.965
374+940	15.060	106.728	+1.675	106.745	108.974	106.099
374+960	15.077	106.75	+1.526	106.751	108.980	107.354
374+980	15.055	106.76	+1.648	106.757	108.986	107.137
375+000	15.046	106.762	+1.805	106.763	108.992	107.187
375+020	15.010	106.805	+1.131	106.769	108.998	107.881
375+040	15.038	106.83	+1.717	106.775	109.004	107.287
375+060	15.067	106.835	+1.580	106.781	109.010	107.090
375+080	15.039	106.844	+1.355	106.787	109.016	107.553
375+100	15.077	106.852	+1.641	106.793	109.022	107.481
375+120	15.048	106.847	+1.901	106.799	109.028	107.127
375+140	15.045	106.863	+1.436	106.805	109.034	107.596
375+160	15.047	106.863	+1.647	106.811	109.040	107.393
375+180	15.045	106.861	+1.955	106.817	109.046	107.096
375+200	15.024	106.858	+1.937	106.823	109.052	107.442

CANT (mm)

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
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10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 374+600 TO CH. 375+200

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 1	F	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO. PMC/S/EDFC2/LTT/2015/570 DATED 23.11.2015.
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/ENPMC/PRO-2/281/56 DATED 10.12.2015

DRAWING STAGE

☑ FOR APPROVAL

☐ GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	28.08.2015	A. DHAR	
CHKD.	28.08.2015	S.P.	
APPD.	28.08.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	14.12.2015	Y. WADHWA	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	14.12.2015	Kamal Sharma	
NOC	14.12.2015	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	19/12/15	R. YADAV	

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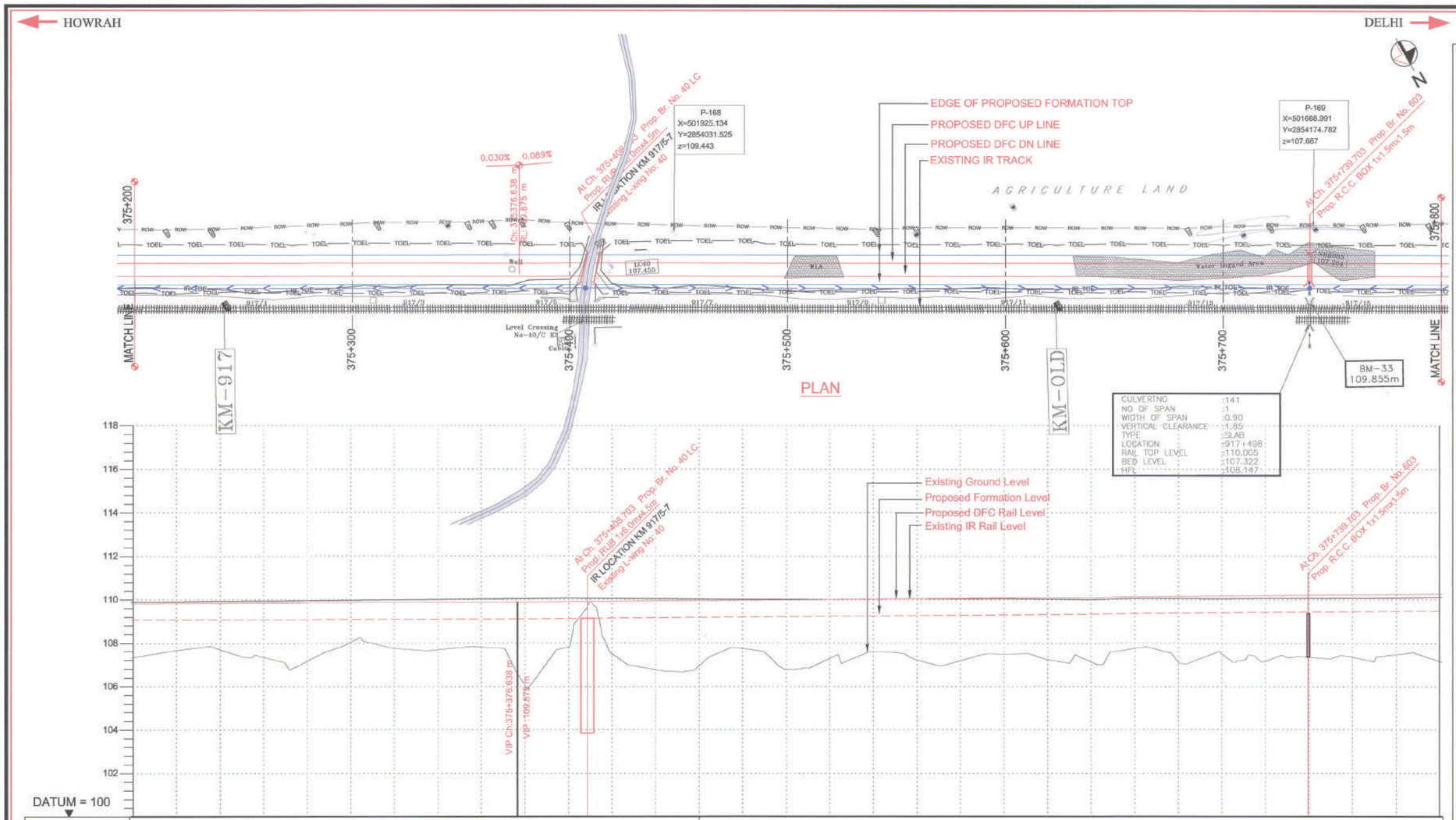
HOWRAH ← → DELHI

SECTION–B–202



VERTICAL ALIGNMENT	L=892.159m G=0.030% ; L=800.000m G=0.089%
HORIZONTAL ALIGNMENT	L 3550.23m

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
375+200	15.034	109.896	+1.150/1	109.823	103.092	107.443		←
375+220	15.038	109.909	+1.304/1	109.828	103.057	107.693		←
375+240	15.027	109.936	+1.355/1	109.824	103.054	107.708		←
375+260	15.045	109.945	+1.559/1	109.847	103.069	107.513		←
375+280	15.026	109.954	+1.850/1	109.846	103.079	107.185		←
375+300	15.030	109.975	+0.028/1	109.852	103.081	106.173		←
375+320	15.020	109.989	+1.332/1	109.858	103.087	107.735		←
375+340	15.022	110.008	+1.375/1	109.864	103.093	107.718		←
375+360	15.031	110.033	+1.290/1	109.870	103.099	107.809		←
375+380	15.024	110.036	+3.137/1	109.876	103.107	105.970		←
375+400	15.012	110.065	+1.662/1	109.890	103.125	108.063		←
375+420	15.009	110.047	+1.595/1	109.914	103.143	107.548		>
375+440	15.002	110.029	+2.203/1	109.931	103.169	108.857		>
375+460	15.008	110.018	+2.071/1	109.946	103.179	107.107		>
375+480	14.994	110.01	+1.470/1	109.967	103.199	107.746		>
375+500	15.011	110.014	+2.445/1	109.985	103.214	106.769		>
375+520	15.004	110.009	+1.898/1	110.003	103.224	107.334		>
375+540	15.015	110.026	+1.669/1	110.020	103.244	107.693		>
375+560	15.020	110.037	+2.115/1	110.039	103.257	107.252		>
375+580	15.013	110.04	+2.083/1	110.056	103.285	107.202		>
375+600	15.010	110.049	+1.759/1	110.074	103.303	107.505		>
375+620	15.015	110.034	+1.659/1	110.091	103.323	107.361		>
375+640	15.022	110.016	+2.140/1	110.109	103.335	107.198		>
375+660	15.027	110.044	+1.601/1	110.127	103.335	107.755		>
375+680	15.025	110.05	+2.224/1	110.145	103.374	107.150		>
375+700	15.019	110.037	+1.733/1	110.163	103.392	107.609		>
375+720	15.010	110.059	+2.162/1	110.180	103.429	107.247		>
375+740	15.023	110.059	+2.055/1	110.198	103.474	107.372		>
375+760	15.029	110.069	+2.095/1	110.216	103.445	107.350		<
375+780	15.032	110.076	+1.664/1	110.234	103.463	107.485		<
375+800	15.046	110.106	+2.392/1	110.252	103.481	107.179		<

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOE — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 375+200 TO CH. 375+800

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 2	F	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
B	01.10.2015	FOR REVIEW
C	02.11.2015	FOR REVIEW
D	09.11.2015	PROFILE MODIFIED
E	26.11.2015	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2015/570 DATED 23.11.2015.
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015

DRAWING STAGE

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	28.08.2015	A. DHAR	
CHKD.	28.08.2015	S.P.	
APPD.	28.08.2015	S.K. AICH	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.			
APPD.	14.12.2015	Y. WADHWA	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	14.12.2015	Komal Sharma	
NOC	14.12.2015	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	19/12/15	R. YADAV	

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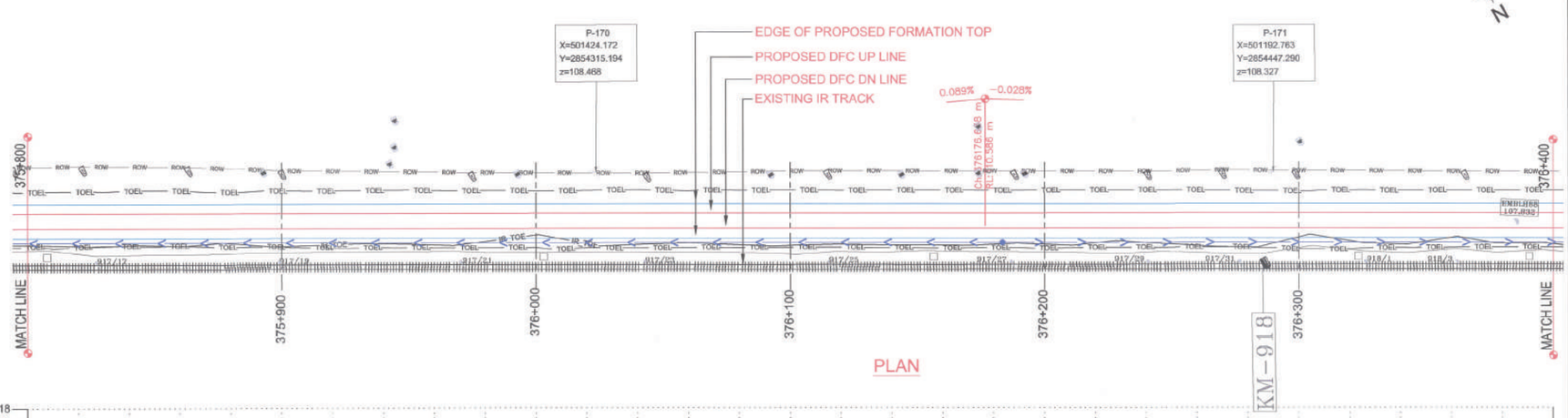
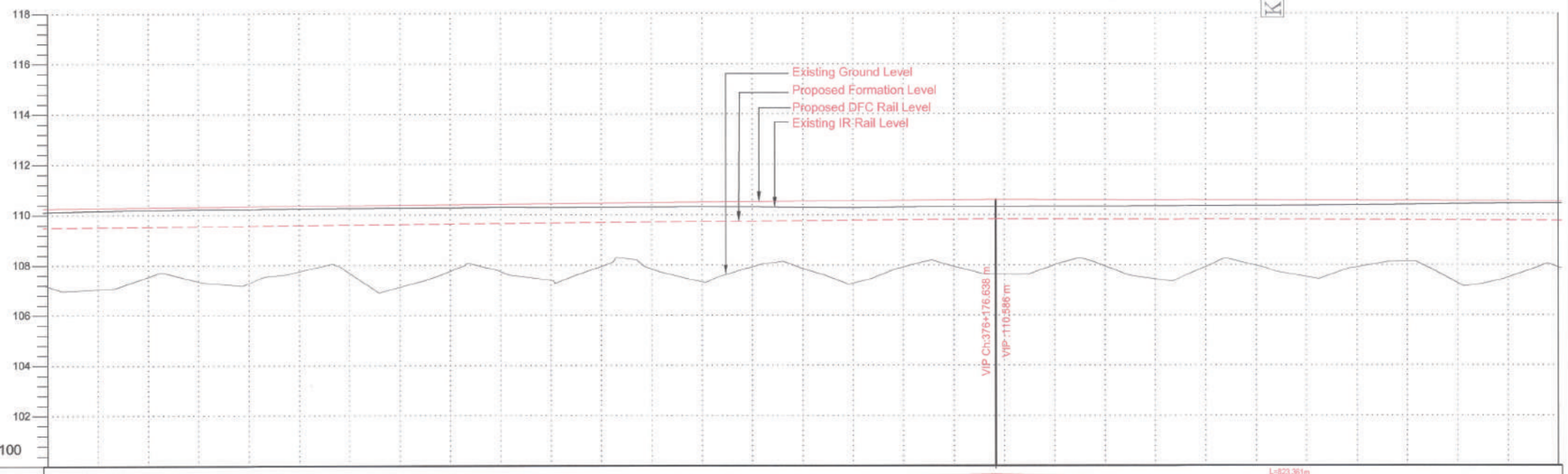
HOWRAH ← → DELHI

SECTION–B–202



PLAN



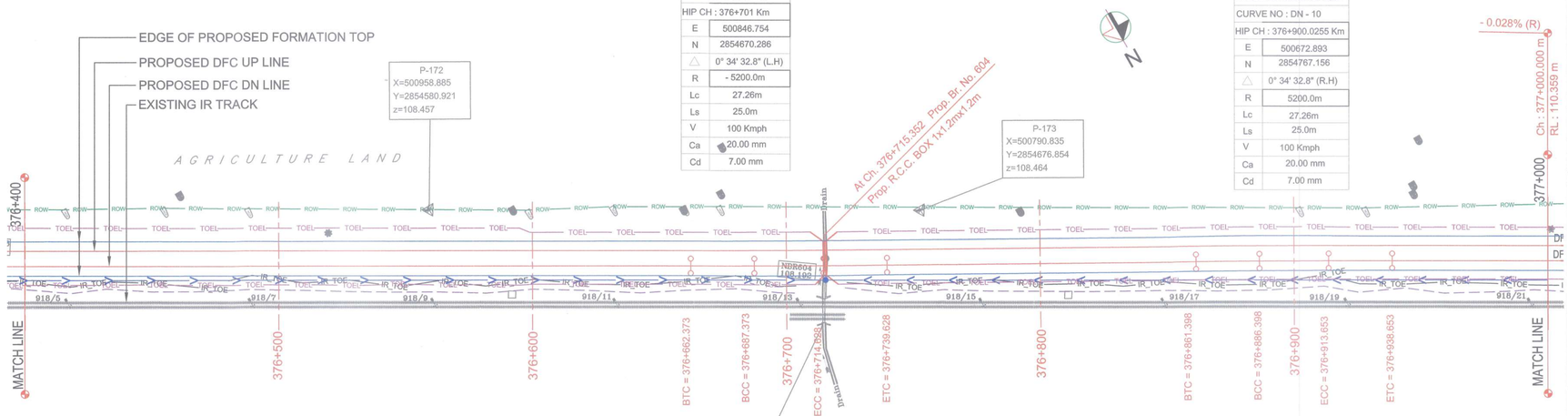
VERTICAL ALIGNMENT	L=800.000m G=0.089% ; L=823.361m G=-0.028%
HORIZONTAL ALIGNMENT	
OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	15.046, 15.049, 15.051, 15.055, 15.063, 15.069, 15.060, 15.074, 15.079, 15.090, 15.100, 15.096, 15.118, 15.118, 15.102, 15.094, 15.099, 15.105, 15.135, 15.094, 15.072, 15.072, 15.049, 15.051, 15.057, 15.082, 15.080, 15.079, 15.079, 15.065, 15.102
EXISTING IR RAIL LEVEL	110.108, 110.148, 110.196, 110.217, 110.217, 110.235, 110.259, 110.284, 110.273, 110.288, 110.283, 110.288, 110.295, 110.307, 110.307, 110.281, 110.276, 110.294, 110.314, 110.326, 110.329, 110.335, 110.342, 110.343, 110.349, 110.366, 110.373, 110.383, 110.418, 110.432, 110.44
FILL HEIGHT(+) / CUT DEPTH (-)	+2.330, +2.449, +1.966, +2.123, +2.197, +1.831, +1.779, +2.419, +1.842, +1.882, +2.233, +1.752, +1.825, +2.369, +1.777, +1.848, +2.510, +1.801, +1.825, +2.170, +1.630, +1.801, +2.333, +1.825, +1.827, +2.181, +1.916, +1.808, +2.405, +2.276, +1.792
PROPOSED RAIL LEVEL	110.252, 110.269, 110.287, 110.301, 110.323, 110.349, 110.359, 110.375, 110.394, 110.412, 110.429, 110.444, 110.465, 110.483, 110.501, 110.518, 110.539, 110.554, 110.572, 110.588, 110.585, 110.574, 110.565, 110.562, 110.558, 110.552, 110.541, 110.541, 110.536, 110.535, 110.525
PROPOSED FORMATION LEVEL	108.481, 108.499, 108.519, 108.534, 108.555, 108.568, 108.591, 108.605, 108.625, 108.64, 108.658, 108.675, 108.694, 108.717, 108.736, 108.753, 108.769, 108.787, 108.803, 108.815, 108.809, 108.804, 108.796, 108.795, 108.792, 108.791, 108.791, 108.791, 108.775, 108.775, 108.775, 108.775, 108.754
GROUND LEVEL	107.178, 107.350, 107.550, 107.411, 107.355, 107.736, 107.858, 107.186, 107.781, 107.759, 107.420, 107.924, 107.889, 107.323, 107.853, 107.899, 107.246, 107.862, 107.976, 107.637, 107.971, 108.022, 107.465, 107.937, 107.960, 107.600, 107.658, 108.162, 107.310, 107.461, 107.667
CANT (mm)	
FLOW DIRECTION OF DRAIN	← ← ←

HOWRAH ← → DELHI

SECTION-B-202

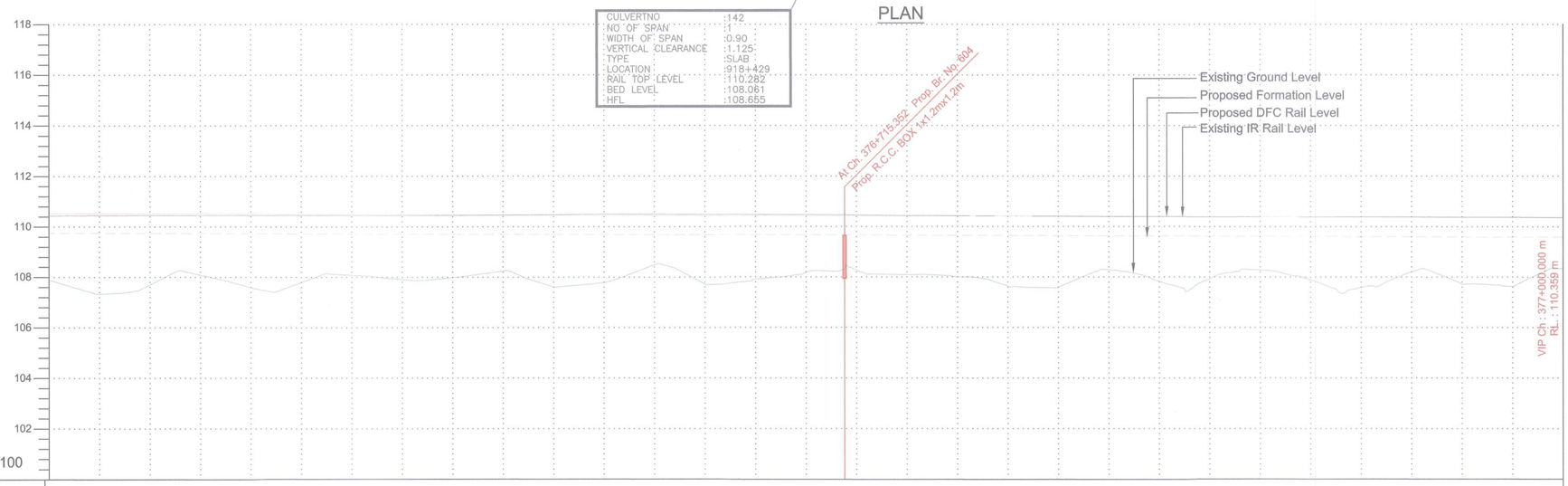
HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 09	
HIP CH : 376+701 Km	
E	500846.754
N	2854670.286
△	0° 34' 32.8" (L.H)
R	- 5200.0m
Lc	27.26m
Ls	25.0m
V	100 Kmph
Ca	20.00 mm
Cd	7.00 mm

HORIZONTAL CURVE DETAILS	
CURVE NO : DN - 10	
HIP CH : 376+900.0255 Km	
E	500672.893
N	2854767.156
△	0° 34' 32.8" (R.H)
R	5200.0m
Lc	27.26m
Ls	25.0m
V	100 Kmph
Ca	20.00 mm
Cd	7.00 mm



PLAN

CULVERTNO	:142
NO OF SPAN	:1
WIDTH OF SPAN	:0.90
VERTICAL CLEARANCE	:1.125
TYPE	:SLAB
LOCATION	:918+429
RAIL TOP LEVEL	:110.282
BED LEVEL	:108.081
HFL	:108.655



VERTICAL ALIGNMENT: L = 823.530m, G = - 0.028%

HORIZONTAL ALIGNMENT: Left Transition L=25.000; R=-5200.000 L=27.255; Left Transition L=25.000; L = 121.770; Right Transition L=25.000; R=5200.000 L=27.255; Right Transition L=25.000; L = 2491.059

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
376+400	15.134	110.44	+1.797	110.525	108.754	107.967
376+420	15.133	110.445	+2.396	110.519	108.748	107.352
376+440	15.133	110.451	+2.069	110.514	108.743	107.674
376+460	15.144	110.446	+1.669	110.508	108.737	108.078
376+480	15.156	110.445	+2.109	110.503	108.732	107.623
376+500	15.159	110.452	+1.881	110.497	108.726	107.935
376+520	15.146	110.451	+1.584	110.492	108.721	108.157
376+540	15.146	110.447	+1.737	110.486	108.715	107.978
376+560	15.171	110.45	+1.754	110.481	108.710	107.956
376+580	15.183	110.461	+1.455	110.475	108.704	108.249
376+600	15.189	110.462	+2.087	110.469	108.698	107.612
376+620	15.190	110.501	+1.905	110.464	108.693	107.788
376+640	15.195	110.501	+1.206	110.458	108.687	108.481
376+660	15.179	110.49	+1.957	110.453	108.682	107.725
376+680	15.195	110.462	+1.761	110.447	108.676	107.915
376+700	15.246	110.476	+1.492	110.442	108.671	108.178
376+720	15.405	110.463	+1.386	110.436	108.665	108.279
376+740	15.566	110.44	+1.559	110.431	108.66	108.101
376+760	15.759	110.428	+1.649	110.425	108.654	106.005
376+780	15.957	110.421	+1.967	110.420	108.649	107.652
376+800	16.166	110.406	+2.054	110.414	108.643	107.589
376+820	16.357	110.393	+1.351	110.409	108.638	108.287
376+840	16.561	110.39	+1.787	110.403	108.632	107.845
376+860	16.744	110.355	+1.692	110.398	108.627	107.934
376+880	16.928	110.391	+1.343	110.392	108.621	108.278
376+900	17.058	110.39	+1.725	110.387	108.616	107.891
376+920	17.101	110.393	+2.02	110.381	108.610	107.590
376+940	17.125	110.39	+1.394	110.376	108.605	108.211
376+960	17.132	110.378	+1.877	110.37	108.599	107.722
376+980	17.154	110.379	+1.962	110.365	108.594	107.632
377+000	17.140	110.364	+1.259	110.359	108.588	108.329

CANT (mm): Cant =0.000, Cant Def =0.000; Cant = 20.00, Cant Def = 7.00; Cant = 20.00, Cant Def = 7.00; Cant =0.000, Cant Def =0.000; Cant =0.000, Cant Def =0.000; Cant = 20.00, Cant Def = 7.00; Cant = 20.00, Cant Def = 7.00; Cant =0.000, Cant Def =0.000

FLOW DIRECTION OF DRAIN

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 376+400 TO CH. 377+000

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 4	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

☑ FOR APPROVAL

☐ GOOD FOR CONSTRUCTION

NO OBJECTION CERTIFICATE (NOC)

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	Reepak
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	~~KAMAL SHARMA~~ Suresh Patel	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.K. Manja	

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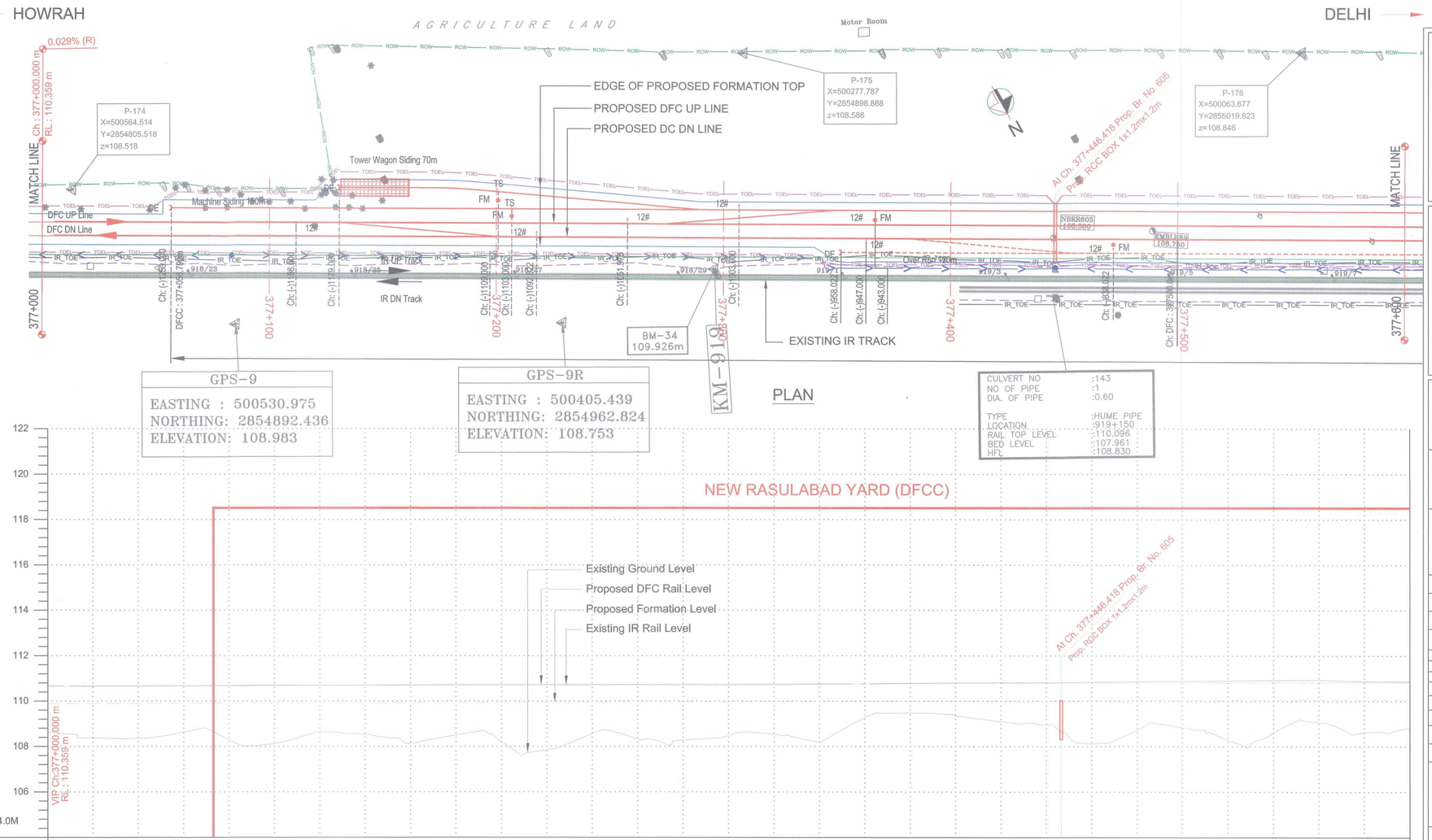
Dedicated Freight Corridor Corporation of India Ltd. (A P.S.U. under Ministry of Railways) ALLAHABAD

SECTION–B–202



VERTICAL ALIGNMENT: 0.028% L=3.362; G=0.029% L= 718.600

HORIZONTAL ALIGNMENT: L = 2951.399

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
377+000	17.140	110.364	1.259	110.359	109.588	108.329		<
377+020	17.127	110.357	1.528	110.365	109.594	108.066		<
377+040	17.109	110.363	1.539	110.371	109.600	108.061		<
377+060	17.097	110.368	1.272	110.377	109.606	108.334		<
377+080	17.091	110.368	1.827	110.382	109.611	107.984		<
377+100	17.122	110.38	1.785	110.388	109.617	107.832		<
377+120	17.115	110.386	1.271	110.394	109.623	108.352		>
377+140	17.101	110.391	1.393	110.400	109.629	108.236		>
377+160	17.109	110.4	1.783	110.406	109.635	107.852		>
377+180	17.117	110.402	1.440	110.412	109.641	108.201		>
377+200	17.126	110.405	1.733	110.418	109.647	107.914		>
377+220	17.117	110.406	2.114	110.424	109.653	107.539		>
377+240	17.104	110.41	1.391	110.429	109.658	108.267		>
377+260	17.119	110.416	1.620	110.435	109.664	108.044		>
377+280	17.119	110.413	1.693	110.441	109.670	107.977		>
377+300	17.119	110.414	1.481	110.447	109.676	108.195		>
377+320	17.122	110.422	1.437	110.453	109.682	108.245		>
377+340	17.136	110.443	1.828	110.459	109.688	107.860		>
377+360	10.865	110.465	0.706	110.465	109.694	108.988		>
377+380	10.886	110.485	0.518	110.471	109.700	108.182		>
377+400	10.897	110.506	0.645	110.476	109.705	109.060		>
377+420	10.913	110.515	0.910	110.482	109.711	108.801		>
377+440	10.916	110.518	1.063	110.488	109.717	108.654		>
377+460	10.934	110.533	1.894	110.494	109.723	108.829		<
377+480	10.952	110.562	1.310	110.500	109.729	108.419		<
377+500	10.946	110.587	1.206	110.506	109.735	108.529		<
377+520	10.943	110.594	1.750	110.512	109.741	107.991		<
377+540	10.952	110.618	1.434	110.518	109.747	108.313		<
377+560	10.967	110.63	1.008	110.523	109.752	108.744		<
377+580	10.978	110.573	1.429	110.529	109.758	108.329		<
377+600	10.979	110.566	1.213	110.535	109.764	108.551		<

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 377+000 TO CH. 377+600

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 5	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

- [x] FOR APPROVAL — NO OBJECTION CERTIFICATE (NOC)
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	Suresh Peter ~~KAMAL SHARMA~~	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.K. Manoja	

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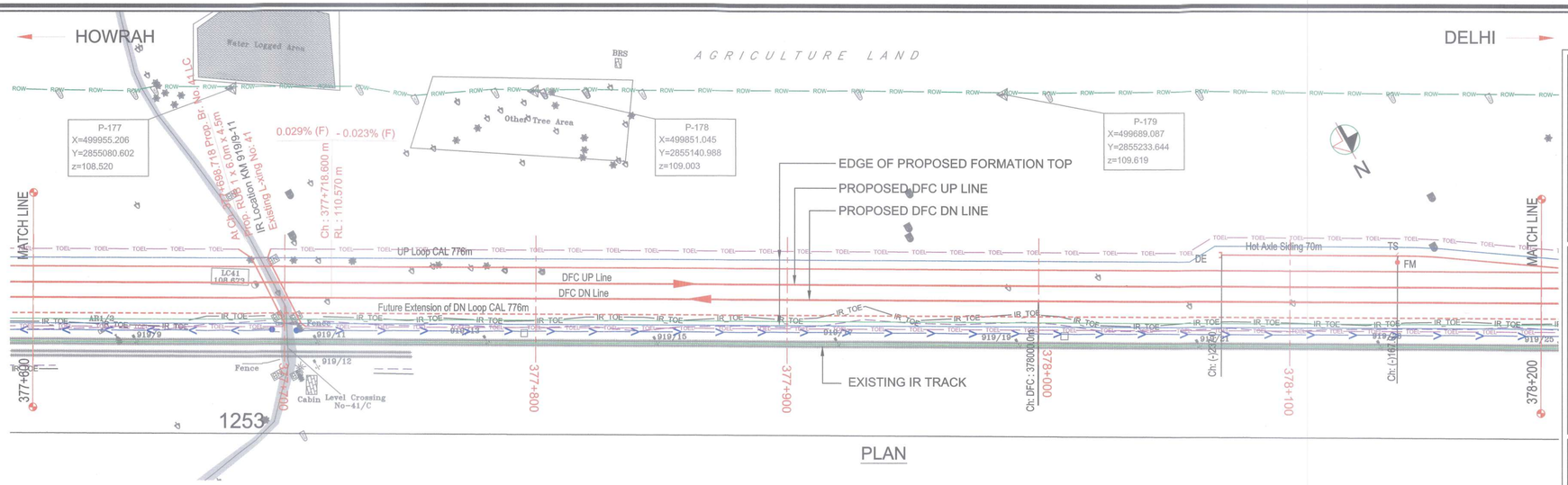
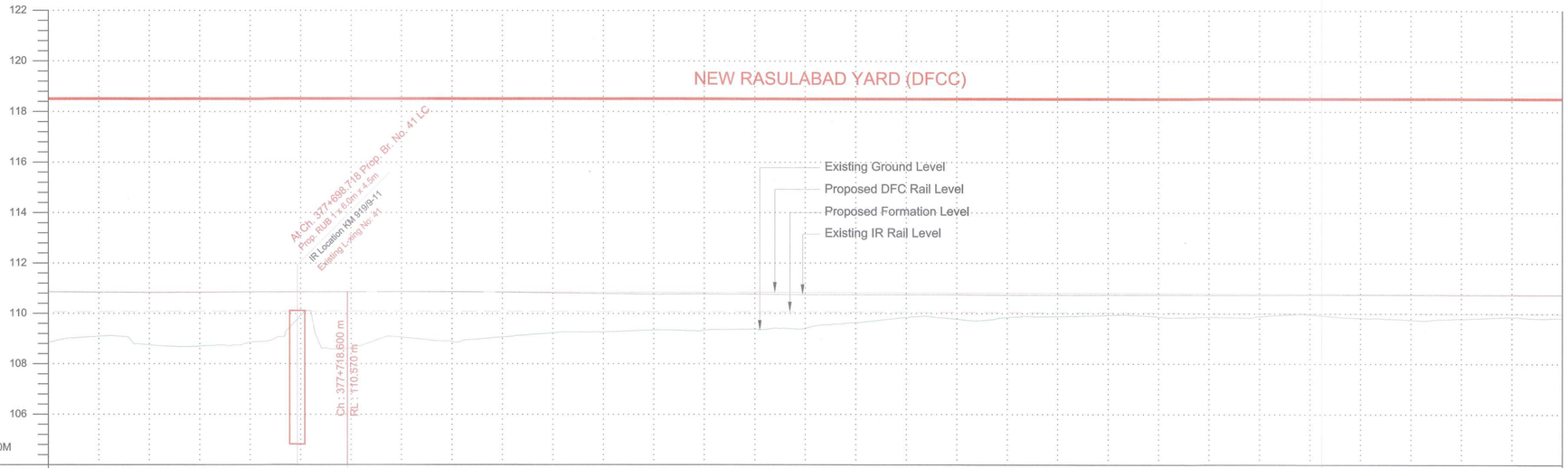
SECTION–B–202



PLAN



VERTICAL ALIGNMENT: G=-0.023% L= 1721.400

HORIZONTAL ALIGNMENT: L = 2951.399

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
377+600	10.979	110.566	1.213	110.535	109.764	108.551		<
377+620	11.047	110.544	0.975	110.541	109.770	108.795		<
377+640	11.108	110.524	1.323	110.547	109.776	108.453		<
377+660	11.067	110.527	1.382	110.553	109.782	108.400		<
377+680	11.017	110.542	1.237	110.559	109.788	108.551		<
377+700	11.029	110.562	0.166	110.565	109.794	109.628		<
377+720	11.021	110.563	1.456	110.570	109.799	108.343		>
377+740	11.047	110.575	1.034	110.565	109.794	108.760		>
377+760	11.068	110.57	1.164	110.561	109.790	108.626		>
377+780	11.088	110.552	1.021	110.556	109.785	108.764		>
377+800	11.080	110.524	0.845	110.552	109.781	108.936		>
377+820	11.088	110.497	0.810	110.547	109.776	108.966		>
377+840	11.100	110.471	0.722	110.542	109.771	109.049		>
377+860	11.086	110.485	0.728	110.538	109.767	109.039		>
377+880	11.088	110.46	0.686	110.533	109.762	109.076		>
377+900	11.127	110.443	0.646	110.529	109.758	109.112		>
377+920	11.093	110.442	0.419	110.524	109.753	109.334		>
377+940	11.075	110.442	0.207	110.520	109.749	109.542		>
377+960	11.111	110.44	0.270	110.515	109.744	109.474		>
377+980	11.127	110.429	0.200	110.511	109.740	109.540		>
378+000	11.130	110.427	0.155	110.508	109.735	109.580		>
378+020	11.128	110.431	0.101	110.502	109.731	109.630		>
378+040	11.186	110.432	0.172	110.497	109.726	109.554		>
378+060	11.137	110.436	0.159	110.493	109.722	109.563		>
378+080	11.156	110.439	0.125	110.488	109.717	109.592		>
378+100	11.146	110.458	0.045	110.484	109.713	109.668		>
378+120	11.171	110.455	0.160	110.479	109.708	109.528		>
378+140	11.179	110.452	0.248	110.475	109.704	109.456		>
378+160	11.204	110.443	0.207	110.470	109.699	109.492		>
378+180	11.240	110.44	0.136	110.465	109.694	109.558		>
378+200	11.201	110.44	0.170	110.461	109.690	109.520		>

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 377+600 TO CH. 378+200

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 6	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

NO OBJECTION CERTIFICATE (NOC)

- [x] FOR APPROVAL
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT:
STUP Consultants Pvt. Ltd.
REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.
OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	Deepak
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24.06.17	SURESH KUMAR / KAMAL SHARMA	
NOC	24.06.17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.K. Maurya	

PROJECT MANAGER
Eastern Dedicated Freight Corridor Corporation of India Ltd. (A P.S.U. under Min. of Railways) ALIGARH

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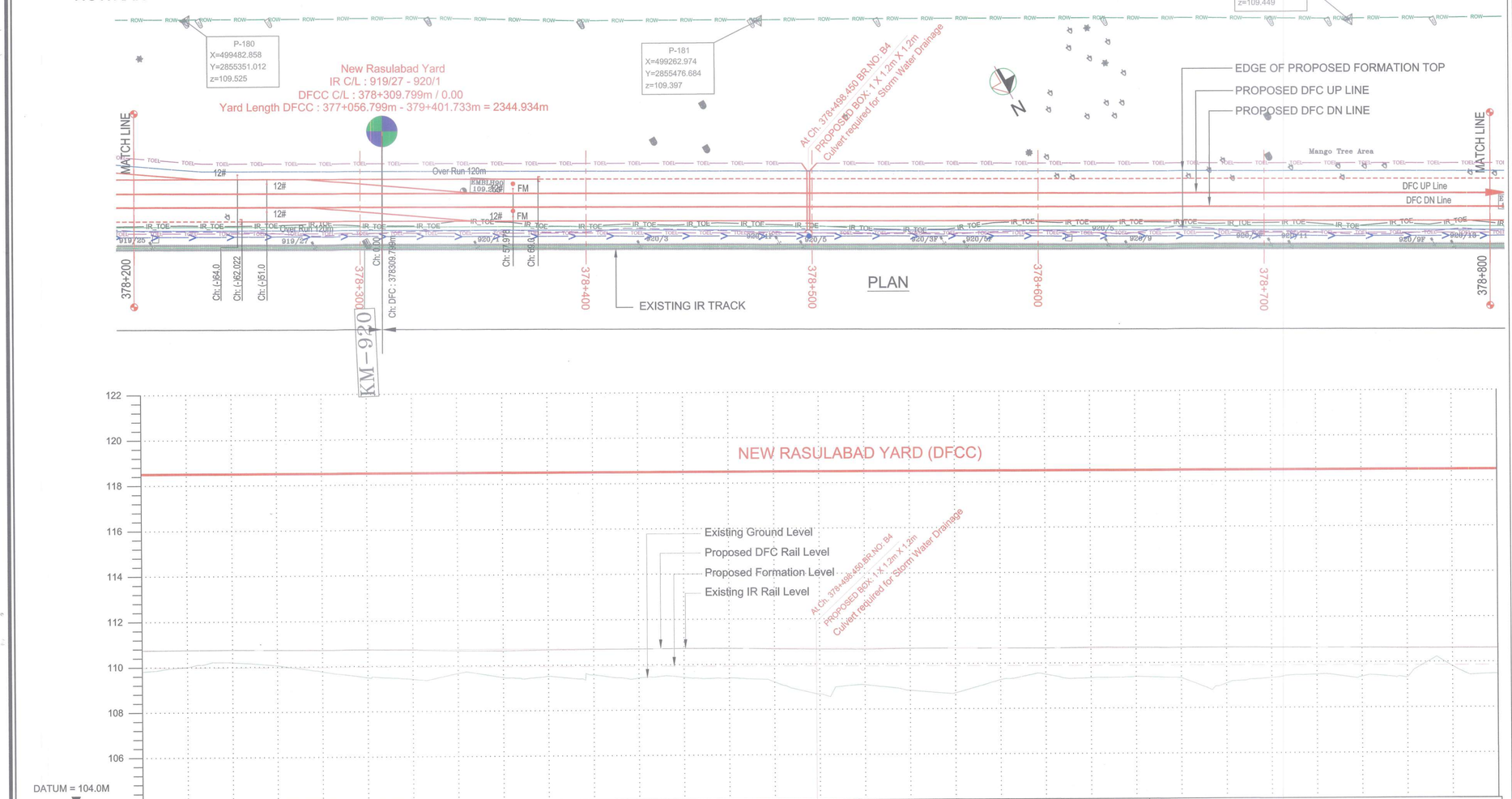
SECTION–B–202



LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 378+200 TO CH. 378+800

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 7	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2281044 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

- [x] FOR APPROVAL — NO OBJECTION CERTIFICATE (NOC)
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	SURESH PETER ~~KAMAL SHARMA~~	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S. K. Maurya	

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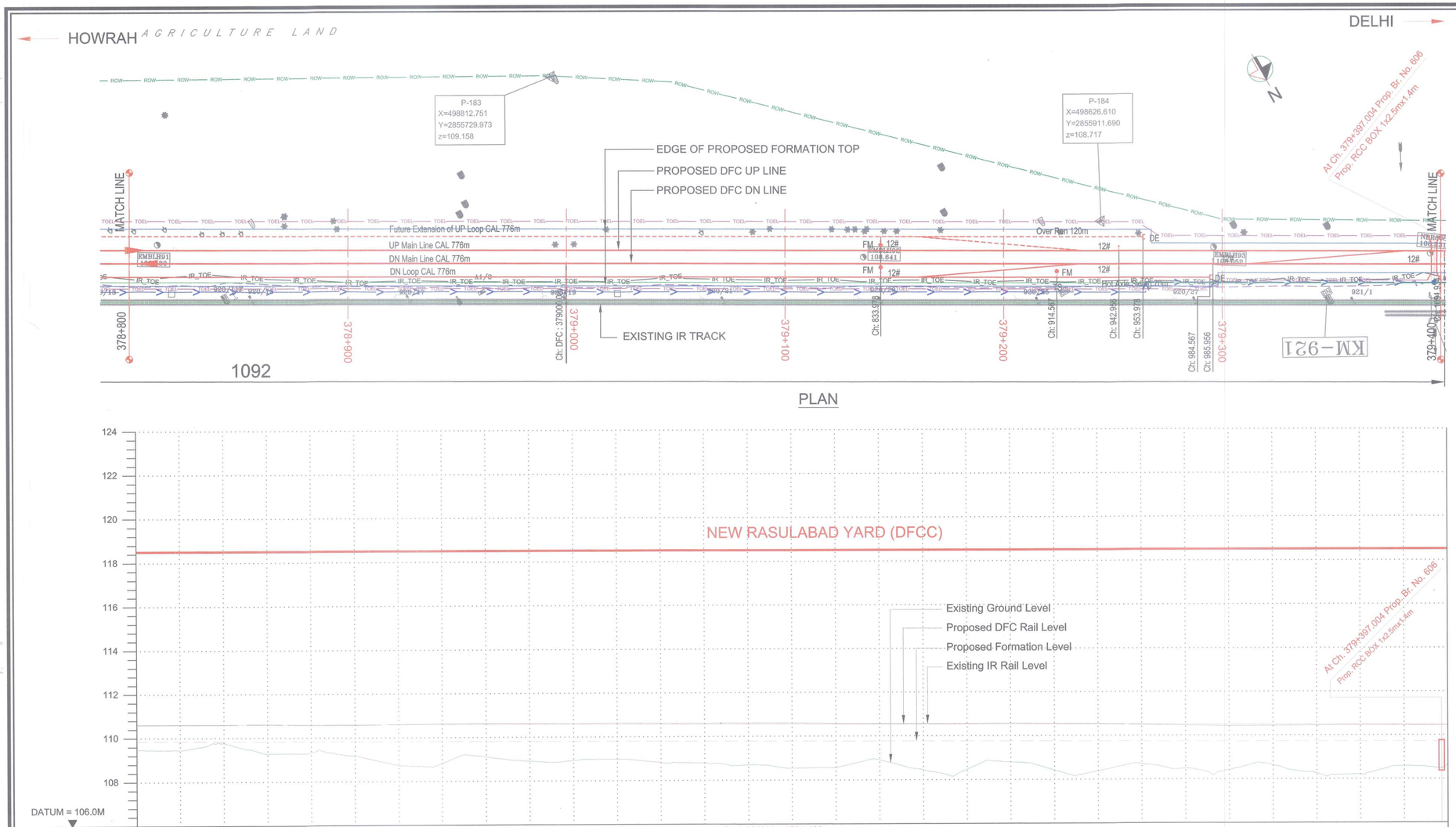
SECTION–B–202



PLAN

VERTICAL ALIGNMENT: G=-0.023% L= 1721.400

HORIZONTAL ALIGNMENT: L = 2951.399

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
378+800	11.115	110.307	0.386	110.325	109.554	109.168		>
378+820	11.31	110.31	0.388	110.320	109.549	109.161		>
378+840	11.301	110.301	0.071	110.316	109.545	109.474		>
378+860	11.147	110.323	0.578	110.311	109.540	108.862		>
378+880	11.164	110.283	0.473	110.307	109.536	109.063		>
378+900	11.175	110.282	0.674	110.302	109.531	108.857		>
378+920	11.158	110.305	1.102	110.298	109.527	108.425		>
378+940	11.171	110.331	0.984	110.293	109.522	108.528		>
378+960	11.149	110.337	0.711	110.289	109.518	108.807		>
378+980	11.131	110.332	0.913	110.284	109.513	108.600		>
379+000	11.153	110.33	0.880	110.280	109.509	108.629		>
379+020	11.176	110.33	0.828	110.275	109.504	108.676		>
379+040	11.196	110.318	0.984	110.271	109.500	108.516		>
379+060	11.171	110.312	1.014	110.266	109.495	108.481		>
379+080	11.184	110.313	1.093	110.262	109.491	108.398		>
379+100	11.188	110.306	1.243	110.257	109.486	108.243		>
379+120	11.194	110.283	1.210	110.252	109.481	108.271		>
379+140	11.202	110.27	0.869	110.248	109.477	108.608		>
379+160	11.203	110.26	1.321	110.243	109.472	108.151		>
379+180	11.208	110.265	1.292	110.239	109.468	108.176		>
379+200	11.195	110.268	0.962	110.234	109.463	108.501		>
379+220	11.177	110.256	1.335	110.230	109.459	108.124		>
379+240	11.210	110.247	1.366	110.225	109.454	108.088		>
379+260	11.204	110.207	1.052	110.221	109.450	108.398		>
379+280	11.224	110.171	1.262	110.216	109.445	108.183		>
379+300	11.238	110.136	1.315	110.212	109.441	108.126		>
379+320	17.516	110.139	1.115	110.207	109.436	108.321		>
379+340	17.489	110.149	1.469	110.203	109.432	107.963		>
379+360	17.493	110.168	1.513	110.198	109.427	107.914		>
379+380	17.474	110.156	1.149	110.194	109.423	108.274		>
379+400	17.471	110.142	0.964	110.189	109.418	108.454		>
	17.465							

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 378+800 TO CH. 379+400

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 8	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

- [x] FOR APPROVAL — NO OBJECTION CERTIFICATE (NOC)
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	SEEMA TETRC ~~KAMAL SHARMA~~	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.K. Maurya	

CHIEF PROJECT MANAGER Dedicated Freight Corridor Corporation of India Ltd. (A P.S.U. under Min. of Railways) KOLKATA

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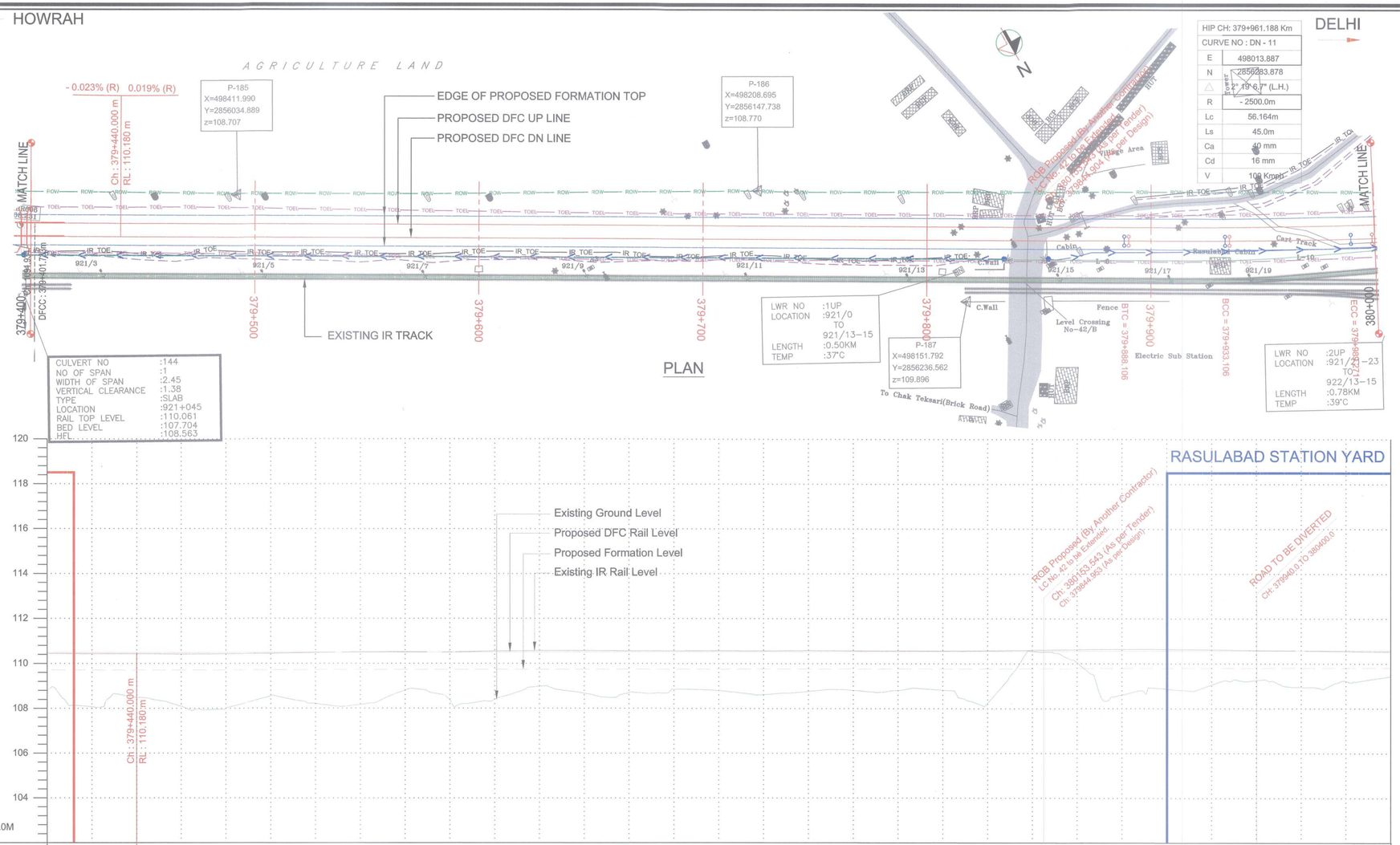
Sheet No. 115

HOWRAH

DELHI

SECTION–B–202



PLAN

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
379+400	17.465	110.142	0.964	110.189	109.418	108.454		<
379+420	17.458	110.133	1.640	110.185	109.414	107.774		<
379+440	17.457	110.132	1.214	110.180	109.409	108.195		<
379+460	17.463	110.119	1.612	110.184	109.413	107.801		<
379+480	17.453	110.131	1.697	110.188	109.417	107.720		<
379+500	17.457	110.147	1.165	110.192	109.421	108.256		<
379+520	17.448	110.186	1.507	110.196	109.425	107.918		<
379+540	17.459	110.212	1.562	110.199	109.428	107.866		<
379+560	17.454	110.214	0.906	110.203	109.432	108.526		<
379+580	17.377	110.2	1.381	110.207	109.436	108.055		<
379+600	17.443	110.257	1.315	110.211	109.440	108.125		<
379+620	17.422	110.273	0.765	110.215	109.444	108.679		<
379+640	17.470	110.281	1.081	110.219	109.448	108.367		<
379+660	17.473	110.289	1.042	110.223	109.452	108.410		<
379+680	17.498	110.267	0.899	110.227	109.456	108.557		<
379+700	17.465	110.273	0.959	110.231	109.460	108.501		<
379+720	17.479	110.272	1.137	110.235	109.464	108.327		<
379+740	17.511	110.289	1.000	110.238	109.467	108.467		<
379+760	17.523	110.272	0.959	110.242	109.471	108.512		<
379+780	17.539	110.269	0.961	110.246	109.475	108.514		<
379+800	17.540	110.265	0.953	110.250	109.479	108.526		<
379+820	17.534	110.281	1.525	110.254	109.483	107.958		<
379+840	17.536	110.31	-0.765	110.258	109.487	110.252		<
379+860	17.567	110.331	-0.247	110.262	109.491	109.738	Cant =0.000 Cant Def =0.000	>
379+880	17.615	110.344	1.183	110.266	109.495	108.312		>
379+900	17.634	110.342	0.927	110.270	109.499	108.572	Cant =40.00 Cant Def =16.00	>
379+920	17.632	110.327	0.741	110.273	109.502	108.761		>
379+940	17.508	110.295	0.548	110.277	109.506	108.958	Cant =40.00 Cant Def =16.00	>
379+960	16.633	110.278	0.851	110.281	109.510	108.659		>
379+980	15.387	110.254	0.623	110.285	109.514	108.891		>
380+000	14.291	110.234	0.379	110.289	109.518	109.139		>

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 379+400 TO CH. 380+000

DRAWING NO.	REV	SCALE
P 2 AL 0 7 5 9	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/EN/PMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / EN/PMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

☑ FOR APPROVAL — NO OBJECTION CERTIFICATE (NOC)

☐ GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	Reepak
APPD.	21/06/17	R.S.P. Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	SURESH PATOLE ~~KAMAL SHARMA~~	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.K. Maurya	

PROJECT MANAGER Dedicated Freight Corridor Corporation of India Ltd. (A PSU under Min. of Railways) NEW DELHI

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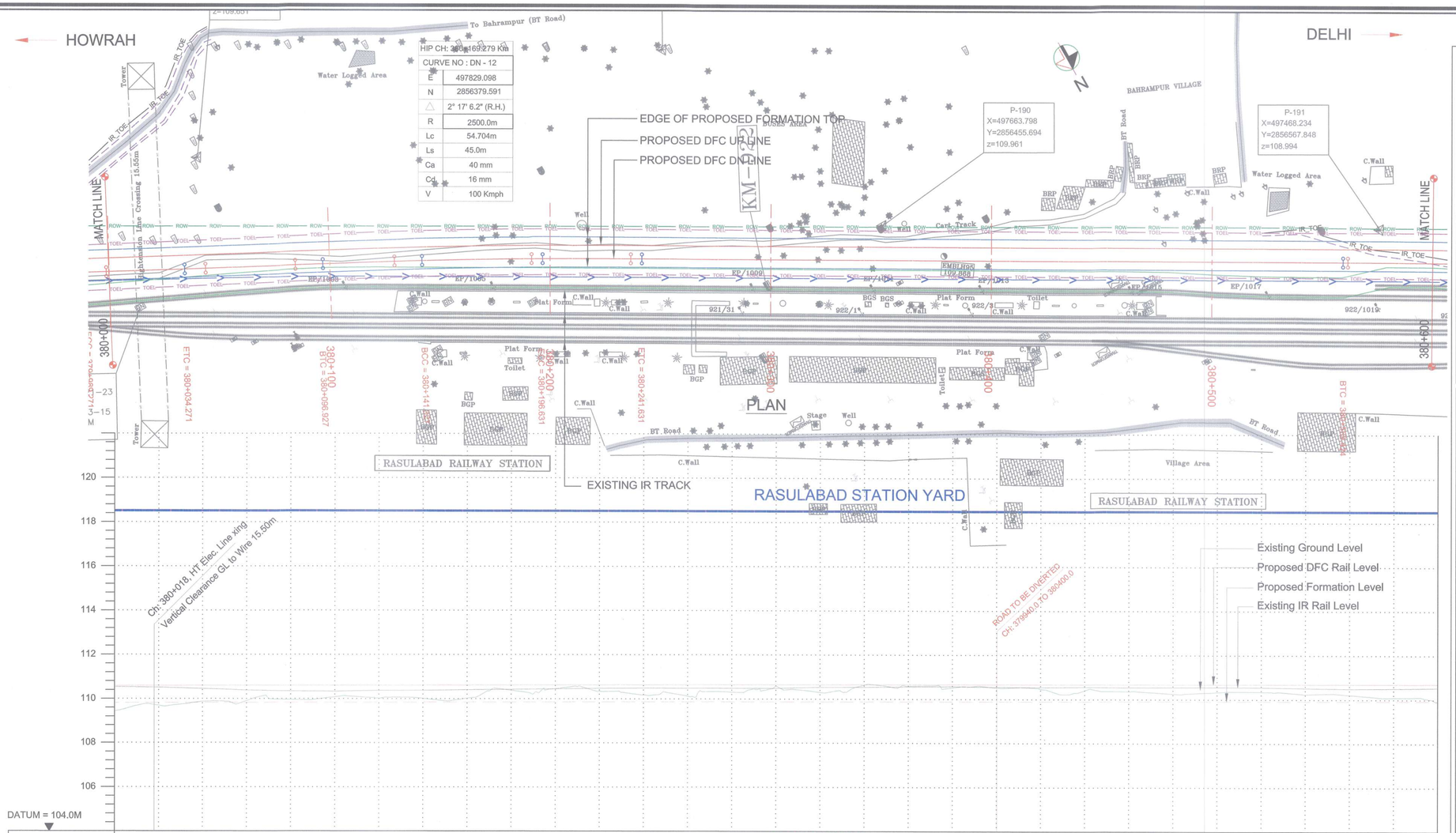
SECTION-B-202



HIP CH: 380+169.279 Km	
CURVE NO : DN - 12	
E	497829.098
N	2856379.591
△	2° 17' 6.2" (R.H.)
R	2500.0m
Lc	54.704m
Ls	45.0m
Ca	40 mm
Cd	16 mm
V	100 Kmph

VERTICAL ALIGNMENT: G=0.019% L= 2260.000

HORIZONTAL ALIGNMENT: L=45.00m | L = 62.656 | L=45.00m | R=2500.00m L=54.704m | L=45.00m | L = 317.793 | L=60.00m

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)
380+000	13.320	110.234	0.379	110.289	109.518	109.139	Cant =40.00 Cant Def =16.00
380+020	12.431	110.214	0.122	110.293	109.522	109.400	
380+040	11.568	110.154	-0.042	110.297	109.526	109.568	Cant =0.000 Cant Def =0.000
380+060	10.879	110.086	-0.078	110.301	109.530	109.608	
380+080	10.714	110.045	-0.125	110.305	109.534	109.659	
380+100	11.178	110.033	-0.245	110.308	109.537	109.782	Cant =0.000 Cant Def =0.000
380+120	11.908	110.075	-0.173	110.312	109.541	109.714	
380+140	12.452	110.077	-0.164	110.316	109.545	109.709	
380+160	12.843	110.106	-0.172	110.320	109.549	109.721	Cant =40.00 Cant Def =16.00
380+180	13.097	110.125	-0.526	110.324	109.553	110.079	Cant =40.00 Cant Def =16.00
380+200	13.208	110.15	-0.603	110.328	109.557	110.160	
380+220	13.239	110.175	-0.487	110.332	109.561	110.048	
380+240	13.258	110.188	-0.310	110.336	109.565	109.875	
380+260	13.254	110.185	-0.250	110.340	109.569	109.819	Cant =0.000 Cant Def =0.000
380+280	13.257	110.186	-0.434	110.344	109.573	110.007	
380+300	13.313	110.186	-0.710	110.347	109.576	110.286	
380+320	13.337	110.237	-0.425	110.351	109.580	110.005	
380+340	13.364	110.242	-0.703	110.355	109.584	110.347	
380+360	13.365	110.263	-0.705	110.359	109.588	110.293	
380+380	13.364	110.255	-0.632	110.363	109.592	110.222	
380+400	13.405	110.246	-0.632	110.367	109.596	110.228	
380+420	13.463	110.256	-0.557	110.371	109.600	110.157	
380+440	13.716	110.248	-0.509	110.375	109.604	110.113	
380+460	14.739	110.255	-0.458	110.379	109.608	110.066	
380+480	15.414	110.267	-0.345	110.382	109.611	109.956	
380+500	15.660	110.256	-0.421	110.386	109.615	110.036	
380+520	15.681	110.221	-0.430	110.390	109.619	110.049	
380+540	10.845	110.200	-0.317	110.394	109.623	109.940	Cant =0.000 Cant Def =0.000
380+560	10.867	110.215	-0.291	110.398	109.627	109.918	
380+580		110.168	-0.168	110.402	109.631	109.799	
380+600		110.239	0.050	110.406	109.635	109.585	

FLOW DIRECTION OF DRAIN: > > >

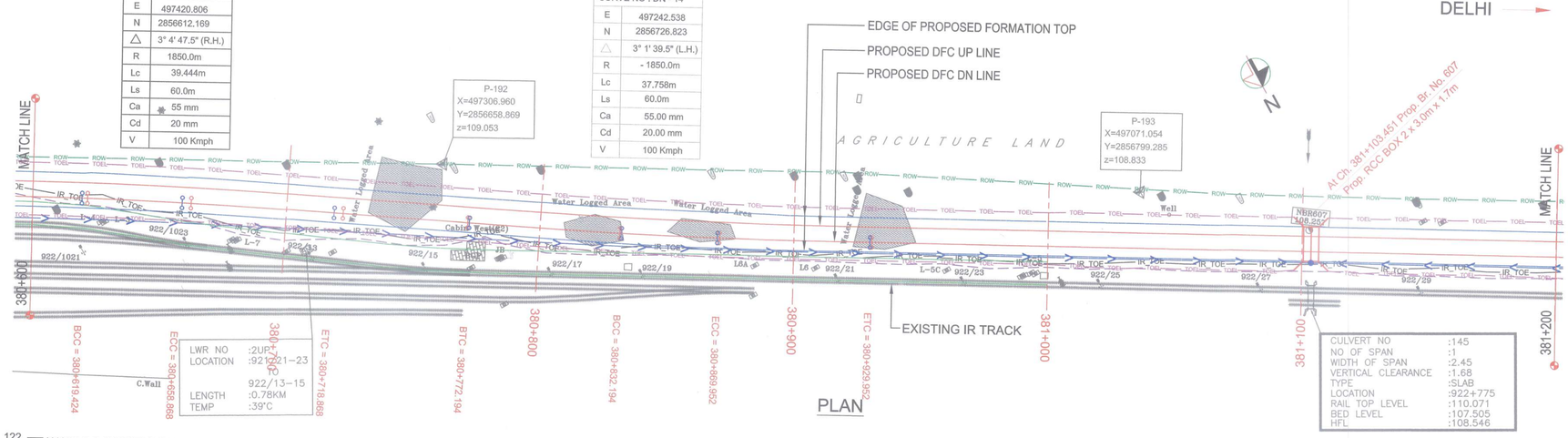
HOWRAH

HIP CH: 380+639.145 Km	
CURVE NO : DN - 13	
E	497420.806
N	2856612.169
△	3° 4' 47.5" (R.H.)
R	1850.0m
Lc	39.444m
Ls	60.0m
Ca	55 mm
Cd	20 mm
V	100 Kmph

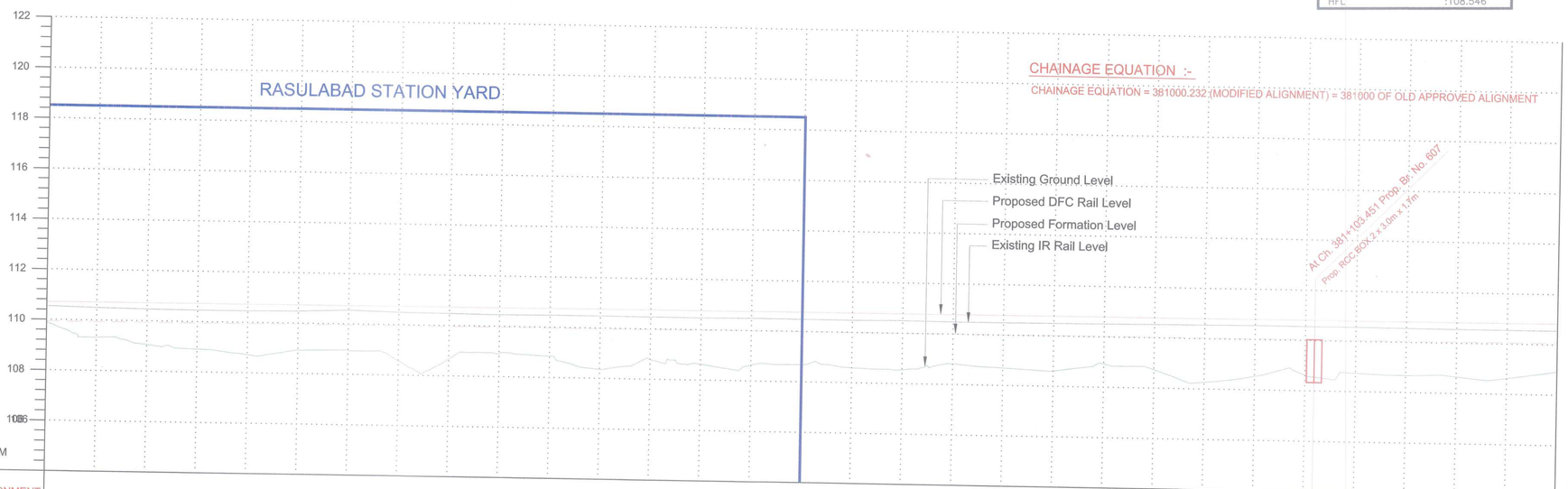
HIP CH: 380+851.073 Km	
CURVE NO : DN - 14	
E	497242.538
N	2856726.823
△	3° 1' 39.5" (L.H.)
R	- 1850.0m
Lc	37.758m
Ls	60.0m
Ca	55.00 mm
Cd	20.00 mm
V	100 Kmph

DELHI

SECTION–B–202



PLAN



VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT: R=1850.00m L=39.444m; L=60.00m; L = 53.327; L=60.00m; R=-1850.00m L=37.758m; L=60.00m; L 7669.31m

CHAINAGE	OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN	EXISTING IR RAIL LEVEL	FILL HEIGHT(+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	FLOW DIRECTION OF DRAIN
380+600		110.239	0.050	110.406	109.635	109.585		
380+620	11.683	110.196	0.621	110.410	109.639	109.018	Cant =55.00 Cant Def =20.00	>
380+640	13.906	110.185	0.888	110.414	109.643	108.755		>
380+660	16.304	110.153	1.037	110.418	109.647	108.610	Cant =55.00 Cant Def =20.00	>
380+680	17.472	110.158	1.231	110.421	109.650	108.419		>
380+700	18.277	110.18	1.029	110.425	109.654	108.625		>
380+720	19.004	110.247	1.018	110.429	109.658	108.640		>
380+740	19.656	110.195	1.367	110.433	109.662	108.275	Cant =0.000 Cant Def =0.000	>
380+760	19.767	110.179	1.291	110.437	109.666	108.375		>
380+780	19.079	110.164	1.046	110.441	109.670	108.624	Cant =0.000 Cant Def =0.000	>
380+800	18.050	110.181	1.124	110.445	109.674	108.550		>
380+820	17.116	110.182	1.621	110.449	109.678	108.057		>
380+840	16.310	110.17	1.205	110.453	109.682	108.477	Cant =55.00 Cant Def =20.00	>
380+860	15.721	110.17	1.355	110.456	109.685	108.330		>
380+880	15.373	110.189	1.349	110.460	109.689	108.340	Cant =55.00 Cant Def =20.00	>
380+900	15.240	110.179	1.308	110.464	109.693	108.385		>
380+920	15.174	110.18	1.400	110.468	109.697	108.297		>
380+940	15.127	110.203	1.441	110.472	109.701	108.260	Cant =0.000 Cant Def =0.000	>
380+960	15.122	110.186	1.183	110.476	109.705	108.522		>
380+980	15.074	110.187	1.312	110.480	109.709	108.397		>
381+000	15.108	110.196	1.398	110.484	109.713	108.315		>
381+020	15.054	110.212	1.087	110.488	109.717	108.630		>
381+040	15.068	110.226	1.288	110.492	109.721	108.433		>
381+060	15.088	110.243	1.749	110.495	109.724	107.975		>
381+080	15.081	110.251	1.488	110.499	109.728	108.240		>
381+100	15.078	110.252	1.418	110.503	109.732	108.314		>
381+120	15.082	110.257	1.299	110.507	109.736	108.437		<
381+140	15.095	110.253	1.362	110.511	109.740	108.378		<
381+160	15.098	110.245	1.388	110.515	109.744	108.356		<
381+180	15.078	110.244	1.415	110.519	109.748	108.333		<
381+200	15.097	110.244	1.128	110.523	109.752	108.624		<

PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- ROW — ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5m FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0m AT STRAIGHT SECTION.
7. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE, HOWEVER DETAIL DRAINAGE SYSTEM,DRAWINGS WILL BE SUBMITTED SEPARATELY.
9. PUBLIC UTILITIES,HT/LT LINES,ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
10. AT THE LOCATIONS WHERE FORMATION HEIGHT IS <1.75m,IT IS PROPOSED TO MAKE THE FORMATION HEIGHT AS 1.75m BY CUTTING THE EARTH.
11. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 B

FROM CH. 380+600 TO CH. 381+200

DRAWING NO.	REV	SCALE
P 2 AL 0 7 6 1	K	HOR : 1:1000 VER : 1:100

REVIEWS

REV	DATE	REMARKS
F	14.12.2015	REVISION MADE AS PER DFCC LETTER NO. ALD(W)/ENPMC/PRO-2/281/56 DATED 10.12.2015.
G	26.04.2017	REVISED AS PER SITE CONDITION
H	08.05.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02227 DATED 27.04.2017.
J	07.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/02720 DATED 22.05.2017. & ALD (W) / ENPMC / PRO - 2/281/344 DATED 19.05.2017.
K	19.06.2017	REVISION MADE AS PER PMC LETTER NO. PMCS/EDFC2/LTT/2017/03198 DATED 12.06.2017.

DRAWING STAGE

- [x] FOR APPROVAL — NO OBJECTION CERTIFICATE (NOC)
- [ ] GOOD FOR CONSTRUCTION

PMC : SYSTRA - Mott MacDonald JV

CONTRACTOR : GIL - SIL JV

DESIGN CONSULTANT: STUP Consultants Pvt. Ltd.

REGISTERED OFFICE : 1004–5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

	DATE	NAME	SIGN.
DRAWN	26.04.2017	ABHIJIT DAS	
CHKD.	26.04.2017	SUDDHASIL PURKAIT	
APPD.	26.04.2017	ANIL KUMAR MITTAL	

SUBMITTED BY : GIL - SIL JV

	DATE	NAME	SIGN.
CHKD.	21/06/17	REEPAK GUPTA	
APPD.	21/06/17	R.S.P Singh	

NOC BY : SYSTRA - Mott MacDonald JV

	DATE	NAME	SIGN.
CHKD.	24/06/17	Suresh Pepet KAMAL SHARMA	
NOC	24/06/17	P. AMERIKANOS	

APPROVAL BY : DFCC

	DATE	NAME	SIGN.
CHKD.			
APPD.	12.07.17	S.N. Maurya	

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CHIEF PROJECT MANAGER Eastern Dedicated Freight Corridor Corporation of India Ltd. Ministry of Railways ALLAHABAD