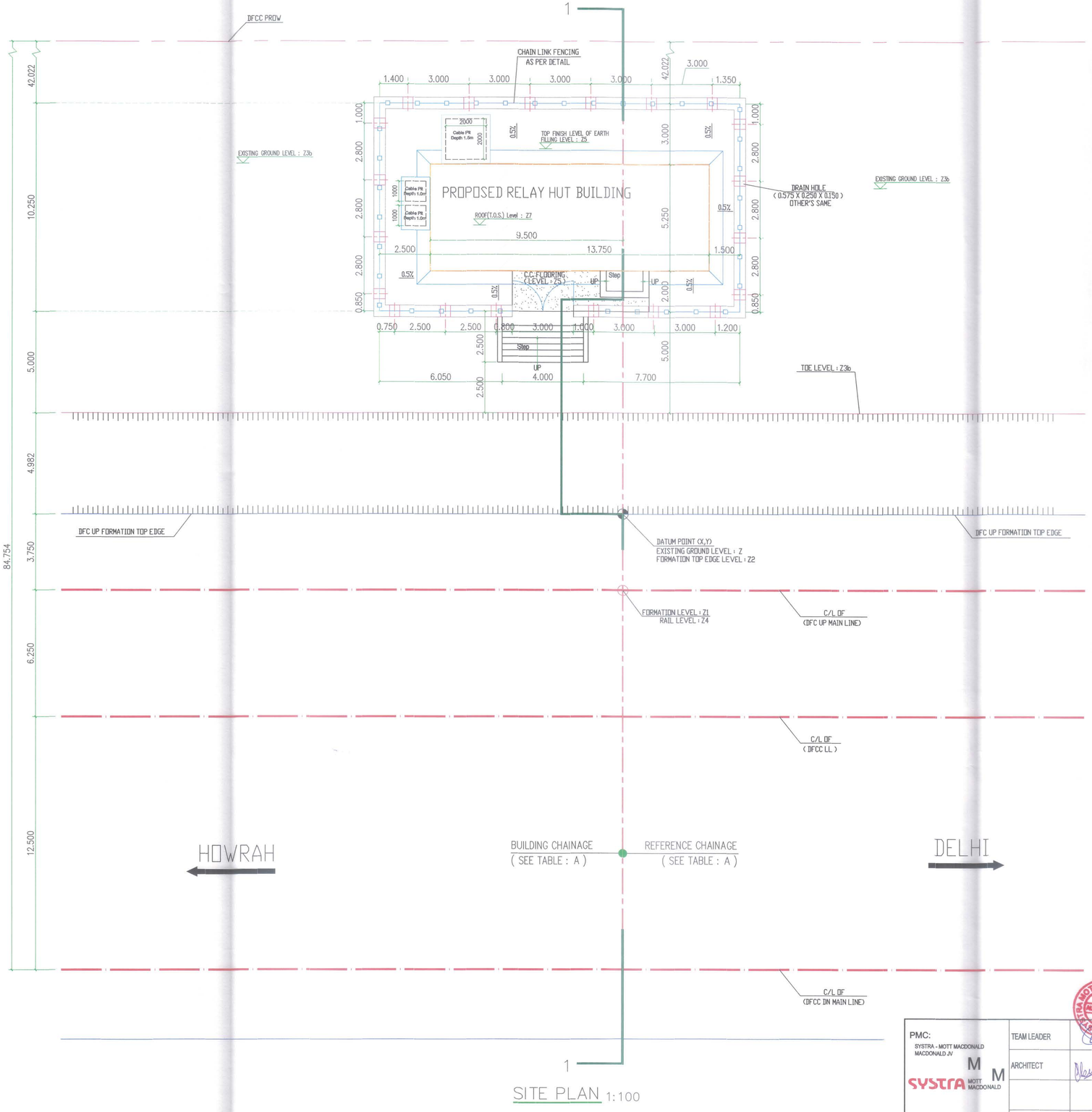
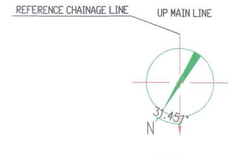




NOTES :

1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44 (AS PER ALIGNMENT AND CROSS SECTION DRAWING OF CP 201 & 202).
3. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Ahraura Relay Hut – 2	140.480	140.480	P2AL0018D	P2DCS2012C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Ahraura Relay Hut – 2	140.480	140.480	701919.210	2787242.800	79.543	-31.451°

Note : The direction angle is positive("+") for clockwise rotation.

6. LEVEL ABBREVIATIONS
   - F.T.E.L : FORMATION TOP EDGE LEVEL
   - F.G.L : FINISHED GROUND LEVEL
   - P.FFL : PLINTH FINISHED FLOOR LEVEL
   - R.L : RAIL LEVEL
   - E.G.L : EXISTING GROUND LEVEL
7. FOR SITE PLAN DESIGN PARAMETERS SEE "SITE SECTION 1-1" TABLE IN DRAWING NO. 1/AR/02202
8. CHAIN LINK FENCING SHOULD BE AS PER PARA 1.4.5. (5), PART 2, SECTION VI, VOL. 4, PARTICULAR SPECIFICATION BUILDING & STRUCTURE WORKS, ON PAGE NO. 0633 OF CA CP-203.
9. THE PLINTH LEVEL OF SIGNALLING EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS AND SIGNALLING & TELECOMMUNICATION POWER SUPPLY EQUIPMENT ROOMS SHALL BE AT LEAST 300MM ABOVE THE RAIL LEVEL. THE CEILING HEIGHT OF THESE ROOMS SHALL BE AS PER DRAWING ABOVE FLOOR LEVEL.
10. ALL BUILDINGS SHALL BE PROVIDED WITH CONCEALED DUCTS/PIPES FOR WIRING OF SIGNAL AND TELECOM FACILITIES. IN ADDITION, DUCTS SHALL BE PROVIDED ON THE FLOOR FOR ENTRY/EXIT OF S&T CABLES AND ALSO FOR POWER SUPPLY. THESE ARRANGEMENTS SHALL BE MADE IN CONSULTATION WITH OTHER CONTRACTORS.
11. THE SITE OF THE WORK SHALL BE CLEARED OFF THE SHRUBS, RANK VEGETATION, GRASS, BUSHES AND OTHER MATERIALS UPTO ADEQUATE DEPTH AS REQUIRED AS PER SITE CONDITION AND RUBBISH REMOVED OUTSIDE THE PERIPHERY OF THE AREA BEING CLEARED. THE ENCLOSED AREA BETWEEN CHAIN LINK FENCING AND THE BUILDING SHALL THEN BE FILLED WITH THE EARTH UP TO RAIL LEVEL AS WELL AS COMPACTED BY A SUITABLE METHOD AS DECIDED BY ENGINEER.

PRELIMINARY GAD

FOR CONTRACTOR

PREPARED BY:	CHECKED BY:	APPROVED BY:
SUDHANSH KHARE	SANJEEV KUMAR VERMA	LIU BIAO

REV.	DATE	DESCRIPTION	REV.BY	CHK.BY
D	17-12-2019	AS PER PMC COMMENT		
C	02-12-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	20-08-2019	AS PER PMC COMMENT		
A	14-01-2019	FIRST SUBMISSION		

CRSC Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT: NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203

CLIENT NAME: Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise — SCALE 1:100

PROJECT NAME: Eastern Dedicated Freight Corridor Project-2 — SHEET 01

NEW AHRAURA RELAY HUT - 2
SITE PLAN — TOT.SHEET 01

STATUS: W — DWG No.: 1/AR/02201 — REV. D

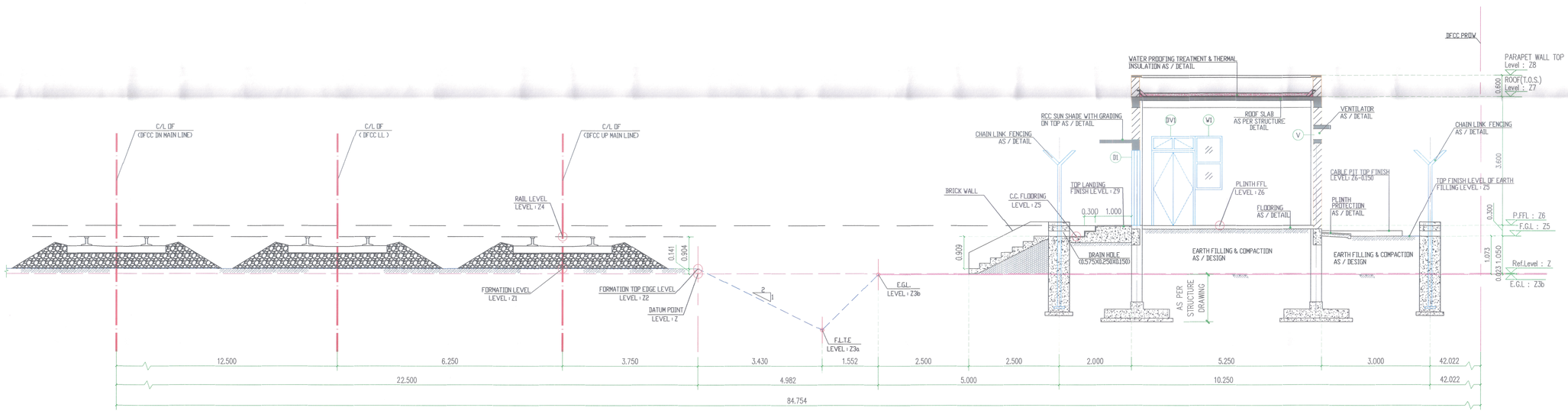
REF.DWG.: ALIGNMENT PLAN & PROFILE KM. 139+800 TO KM. 141+000
DETAILED CROSS SECTION: KM. 140+480 TO KM. 140+800 — SH.SIZE 841 X 594 MM

PMC: SYSTRA - MOTT MACDONALD JV (SYSTRA MOTT MACDONALD)

TEAM LEADER

ARCHITECT

EMPLOYER: DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.



SITE SECTION 1–1 1:50

RELAY HUT – LEVELS

S.No.	Relay Hut No.	Building Chainage	Reference Chainage	Co-ordinates of ref. / Datum pt.		Ref. Level	Levels at 'Reference Chainage' as per approved cross-section				Derived Levels						Level Difference (Height/Depth)				Remark
						Datum point (Refer to the drawing)	Formation Level at the Center of UP Main Track Line / Yard Line	Formation Level at Top Edge of the Embankment	Formation Level at the Toe of Embankment	Existing Ground Level at the Toe of Embankment	Rail Level	Finished Ground Level	Plinth FFL	Roof (T.O.S.)	Parapet Wall Top Level	Top Landing Finish Level	HT/DT. Of Formation Top Edge Level from Datum PT.	HT/DT. Of Rail Level from F.T.E.L.	HT/DT. Of F.G.L. from F.T.E.L.	HT/DT. Of Plinth FFL from Datum pt.	
				X	Y	Z	Z1	Z2	Z3a	Z3b	Z4 (=Z1 + 0.771)	Z5 (=Z2 + 0.909)	Z6 (=Z5 + 0.300)	Z7 (=Z6 + 3.600)	Z8 (=Z6 + 4.200)	Z9 (=Z6 - 0.025)	(=Z2 - Z)	(=Z4-Z2)		(=Z6-Z)	
1	New Ahraura Relay Hut - 2	140.480	140.480	701919.210	2787242.800	79.543	79.817	79.684	77.969	79.520	80.588	80.593	80.893	84.493	85.093	80.868	0.141	0.904	0.909	1.350	

NOTES :

1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44 (AS PER ALIGNMENT AND CROSS SECTION DRAWING OF CP 201 & 202).
3. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Ahraura Relay Hut – 2	140.480	140.480	P2AL0018D	P2DCS2012C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Ahraura Relay Hut – 2	140.480	140.480	701919.210	2787242.800	79.543	–31.451°

Note : The direction angle is positive("+") for clockwise rotation.

6. LEVEL ABBREVIATIONS
   - F.T.E.L : FORMATION TOP EDGE LEVEL
   - F.G.L : FINISHED GROUND LEVEL
   - P.FFL : PLINTH FINISHED FLOOR LEVEL
   - R.L : RAIL LEVEL
   - E.G.L : EXISTING GROUND LEVEL
   - F.L.T.E : FORMATION LEVEL AT THE TOE OF EMBANKMENT
   - E.G.L.T.E : EXISTING GROUND LEVEL AT THE TOE OF EMBANKMENT
7. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 1/AR/02201
8. CHAIN LINK FENCING SHOULD BE AS PER PARA 1.4.5. (5), PART 2, SECTION VI, VOL. 4, PARTICULAR SPECIFICATION BUILDING & STRUCTURE WORKS, ON PAGE NO. 0633 OF CA CP-203.
9. THE PLINTH LEVEL OF SIGNALLING EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS AND SIGNALLING & TELECOMMUNICATION POWER SUPPLY EQUIPMENT ROOMS SHALL BE AT LEAST 300MM ABOVE THE RAIL LEVEL. THE CEILING HEIGHT OF THESE ROOMS SHALL BE AS PER DRAWING ABOVE FLOOR LEVEL.
10. ALL BUILDINGS SHALL BE PROVIDED WITH CONCEALED DUCTS/PIPES FOR WIRING OF SIGNAL AND TELECOM FACILITIES. IN ADDITION, DUCTS SHALL BE PROVIDED ON THE FLOOR FOR ENTRY/EXIT OF S&T CABLES AND ALSO FOR POWER SUPPLY. THESE ARRANGEMENTS SHALL BE MADE IN CONSULTATION WITH OTHER CONTRACTORS.
11. THE SITE OF THE WORK SHALL BE CLEARED OFF THE SHRUBS, RANK VEGETATION, GRASS, BUSHES AND OTHER MATERIALS UPTO ADEQUATE DEPTH AS REQUIRED AS PER SITE CONDITION AND RUBBISH REMOVED OUTSIDE THE PERIPHERY OF THE AREA BEING CLEARED. THE ENCLOSED AREA BETWEEN CHAIN LINK FENCING AND THE BUILDING SHALL THEN BE FILLED WITH THE EARTH UP TO RAIL LEVEL AS WELL AS COMPACTED BY A SUITABLE METHOD AS DECIDED BY ENGINEER.

PRELIMINARY GAD

FOR CONTRACTOR

PREPARED BY:	CHECKED BY:	APPROVED BY:
SUDHANSH KHARE	SANJEEV KUMAR VERMA	LIU HIAO

REV.	DATE	DESCRIPTION	REV.BY	CHK.BY
D	17-12-2019	AS PER PMC COMMENT		
C	02-12-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	20-08-2019	AS PER PMC COMMENT		
A	14-01-2019	FIRST SUBMISSION		

Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT: NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203

CLIENT NAME: Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise

SCALE: 1:50

PROJECT NAME: Eastern Dedicated Freight Corridor Project-2

SHEET: 01

NEW AHRAURA RELAY HUT - 2 SITE SECTION

TOT.SHEET: 01

STATUS: W

DWG No.: 1/AR/02202

REV.: D

REF.DWG.:

ALIGNMENT PLAN & PROFILE KM. 139+800 TO KM. 141+000
DETAILED CROSS SECTION: KM. 140+480 TO KM. 140+800

SH.SIZE: 1050 X 594 MM

PMC: SYSTRA - MOTT MACDONALD JV

TEAM LEADER	
ARCHITECT	

EMPLOYER: DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

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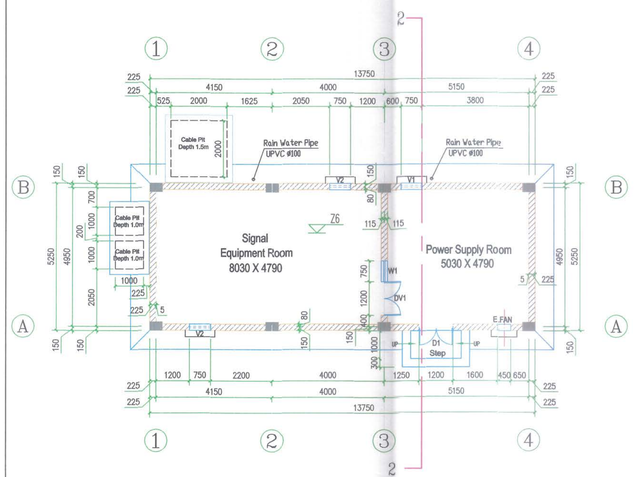
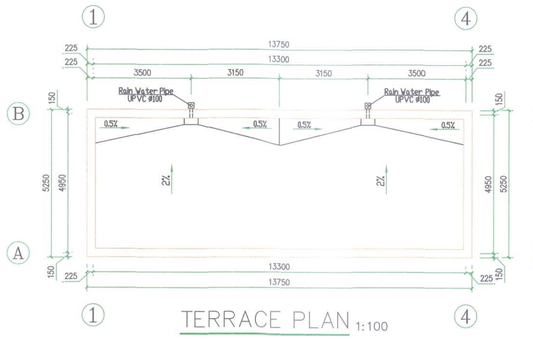
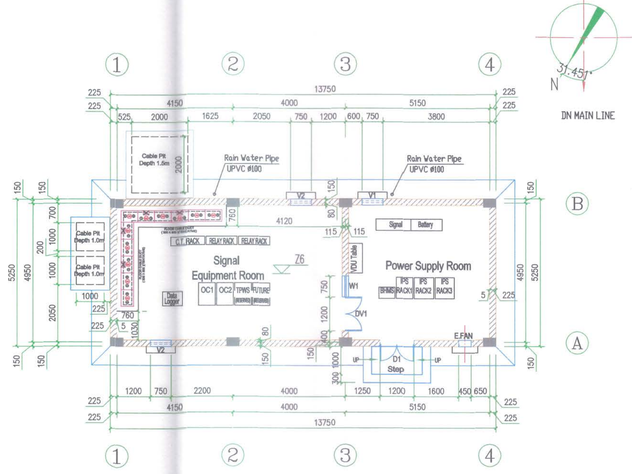


GROUND FLOOR PLAN 1:100

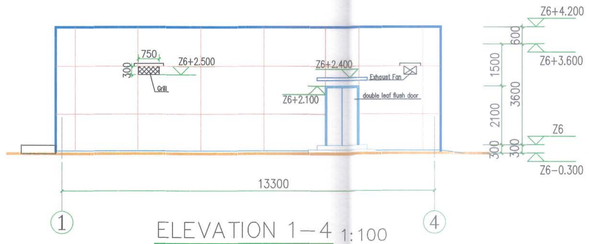
AREA: 72.19m²



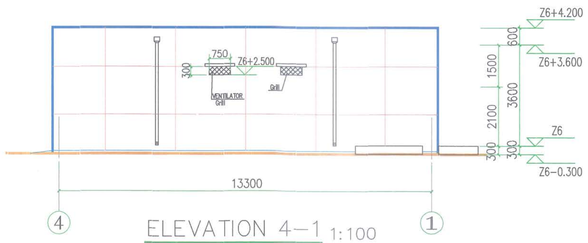
TERRACE PLAN 1:100



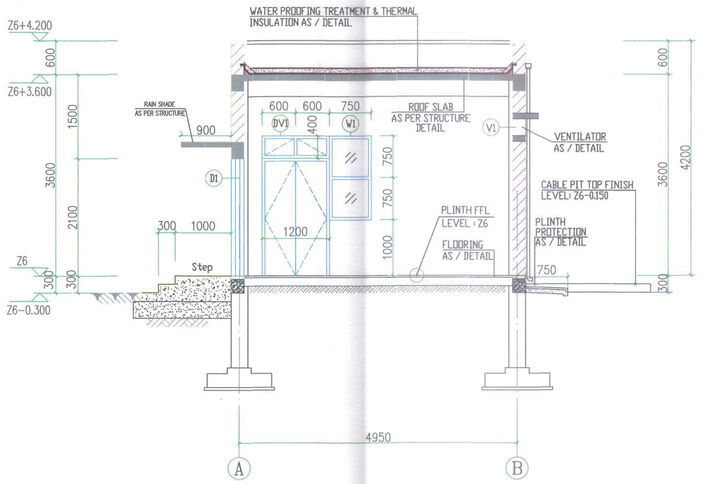
FLOOR CABLE DUCT PLAN 1:100



ELEVATION 1–4 1:100



ELEVATION 4–1 1:100



SECTION 2–2 1:50

FURNISHING SCHEDULE

S.N.	DESCRIPTION	FINISHING	
		FLOORS	SKIRTING / DADO
1	singnalling equipment rooms	ceramic tile flooring	same with 100 mm high
2	power supply room	acid proof tiles for flooring	same with 2 m high
3	doors	door frame -steel sction painted with enamel paint	
		shutter door - water proof flush door steel section painted with enamel paint.	
4	ventilators	ventilators shall be made with steel section with the grill painted with enamel paint	
5	internal finish	cement plaster on all walls finished with oil bound distemper	
6	external finish	cement plaster on all walls finished with snowcem paint	

DOOR, WINDOW & VENTILATOR SCHEDULE

TYPE	NO.	WIDTH (MM)	HEIGHT (MM)	SILL (M)	LINTEL (M)	REMARK
DOOR	DV1	1200	2500	Z6	Z6 + 2.500	DOUBLE LEAF STEEL FLUSH DOOR , FIXED GLASS VENTILATOR
	D1	1200	2100	Z6	Z6 + 2.100	DOUBLE LEAF STEEL FLUSH DOOR
WINDOW	W1	750	1500	Z6 + 1.000	Z6 + 2.500	FIXED GLASS
VENTILATOR	V1	750	300	Z6 + 2.500	Z6 + 2.800	GRILL
	V2	750	300	Z6 + 2.500	Z6 + 2.800	GRILL
EXHAUST FAN	E.FAN	450	300	Z6 + 2.500	Z6 + 2.800	FAN

NOTES :

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44 (AS PER ALIGNMENT AND CROSS SECTION DRAWING OF CP 201 & 202).
3. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Ahraura Relay Hut – 2	140.480	140.480	P2AL0018D	P2DCS2012C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Ahraura Relay Hut – 2	140.480	140.480	701919.210	2787242.800	79.543	-31.451°

Note : The direction angle is positive("+") for clockwise rotation.

6. FOR THE RELAY HUT LOCATION SEE DRAWING NO. 1/AR/02201
7. BRICKWORK TO BE DONE AS FOLLOWS:
   - IN SUPERSTRUCTURE ABOVE PLINTH TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
   - IN PLINTH AND FOUNDATION TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
8. CEMENT PLASTER TO BE DONE IN C.M. 1:3 INTERNAL SIDE 12MM THICK AND EXTERNAL SIDE 15MM THICK.
9. REFER TO SEPARATE APPROVED DRAWING / METHOD STATEMENT FOR THE FOLLOWING WORKS:
   - BRICKWORKS.
   - FLOORING, SKIRTING AND DADO.
   - FLOOR CABLE DUCT FOR SIGNAL CABLES.
   - CABLE PIT WORKS.
   - PLASTERING AND PAINTING.
   - DOOR, WINDOW, VENTILATOR AND GRILL.
   - PLINTH PROTECTION.
   - STRUCTURAL AND OTHER ASSOCIATED RC WORKS.
   - SLOPE PROTECTION AND TURFING.
   - CHAIN LINK FENCING AND GATE.
   - ELECTRICAL CONDUITS AND OTHER ASSOCIATED ELECTRICAL WORKS.
   - EXCAVATION IN FOUNDATION, BACKFILLING AND COMPACTION.
   - WATERPROOFING & THERMAL INSULATION ON ROOF TO BE DONE.

PRELIMINARY GAD

FOR CONTRACTOR

PREPARED BY:	CHECKED BY:	APPROVED BY:
SUDHANSH KHARE	SANJEEV KUMAR VERMA	LIU BIAO

REV.	DATE	DESCRIPTION	REV.BY	CHK.BY
D	17-12-2019	AS PER PMC COMMENT		
C	02-12-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	20-08-2019	AS PER PMC COMMENT		
A	14-01-2019	FIRST SUBMISSION		

CRSC Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT: NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203

CLIENT NAME: Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise — SCALE 1:100

PROJECT NAME: Eastern Dedicated Freight Corridor Project-2 — SHEET 01

NEW AHRAURA RELAY HUT - 2

GROUND FLOOR PLAN, ELEVATION 1-4, ELEVATION 4-1 SECTION 2-2, TERRACE PLAN — TOT.SHEET 01

STATUS: W — DWG No.: 1/AR/02203 — REV. D

REF.DWG.: ALIGNMENT PLAN & PROFILE KM. 139+800 TO KM. 141+000 DETAILED CROSS SECTION: KM. 140+480 TO KM. 140+800 — SH.SIZE 841 X 594 MM

PMC: SYSTRA - MOTT MACDONALD JV

TEAM LEADER

ARCHITECT

EMPLOYER: DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

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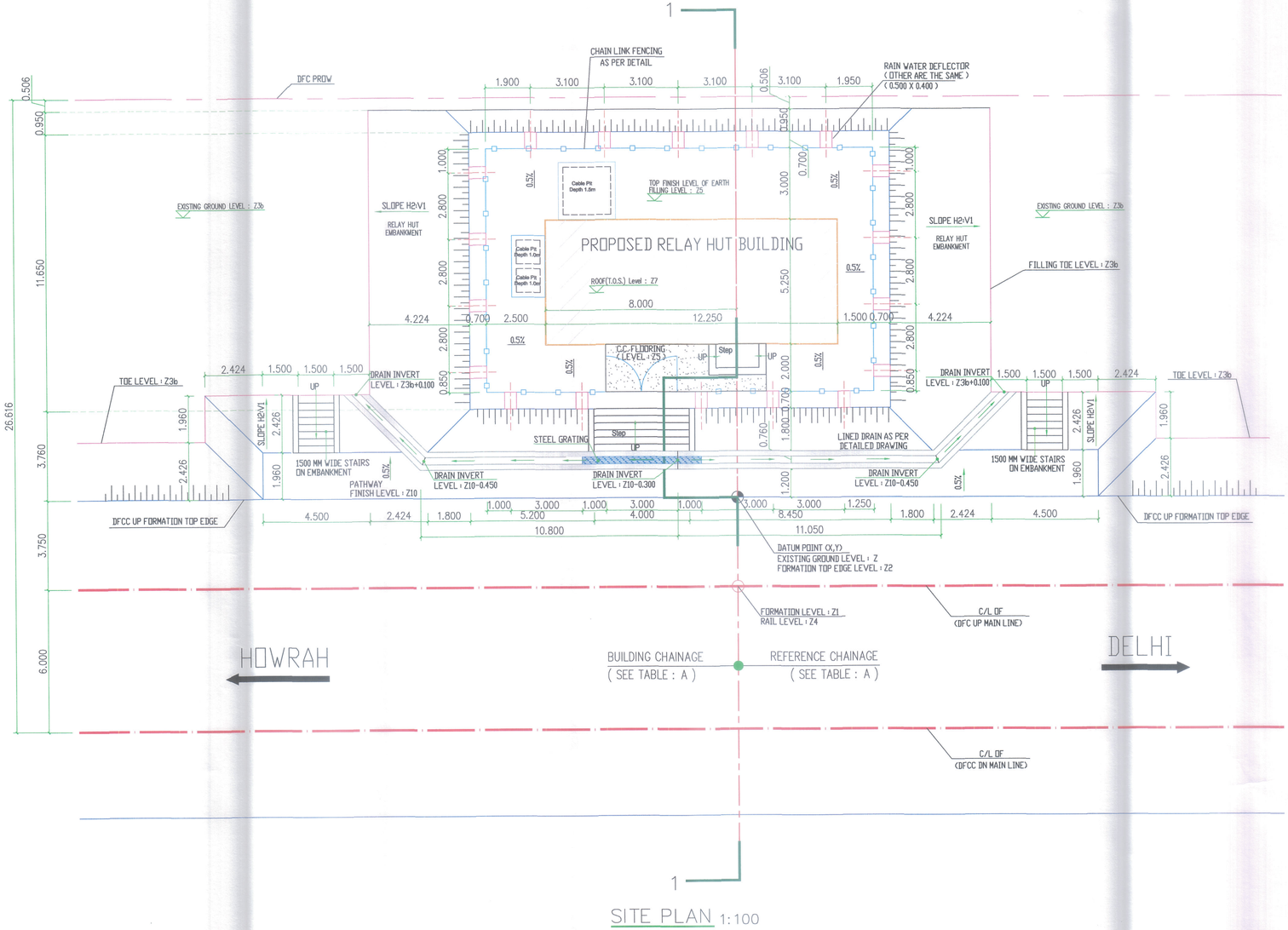


NOTES :

1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44 (AS PER ALIGNMENT AND CROSS SECTION DRAWING OF CP 201 & 202).
3. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Unchdih Relay Hut – 1	233.720	233.720	D2AL0096-0	P2DCS6005C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Unchdih Relay Hut – 1	233.720	233.720	620207.110	2785463.983	88.929	22.867°

Note : The direction angle is positive("+") for clockwise rotation.

6. LEVEL ABBREVIATIONS
   - F.T.E.L : FORMATION TOP EDGE LEVEL
   - F.G.L : FINISHED GROUND LEVEL
   - P.FFL : PLINTH FINISHED FLOOR LEVEL
   - R.L : RAIL LEVEL
   - E.G.L : EXISTING GROUND LEVEL
7. FOR SITE PLAN DESIGN PARAMETERS SEE "SITE SECTION 1–1" TABLE IN DRAWING NO. 1/AR/05102
8. CHAIN LINK FENCING SHOULD BE AS PER PARA 1.4.5. (5), PART 2, SECTION VI, VOL. 4, PARTICULAR SPECIFICATION BUILDING & STRUCTURE WORKS, ON PAGE NO. 0633 OF CA CP-203.
9. TURFING ON RELAY HUT EMBANKMENT TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
10. THE PLINTH LEVEL OF SIGNALLING EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS AND SIGNALLING & TELECOMMUNICATION POWER SUPPLY EQUIPMENT ROOMS SHALL BE AT LEAST 300MM ABOVE THE RAIL LEVEL. THE CEILING HEIGHT OF THESE ROOMS SHALL BE AS SHOWN IN THE DRAWINGS.
11. ALL BUILDINGS SHALL BE PROVIDED WITH CONCEALED DUCTS/PIPES FOR WIRING OF SIGNAL AND TELECOM FACILITIES. IN ADDITION, DUCTS SHALL BE PROVIDED ON THE FLOOR FOR ENTRY/EXIT OF S&T CABLES AND ALSO FOR POWER SUPPLY. THESE ARRANGEMENTS SHALL BE MADE IN CONSULTATION WITH OTHER CONTRACTORS.
12. THE SITE OF THE WORK SHALL BE CLEARED OFF THE SHRUBS, RANK VEGETATION, GRASS, BUSHES AND OTHER MATERIALS UPTO ADEQUATE DEPTH AS REQUIRED AS PER SITE CONDITION AND RUBBISH REMOVED OUTSIDE THE PERIPHERY OF THE AREA BEING CLEARED. THE ENCLOSED AREA BETWEEN CHAIN LINK FENCING AND THE BUILDING SHALL THEN BE FILLED WITH THE EARTH UP TO RAIL LEVEL AS WELL AS COMPACTED BY A SUITABLE METHOD AS DECIDED BY ENGINEER.

PRELIMINARY GAD

FOR CONTRACTOR		
PREPARED BY: SUDHANSH KHARE	CHECKED BY: SANJEEV KUMAR VERMA	APPROVED BY: DENG HUAPENG

REV.	DATE	DESCRIPTION	REV.BY	CHK.BY
D	30-11-2019	AS PER PMC COMMENT		
C	20-11-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	06-08-2019	AS PER PMC COMMENT		
A	19-06-2019	FIRST SUBMISSION		

Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT: NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203

CLIENT NAME: Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise — SCALE 1:100

PROJECT NAME: Eastern Dedicated Freight Corridor Project-2 — SHEET 01

NEW UNCHDIH RELAY HUT - 1 SITE PLAN — TOT.SHEET 01

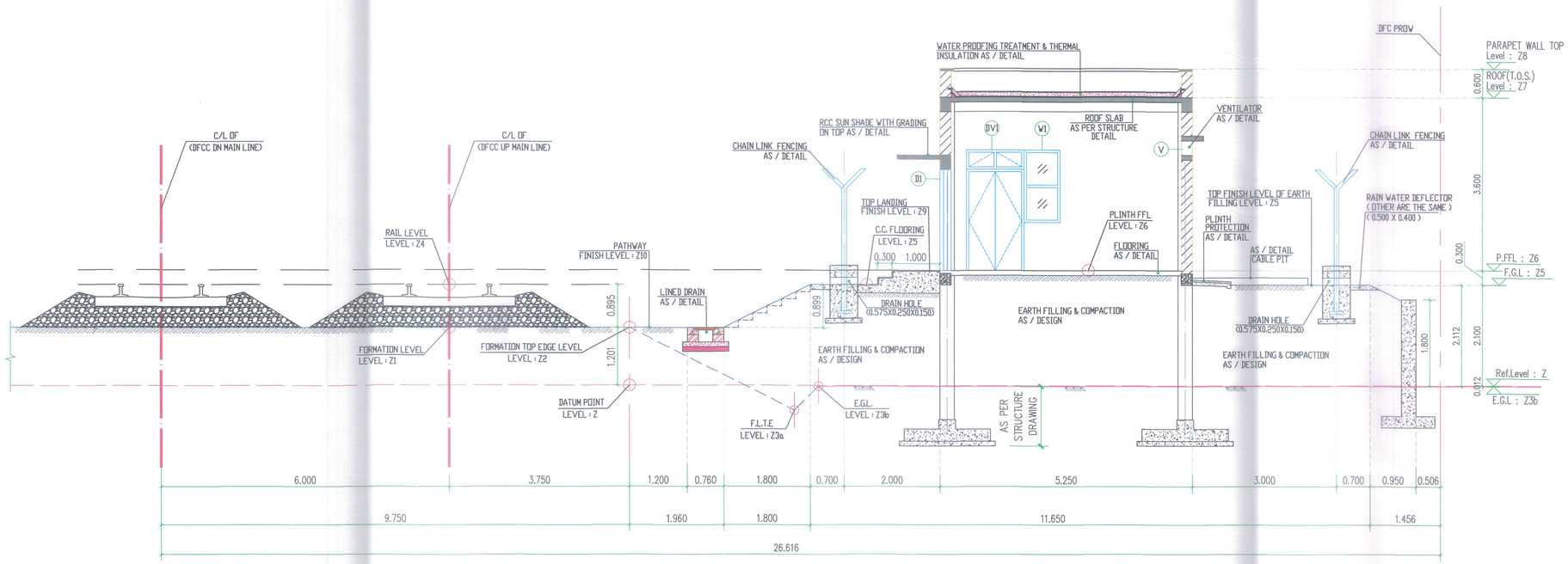
STATUS: W — DWG No.: 1/AR/05101 — REV. D

REF.DWG.: ALIGNMENT PLAN & PROFILE KM. 233+400 TO KM. 234+600 DETAILED CROSS SECTION: KM. 233+400 TO KM. 233+880 — SH.SIZE 841 X 594 MM

PMC: SYSTRA - MOTT MACDONALD JV (SYSTRA MOTT MACDONALD)

TEAM LEADER	
ARCHITECT	01/12/19

EMPLOYER: DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD. डेडीकेटेड फ्रेट कोरीडोर



SITE SECTION 1–1 1:50

RELAY HUT BUILDING – LEVELS

S.No.	Relay Hut No.	Building Chainage	Reference Chainage	Co-ordinates of ref. / Datum pt.		Ref. Level	Levels at 'Reference Chainage' as per approved cross-section				Derived Levels							Level Difference (Height/Depth)				Remark
						Datum point (Refer to the drawing)	Formation Level at the Center of Yard Line	Formation Level at Top Edge of the Embankment	Formation Level at the Toe of Embankment	Existing Ground Level at the Toe of Embankment	Rail Level	Finished Ground Level	Plinth FFL	Roof (T.O.S.)	Parapet Wall Top Level	Top Landing Finish Level	Pathway Finish Level	HT/DT. Of Formation Top Edge Level from Datum PT.	HT/DT. Of Rail Level from F.T.E.L.	HT/DT. Of F.G.L. from F.T.E.L.	HT/DT. Of Plinth FFL from Datum pt.	
				X	Y	Z	Z1	Z2	Z3a	Z3b	Z4 (=Z1 + 0.771)	Z5 (=Z2 + 0.899)	Z6 (=Z5 + 0.300)	Z7 (=Z6 + 3.600)	Z8 (=Z6 + 4.200)	Z9 (=Z6 - 0.025)	Z10 (=Z2)	(=Z2 - Z)	(=Z4-Z2)		(=Z6-Z)	
1	New Unchdih Relay Hut - 1	233.720	233.720	620207.110	2785463.983	88.929	90.254	90.130	88.415	88.917	91.025	91.029	91.329	94.929	95.529	91.304	90.130	1.201	0.895	0.899	2.400	

NOTES :

1. ALL DIMENSIONS ARE IN M UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44 (AS PER ALIGNMENT AND CROSS SECTION DRAWING OF CP 201 & 202).
3. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Unchdih Relay Hut – 1	233.720	233.720	D2AL0096-0	P2DCS6005C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Unchdih Relay Hut – 1	233.720	233.720	620207.110	2785463.983	88.929	22.867°

Note : The direction angle is positive("+") for clockwise rotation.

6. LEVEL ABBREVIATIONS
   - F.T.E.L : FORMATION TOP EDGE LEVEL
   - F.G.L : FINISHED GROUND LEVEL
   - P.FFL : PLINTH FINISHED FLOOR LEVEL
   - R.L : RAIL LEVEL
   - E.G.L : EXISTING GROUND LEVEL
   - F.L.T.E : FORMATION LEVEL AT THE TOE OF EMBANKMENT
   - E.G.L.T.E : EXISTING GROUND LEVEL AT THE TOE OF EMBANKMENT
7. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 1/AR/05101
8. CHAIN LINK FENCING SHOULD BE AS PER PARA 1.4.5. (5), PART 2, SECTION VI, VOL. 4, PARTICULAR SPECIFICATION BUILDING & STRUCTURE WORKS, ON PAGE NO. 0633 OF CA CP-203.
9. TURFING ON RELAY HUT EMBANKMENT TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
10. THE PLINTH LEVEL OF SIGNALLING EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS AND SIGNALLING & TELECOMMUNICATION POWER SUPPLY EQUIPMENT ROOMS SHALL BE AT LEAST 300MM ABOVE THE RAIL LEVEL. THE CEILING HEIGHT OF THESE ROOMS SHALL BE AS SHOWN IN THE DRAWINGS.
11. ALL BUILDINGS SHALL BE PROVIDED WITH CONCEALED DUCTS/PIPES FOR WIRING OF SIGNAL AND TELECOM FACILITIES. IN ADDITION, DUCTS SHALL BE PROVIDED ON THE FLOOR FOR ENTRY/EXIT OF S&T CABLES AND ALSO FOR POWER SUPPLY. THESE ARRANGEMENTS SHALL BE MADE IN CONSULTATION WITH OTHER CONTRACTORS.
12. THE SITE OF THE WORK SHALL BE CLEARED OFF THE SHRUBS, RANK VEGETATION, GRASS, BUSHES AND OTHER MATERIALS UPTO ADEQUATE DEPTH AS REQUIRED AS PER SITE CONDITION AND RUBBISH REMOVED OUTSIDE THE PERIPHERY OF THE AREA BEING CLEARED. THE ENCLOSED AREA BETWEEN CHAIN LINK FENCING AND THE BUILDING SHALL THEN BE FILLED WITH THE EARTH UP TO RAIL LEVEL AS WELL AS COMPACTED BY A SUITABLE METHOD AS DECIDED BY ENGINEER.

PRELIMINARY GAD

FOR CONTRACTOR

PREPARED BY:	CHECKED BY:	APPROVED BY:
SUDHANSH KHARE	SANJEEV KUMAR VERMA	DENG HUAFENG

REV.	DATE	DESCRIPTION	REV.BY	CHK.BY
D	30-11-2019	AS PER PMC COMMENT		
C	20-11-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	06-08-2019	AS PER PMC COMMENT		
A	19-06-2019	FIRST SUBMISSION		

Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT: NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203

CLIENT NAME: Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise

SCALE: 1:50

PROJECT NAME: Eastern Dedicated Freight Corridor Project-2

SHEET: 01

NEW UNCHDIH RELAY HUT - 1 SITE SECTION

TOT.SHEET: 01

STATUS: W

DWG No.: 1/AR/05102

REV.: D

REF.DWG.:

ALIGNMENT PLAN & PROFILE KM. 233+400 TO KM. 234+600
DETAILED CROSS SECTION: KM. 233+400 TO KM. 233+880

SH.SIZE: 841 X 594 MM

PMC: SYSTRA - MOTT MACDONALD MACDONALD JV

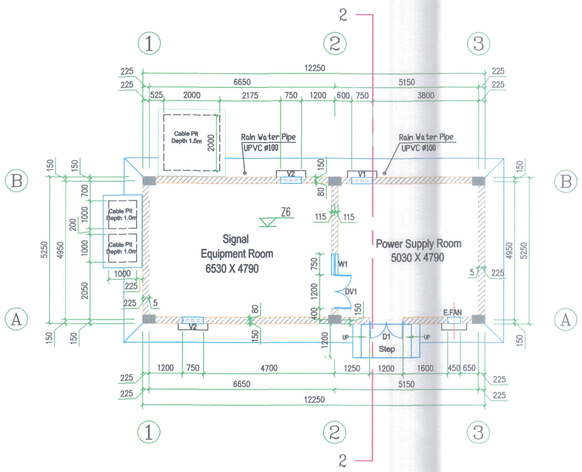
SYSTRA MOTT MACDONALD

TEAM LEADER

ARCHITECT

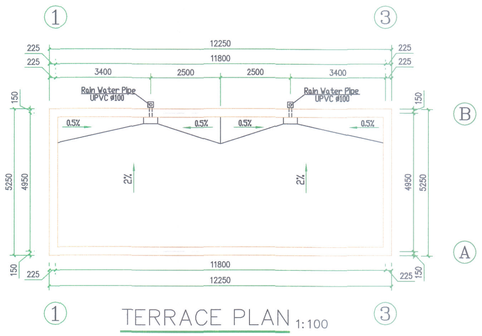
EMPLOYER: DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

डेडीकेटेड फ्रेट कोरीडोर

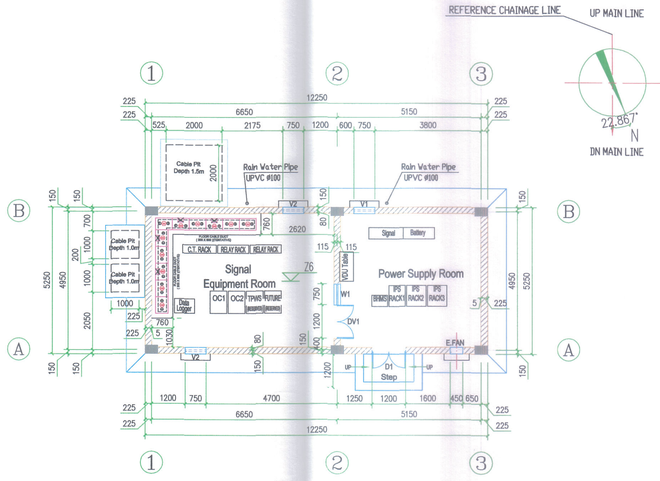


GROUND FLOOR PLAN 1:100

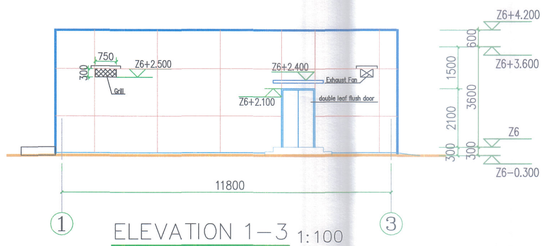
AREA: 64.31m²



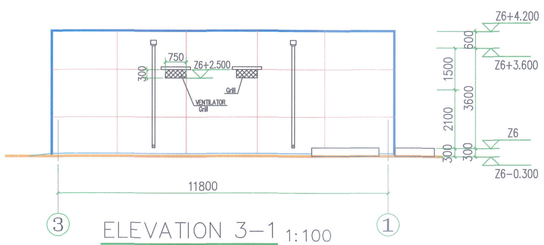
TERRACE PLAN 1:100



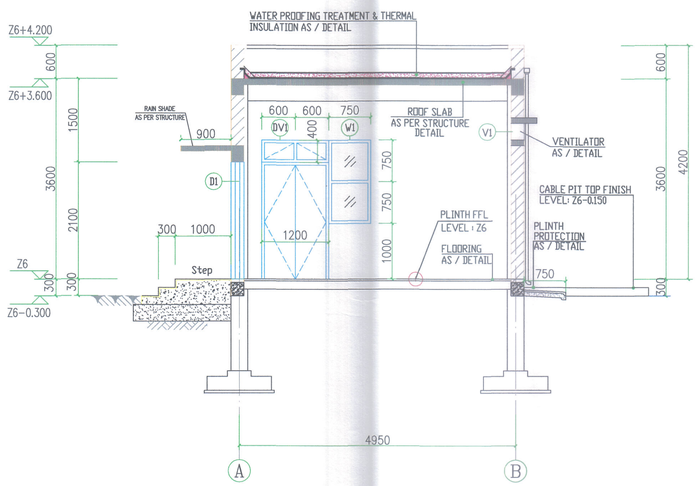
FLOOR CABLE DUCT PLAN 1:100



ELEVATION 1–3 1:100



ELEVATION 3–1 1:100



SECTION 2–2 1:50

FURNISHING SCHEDULE

S.N.	DESCRIPTION	FINISHING	
		FLOORS	SKIRTING / DADO
1	singnalling equipment rooms	ceramic tile flooring	same with 100 mm high
2	power supply room	acid proof tiles for flooring	same with 2 m high
3	doors	door frame -steel sction painted with enamel paint	
		shutter door - water proof flush door steel section painted with enamel paint.	
4	ventilators	ventilators shall be made with steel section with the grill painted with enamel paint	
5	internal finish	cement plaster on all walls finished with oil bound distemper	
6	external finish	cement plaster on all walls finished with snowcem paint	

DOOR, WINDOW & VENTILATOR SCHEDULE

TYPE	NO.	WIDTH (MM)	HEIGHT (MM)	SILL (M)	LINTEL (M)	REMARK
DOOR	DV1	1200	2500	Z6	Z6 + 2.500	DOUBLE LEAF STEEL FLUSH DOOR , FIXED GLASS VENTILATOR
	D1	1200	2100	Z6	Z6 + 2.100	DOUBLE LEAF STEEL FLUSH DOOR
WINDOW	W1	750	1500	Z6 + 1.000	Z6 + 2.500	FIXED GLASS
VENTILATOR	V1	750	300	Z6 + 2.500	Z6 + 2.800	GRILL
	V2	750	300	Z6 + 2.500	Z6 + 2.800	GRILL
EXHAUST FAN	E.FAN	450	300	Z6 + 2.500	Z6 + 2.800	FAN

NOTES :

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4. REFERENCE DRAWING NO. SEE BELOW TABLE :

REFERENCE TABLE A

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Alignment Plan & Profile Drawing NO.	Detailed Cross Section Drawing NO.
1	New Unchdih Relay Hut – 1	233.720	233.720	D2AL0096-0	P2DCS6005C

5. RELAY HUT LOCATION DATUM POINT SEE BELOW TABLE :

REFERENCE TABLE B

S.NO.	Relay Hut No.	Building Chainage	Reference Chainage	Datum Point Unit:m			Direction Angle
				X	Y	Z	
1	New Unchdih Relay Hut – 1	233.720	233.720	620207.110	2785463.983	88.929	22.867°

Note : The direction angle is positive("+") for clockwise rotation.

6. FOR THE RELAY HUT LOCATION SEE DRAWING NO. 1/AR/05101
7. BRICKWORK TO BE DONE AS FOLLOWS:
   - IN SUPERSTRUCTURE ABOVE PLINTH TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
   - IN PLINTH AND FOUNDATION TO BE DONE AS PER APPROVED MATHEOD STATEMENT.
8. CEMENT PLASTER TO BE DONE IN C.M. 1:3 INTERNAL SIDE 12MM THICK AND EXTERNAL SIDE 15MM THICK.
9. REFER TO SEPARATE APPROVED DRAWING / METHOD STATEMENT FOR THE FOLLOWING WORKS:
   - BRICKWORKS.
   - FLOORING, SKIRTING AND DADO.
   - FLOOR CABLE DUCT FOR SIGNAL CABLES.
   - CABLE PIT WORKS.
   - PLASTERING AND PAINTING.
   - DOOR, WINDOW, VENTILATOR AND GRILL.
   - PLINTH PROTECTION.
   - STRUCTURAL AND OTHER ASSOCIATED RC WORKS.
   - SLOPE PROTECTION AND TURFING.
   - CHAIN LINK FENCING AND GATE.
   - ELECTRICAL CONDUITS AND OTHER ASSOCIATED ELECTRICAL WORKS.
   - EXCAVATION IN FOUNDATION, BACKFILLING AND COMPACTION.
   - WATERPROOFING & THERMAL INSULATION ON ROOF TO BE DONE.

PRELIMINARY GAD

PMC:	TEAM LEADER	EMPLOYER:
SYSTRA - MOTT MACDONALD MACDONALD JV	ARCHITECT	DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

FOR CONTRACTOR				
PREPARED BY: SUDHANSH KHARE		CHECKED BY: SANJEEV KUMAR VERMA	APPROVED BY: DENG HUAPENG	
D	30-11-2019	AS PER PMC COMMENT		
C	20-11-2019	TYPE OF BUILDING HAVE BEEN CHANGED PRECAST TO FRAME STRUCTURE		
B	06-08-2019	AS PER PMC COMMENT		
A	19-06-2019	FIRST SUBMISSION		
REV.	DATE	DESCRIPTION	REV.BY	CHK.BY

Beijing National Railway Research&Design Institute of Signal&Communication Co.,Ltd.

NAME OF THE CONTRACT:	NEW MUGHALSARAI-NEW BHAUPUR DESIGN AND BUILD SYSTEM WORK CONTRACT PACKAGE-203
CLIENT NAME:	Dedicated Freight Corridor Corporation of India Ltd. A Goverment of India (Ministry of Railway) Enterprise — SCALE 1:100
PROJECT NAME:	Eastern Dedicated Freight Corridor Project-2 — SHEET 01
	NEW UNCHDIH RELAY HUT - 1 GROUND FLOOR PLAN, ELEVATION 1-3, ELEVATION 3-1 SECTION 2-2, TERRACE PLAN — TOT.SHEET 01
STATUS: W	DWG No.: 1/AR/05103 — REV. D
REF.DWG.:	ALIGNMENT PLAN & PROFILE KM. 233+400 TO KM. 234+600 DETAILED CROSS SECTION: KM. 233+400 TO KM. 233+860 — SH.SIZE 841 X 594 MM