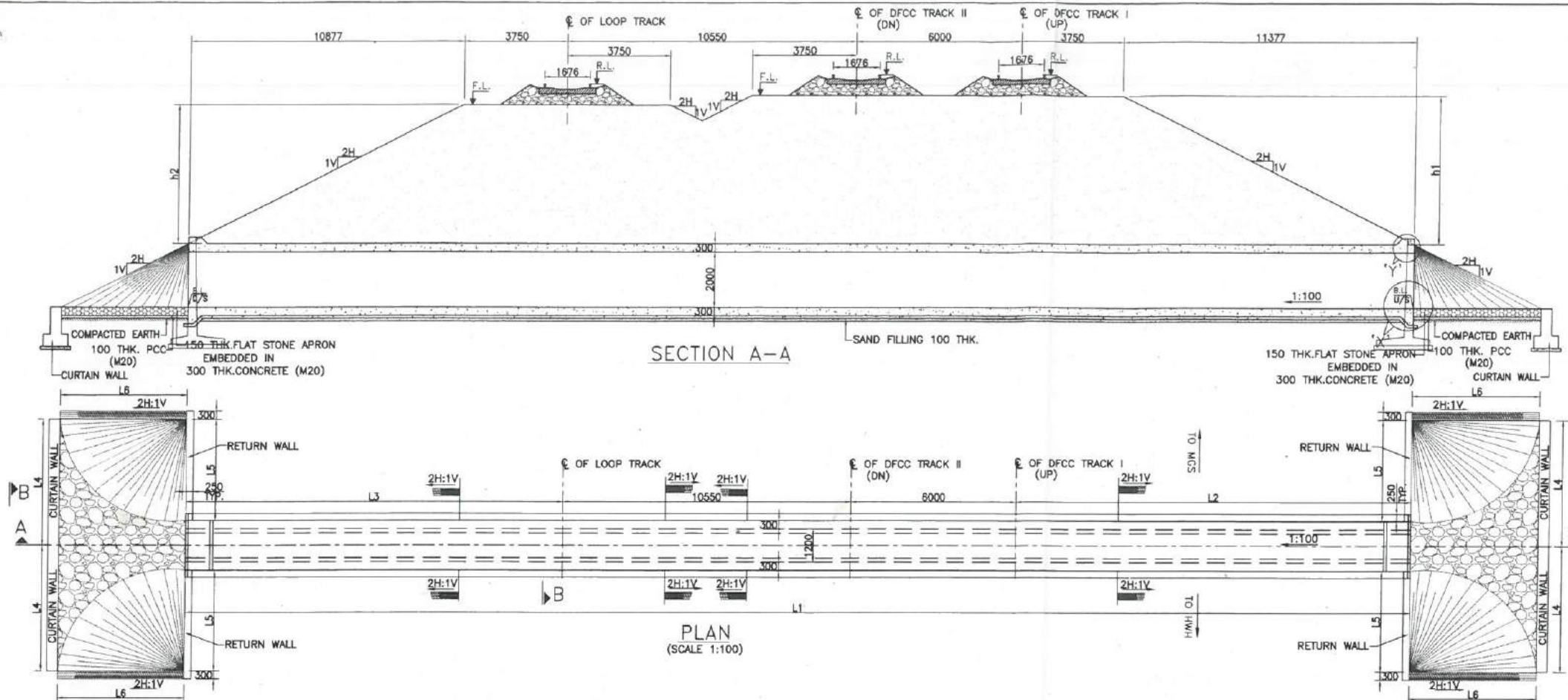




PROPOSED BRIDGE DETAILS

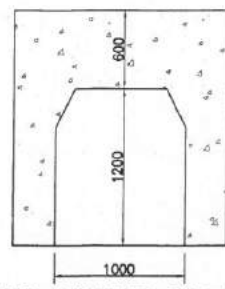
S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (DFCC TRACK) (m)	F.L (LOOP TRACK) (m)	H.F.L (m)	B.L U/S (m)	B.L D/S (m)	FREE BOARD (m)
1	724	113+332.204	1 X 1.20M X 2.00M RCC BOX	82.318	81.627	76.641	74.335	73.880	4.986

EXISTING BRIDGE DETAILS

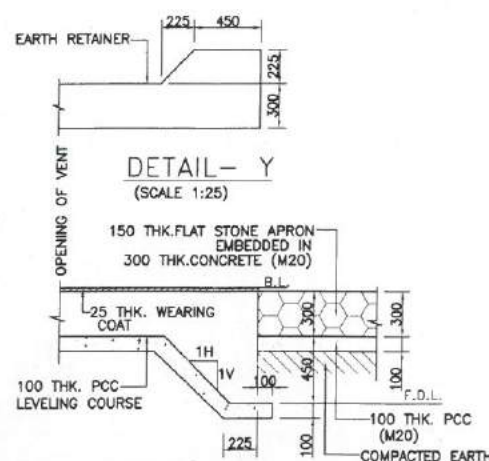
S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	724	1 X 1.00M X 1.20M RCC BOX	--	76.641	74.335	--	663/11-13

PROPOSED DIMENSIONS DETAILS(M.M)

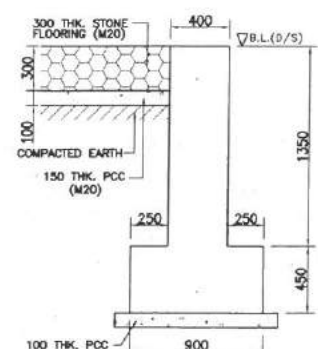
L1	L2	L3	L4	L5	L6	h1	h2	h3
46304	15127	14627	4350	3450	4600	5682	5436	4050



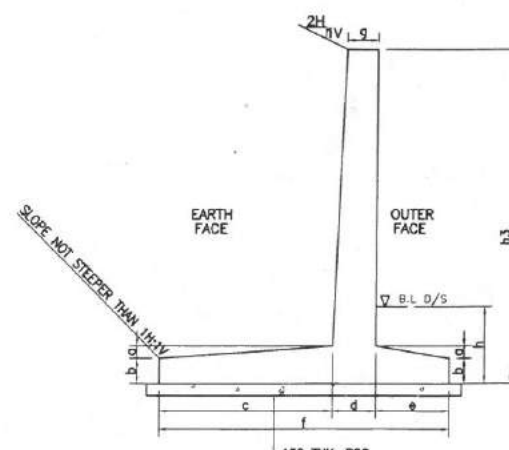
BRIDGE UNDER TRACK 1
(UP LINE-IR TRACK)
DET.OF EXG. BRIDGE No. 724
(SCALE 1:30)



DETAIL- X
(SCALE 1:25)



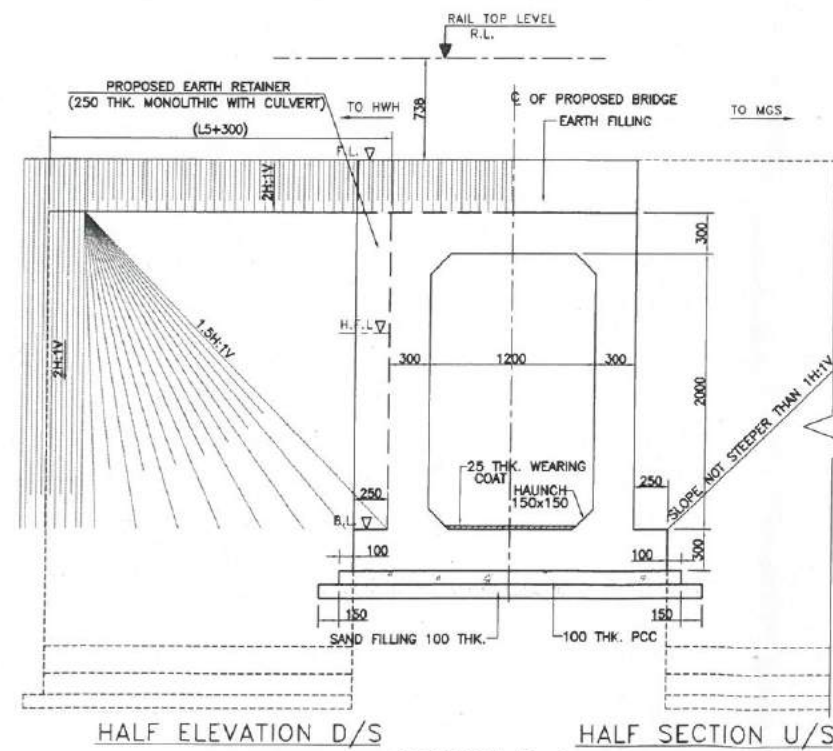
TYPICAL DETAIL OF
CURTAIN WALL
(SCALE 1:25)



TYPICAL SECTION FOR
RETURN WALL
(SCALE 1:25)

RETURN WALL DETAILS(M.M)

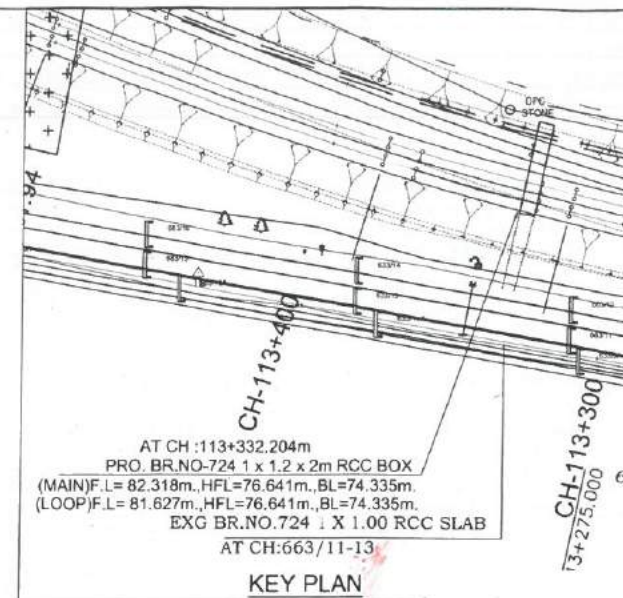
a	b	c	d	e	f	g	h
200	200	1700	400	700	2800	250	1750



HALF ELEVATION D/S

SECTION B-B

HALF SECTION U/S



TRACK DETAIL	
ALIGNMENT	STRAIGHT
GRADE	LEVEL

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
 - EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY INCHARGE AT SITE.
 - STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
 - THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
 - GRADE OF CONCRETE SHALL BE DESIGN MIX AND 28 DAY CHARACTERISTIC STRENGTH OF VARIOUS COMPONENTS SHALL BE AS UNDER--
 - a. RCC BOX / RETURN WALLM35
 - b. BALLAST RETAINER / RCC TROUGHM30
 - c. CURTAIN WALL / DROP WALLM25
 - d. LEVELING COURSE PCCM20
 - GRADE OF REINFORCEMENT STEEL Fe-500 CONFORMING TO IS 1786-2008
 - FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
 - # VALUE FOR BACKFILL MATERIAL SHALL NOT BE LESS THAN 35° BACKFILL MATERIAL BEHIND ABUTMENTS. WING WALLS AND RETURN WALLS SHALL BE PROVIDED.
 - ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION.
 - a. IS BRIDGE RULES
 - b. IS CONCRETE BRIDGE CODE
 - c. IS SUB STRUCTURE & FOUNDATION CODE
 - d. DFCC SPECIFICATIONS
 - e. IS BRIDGE MANUAL
 - DEPTH AND TYPE OF MATERIAL FOR GROUND IMPROVEMENT BELOW BOX AND FOUNDATION OF PROTECTION WORK SHALL BE PROVIDED AS PER GT RECOMMENDATION.
 - BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 17 T/m².
 - LEVELS SHOWN IN THE DRAWING SHALL BE VERIFIED AT SITE BEFORE PROCEEDING FOR CONSTRUCTION.

ABBREVIATIONS

R.L. : RAIL LEVEL.	U/S : UP STREAM.
F.L. : FORMATION LEVEL.	D/S : DOWN STREAM.
B.L. : BED LEVEL.	ROW : RIGHT OF WAY.
S.L. : SCOUR LEVEL.	G.T. : GEOTECHNICAL.
Bn : BETWEEN	TH : THICK.
G.L. : GROUND LEVEL.	CH. : CHAINAGE.
N.G.L. : NATURAL GROUND LEVEL.	No. : NUMBER.
H.F.L. : HIGHEST FLOOD LEVEL.	Br. : BRIDGE.
IR : INDIAN RAILWAY.	EXG. : EXISTING.
DFC : DEDICATED FREIGHT CORRIDOR.	PROP. : PROPOSED.
P.C.C. : PLAIN CEMENT CONCRETE.	C. : CENTRE LINE.
R.C.C. : REINFORCEMENT CEMENT CONCRETE.	MGS. : MUGHAL SARAI.
G.S.B. : GRANULAR SUB BASE.	F.D.L. : FOUNDING LEVEL.
TYP. : TYPICAL	REF. : REFER.
# : FRICTION ANGLE FOR SOIL	

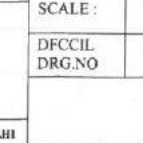
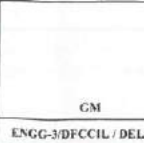
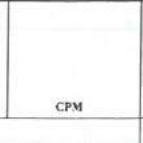
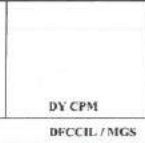
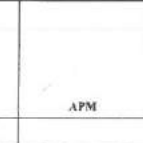
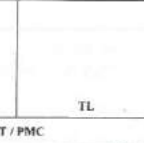
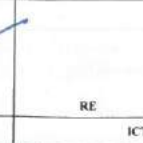
LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV) Door No.8-2/120/113/34F, Sarani Info Park Cyber Towers, Road No.2, Banjara Hills, Hyderabad-500033, India Tel No:91-40-40409333 Fax:No:91-40-40409444.	
PROJECT:	Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL:	GENERAL ARRANGEMENT DRAWING BRIDGE NO.724 CH- 113+332.204(1 X 1.20M X 2.00M RCC BOX,CAST IN SITU)
SCALE:	
DFCCIL DRG.NO	ASC/ILFS-GPT/DFC-EC/MNBR/724/101
REVISION	C
ASC Infratech Pvt. Ltd. H-17, 1st Floor, Sector-43, Noida- 201301 (U.P.) Tel: 0120-4248813-20 Fax: 0120-4237853, email: info@ascinfotech.com	
STATUS	P

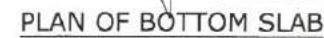
REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONS. (P.C.)
C	18.08.17	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSH	
B	28.03.18	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSH	
A	13.08.15	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
O	30.08.14	P	FIRST SUBMISSION	ADS	SS	SPD	



DEDICATED FREIGHT CORRIDOR
CORPORATION OF INDIA LTD.
EASTERN CORRIDOR



JLFO Letter No - 1074

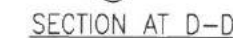
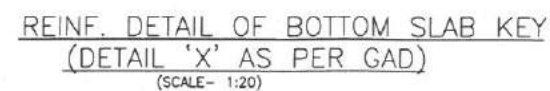
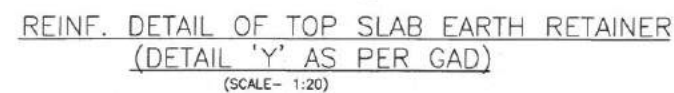


(HAUNCH BARS NOT SHOWN IN PLAN)



1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. EXPOSURE CONDITION-MODERATE
4. HIGH YIELD STRENGTH DEFORMED / THERMO MECHANICAL TREATED (TMT) BAR OF GRADE $F_y=500$ SATISFYING THE REQUIREMENT OF I.S. 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. LAPPING OF BARS SHOULD BE MINIMISED AND WHEREVER NECESSARY LAPPING SHALL BE STAGGERED WITH CENTER TO CENTER OF LAP SPLICES NOT LESS THAN 1.3 TIMES THE LAP LENGTH. MINIMUM LENGTH OF LAP SHALL BE $(46x_d)$ OR $(25x_d + 150)$, (WHICHEVER IS MAXIMUM), WHERE 'd' IS DIAMETER OF SMALLER BAR OF THE TWO BARS BEING LAPPED
6. GRADE OF CONCRETE - M35
GRADE OF STEEL - FES50
CLEAR COVER FOR EARTH FACE AS - 50mm
FOR OTHER FACE AS - 50mm

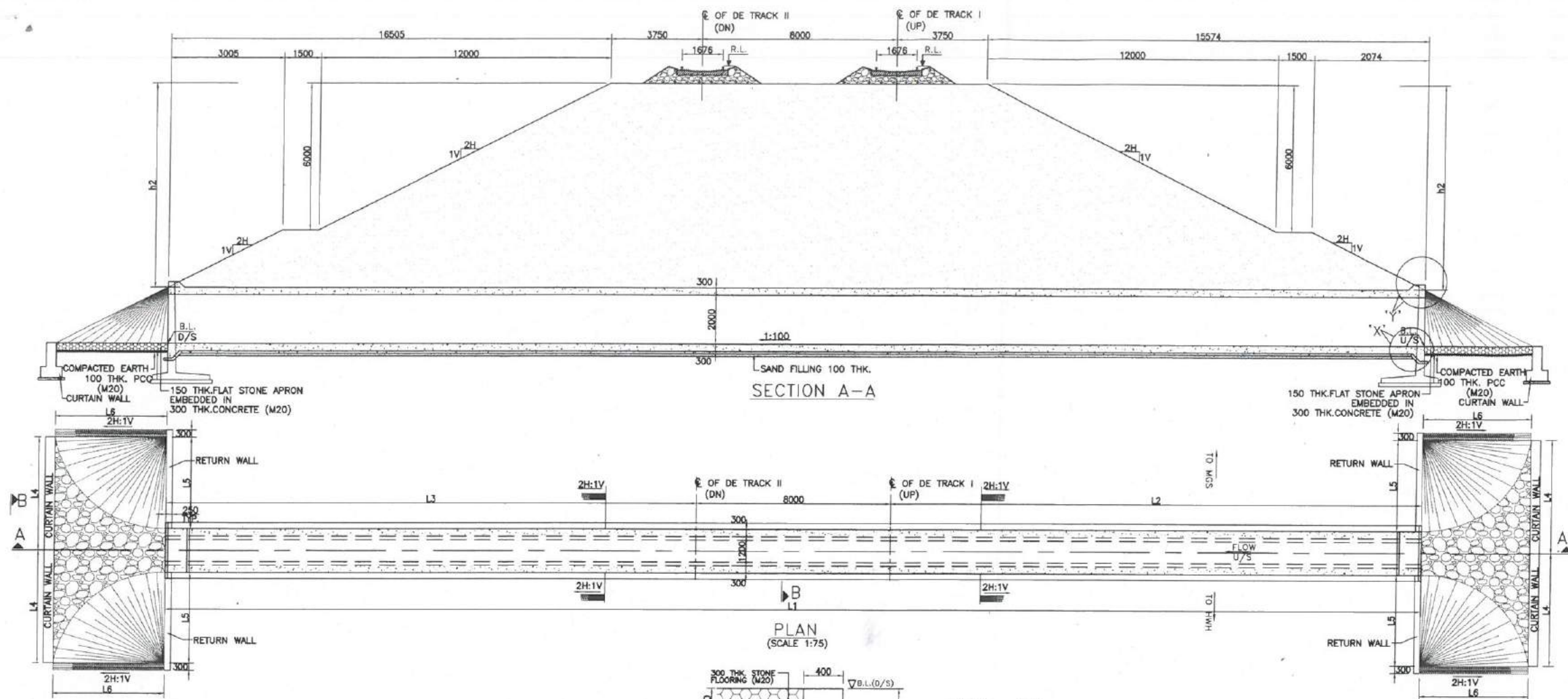
BAR MARK	BAR SHAPE	BAR DIA	SPACING	a	b	c
t1		10	200mm c/c	400	1700	400
t2		10	200mm c/c	200	1700	200
t2a		10	200mm c/c	200	1700	200
t3		10	200mm c/c	L1-100	-	-
t4		10	200mm c/c	L1-100	-	-
b1		10	200mm c/c	200	2200	200
b1a		10	200mm c/c	200	2200	200
b2		10	200mm c/c	200	2200	200
b3		10	200mm c/c	L1-100	-	-
b4		10	200mm c/c	L1-100	-	-
w1		12	200mm c/c	500	2500	500
w2		12	200mm c/c	200	2500	200
w3		10	200mm c/c	L1-100	-	-
w4		10	200mm c/c	L1-100	-	-
w5		12	200mm c/c	850	2500	850
h1		10	200mm c/c	200	920	200
h2		10	4x1 nos.	L1-100	-	-
g1		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	200	-
g2		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	VARIES	-
g3		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	200	-
p1		8	230mm c/c	150	450	150
p2		8	2 NOS.EACH SIDE	150	2500	150



BOTTOM BAR _____
TOP BAR - - - - -

STATES
P

ILFS Letter No. 1074

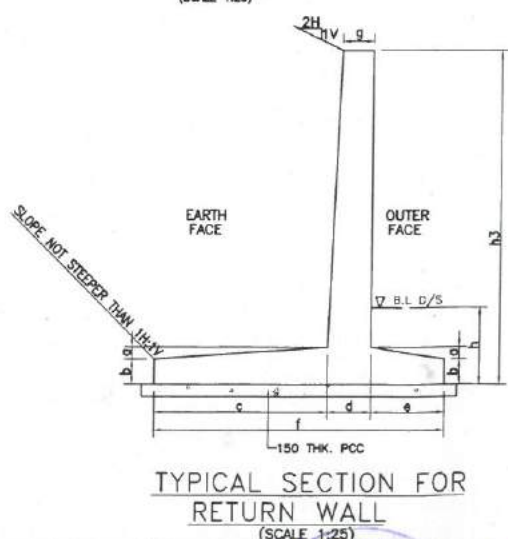
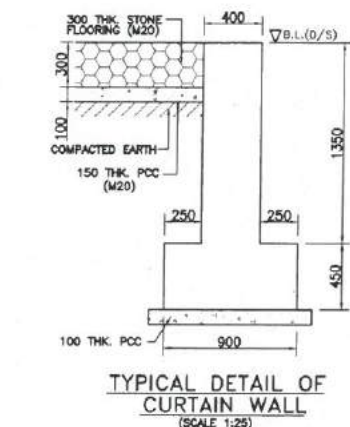
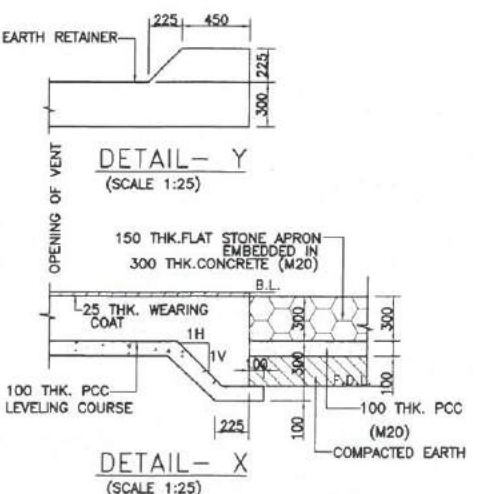


PROPOSED BRIDGE DETAILS

S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L U/S (m)	B.L D/S (m)	FREE BOARD (m)
1	725	114+268.368	1 X 1.20M X 2.00M RCC BOX	85.600	76.957	76.295	75.819	8.843

EXISTING BRIDGE DETAILS

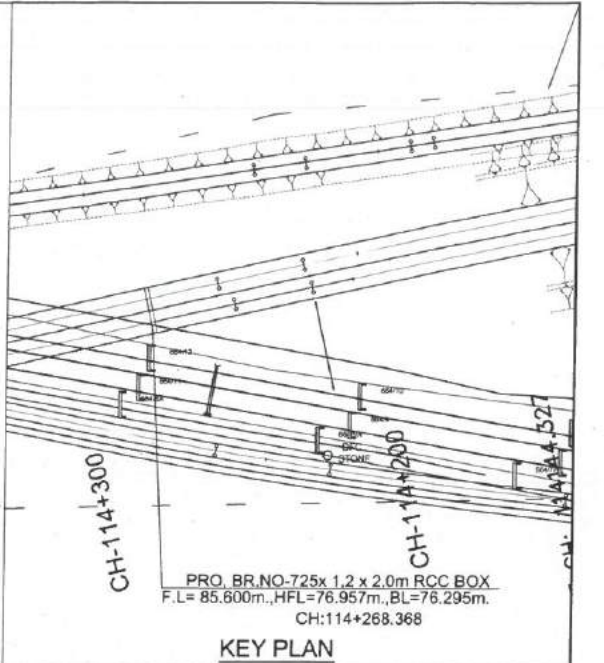
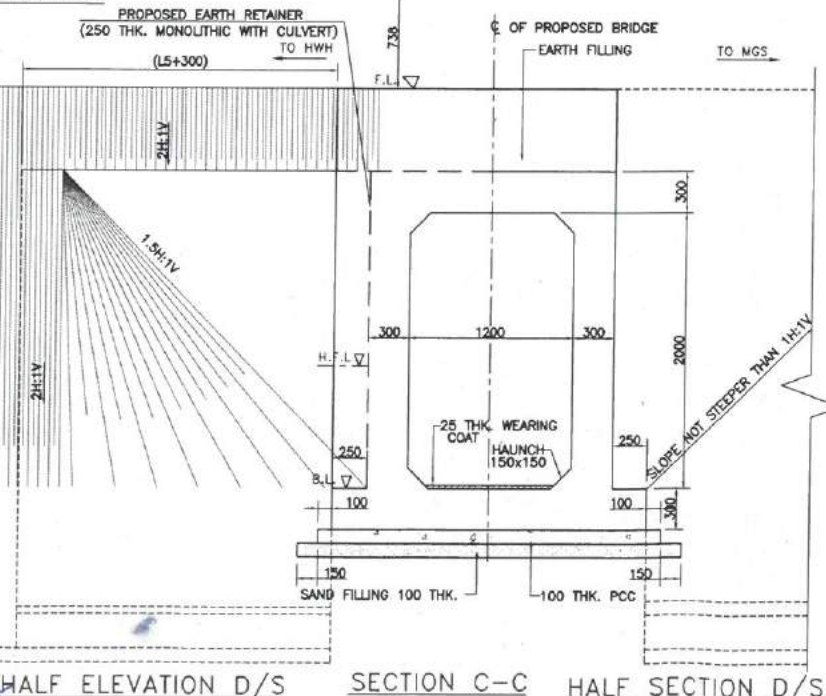
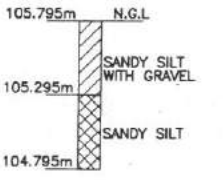
S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	725	1 X 1.00M X 1.20M RCC BOX	77.506	76.957	74.569	0.000	864/9-11



PROPOSED DIMENSIONS DETAILS(M.M)

L1	L2	L3	L4	L5	L6	h1	h2	h3
47579	19324	20255	4688	3788	5050	7005	7461	4275

TRAIL PIT DETAILS



TRACK DETAIL	
ALIGNMENT	STRAIGHT
GRADE	LEVEL

RETURN WALL DETAILS(M.M)

a	b	c	d	e	f	g	h
200	200	1700	400	700	2800	250	1750

- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
 - EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY INCHARGE AT SITE.
 - STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
 - THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
 - GRADE OF CONCRETE SHALL BE AS UNDER:-
a. RCC BOX / RETURN WALL M35
b. BALLAST RETAINER / RCC TROUGH M30
c. CURTAIN WALL / DROP WALL M25
d. LEVELING COURSE PCC M20
 - GRADE OF REINFORCEMENT STEEL Fe-500 CONFORMING TO IS 1786-2008
 - FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
 - VALUE FOR BACKFILL MATERIAL SHALL NOT BE LESS THAN 3% BACKFILL MATERIAL BEHIND ABUTMENTS, WING WALLS AND RETURN WALLS SHALL BE PROVIDED.
 - ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION:
a. IRS BRIDGE RULES.
b. IRS CONCRETE BRIDGE CODE.
c. IRS SUB STRUCTURE & FOUNDATION CODE.
d. DPCC SPECIFICATIONS.
e. IRS BRIDGE MANUAL.
 - BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 17 T/m².

ABBREVIATIONS

R.L : RAIL LEVEL	U/S : UP STREAM
F.L : FORMATION LEVEL	D/S : DOWN STREAM
B.L : BED LEVEL	ROW : RIGHT OF WAY
S.L : SCOUR LEVEL	G.T. : GEOTECHNICAL
Bn : BETWEEN	TH : THICK
G.L : GROUND LEVEL	CH : CHAINAGE
N.G.L : NATURAL GROUND LEVEL	No. : NUMBER
H.F.L : HIGHEST FLOOD LEVEL	Br. : BRIDGE
IR : INDIAN RAILWAY	EXG. : EXISTING
DFC : DEDICATED FREIGHT CORRIDOR	PROP. : PROPOSED
P.C.C. : PLAIN CEMENT CONCRETE	E. : CENTRE LINE
R.C.C. : REINFORCEMENT CEMENT CONCRETE	MGS. : MUGHAL SARAI
G.S.B. : GRANULAR SUB BASE	FDL : FOUNDING LEVEL
TYP. : TYPICAL	REF. : REFER.
φ : FRICTION ANGLE FOR SOIL	

LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV) Door No 2-120/113/34F, Sanali Info Park Cyber Towers Road No.2, Banjara Hills, Hyderabad-500333, India Tel: Nov91-40-40405333 Fax: Nov91-40-40405444.	
PROJECT:	Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL:	GENERAL ARRANGEMENT DRAWING BRIDGE NO.725 CH: 114+268.368(1 X 1.20M X 2.00M RCC BOX, CAST IN SITU)
SCALE:	
DFCCIL DRG.NO	ASC/ILFS-GPT/DFC-ECMNBR/725/101
REVISION	B
ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (U.P) Tel: 0120-4248833-20 Fax: 0120-4217953, email: info@ascinfotech.com	
STATUS	P

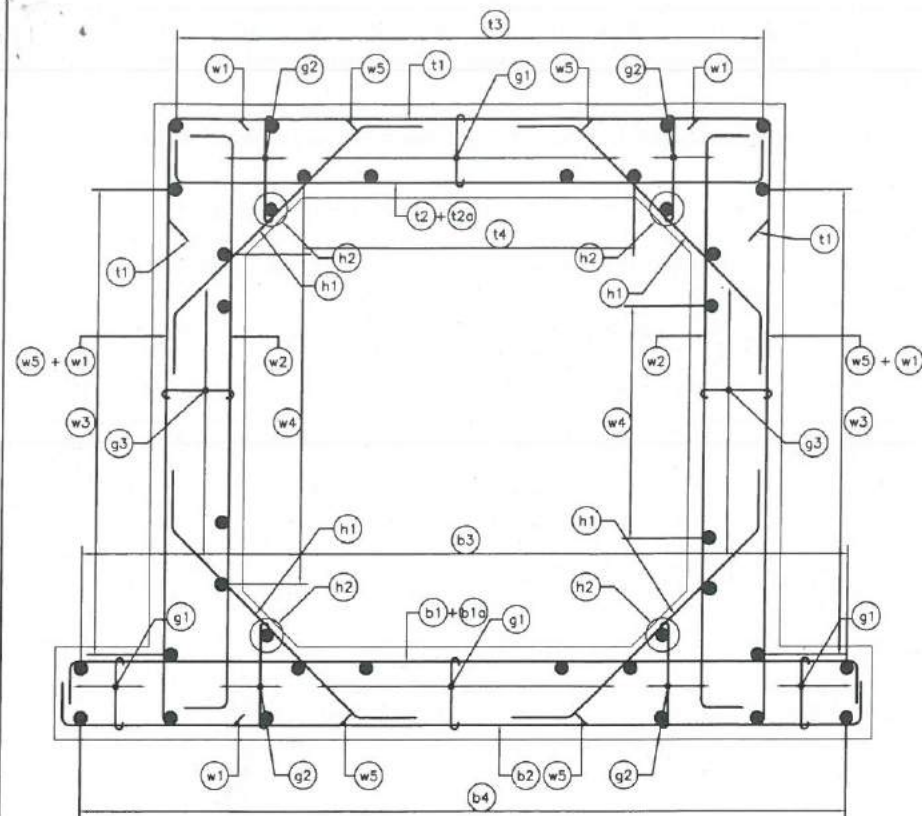
REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	PC.
C	18.09.17	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
B	14.08.15	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
A	30.08.14	P	FIRST SUBMISSION	ADS	SS	SPD	

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD. EASTERN CORRIDOR

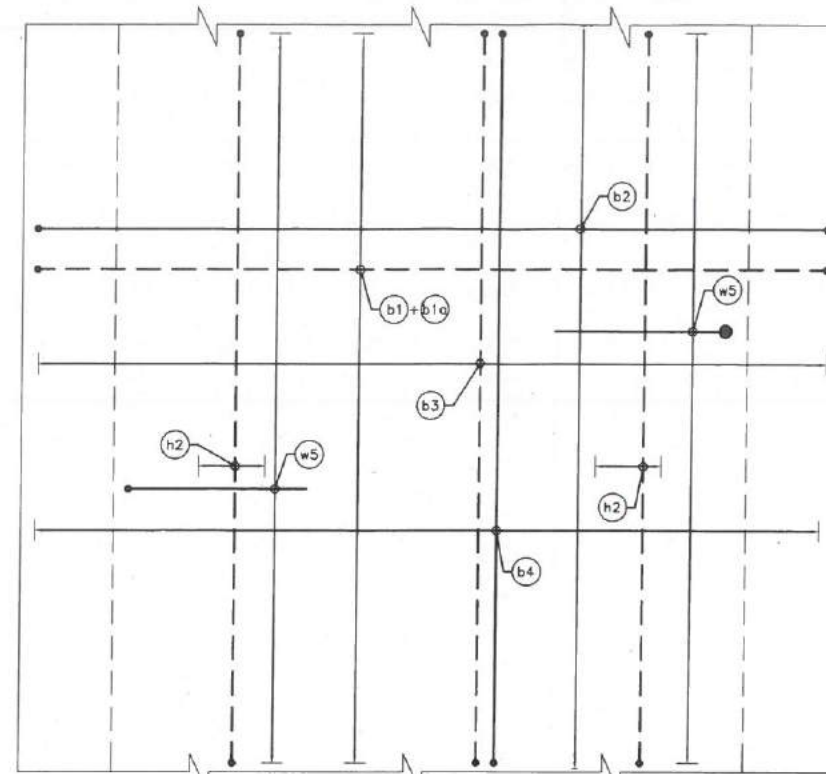
SRINAGANJANEYULU SR. MANAGER (BRIDGE)
(ASC Infratech Pvt. Ltd.)

IL & FS Engg - GPT (JV)

RE	TL	APM	DY CPM	CPM	GM
ICT / PMC		DFCCIL / MGS		ENGG-V/DFCCIL / DELHI	

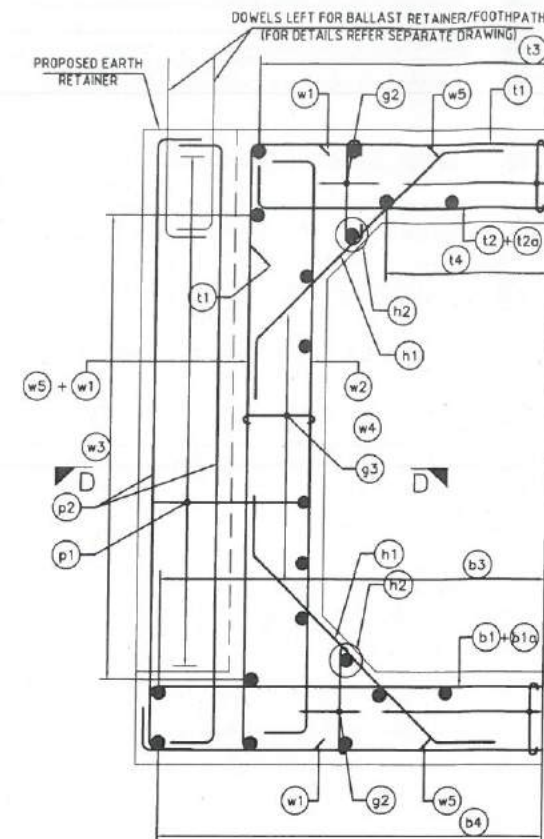


REINFORCEMENT DETAILS



PLAN OF BOTTOM SLAB

(HAUNCH BARS NOT SHOWN IN PLAN)



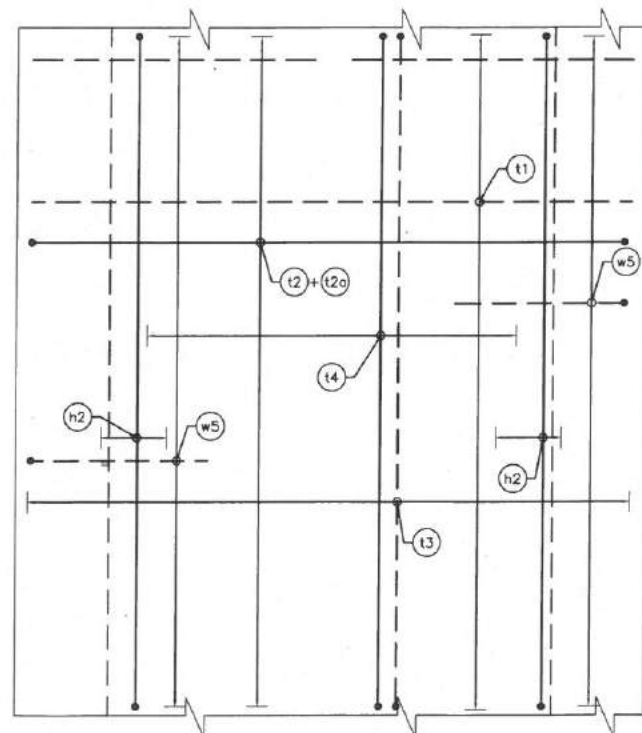
REINFORCEMENT DETAILS
(CROSS SECTION AT EDGE)

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- EXPOSURE CONDITION-MODERATE
- HIGH YIELD STRENGTH DEFORMED / THERMO MECHANICAL TREATED (TMT) BAR OF GRADE Fe-500 SATISFYING THE REQUIREMENT OF I.S. 1786-1985 SHALL BE USED AS REINFORCEMENT.
- LAPPING OF BARS SHOULD BE MINIMISED AND WHEREVER NECESSARY LAPPING SHALL BE STAGGERED WITH CENTER TO CENTER OF LAP SPLICES NOT LESS THAN 1.3 TIMES THE LAP LENGTH. MINIMUM LENGTH OF LAP SHALL BE (46xd) OR (25xd+150), (WHICHEVER IS MAXIMUM), WHERE 'd' IS DIAMETER OF SMALLER BAR OF THE TWO BARS BEING LAPPED
- GRADE OF CONCRETE - M35
GRADE OF STEEL - FE500
CLEAR COVER FOR EARTH FACE AS - 50mm
FOR OTHER FACE AS - 50mm

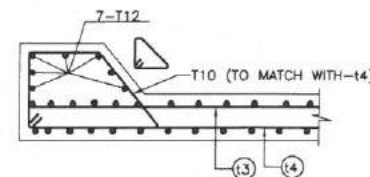
SCHEDULE OF REINFORCEMENT (BOX)

BAR MARK	BAR SHAPE	BAR DIA	SPACING	a	b	c
t1		10	200mm c/c	200	1600	200
t2		10	200mm c/c	200	1600	200
t2o		10	200mm c/c	200	1600	200
t3		10	200mm c/c	L1-100	-	-
t4		10	200mm c/c	L1-100	-	-
b1		10	200mm c/c	200	2100	200
b1o		10	200mm c/c	200	2100	200
b2		12	200mm c/c	200	2100	200
b3		8	200mm c/c	L1-100	-	-
b4		8	200mm c/c	L1-100	-	-
w1		12	200mm c/c	300	2400	300
w2		12	200mm c/c	200	2400	200
w3		10	200mm c/c	L1-100	-	-
w4		10	200mm c/c	L1-100	-	-
w5		12	200mm c/c	900	2400	900
h1		10	200mm c/c	150	780	150
h2		8	4x1 nos.	L1-100	-	-
g1		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	150	-
g2		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	VARIES	-
g3		8	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	150	-
p1		8	230mm c/c	150	400	150
p2		8	2 NOS.EACH SIDE	150	L1-100	150



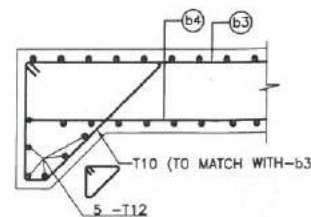
PLAN OF TOP SLAB

(HAUNCH BARS NOT SHOWN IN PLAN)



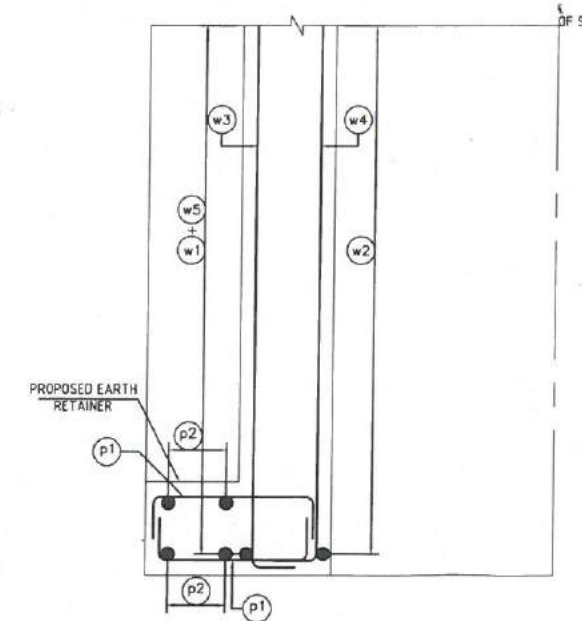
REINF. DETAIL OF TOP SLAB EARTH RETAINER
(DETAIL 'Y' AS PER GAD)

(SCALE- 1:20)



REINF. DETAIL OF BOTTOM SLAB KEY
(DETAIL 'X' AS PER GAD)

(SCALE- 1:20)



SECTION AT D-D

LEGEND

BOTTOM BAR ———
TOP BAR - - - - -

REV NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	PC.
C	16.09.15	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	ASV
A	14.08.15	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	ASV
D	22.08.14	P	FIRST SUBMISSION	SK	SS	SPD	ASV



DEDICATED FREIGHT CORRIDOR
CORPORATION OF INDIA LTD.
EASTERN CORRIDOR



(ASC Infratech Pvt. Ltd.)

IL & FS Engg-GPT JV

RE TL

APM

BY CPM

CPM

GM

ENGG-DFCCIL / DELHI

IL & FS Engg - GPT (JV)
Door No. 8-2-110/113/34F,
Sanali Info Park, Cyber Towers, Road No. 2,
Banjara Hills, Hyderabad-500033 India
Tel.No-91-40-40409333 Fax.No-91-40-40409444

PROJECT: Design & Construction of Rail Flyover Near Ganjkhawa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor

DETAIL: REINFORCEMENT DETAILS OF BRIDGE NO.725 CH:- 114+268.368(1X1.20M X2.00M RCC CAST-IN-SITU BOX)

SCALE: N.T.S.

DFCCIL DRG.NO. ASC/ILFS-GPT/DFCC-EC/MNBR/725/102 REVISION B

ASC Infratech Pvt. Ltd.
H-37, 1st Floor, Sector-63,
Noida - 201301 (U.P) Tel. 0120-4248813 30
Fax: 0120-42437953, email: info@ascinfotech.com

STATUS P



[HAUNCH BARS NOT SHOWN IN PLAN]



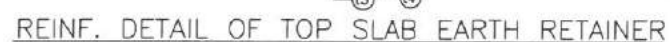
(CROSS SECTION AT EDGE)

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. EXPOSURE CONDITION-MODERATE
4. HIGH YIELD STRENGTH DEFORMED / THERMO MECHANICAL TREATED (TMT) BAR OF GRADE Fe-500 SATISFYING THE REQUIREMENT OF I.S. 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. LAPPING OF BARS SHOULD BE MINIMISED AND WHEREVER NECESSARY LAPPING SHALL BE STAGGERED WITH CENTER TO CENTER OF LAP SPICES NOT LESS THAN 1.3 TIMES THE LAP LENGTH. MINIMUM LENGTH OF LAP SHALL BE $(46xd)$ OR $(25xd + 150)$, (WHICHEVER IS MAXIMUM), WHERE 'd' IS DIAMETER OF SMALLER BAR OF THE TWO BARS BEING LAPPED
6. GRADE OF CONCRETE - M35
GRADE OF STEEL - FE500
CLEAR COVER FOR EARTH FACE AS - 50mm
FOR OTHER FACE AS - 50mm

BAR MARK	BAR SHAPE	BAR DIA	SPACING	a	b	
t1		12	200mm c/c	300	1600	30
t2		12	200mm c/c	150	1600	15
t2a		10	200mm c/c	150	1600	15
t3		10	200mm c/c	L1-100	-	-
t4		10	200mm c/c	L1-100	-	-
b1		16	200mm c/c	150	2100	15
b1a		12	200mm c/c	150	2100	15
b2		10	200mm c/c	150	2100	15
b3		10	200mm c/c	L1-100	-	-
b4		10	200mm c/c	L1-100	-	-
w1		16	200mm c/c	300	2400	30
w2		12	200mm c/c	150	2400	15
w3		10	200mm c/c	L1-100	-	-
w4		10	200mm c/c	L1-100	-	-
w5		12	200mm c/c	850	2400	850
h1		10	200mm c/c	200	780	200
h2		12	200mm c/c	L1-100	-	-
g1		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	150	-
g2		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	VARIES	-
g3		8	200mm ALONG LENGTH AND 200mm ALONG BARREL	80	150	-
p1		8	230mm c/c	150	400	150
p2		8	2 NOS.EACH SIDE	150	2400	150



(HAUNCH BARS NOT SHOWN IN PLAN)



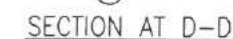
(DETAIL 'X' AS PER GAD)

(SCALE- 1:20)



(DETAIL 'X' AS PER GAD)

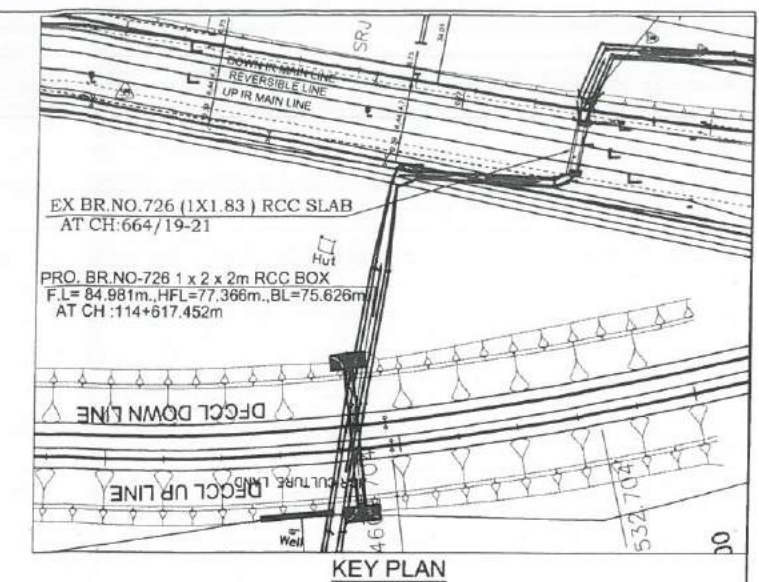
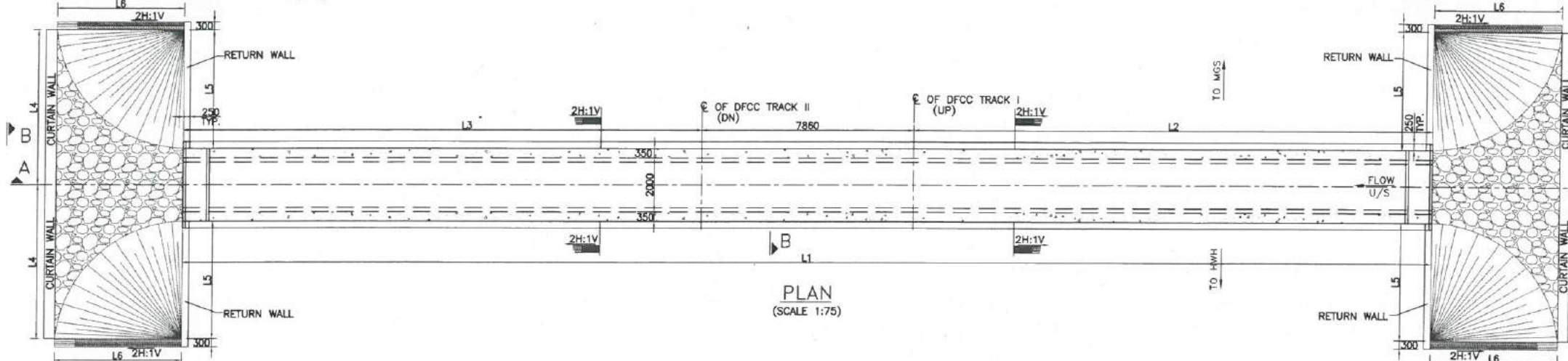
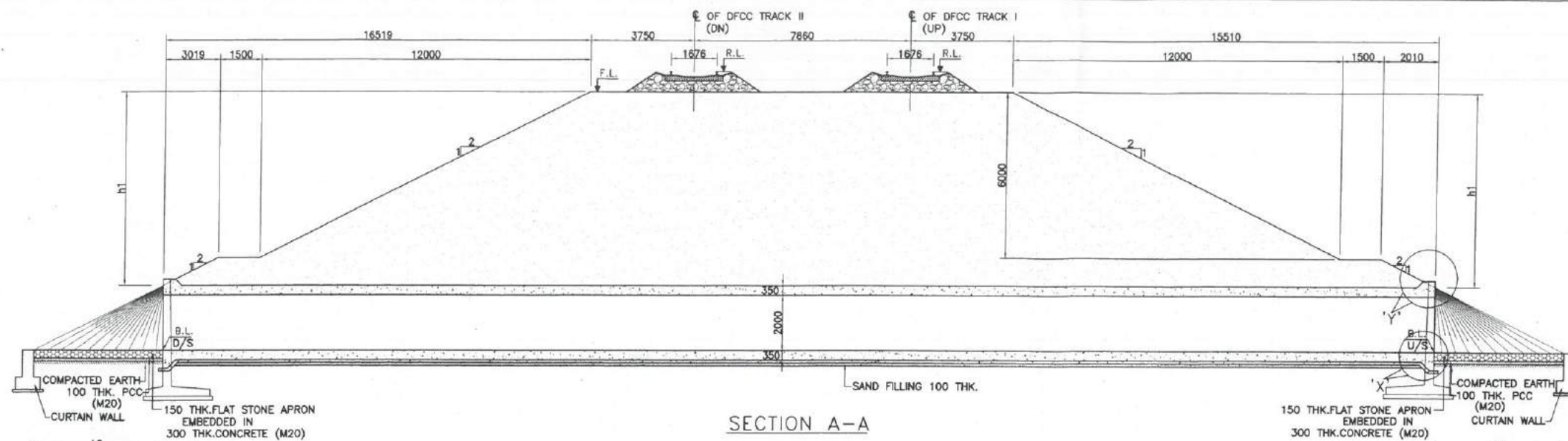
(SCALE- 1:20)



BOTTOM BAR
TOP BAR

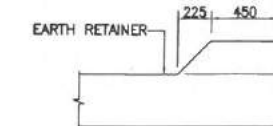
GM
ENGG 3/DECGH / DEL

1074



RETURN WALL DETAILS (M.M)

a	b	c	d	e	f	g	h
200	200	1700	400	700	2800	250	1750



TRACK DETAIL	
ALIGNMENT	STRAIGHT
GRADE	LEVEL

DETAIL- Y
(SCALE 1:25)

- NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
 - EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY CHARGE A SITE.
 - STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
 - THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
 - GRADE OF CONCRETE SHALL BE DESIGN M20 AND 28 DAY CHARACTERISTIC STRENGTH OF VARIOUS COMPONENTS SHALL BE AS UNDER:-
 - a. RCC BOX / RETURN WALL M35
 - b. BALLAST RETAINER / RCC TROUGH M30
 - c. CURTAIN WALL / DROP WALL M25
 - d. LEVELING COURSE PCC M20
 - GRADE OF REINFORCEMENT STEEL Fe-500 CONFORMING TO IS 1786-2008
 - FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
 - VALUE FOR BACKFILL MATERIAL SHALL BE LESS THAN 35% BACKFILL MATERIAL BEHIND ABUTMENTS, WING WALLS AND RETURN WALLS SHALL BE PROVIDED.
 - ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION.
 - a. IRS BRIDGE RULES.
 - b. IRS CONCRETE CODE.
 - c. IRS SUB-STRUCTURE & FOUNDATION CODE.
 - d. DFCC SPECIFICATIONS.
 - e. IRS BRIDGE MANUAL.
 - DEPTH AND TYPE OF MATERIAL FOR GROUND IMPROVEMENT BELOW BOX AND FOUNDATION OF PROTECTION WORK SHALL BE PROVIDED AS PER GT RECOMMENDATION.
 - BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 16 T/m².

ABBREVIATIONS	
R.L. : RAIL LEVEL	U/S : UP STREAM.
F.L. : FORMATION LEVEL	D/S : DOWN STREAM.
B.L. : BED LEVEL	ROW : RIGHT OF WAY.
S.L. : SCOUR LEVEL	G.T. : GEOTECHNICAL.
Bn : BETWEEN	TH : THICK.
G.L. : GROUND LEVEL	CH. : CHAINAGE.
N.G.L. : NATURAL GROUND LEVEL	No. : NUMBER.
H.F.L. : HIGHEST FLOOD LEVEL	Br. : BRIDGE.
IR : INDIAN RAILWAY.	EXG. : EXISTING.
DFC : DEDICATED FREIGHT CORRIDOR.	PROP. : PROPOSED.
P.C.C. : PLAIN CEMENT CONCRETE.	E. : CENTRE LINE.
R.C.C. : REINFORCEMENT CEMENT CONCRETE.	MGS. : MUGHAL SARAI.
G.S.B. : GRANULAR SUB BASE.	FDL. : FOUNDING LEVEL.
TYP. : TYPICAL.	REF. : REFER.
# : FRICTION ANGLE FOR SOIL	

LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV)
 Door No. B-2 120/113/34F,
 Sanali Info Park, Cyber Towers, Road No. 2,
 Banjara Hills, Hyderabad-500033, India
 Tel: Nov93-40-40409333 Fax: Nov93-40-40409444

PROJECT: Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor

DETAIL: GENERAL ARRANGEMENT DRAWING BRIDGE NO. 726 CH:- 114+617.452(1 X 2.00M X 2.00M RCC BOX, CAST IN SITU)

SCALE: DFCCIL DRG. NO. ASC/ILFS-GPT/DFC-EC/MNBR/726/101 (SHEET 1 OF 2)

REVISION: A

STATUS: P

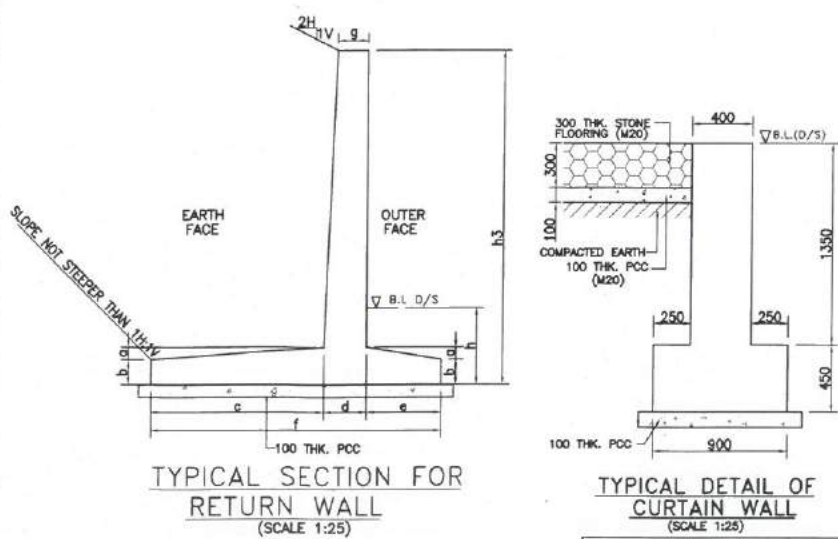
ASC Infratech Pvt. Ltd.
 H-37, 1st Floor, Sector-63,
 Noida - 201301 (U.P.) Tel: 0120-4248813-20
 Fax: 0120-4237933, email: info@ascinfotech.com

PROPOSED BRIDGE DETAILS

S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L U/S (m)	B.L D/S (m)	FREE BOARD (m)
1	726	114+617.452	1 X 2.00M X 2.00M RCC BOX	84.981	77.366	75.626	75.100	7.615

PROPOSED DIMENSIONS DETAILS (M.M)

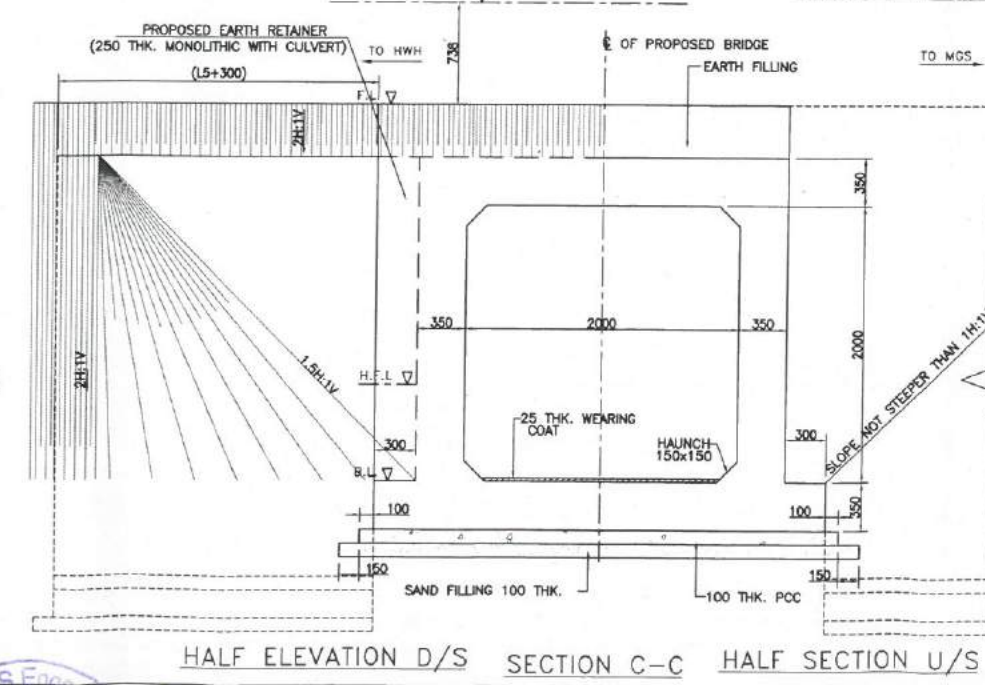
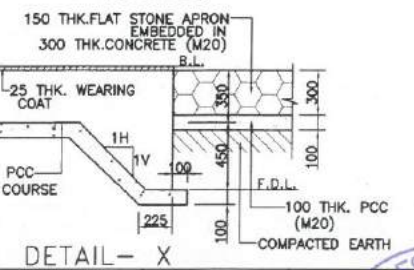
L1	L2	L3	L4	L5	L6	h1	h2	h3
47389	19260	20269	5213	3863	4700	7005	7509	5150



TYPICAL DETAIL OF CURTAIN WALL (SCALE 1:25)

EXISTING BRIDGE DETAILS

S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	726	1 X 1.80M X 1.40M RCC BOX	75.626	77.366	75.710	-0.385	684/19-21



REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONG. (P.C.)
C							
B							
A	16.09.17	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
D	30.08.14	P	FIRST SUBMISSION	ADS	SS	SPD	

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD. EASTERN CORRIDOR

IL & FS Engg - GPT (JV)

PM **CPM** **RE** **TL** **APM** **DY CPM** **CPM** **GM**

ICT / PMC **DFCCIL / MGS** **ENGG-3/DFCCIL / DELHI**

PRO. BR.NO-726 1 x 2 x 2m RCC BOX
 F.L= 84.981m.,HFL=77.366m.,BL=75.626m.
 AT CH :114+617.452m

PLAN

REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONS. (PC.)
C							
B							
A	16.09.17	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
0	28.03.16	P	FIRST SUBMISSION	ADS	SS	SPD	

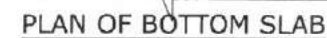


DEDICATED FREIGHT CORRIDOR
 CORPORATION OF INDIA LTD.
 EASTERN CORRIDOR



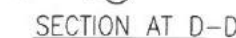
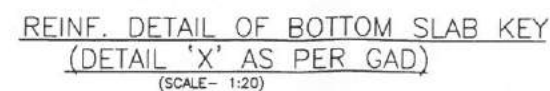
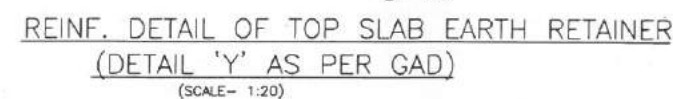
PM	CPM	RE	TL	APM	DY CPM	CPM	GM
IL & FS Engg-GPT JV		ICT / PMC		DFCCIL / MGS		ENGG-3/DFCCIL / DELHI	

IL & FS Engg - GPT (JV) Door No.8-2-120/113/34F, Sarali Info Park, Cyber Towers, Road No.2, Banjara Hills, Hyderabad-500033, India Tel.No:91-40-40405333 Fax.No:91-40-40405444	
PROJECT :	Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL :	GENERAL ARRANGEMENT DRAWING BRIDGE NO.726 CH:- 114+617.452(1 X 2.00M X 2.00M RCC BOX, CAST IN SITU)
SCALE :	
DFCCIL DRG.NO	ASC/ILFS-GPT/DFC-EC/MNBR/726/101 (SHEET 2 OF 2)
REVISION	A
ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (U.P) Tel: 0120-4248813-20 Fax: 0120-4237953, email: info@ascinfratech.com	
STATUS	P



REINFORCEMENT DETAILS
(CROSS SECTION AT EDGE)

- | BAR MARK | BAR SHAPE | BAR DIA. | SPACING | a | b | c |
|----------|-----------|----------|---|--------|--------|------|
| t1 | | 12 | 200mm c/c | 300 | 2600 | 300 |
| t2 | | 16 | 200mm c/c | 200 | 2600 | 200 |
| t2a | | 16 | 200mm c/c | 200 | 2600 | 200 |
| t3 | | 10 | 200mm c/c | L1-100 | - | - |
| t4 | | 10 | 200mm c/c | L1-100 | - | - |
| b1 | | 16 | 200mm c/c | 200 | 3200 | 200 |
| b1a | | 16 | 200mm c/c | 200 | 3200 | 200 |
| b2 | | 12 | 200mm c/c | 200 | 3200 | 200 |
| b3 | | 10 | 200mm c/c | L1-100 | - | - |
| b4 | | 10 | 200mm c/c | L1-100 | - | - |
| w1 | | 12 | 200mm c/c | 300 | 2600 | 300 |
| w2 | | 10 | 100mm c/c | 200 | 2600 | 200 |
| w3 | | 10 | 200mm c/c | L1-100 | - | - |
| w4 | | 10 | 200mm c/c | L1-100 | - | - |
| w5 | | 16 | 200mm c/c | 1300 | 2600 | 1300 |
| h1 | | 10 | 200mm c/c | 200 | 1060 | 200 |
| h2 | | 10 | 4x1 nos. | L1-100 | - | - |
| g1 | | 12 | 200mm ALONG LENGTH AND 100mm ALONG BARREL | 120 | 250 | - |
| g2 | | 12 | 200mm ALONG LENGTH AND 100mm ALONG BARREL | 120 | VARIES | - |
| g3 | | 10 | 200mm ALONG LENGTH AND 200mm ALONG BARREL | 100 | 250 | - |
| p1 | | 8 | 230mm c/c | 150 | 550 | 150 |
| p2 | | 8 | 2 NOS.EACH SIDE | 150 | 2600 | 150 |

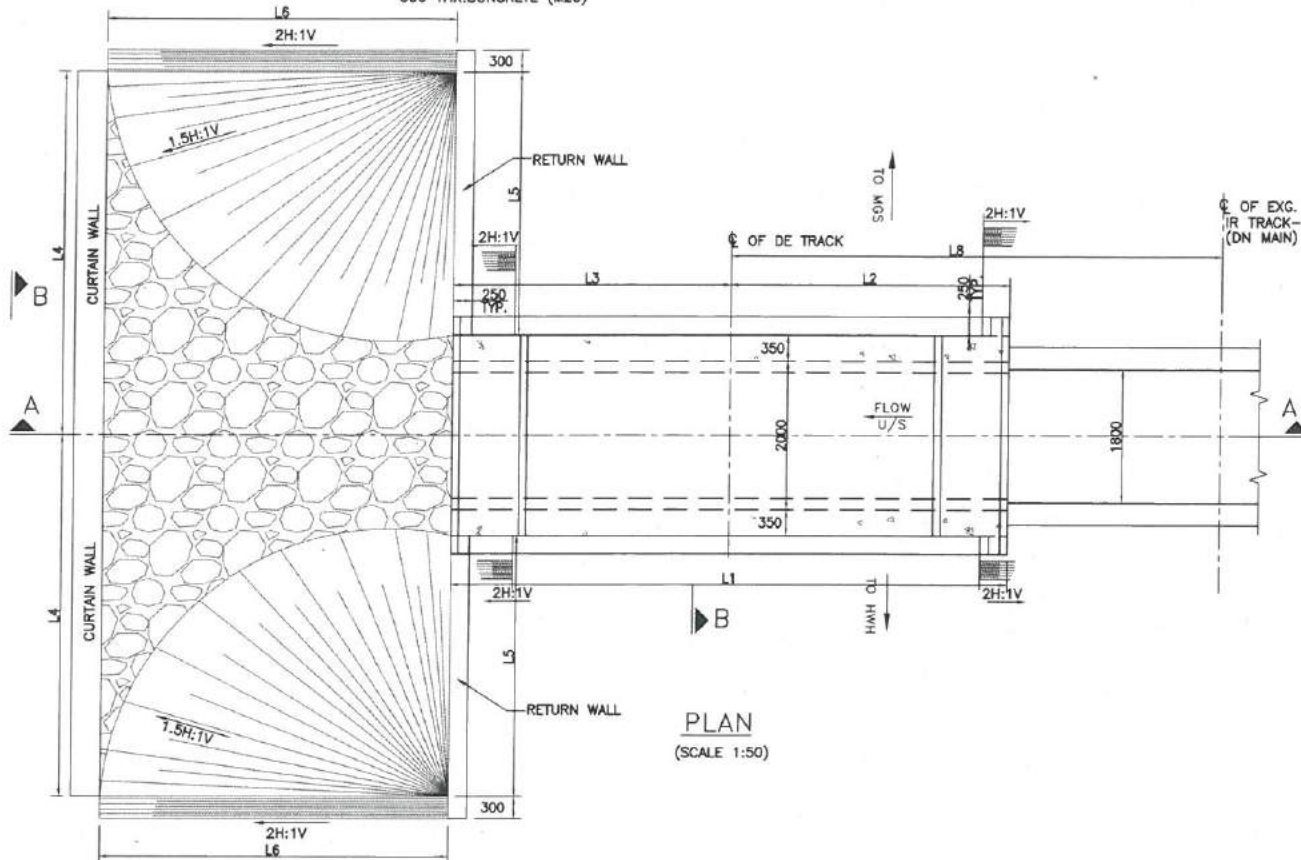
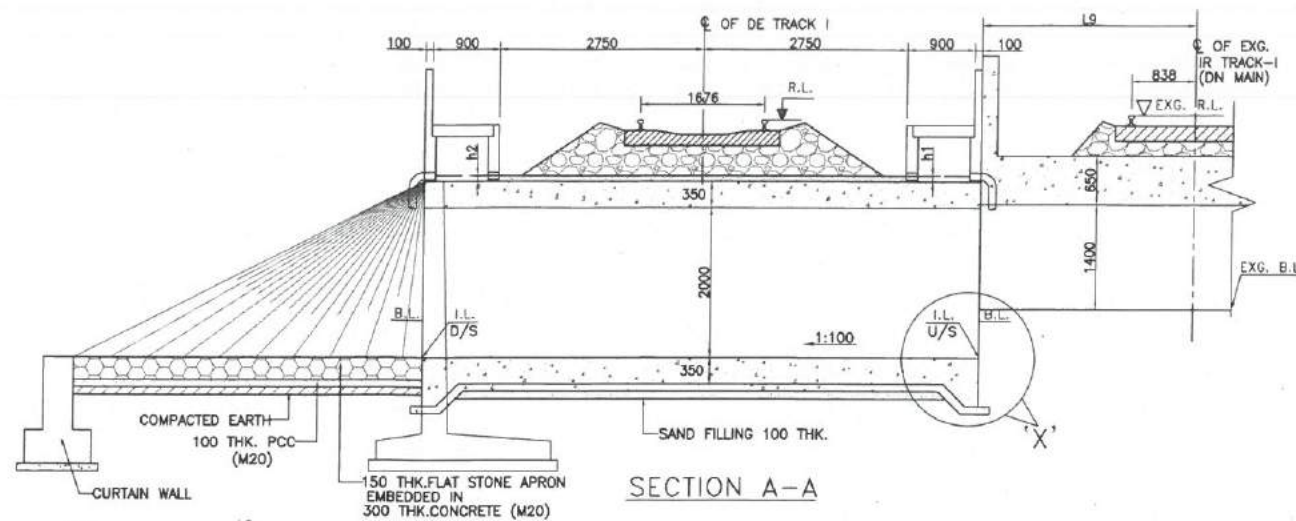


LEGEND

BOTTOM BAR —————

TOP BAR - - - - -

STATUS	P
--------	---



PROPOSED BRIDGE DETAILS

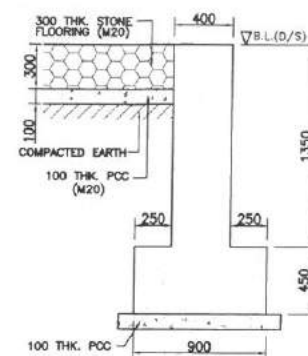
S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (m)	H.F.L (m)	I.L U/S (m)	I.L D/S (m)	FREE BOARD (m)
1	726 LOOP	114+538.482	1 X 2.00M X 2.00M RCC BOX	77.424	77.366	75.084	75.009	0.058

EXISTING BRIDGE DETAILS

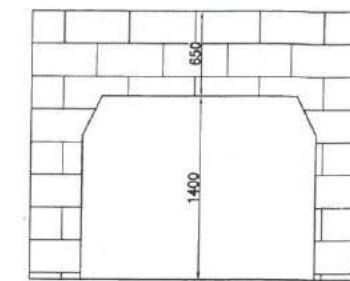
S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	726	1 X 1.80M X 1.40M RCC BOX	77.149	77.366	75.710	0.00	664/19-21

PROPOSED DIMENSIONS DETAILS(M.M)

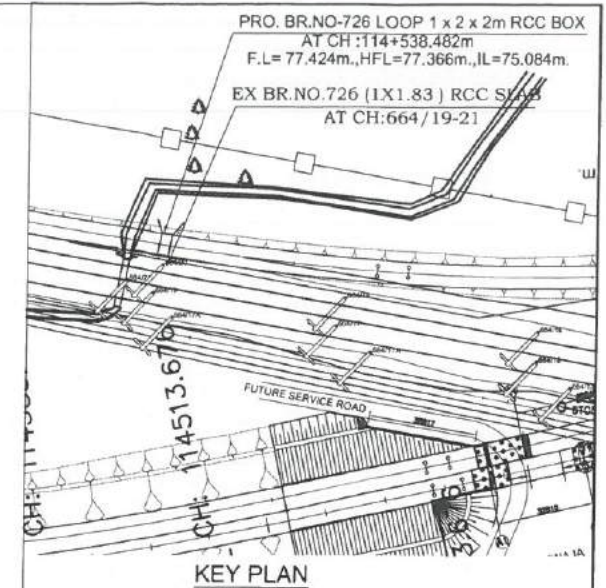
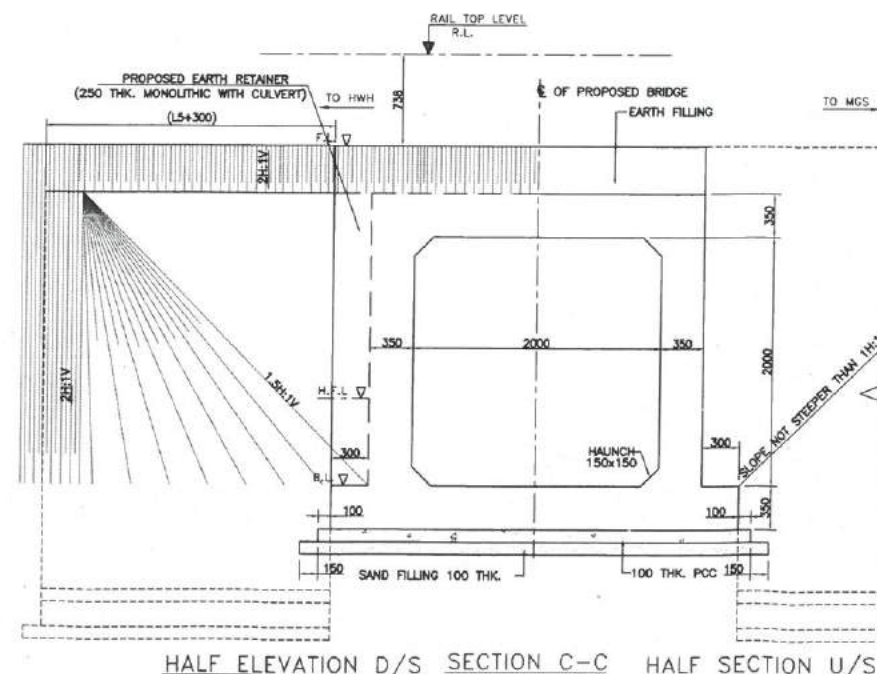
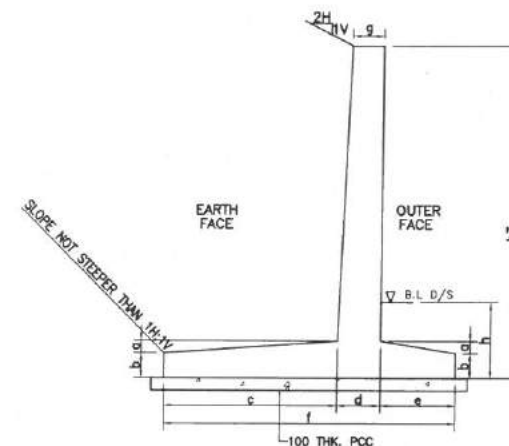
L1	L2	L3	L4	L5	L6	L8	L9	h1	h2	h3
7500	3750	3750	4875	3525	4700	7200	3450	000	055	4100



DETAIL- X
(SCALE 1:25)



TYPICAL SECTION FOR RETURN WALL
(SCALE 1:25)



RETURN WALL DETAILS(M.M)

a	b	c	d	e	f	g	h
200	200	1700	400	700	2800	250	1750

TRACK DETAIL	
ALIGNMENT	STRAIGHT
GRADE	LEVEL

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- WEED HOLES SHALL BE OF 75/100mm DIA PVC PIPES STAGGERED @1000c/c HORIZONTALLY AND @1000mm VERTICALLY THROUGH RETURN WALL.
- SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
- EXCAVATION / DEMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY INCHARGE AT SITE.
- STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
- THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
- GRADE OF CONCRETE SHALL BE DESIGN MIX AND 28 DAY CHARACTERISTIC STRENGTH OF VARIOUS COMPONENTS SHALL BE AS UNDER:-

a. RCC BOX / RETURN WALL	M35
b. BALLAST RETAINER / RCC TROUGH	M30
c. CURTAIN WALL / DROP WALL	M25
d. LEVELING COURSE PCC	M20
- GRADE OF REINFORCEMENT STEEL $F_y=500$ CONFORMING TO IS 1786-2008
- FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
- # VALUE FOR BACKFILL MATERIAL SHALL NOT BE LESS THAN 3% BACKFILL MATERIAL BEHIND ABUTMENTS, WING WALLS AND RETURN WALLS SHALL BE PROVIDED AS PER DPCC'S SPECIFICATION REF. CL. NO. 3.14 AND 4.8 OF SPECIFICATION VOL-III.
- ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION.

a. IRS BRIDGE RULES.	
b. IRS CONCRETE BRIDGE CODE.	
c. IRS SUB STRUCTURE & FOUNDATION CODE.	
d. DPCC SPECIFICATIONS (VOLUME-II, BID DOCUMENT).	
e. IRS BRIDGE MANUAL.	
- BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 10 T/m².

ABBREVIATIONS

R.L. : RAIL LEVEL	U/S : UP STREAM.
F.L. : FORMATION LEVEL	D/S : DOWN STREAM.
B.L. : BED LEVEL	ROW : RIGHT OF WAY.
S.L. : SCOUR LEVEL	G.T. : GEOTECHNICAL.
Bn : BETWEEN	TH : THICK.
G.L. : GROUND LEVEL	CH. : CHAINAGE.
N.G.L. : NATURAL GROUND LEVEL	No. : NUMBER.
H.F.L. : HIGHEST FLOOD LEVEL	BR. : BRIDGE.
IR : INDIAN RAILWAY.	EXG. : EXISTING.
DFC : DEDICATED FREIGHT CORRIDOR.	PROP. : PROPOSED.
P.C.C. : PLAIN CEMENT CONCRETE.	C. : CENTRE LINE.
R.C.C. : REINFORCEMENT CEMENT CONCRETE.	MGS. : MUGHAL SARAI.
G.S.B. : GRANULAR SUB BASE.	FDL. : FOUNDING LEVEL.
TYP. : TYPICAL.	REF. : REFER.
# : FRICTION ANGLE FOR SOIL.	

LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV) Door No 8-2/120/113/34F, Sanali Info Park, Cyber Towers, Road No.2, Banjara Hills, Hyderabad-500033, India Tel: No 91-40-45409333 Fax No 91-40-45409344		PROJECT: Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor	
DETAIL: GENERAL ARRANGEMENT DRAWING BRIDGE NO.726 LOOP CH:- 114+538.482(1 X 1.20M X 1.20M RCC BOX,CAST IN SITU)		SCALE:	
DFCCIL DRG NO ASCILFS-GPT/DFC-EC/MNBR/726LOOP/101		REVISION A	
ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (U.P) Tel: 0120-4248813-20 Fax 0120-4237953, email: info@ascinfotech.com		STATUS P	

REV NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONG. (PC)
C							
B							
A	18.09.17	P	REVISED AS PER PLAN & PROFILE	ADS	SS	SPD	
O	05.09.14	P	FIRST SUBMISSION	SK	SS	SPD	



DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.
EASTERN CORRIDOR



IL & FS Engg - GPT (JV)

ICT / PMC

RE

TL

APM

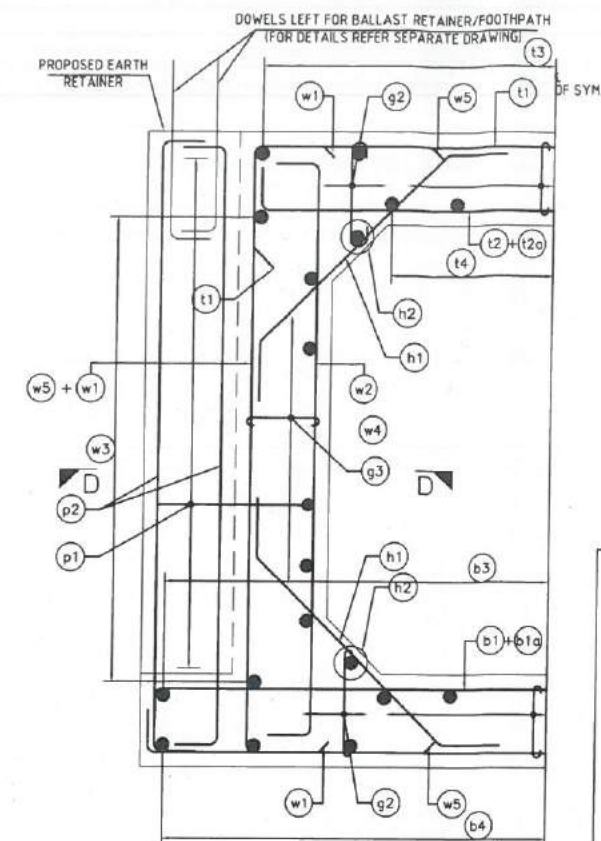
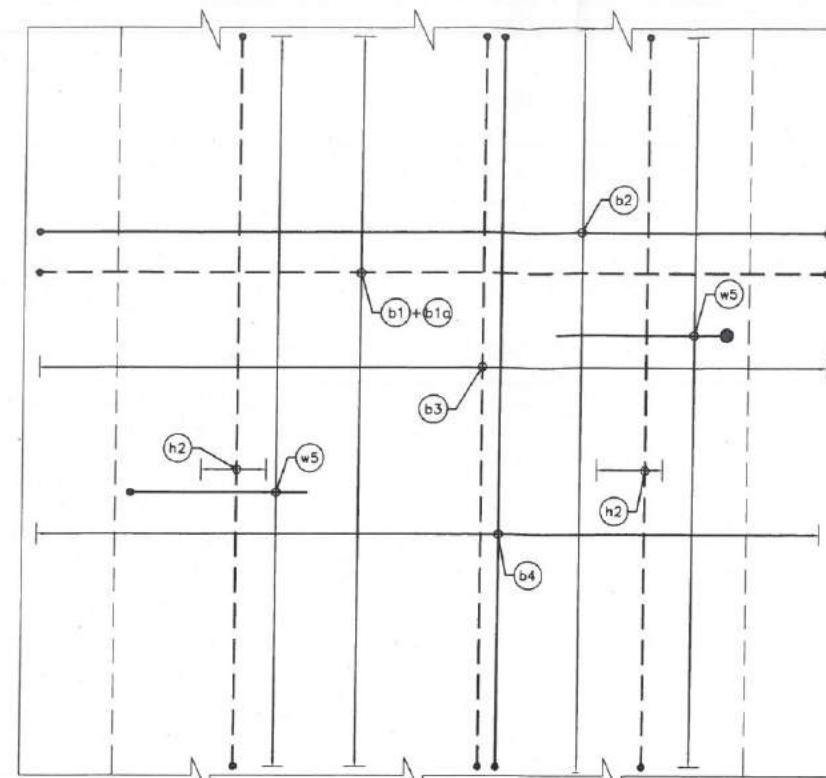
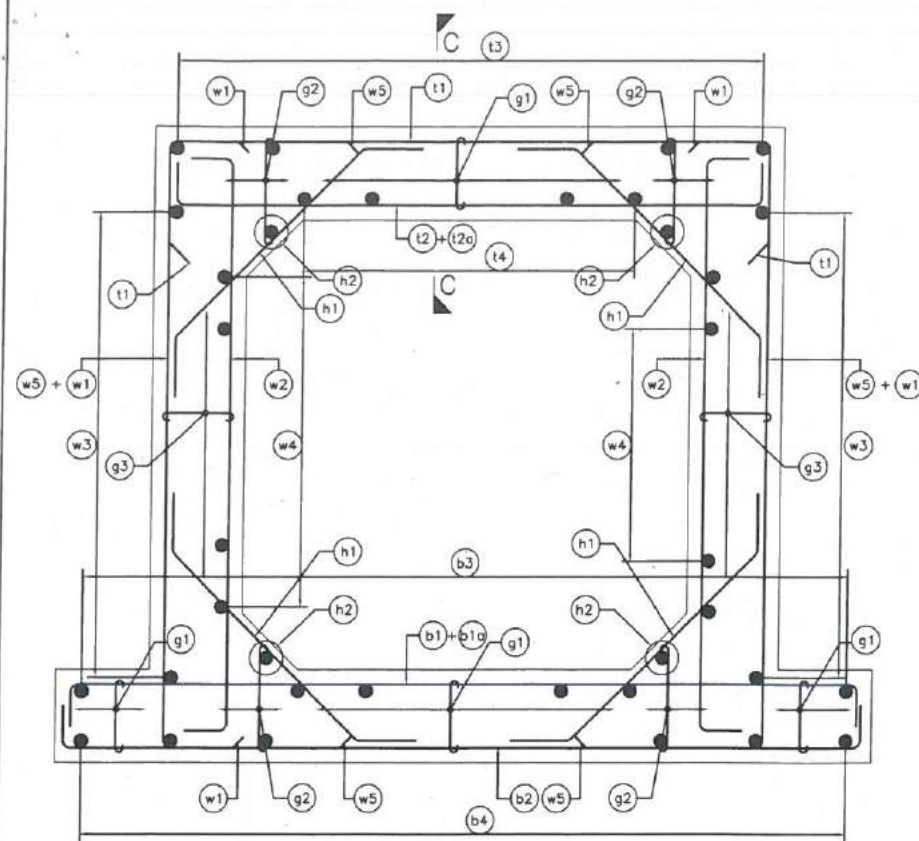
DY CPM

CPM

GM

DFCCIL / MGS

ENGG-3/DFCCIL / DELHI

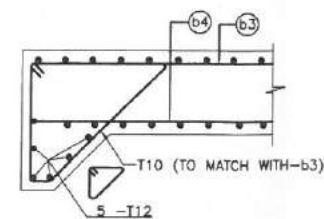
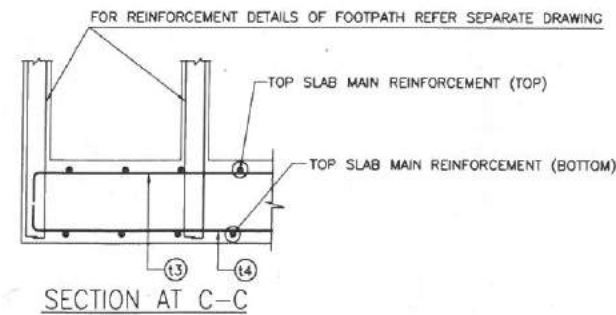
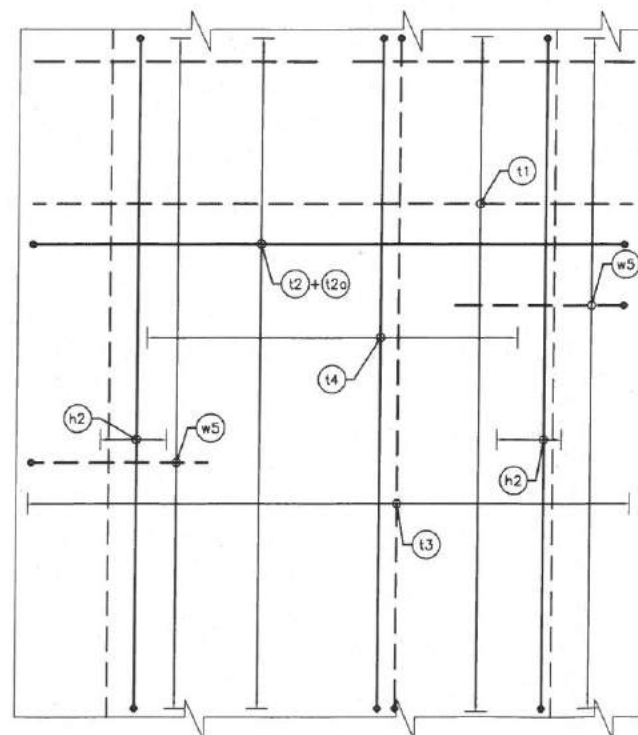


NOTES:-

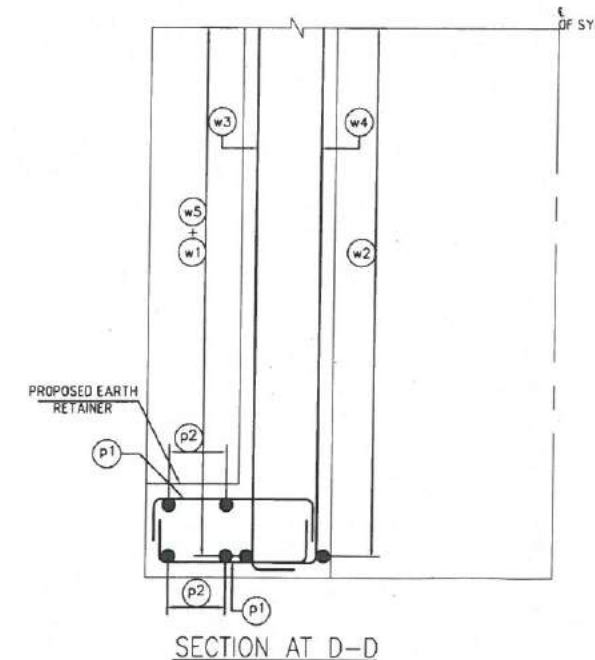
1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. EXPOSURE CONDITION-MODERATE
4. HIGH YIELD STRENGTH DEFORMED / THERMO MECHANICAL TREATED (TMT) BAR OF GRADE Fe-500 SATISFYING THE REQUIREMENT OF I.S. 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. LAPPING OF BARS SHOULD BE MINIMISED AND WHEREVER NECESSARY LAPPING SHALL BE STAGGERED WITH CENTER TO CENTER OF LAP SPLICES NOT LESS THAN 13 TIMES THE LAP LENGTH. MINIMUM LENGTH OF LAP SHALL BE $(46xd)$ OR $(25xd + 150)$, (WHICHEVER IS MAXIMUM), WHERE 'd' IS DIAMETER OF SMALLER BAR OF THE TWO BARS BEING LAPPED
6. GRADE OF CONCRETE - M35
GRADE OF STEEL - FE500
CLEAR COVER FOR EARTH FACE AS - 50mm
FOR OTHER FACE AS - 50mm

SCHEDULE OF REINFORCEMENT (BOX)

BAR MARK	BAR SHAPE	BAR DIA	SPACING	a	b	c
t1		12	200mm c/c	300	2600	300
t2		16	200mm c/c	200	2600	200
t2a		16	200mm c/c	200	2600	200
t3		10	200mm c/c	L1-100	-	-
t4		10	200mm c/c	L1-100	-	-
b1		16	200mm c/c	200	3200	200
b1a		16	200mm c/c	200	3200	200
b2		12	200mm c/c	200	3200	200
b3		10	200mm c/c	L1-100	-	-
b4		10	200mm c/c	L1-100	-	-
w1		12	200mm c/c	300	2600	300
w2		10	100mm c/c	200	2600	200
w3		10	200mm c/c	L1-100	-	-
w4		10	200mm c/c	L1-100	-	-
w5		16	200mm c/c	1300	2600	1300
h1		10	200mm c/c	200	1060	200
h2		10	4x1 nos.	L1-100	-	-
g1		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	250	-
g2		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	VARIES	-
g3		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	250	-
p1		8	230mm c/c	150	550	150
p2		8	2 NOS.EACH SIDE	150	2600	150



REINF. DETAIL OF BOTTOM SLAB KEY
(DETAIL 'X' AS PER GAD)
(SCALE- 1:20)



LEGEND

BOTTOM BAR _____
TOP BAR - - - - -

C							
B							
A	16.09.17	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSN	ASW
O	30.08.14	P	FIRST SUBMISSION	SH	SS	KSN	ASW
REV NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONG. (FC)



नॅशनल फुटबॉल फेडरेशन

**DEDICATED FREIGHT CORRIDOR
CORPORATION OF INDIA LTD.
EASTERN CORRIDOR**



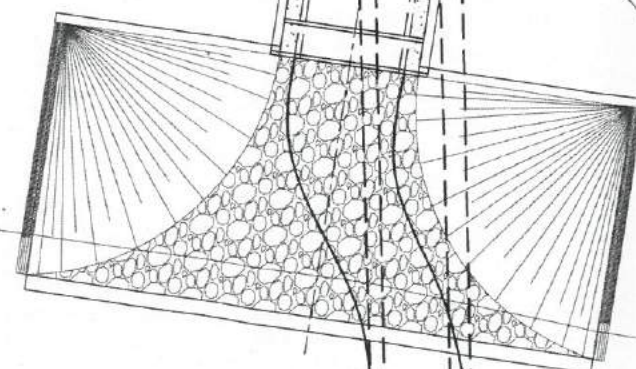
RE	
ICT/PMC	

TL

APM

[illegible]

 IL & FS Engg - GPT (JV) Door No 8-2-120/113/84F, Sarafali off Park, Cyber Towers, Road No.2, Banjara Hills, Hyderabad-500033, India Tel: No-91-40-4049333 Fax: No-91-40-40405844	
PROJECT :	Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri -on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL :	REINFORCEMENT DETAILS OF BRIDGE NO.726 LOOP CH:- 114+538.482(1 X 2.00M X 2.00M RCC BOX,CAST IN SITU)
SCALE :	N.T.S.
DFCCIL DRG.NO	ASCILFS-GPT/DFCC-EC/MNBR/726 LOOP/102
REVISION	A
 ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (U.P.) Ph: 0120-4248813-20 Fax: 0120-4237953, email: info@ascinfra.com	
STATUS	P



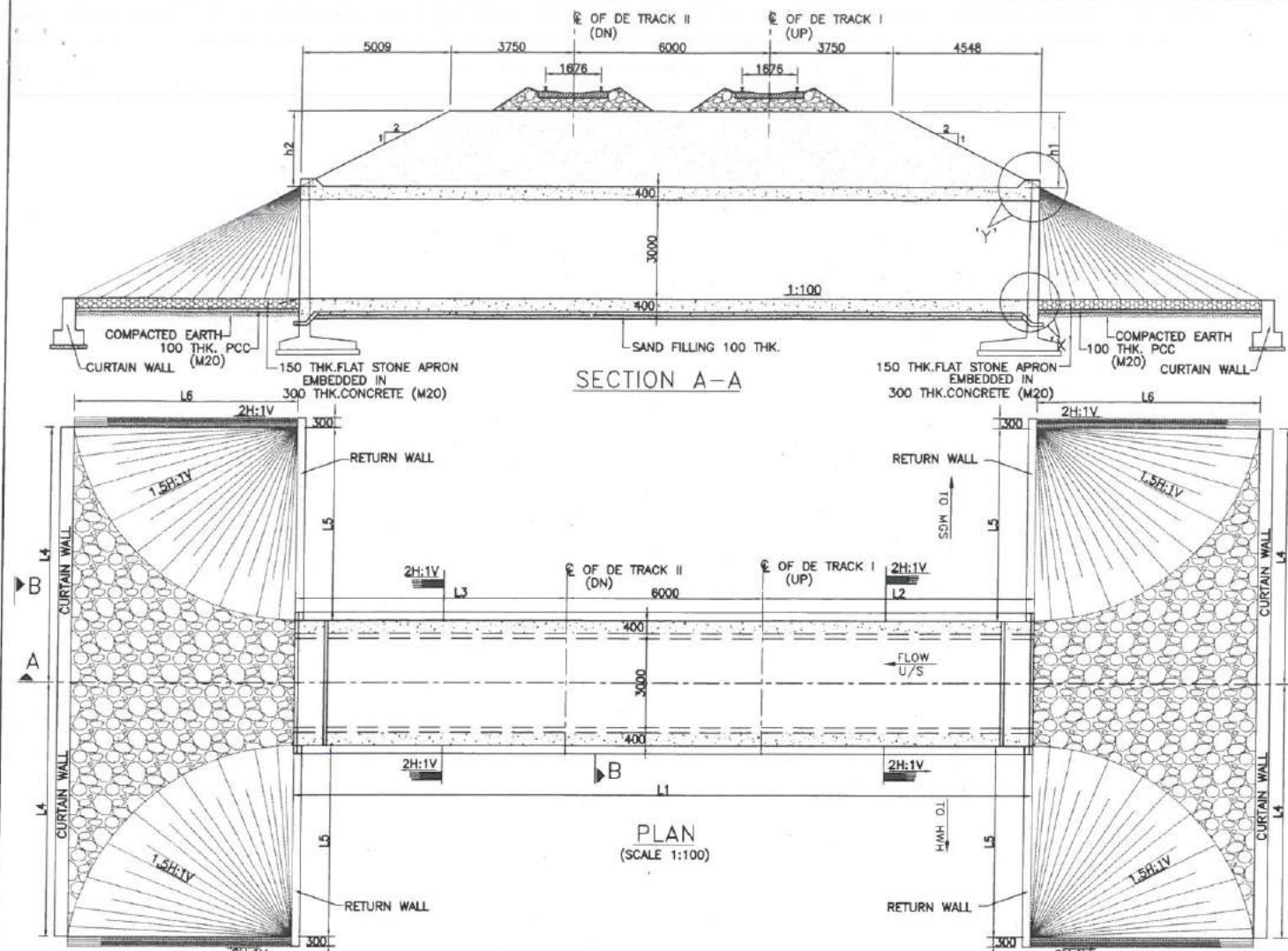
PLAN

एफ
डेडीकेटेड ग्रेट कोरीडोर


SRINAGANJANEYULU
SR. MANAGER (BRIDGE)
(ASC Infratech Pvt. Ltd.)

RE	TL	APM	DY CPM	CPM	GM
ICT / PMC		BFCCL / MGS			ENG G-3/FCCL / DELHI

 IL & FS Engg - GPT (JV) Door No-2-120/113/34F, Sarani, Info Park, Cyber Towers, Road No.3, Banjara Hills, Hyderabad-500033, India Tel: No-91-40-40405333 Fax: No-91-40-40405444.	
PROJECT :	Design & Construction of Rail Flyover Near Ganjkhwaja on Lumpsum Basis in different stretches between Dehri - on Son & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL :	GENERAL ARRANGEMENT DRAWING BRIDGE NO.727 CH:- 15+511.152(1 X 3.00M X 3.00M RCC BOX,CAST IN SITU)
SCALE :	
DFCIL DRG.NO	ASC/ILFS-GPT/DFC-EC/MNBR/727/101 (SHEET 2 OF 2)
	REVISION
 ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (UP) Tel: 0120-4248819-20 Fax: 0120-4237953, email: info@ascinfra.com	
	STATUS
	P



PROPOSED BRIDGE DETAILS

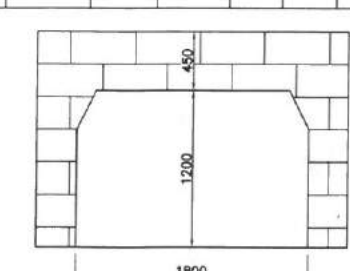
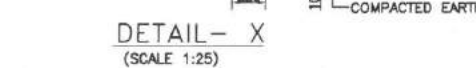
S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L U/S (m)	B.L D/S (m)	FREE BOARD (m)
1	727	115+511.152	1 X 3.00M X 3.00M RCC BOX	81.367	76.549	75.693	75.462	4.818

EXISTING BRIDGE DETAILS

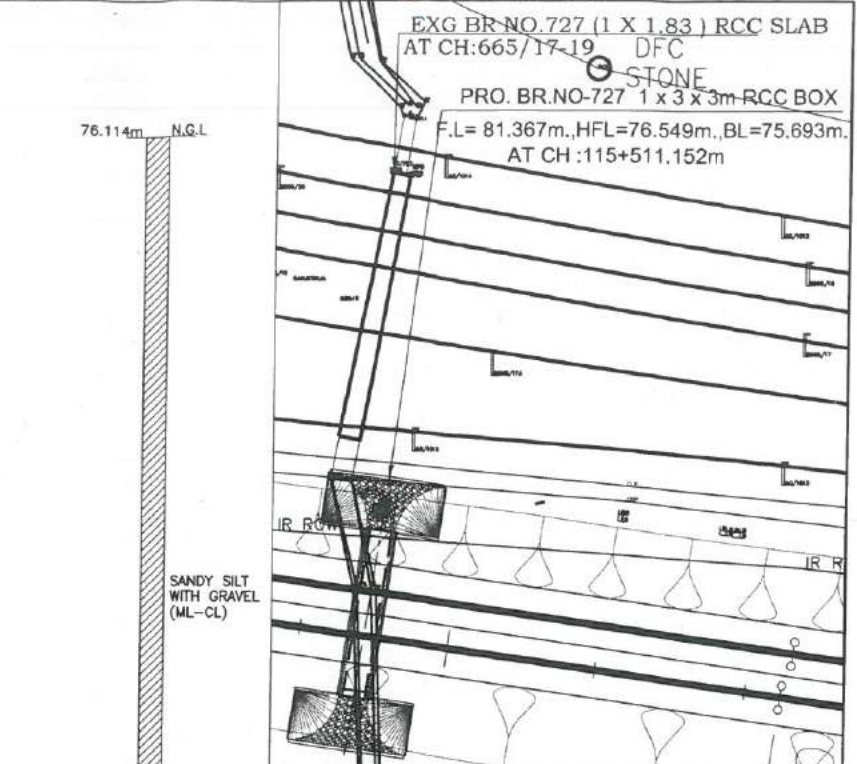
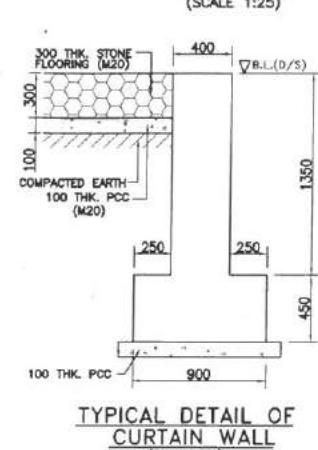
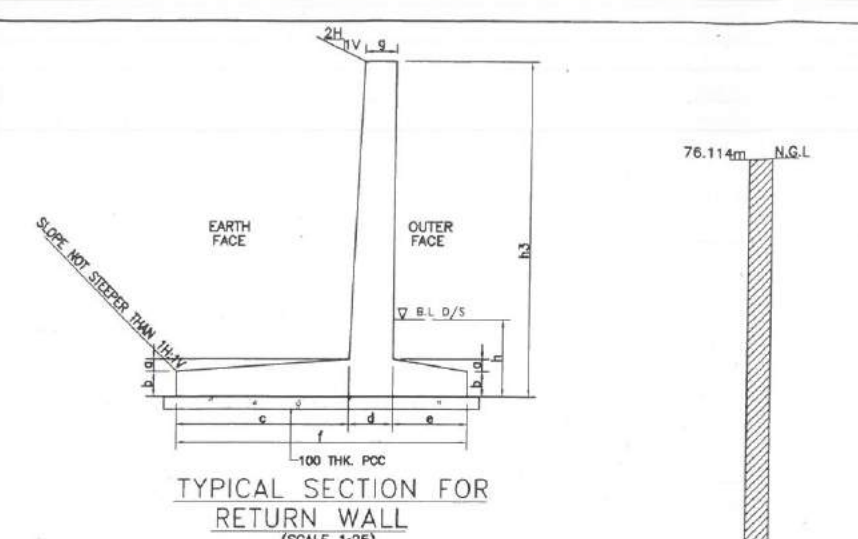
S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	727	1 X 1.80M X 1.20M RCC BOX	---	76.549	75.693	---	665/17-19

PROPOSED DIMENSIONS DETAILS(M.M)

L1	L2	L3	L4	L5	L6	h1	h2	h3
23057	8298	8759	7338	5438	7250	2274	2505	5375



DET. OF EXG. BRIDGE No. 727
(SCALE 1:30)



RETURN WALL DETAILS (M.M)

a	b	c	d	e	f	g	h
250	250	2500	500	1150	4150	250	1750

- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
 - EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY INCHARGE AT SITE.
 - STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
 - THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
 - GRADE OF CONCRETE SHALL BE DESIGN MIX AND 28 DAY CHARACTERISTIC STRENGTH OF VARIOUS COMPONENTS SHALL BE AS UNDER:-
 - a. RCC BOX / RETURN WALL M35
 - b. BALLAST RETAINER / RCC TROUGH M30
 - c. CURTAIN WALL / DROP WALL M25
 - d. LEVELING COURSE PCC M20
 - GRADE OF REINFORCEMENT STEEL F_y 500 CONFORMING TO IS 1786-2008
 - FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
 - # VALUE FOR BACKFILL MATERIAL SHALL NOTE BE LESS THAN 35° BACKFILL MATERIAL BEHIND ABUTMENTS, WING WALLS AND RETURN WALLS SHALL BE PROVIDED.
 - ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION.
 - a. IRS BRIDGE RULES.
 - b. IRS CONCRETE BRIDGE CODE.
 - c. IRS SUB STRUCTURE & FOUNDATION CODE.
 - d. DFC SPECIFICATIONS.
 - e. IRS BRIDGE MANUAL.
 - DEPTH AND TYPE OF MATERIAL FOR GROUND IMPROVEMENT BELOW BOX AND FOUNDATION OF PROTECTION SHALL BE PROVIDED AS PER CT RECOMMENDATION.
 - BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 13.5 T/m².

ABBREVIATIONS

R.L : RAIL LEVEL	U/S : UP STREAM
F.L : FORMATION LEVEL	D/S : DOWN STREAM
B.L : BED LEVEL	ROW : RIGHT OF WAY
S.L : SCOUR LEVEL	G.T. : GEOTECHNICAL
Bn : BETWEEN	TH : THICK
G.L : GROUND LEVEL	CH : CHAINAGE
N.G.L : NATURAL GROUND LEVEL	No. : NUMBER
H.F.L : HIGHEST FLOOD LEVEL	Br. : BRIDGE
IR : INDIAN RAILWAY	EXG. : EXISTING
DFD : DEDICATED FREIGHT CORRIDOR	PROP. : PROPOSED
P.C.C. : PLAIN CEMENT CONCRETE	CL : CENTRE LINE
R.C.C. : REINFORCEMENT CEMENT CONCRETE	MOS. : MUGHAL SARAI
G.S.B. : GRANULAR SUB BASE	F.L. : FOUNDING LEVEL
TYP. : TYPICAL	REF. : REFER.
# : FRICTION ANGLE FOR SOIL	

LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV)
Door No. 8-2-120/113/34F,
Sani Info Park, Cyber Towers, Road No. 2,
Banjara Hills, Hyderabad-500033, India
Tel No: 91 40 46045333 Fax No: 91 40 4604644

PROJECT:	DETAIL:	SCALE:	DFCCIL DRG. NO.	REVISION	STATUS
Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor	GENERAL ARRANGEMENT DRAWING BRIDGE NO.727 CH- 115+511.152(1 X 3.00M X 3.00M RCC BOX, CAST IN SITU)	N.T.S	ASC/ILFS-GPT/DFC-EG/MNBR/727/101 (SHEET 1 OF 2)	A	P

ASC Infratech Pvt. Ltd.
H-37, 1st Floor, Sector-63,
Noida - 201301 (U.P) Tel: 0120-4248813-20
Fax: 0120-4237953, email: info@ascinfotech.com

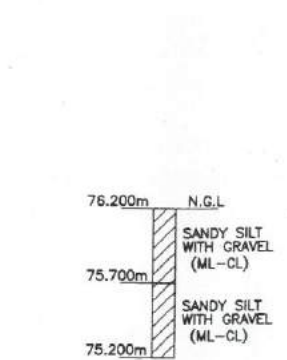
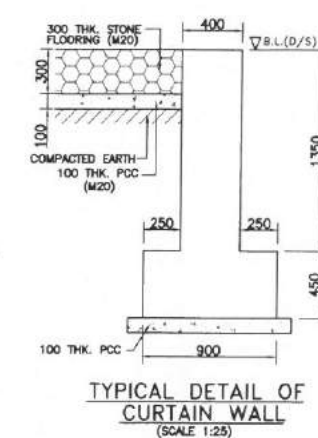
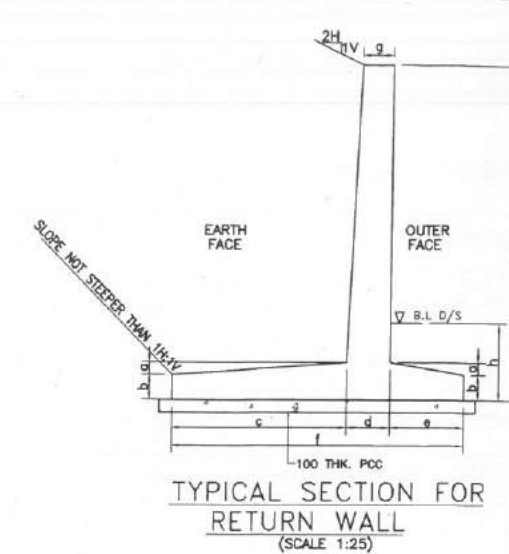
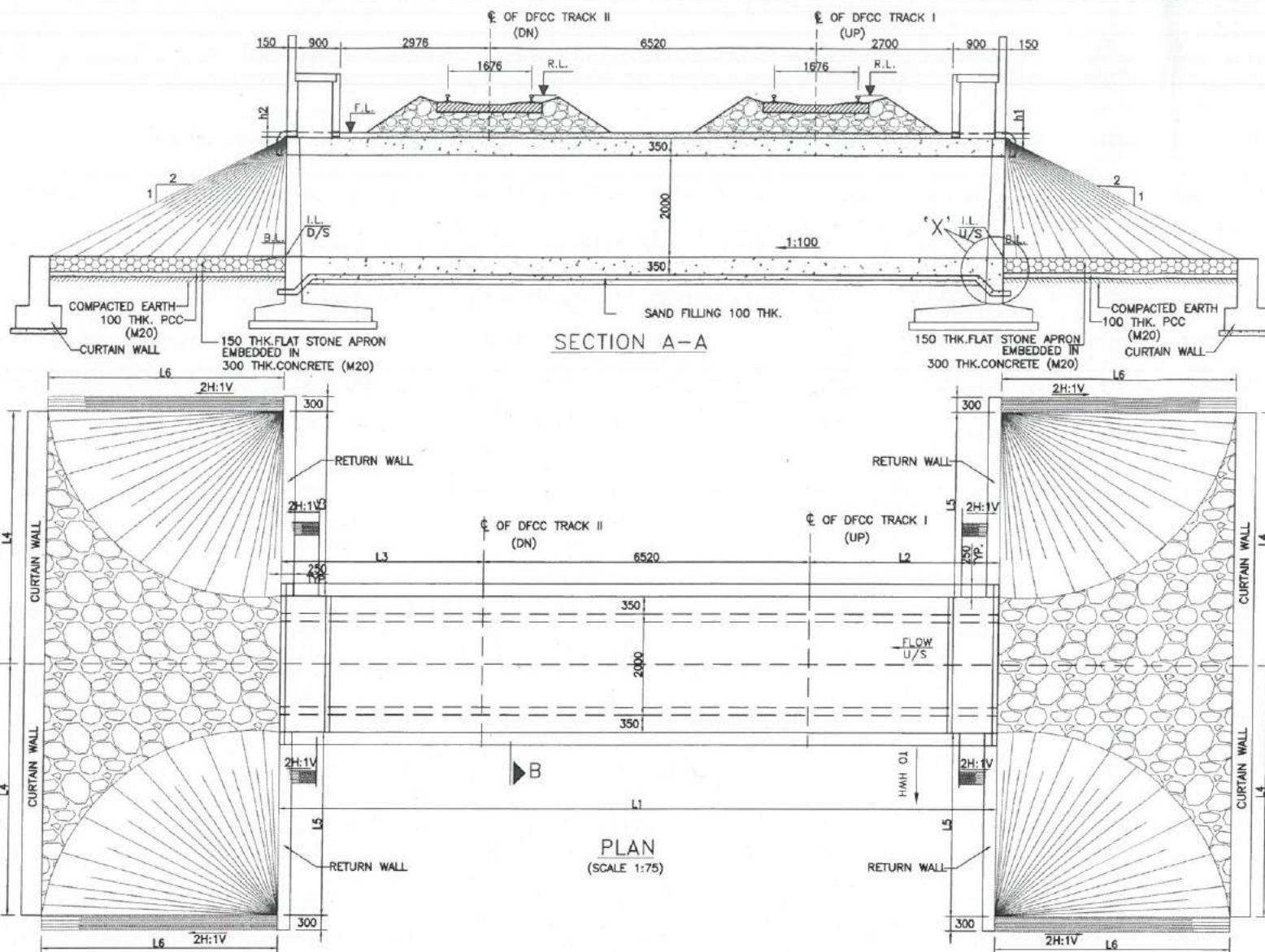
REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONS. (PC)
C							
B							
A	18.09.17	P	REVISED AS PER PLAN & PROFILE	ADS	SS	KSN	
O	24.07.14	P	FIRST SUBMISSION	ADS	SS	KSN	

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD. EASTERN CORRIDOR

IL & FS Engg - GPT (JV)

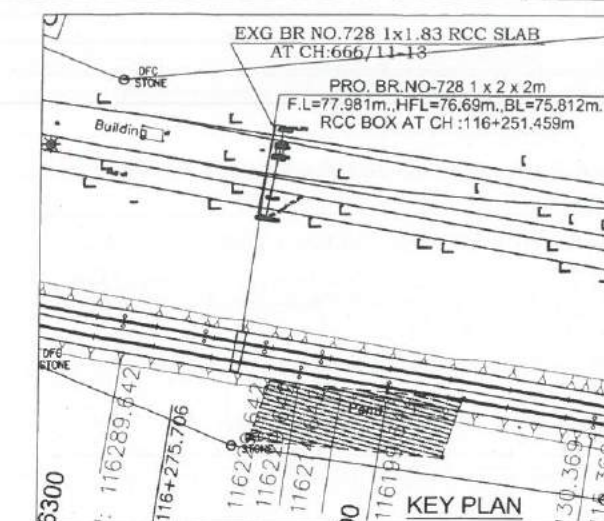
IL & FS Engg - GPT (JV)

RE	TL	APM	BY CPM	CPM	GM



PROPOSED DIMENSIONS DETAILS (M.M)

L1	L2	L3	L4	L5	L6	h1	h2	h3
14026	3750	4026	4875	3525	4700	000	140	4100



TRACK DETAIL	
ALIGNMENT	STRAIGHT
GRADE	LEVEL

- NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - SAFETY & PROTECTION OF THE PROPOSED WORK AND SAFETY & PROTECTION OF THE RUNNING TRAIN ON EXISTING TRACK IS TO BE ENSURED BY THE CONTRACTOR.
 - EXCAVATION / DISMANTLING OF ANY PORTION OF EXISTING BRIDGE OR ANY ELEMENT OF EXISTING PERMANENT WAY OR ANY WORK AFFECTING SAFETY OF THE EXISTING BRIDGE / PERMANENT WAY OR SAFETY OF THE RUNNING TRAINS WILL REQUIRE APPROVAL OF THE CONCERNED ZONAL RAILWAY & COMPLIANCE OF THE SAFETY REQUIREMENT AS DIRECTED BY INCHARGE AT SITE.
 - STONE PITCHING ON SLOPES OF BANK ON APPROACHES OF BRIDGE IF REQUIRED SHALL BE PROVIDED DEPENDING ON SITE CONDITION. THIS SHALL BE DECIDED BY INCHARGE AT SITE.
 - THE BRIDGE IS DESIGNED FOR MODERATE EXPOSURE CONDITION.
 - GRADE OF CONCRETE SHALL BE DESIGN MIX AND 28 DAY CHARACTERISTIC STRENGTH OF VARIOUS COMPONENTS SHALL BE AS UNDER:-
 - a. RCC BOX / RETURN WALL M35
 - b. BALLAST RETAINER / RCC TROUGH M30
 - c. CURTAIN WALL / DROP WALL M25
 - d. LEVELING COURSE PCC M20
 - GRADE OF REINFORCEMENT STEEL $F_y=500$ CONFORMING TO IS 1786-2008
 - FOR BOX MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM.
 - VALUE FOR BACKFILL MATERIAL SHALL NOT BE LESS THAN 35' BACKFILL MATERIAL BEHIND ABUTMENTS, WING WALLS AND RETURN WALLS SHALL BE PROVIDED.
 - ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING STANDARD & SPECIFICATION.
 - a. IRS BRIDGE RULES.
 - b. IRS CONCRETE BRIDGE CODE.
 - c. IRS SUB-STRUCTURE & FOUNDATION CODE.
 - d. DFC SPECIFICATIONS.
 - e. IRS BRIDGE MANUAL.
 - DEPTH AND TYPE OF MATERIAL FOR GROUND IMPROVEMENT BELOW BOX AND FOUNDATION OF PROTECTION WORK SHALL BE PROVIDED AS PER OF RECOMMENDATION.
 - BASE PRESSURE REQUIRED AT FOUNDING LEVEL IS 10 T/m².

PROPOSED BRIDGE DETAILS

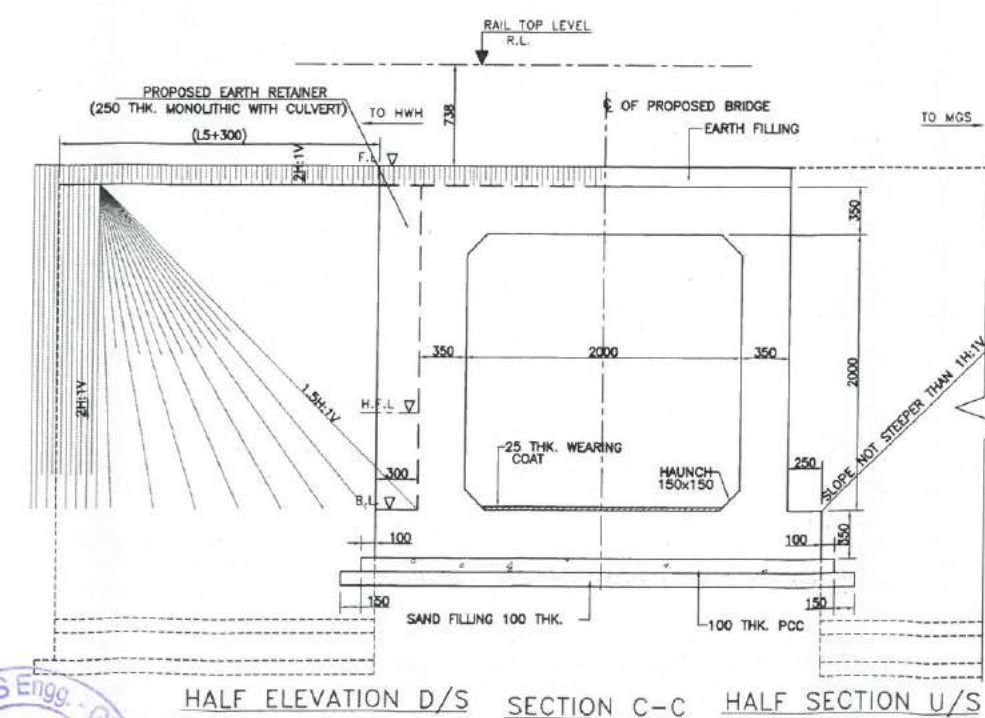
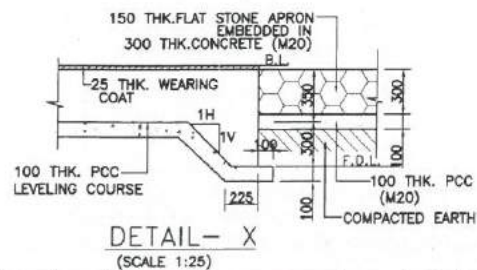
S.NO.	BR.NO.	CHAINAGE	PROPOSED BRIDGE SPAN	F.L (m)	H.F.L (m)	I.L U/S (m)	I.L D/S (m)	FREE BOARD (m)
1	728	116+251.459	1 X 2.00M X 2.00M RCC BOX	77.980	76.690	75.631	75.491	1.291

EXISTING BRIDGE DETAILS

S.NO.	BR.NO.	EXISTING BRIDGE SPAN	F.L (m)	H.F.L (m)	B.L (m)	FREE BOARD (m)	RAILWAY CHAINAGE
1	728	1 X 1.830M X 1.20M RCC BOX	---	76.690	75.545	---	666/11-13

RETURN WALL DETAILS (M.M)

a	b	c	d	e	f	g	h
200	200	1700	400	700	2800	250	1750



ABBREVIATIONS

R.L. : RAIL LEVEL.	U/S : UP STREAM.
F.L. : FORMATION LEVEL.	D/S : DOWN STREAM.
B.L. : BED LEVEL.	ROW : RIGHT OF WAY.
S.L. : SCOUR LEVEL.	G.T. : GEOTECHNICAL.
Bn : BETWEEN.	TH : THICK.
G.L. : GROUND LEVEL.	CH. : CHAINAGE.
N.G.L. : NATURAL GROUND LEVEL.	No. : NUMBER.
H.F.L. : HIGHEST FLOOD LEVEL.	Br. : BRIDGE.
IR : INDIAN RAILWAY.	EXG. : EXISTING.
DFC : DEDICATED FREIGHT CORRIDOR.	PROP. : PROPOSED.
P.C.C. : PLAIN CEMENT CONCRETE.	CL. : CENTRE LINE.
R.C.C. : REINFORCEMENT CEMENT CONCRETE.	MGS. : MUGHAL SARAI.
G.S.B. : GRANULAR SUB BASE.	FDL. : FOUNDING LEVEL.
TYP. : TYPICAL.	REF. : REFER.

LOADING STANDARD: AS PER CONTRACT

IL & FS Engg - GPT (JV) Door No. 2-120/113/34F, Sanali Info Park, Cyber Towers, Road No. 2, Banjara Hills, Hyderabad 500033, India Tel: No+91-40-40405333 Fax: No+91-40-40405444.	
PROJECT:	Design & Construction of Rail Flyover Near Ganjkhwa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor
DETAIL:	GENERAL ARRANGEMENT DRAWING BRIDGE NO.728 CH:- 116+251.459 m(1 X 2.00M X 2.00M RCC BOX CAST IN SITU)
SCALE:	
DFCCIL DRG.NO	ASCI/IFS-GPT/DFC-EC/MNBR/728/101
REVISION	B
ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-69, Noida - 201301 (U.P) Tel: 0120-4248813-20 Fax: 0120-4237553, email: info@ascinfotech.com	
STATUS	P

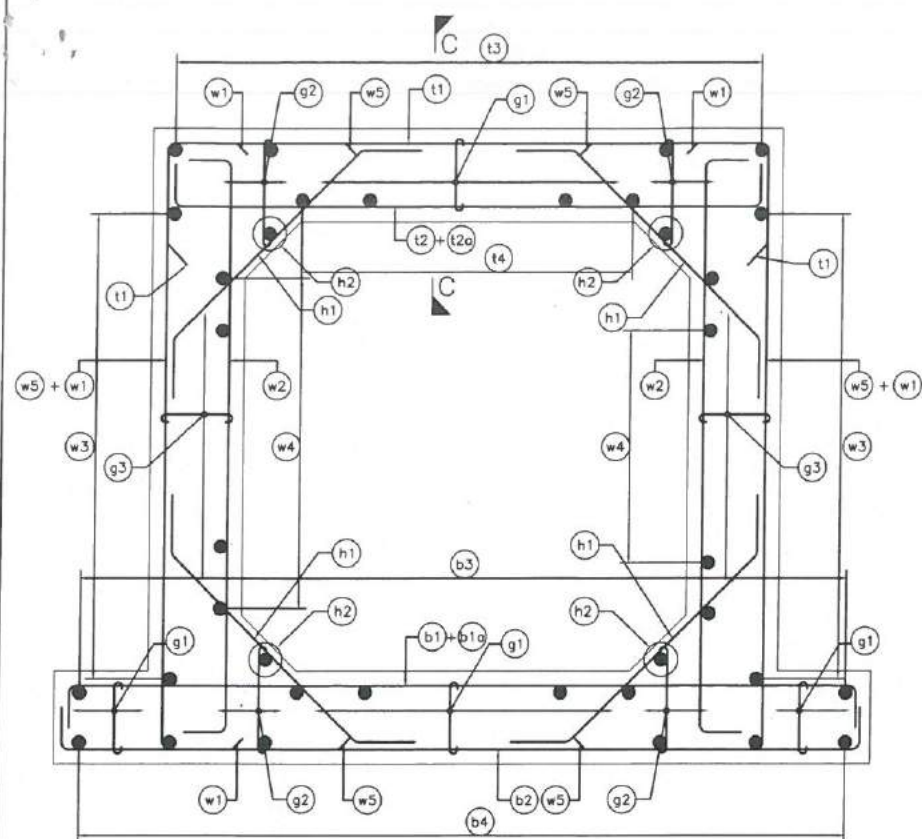
REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	PC
C	16.09.17	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSH	ASV
B	28.03.18	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSH	ASV
A	30.08.14	P	FIRST SUBMISSION	ADS	SS	SPD	ASV

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD. EASTERN CORRIDOR

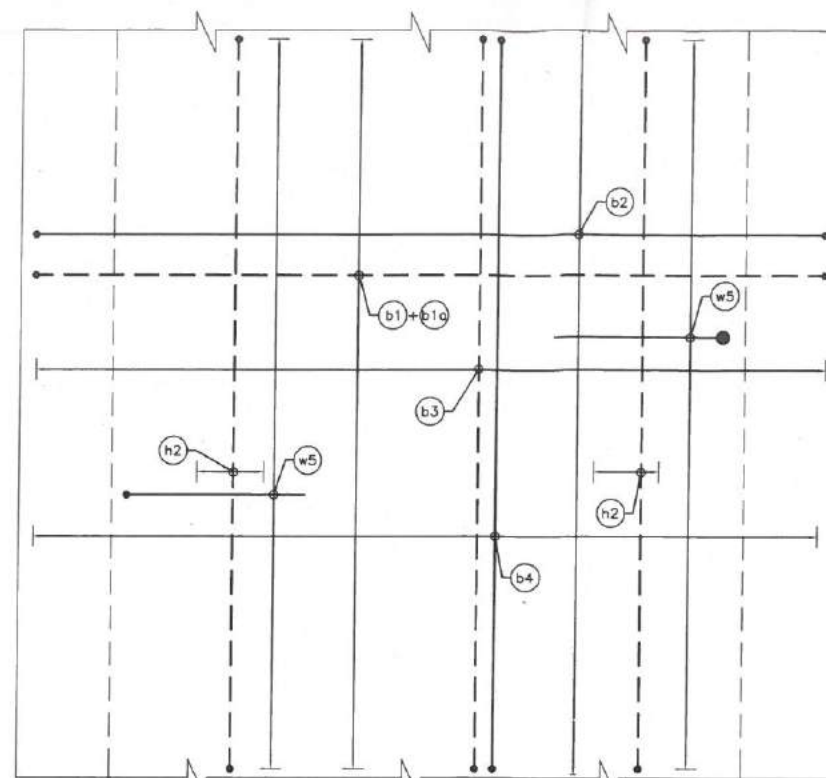
SRINAGAN/ANEYULU
SR. MANAGER (BRIDGE)
(ASC Infratech Pvt. Ltd.)

IL & FS Engg - GPT (JV)

RE	TL	APM	BY CPM	CPM	GM
ICT / PMC			DFCCIL / MGS		ENGC-UDFCCIL / DELHI

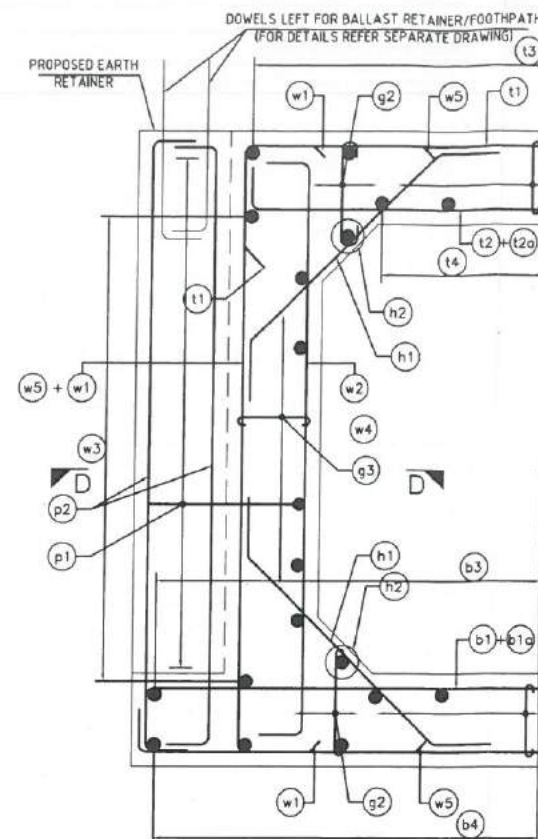


REINFORCEMENT DETAILS



PLAN OF BOTTOM SLAB

(HAUNCH BARS NOT SHOWN IN PLAN)



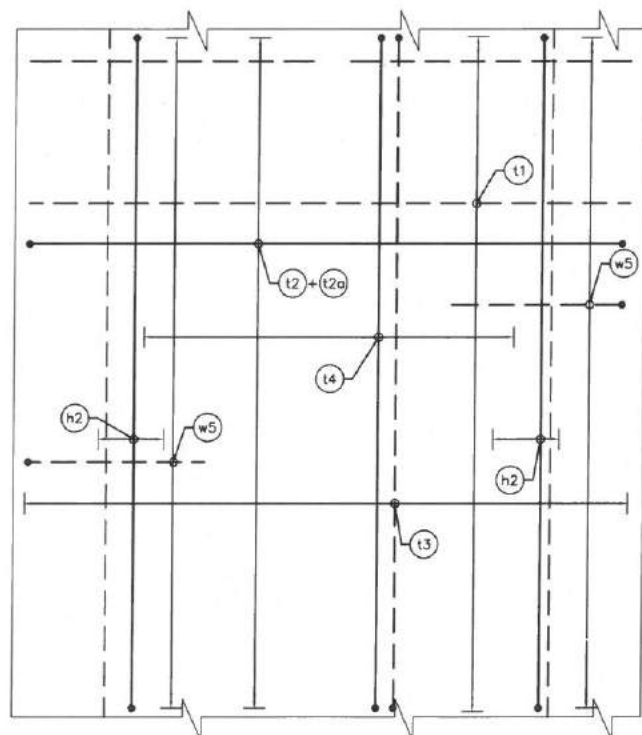
REINFORCEMENT DETAILS
(CROSS SECTION AT EDGE)

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. EXPOSURE CONDITION-MODERATE
4. HIGH YIELD STRENGTH DEFORMED / THERMO MECHANICAL TREATED (TMT) BAR OF GRADE Fe-500 SATISFYING THE REQUIREMENT OF I.S. 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. LAPPING OF BARS SHOULD BE MINIMISED AND WHEREVER NECESSARY LAPPING SHALL BE STAGGERED WITH CENTER TO CENTER OF LAP SPLICES NOT LESS THAN 1.3 TIMES THE LAP LENGTH. MINIMUM LENGTH OF LAP SHALL BE (46xd) OR (25xd - 150), (WHICHEVER IS MAXIMUM), WHERE 'd' IS DIAMETER OF SMALLER BAR OF THE TWO BARS BEING LAPPED
6. GRADE OF CONCRETE - M35
GRADE OF STEEL - FE500
CLEAR COVER FOR EARTH FACE AS - 50mm
FOR OTHER FACE AS - 50mm

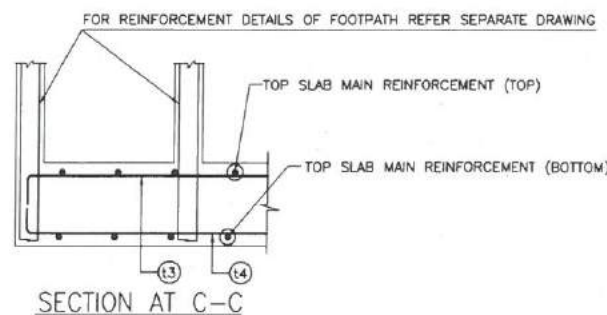
SCHEDULE OF REINFORCEMENT (BOX)

BAR MARK	BAR SHAPE	BAR DIA	SPACING	a	b	c
t1		12	200mm c/c	300	2600	300
t2		16	200mm c/c	200	2600	200
t2a		16	200mm c/c	200	2600	200
t3		10	200mm c/c	L1-100	-	-
t4		10	200mm c/c	L1-100	-	-
b1		16	200mm c/c	200	3200	200
b1a		16	200mm c/c	200	3200	200
b2		12	200mm c/c	200	3200	200
b3		10	200mm c/c	L1-100	-	-
b4		10	200mm c/c	L1-100	-	-
w1		12	200mm c/c	300	2600	300
w2		10	100mm c/c	200	2600	200
w3		10	200mm c/c	L1-100	-	-
w4		10	200mm c/c	L1-100	-	-
w5		16	200mm c/c	1300	2600	1300
h1		10	200mm c/c	200	1060	200
h2		10	4x1 nos.	L1-100	-	-
g1		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	250	-
g2		10	200mm ALONG LENGTH AND 100mm ALONG BARREL	100	VARIES	-
g3		10	200mm ALONG LENGTH AND 200mm ALONG BARREL	100	250	-
p1		8	230mm c/c	150	550	150
p2		8	2 NOS.EACH SIDE	150	2600	150

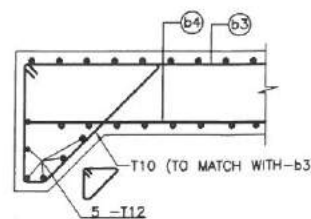


PLAN OF TOP SLAB

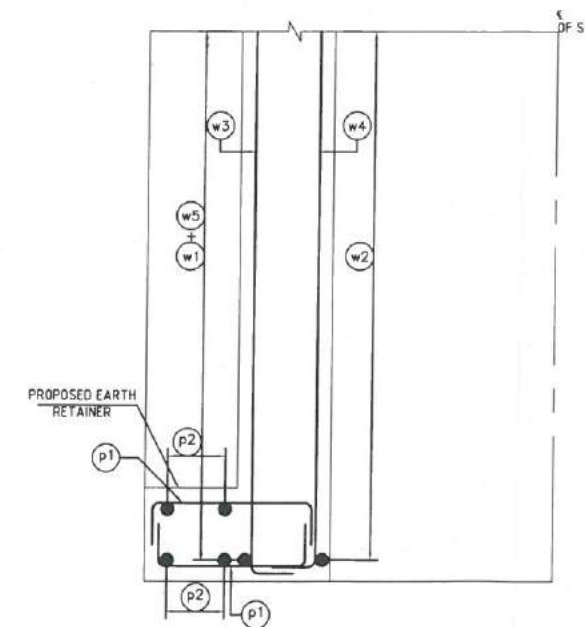
(HAUNCH BARS NOT SHOWN IN PLAN)



SECTION AT C-C



REINFORCEMENT DETAIL OF BOTTOM SLAB KEY
(DETAIL 'X' AS PER GAD)
(SCALE:- 1:20)



SECTION AT D-D

LEGEND

BOTTOM BAR
TOP BAR

REV. NO.	DATE	STATUS	DESCRIPTION	DESIGNED	DRAWN	CHECK	DESIGN CONC. (PC.)
C	16.09.17	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSN	ASV
B	28.03.16	P	REVISED AS PER PLAN & PROFILE	SH	SS	KSN	ASV
A	30.08.14	P	FIRST SUBMISSION	SH	SS	KSN	ASV



DEDICATED FREIGHT CORRIDOR
CORPORATION OF INDIA LTD.
EASTERN CORRIDOR



(ASC Infratech Pvt. Ltd.)



IL & FS Engg-GPT JV

PM	CPM	RE	TL	APM	BY CPM	CPM	GM
IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV	IT & FS Engg-GPT JV

IL & FS Engg - GPT (JV) Door No. 8-2-120/113/34F, Sanath Info Park, Cyber Towers, Road No. 2, Banjara Hills, Hyderabad-500033, India Tel: No. 91-40-40409333 Fax: No. 91-40-40409444		PROJECT: Design & Construction of Rail Flyover Near Ganjkhawa on Lumpsum Basis in different stretches between Dehri-on-Sone & Mughal Sarai of Eastern Dedicated Freight Corridor	
DETAIL: REINFORCEMENT DETAILS OF BRIDGE NO. 728 CH:- 116+251.459(1 X 2.00M X 2.00M RCC BOX, CAST IN SITU)		SCALE: N.T.S.	
DFCCIL DRG. NO. ASC/ILFS-GPT/DFCC-EC/MNBR/728/102		REVISION B	
ASC Infratech Pvt. Ltd. H-37, 1st Floor, Sector-63, Noida - 201301 (UP) Tel: 0120-4248813-20 Fax: 0120-4237953, email: info@ascinfratech.com		STATUS P	