RailTel Corporation of India Limited
(A Govt of India Enterprise)
Regional Office: 6th Floor, *Block III,* Delhi IT Park, Shastri Park,
Delhi-110053

Open e-Tender for the work of:

"CONSTRUCTION OF SINGLE ROOM & DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL - 127 NOS OF SINGLE ROOM & 13 NOS. OF DOUBLE ROOM."

(Tender No.RailTel/Tender/NR/Projects/Masonry Rooms/22-23/13)

Signature Not Verified
Digitally signed by MAYUR AHUJA
Date: 2023.01.13 13:21:42 IST
Reason: IREPS-CRIS
Location: New Delhi

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RailTel Corporation of India Limited
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Regional Office: 6th Floor, *Block III,* Delhi IT Park, Shastri Park, Delhi-110053

OPEN e-TENDER NOTICE

Executive Director/NR, RailTel Corporation of India Limited, Northern Region, New Delhi, invites the sealed Open e-Tenders in "single packet" system from established contractors with proven experience for following work:
कार्यकारी निदेशक/उत्तरी क्षेत्र,रेलटेल की ओर से निम्नलिखित कार्य के लिए दिए गए कार्यक्रम के अनुसार प्रतिष्ठित फर्मों से एकल निविदा प्रणाली मे e-निविदा आमंत्रित है:

E-Tender Notice No. e-निविदा सूचना संख्या	**RailTel/Tender/NR/Projects/Masonry Rooms/22-23/13**
Name of Work कार्य का नाम	**CONSTRUCTION OF SINGLE ROOM & DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL - 127 NOS OF SINGLE ROOM & 13 NOS. OF DOUBLE ROOM.**
Availability of E-Tender निविदा आलेख की उपलब्धता	From 13-01-2023 **to 06-02-2023 Online Only.**
Last Date of Submission of e-Tender e-निविदा प्रस्तुत करने की अतिम तिथि	06-02-2023 upto 15:00 Hrs **Online Only** #
Date of Opening of e-Tender e-निविदा खोलने की तिथि	06-02-2023 upto 15:30 Hrs **Online Only**
Appox Value of The Contract कार्य की अनुमानित लाग़त	**Rs. 10,33,37,930/- (inclusive of GST)**
Earnest Money (EMD) धरोहर धनराशि (ईएमडी)	**Rs. 20,00,000/-**
Completion period: कार्य पूर्ण करने की तिथि	18 months from the date of issue of LOA
Validity of offer: आफर की वैधता	60 days from the date of opening of tender.
Cost of Tender Document: निविदा दस्तावेज की कीमत	Rs 2950/- (Two Thousand nine hundred and fifty Only (अधिभार सहित)
# If Tender opening is a holiday the tender will be opened on next working day at same time.	

नोट-:

.1निविदा सूचना और निविदा दस्तावेज वेबसाइट www.railtelindia.com तथा e-Tendering Portal https://www.ireps.gov.in पर उपलब्ध रहेंगे जिसे निविदाकर्ता डाउनलोड कर सकते हैं लेकिन निविदा केवल -eटेंडरिंग द्वारा IREPS portal पर ONLINE ही स्वीकार कि जाएँगी .निविदाकर्ता को E-निविदा जमा कराने के लिए https://www.ireps.gov.inसे एक अधिकृत इ-दस्तावेज डाउनलोड करना आवश्यक है .Corrigendum addendum /amendments सम्बंधित जानकारी केवल e-Tendering portal https://www.ireps.gov.inपर ही उपलब्ध होंगी .निविदा दस्तावेज कि छपी हुई प्रति बिक्री के लिए उपलब्ध नहीं होगी .

Note:

1. Tender Notice and Tender Documents are also available on RailTel's website **www.railtelindia.com** as well as on **e-Tendering portal www.ireps.gov.in** and same can be downloaded or from the For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from e-Tendering Portal https://www.ireps.gov.in. Tender will be considered which are submitted through IREPS portal only. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the e-Tendering Portal only. Printed copy of Tender document will not be sold from RailTel office.

2. Payment of Tender Document Cost (TDC) and EMD, in respect of e-tendering, will be accepted through net banking or payment gate way (through IREPS) only.

3. The tenderer shall submit documents in support of his/their claim to fulfil the eligibility criteria as mentioned in the tender document. Each page of copy of documents / certificates in support of credentials, submitted by tenderer, shall be self-attested / digitally signed by the tenderer or authorized representative of the tendering firm. Self – attestation shall include signature, stamp and date (On each page). Only those documents which are declared explicitly by the tenderer as "documents supporting the claim of qualifying the laid down eligibility criteria", will be considered for evaluating his/their tender.

4. "The tenderers shall submit a notarized affidavit on a non-judicial stamp paper stating that they are not liable to disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the affidavit to be submitted by the bidder is given in tender document. Non submission of an affidavit by the bidder shall result in rejection of his/their bid and it shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of Tender Committee to scrutinize beyond the submitted document of the tenderer as far as his qualification for the tender is concerned.

5. Tenders without Earnest Money Deposit will be summarily rejected.

6. Tenders without Notorized FORM 2A shall be summarily rejected.

7. If there is any contradiction in Clause of Tender Document, the conditions of Chapter 2A will prevail.

GM/Projects
For Executive Director
RailTel Corp.of India Ltd. Northern Region

CHECK LIST TO ENSURE VALIDITY OF OFFER:

S.N	Description	Uploaded Yes/No
1.	Duly filled and signed Offer letter (Form no-1)	
2.	Proof of Submission of EMD.	
3.	Last Three year AUDITED BALANCE SHEET duly attested by Notary public.	
4.	Proposed Progress Chart	
5.	Constitution of Firm and Power of Attorney.	
6.	List of similar Works executed or under execution	
7.	User certificate for completion of awarded works	
8.	Schdeule of Requirements (SOR) dully filled & signed with summary of Prices blanked out	
9.	Any Other Information desired to be submitted by the Tenderer	
10.	List of Personnels / Manpower employed by company	
11.	List of Plant & Machinary held by company	
12.	Notorized affidavit of Form 2A	
13.	No-Deviation as per Form-5	

SIGNATURE OF TENDERER
(WITH RUBER STAMP)

Section – I

Chapter - 1

SCHEDULE OF REQUIREMENTS

(SOR)

SCHEDULE OF REQUIREMENTS

SOR-A - Construction of Single Room

Description of work: CONSTRUCTION OF SINGLE ROOM & DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL - 127 NOS OF SINGLE ROOM**.**

ITEM NO.	DSR No.	DESCRIPTION	QTY PER ROOM	No. of Rooms	Total Qty.	Unit	Rates	Amount
1	2.6.1	Earth work in excavation over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m; disposed earth to be levelled and neatly dressed. All kinds of soil.	20.74	127	2633.85	Cum	205.45	541124.32
2	2.34.1	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos emulsifiable concentrate of 20%	10.59	127	1345.34	Ltrs	200.90	270278.08
3	2.35.2.1	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) (ii)Chlorpyriphos Emulsifiable concentrate 20% with 1% concentration.	27.56	127	3500.48	Sqm	44.70	156471.26
4	2.27	Supplying and filling in plinth with fine sand under floors including watering, ramming, consolidating and dressing complete.	7.91	127	1004.01	Cum	2161.20	2169869.01
5	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6(1 Cement :3 Coarse sand : 6 grades stone aggregate 20mm nominal size) over 75 mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finished the top smooth	25.62	127	3253.74	Sqm	681.65	2217911.87
6	4.1.8	Providing and laying lin position cement concrete of specified grade excluding the cost of centring and shuttering- All work upto plinth level 1:4:8(l Cement : 4 Coarse sand : 8 graded stone aggregate 40 mm nominal sixe)	7.57	127	961.83	Cum	6326.05	6084558.91
7	4.10	Providing and laying damp-proof Course 40mm thick with cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 12.5mm nominal size).	5.24	127	665.40	Sqm	370.85	246765.00

8	4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7Kg per Sqm on damp-proof course and in sunk floors after cleaning the surface with brushes and finally with the piece of cloth lightly soaked in kerosene oil.	5.24	127	665.40	Sqm	113.85	75756.22
9	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5coarse sand : 3 graded stone aggregate 20 mm nominal size).	4.69	127	595.60	Cum	10719.30	6384369.09
10	5.9.3	Centering and shuttering including strutting, propping and removal of form for Suspended floors, roofs, landings, balconies and access platform	35.57	127	4517.72	Sqm	766.55	3463058.42
11	5.9.5	Centering and shuttering including strutting, propping and removal of form for Lintels, beams, plinth beams, girders, bressumers and cantilevers.	2.70	127	343.41	Sqm	608.35	208912.26
12	5.9.13	Centering and shuttering including strutting, propping and removal of form for Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.	2.54	127	322.48	Sqm	1100.40	354855.23
13	5.9.16.1	Centering and shuttering including strutting, propping and removal of form for Under 20 cm wide	23.46	127	2979.42	Sqm	181.90	541956.50
14	5.22.3	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete. Cold twisted bars.	422.08	127	53603.61	Kg	89.65	4805563.99
15	6.1.2	Brick work with common burnt clay F.P.S(non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement :6 coarse sand).	10.70	127	1358.78	Cum	6658.25	9047066.61
16	6.4.2	Brick work with common burnt clay F.P.S(non modular) bricks of class designation 7.5 in superstructure above plinth level up to V level in all shapes and sizes in Cement mortar 1:6 (1 cement :6 coarse sand).	15.66	127	1989.29	Cum	8288.35	16487920.42

17	9.21.1	Providing and fixing flush door shutters conforming to IS: 2202(part-i) non decorative type, core of block board construction with frame of Ist class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 35mm thick including anodised aluminium butt hinges with neccessary screws.	4.20	127	533.40	Sqm	2015.75	1075201.05
18	9.76	Providing and fixing bright finished brass 100 mm mortice latch and lock 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	2	127	254.00	Nos	723.80	183845.20
19	9.74	Providing and fixing aluminium tower bolts anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. 250 x 10 mm	2	127	254.00	Nos	374.35	95084.90
20	9.100.1	Providing and fixing aluminium handles anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. 125mm	4	127	508.00	Nos	60.05	30505.40
21	9.101.2	Providing and fixing aluminium hanging floor door stopper anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. Twin rubber stopper	2	127	254.00	Nos	62.25	15811.50
22	10.14.1.1	Providing and fixing pressed steel frames conforming to IS: 4351, manufactured from commercial mild steel sheel of 1.6 mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25 mm, or base tiles of 1.6 mm pressed mild steel welded or rigidly fixed together by mechanical means,including M.S pressed butt hinges 2.5 mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge. Profile B, Fixing with adjustable lugs with split end tail to each jab	10.40	127	1320.80	Mtr	444.50	587095.60

23	10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with L-Type section made of 1.60mm thick M.S. Sheet, joints mitred and welded and grinded finish profiles required size with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primers.	55.87	127	7095.74	KG	146.55	1039881.28
24	NS	Providing and fixing 2 mm thick homogeneous Polyvinyl chloride sheet in flooring and skirting in approved pattern on a smooth and damp proof base using rubber based adhesives of approved quality and manufacturer like Dunlop S-758, Fevicol SR-998 or equivalent including rolling with light wooden roller weighing about 5 kg all complete as directed by Engineer-in-Charge, in approved colour and shade.	14.64	127	1859.28	Sqm	950.00	1766316.00
25	11.3.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete. 40mm thick with 20mm nominal size stone aggregate.	14.64	127	1859.28	Sqm	545.00	1013307.60
26	11.1.1	Brick on edge flooring with bricks of class designation 75 including cement slurry etc. complete in cement mortar with F.P.S. bricks: 1:4 (1 cement : 4 coarse sand)	1.50	127	190.50	Sqm	937.00	178498.50
27	11.21.1.1	Providing and fixing 10 mm thick acid/or alkali resistant tiles of approved make and colour using acid/alkali resisting motor bedding,and joint filled with acid /or alkali resisting cement as per IS:4457, complte etc as per directive of Engineer -in -charge	8.25	127	1048.00	Sqm	1515.45	1588197.66

28	12.41.2	Providing and fixing on wall face un plasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.(i) Single socketed pipes. 110 mm diameter	4.00	127	508.00	Metre	319.75	162433.00
29	13.1	12 mm cement plaster of mix 1:4 (1 cement :4 coarse sand).	156.52	127	19877.48	Sqm	294.85	5860875.33
30	13.41.1	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade. New work (two or more coats) over and including priming coat with cement primer.	76.15	127	9671.30	Sqm	162.55	1572070.47
31	13.44.1	Finishing walls with water proofing cement paint of required shade New work(Two or more coats applied @3.28 ltr/10 sq.m	72.22	127	9172.14	Sqm	97.60	895201.18
32	13.61.1	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	12.66	127	1607.82	Sqm	131.45	211347.94
33	13.43.1	Applying one coat of cement primer of approved brand and manufacture on wall surface : Cement primer.	148.37	127	18843.45	Sqm	64.45	1214460.17
34	19.6.2	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 150 mm dia. R.C.C. pipe	4.00	127	508.00	Metre	493.10	250494.80
35	1.3.2	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required Group B	7	127	889.00	Point	1488.00	1322832.00
36	1.4	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required	1	127	127.00	Point	1981.00	251587.00

37	1.5	Wiring for light/ power plug with 2X4 sq. mm FRLS PVCinsulated copper conductor single core cable in surface/recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVCinsulated copper conductor single core cable for loop earthingas required.	3	127	381.00	Meter	433.00	164973.00
38	1.6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required	4	127	508.00	Meter	662.00	336296.00
39	1.7.1	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	100	127	12700.00	Meter	327.00	4152900.00
40	1.7.2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required, 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	30	127	3810.00	Meter	369.00	1405890.00
41	1.7.3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required, 2 X 4 sq. mm + 1 X 4 sq. mm earth wire	30	127	3810.00	Meter	428.00	1630680.00
42	1.18.2	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required , 2 Pair	40	127	5080.00	Meter	38.00	193040.00
43	1.20.1	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required : 20 mm	30	127	3810.00	Meter	223.00	849630.00

44	1.20.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required : 25 mm	50	127	6350.00	Meter	256.00	1625600.00
45	1.21.2	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required : 25 mm	20	127	2540.00	Meter	145.00	368300.00
46	1.24.1	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.: 5/6 A switch	3	127	381.00	Each	103.00	39243.00
47	1.24.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : 15/16 A switch	4	127	508.00	Each	156.00	79248.00
48	1.24.4	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : 3 pin 5/6 A socket outlet	3	127	381.00	Each	122.00	46482.00
49	1.24.5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : 6 pin 15/16 A socket outlet	4	127	508.00	Each	197.00	100076.00
50	1.24.6	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : Telephone socket outlet	1	127	127.00	Each	148.00	18796.00
51	1.24.8	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : Bell push	1	127	127.00	Each	140.00	17780.00
52	1.25	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required	2	127	254.00	Each	369.00	93726.00

53	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required	5	127	635.00	Each	40.00	25400.00
54	1.27.1	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required : 1 or 2 Module (75mmX75mm)	2	127	254.00	Each	298.00	75692.00
55	1.27.2	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required : 3 Module (100mmX75mm)	3	127	381.00	Each	327.00	124587.00
56	1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required	1	127	127.00	Each	99.00	12573.00
57	2.3.1	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) : 6 way , Double door	1	127	127.00	Each	2206.00	280162.00
58	2.10.1	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required : Single pole	3	127	381.00	Each	256.00	97536.00
59	2.10.2	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required : Single pole and neutral	1	127	127.00	Each	599.00	76073.00
60	5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	1	127	127.00	Set	7472.00	948944.00

61	5.10	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	5	127	635.00	Meter	1551.00	984885.00
		Total Amount (SOR-A) (in Rs.)						**86119995.75**

SCHEDULE OF REQUIREMENTS

SOR-B: Construction of Double Room

Description of work: CONSTRUCTION OF DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL - 13 NOS. OF DOUBLE ROOM.

S.No.	DSR No.	DESCRIPTION	QTY PER ROOM	No. of Room	Total Qty	UNIT	RATES	AMOUNT
1	2.6.1	Earth work in excavation over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m; disposed earth to be levelled and neatly dressed. All kinds of soil.	25.18	13	327.29	Cum	205.45	67241.20
2	2.34.1	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos emulsifiable concentrate of 20%	10.59	13	137.71	Ltrs	200.90	27666.26
3	2.35.2.1	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :)Chlorpyriphos Emulsifiable concentrate 20% with 1% concentration.	27.56	13	358.32	Meter	44.70	16016.74
4	2.27	Supplying and filling in plinth with fine sand under floors including watering, ramming, consolidating and dressing complete.	7.91	13	102.77	Cum	2161.20	222112.58
5	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6(1 Cement :3 Coarse sand : 6 grades stone aggregate 20mm nominal size) over 75 mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finished the top smooth	27.26	13	354.38	Sqm	681.65	241563.13
6	4.1.8	Providing and laying Iin position cement concrete of specified grade excluding the cost of centring and shuttering- All work upto plinth level, 1:4:8(I Cement : 4 Coarse sand : 8 graded stone aggregate 40 mm nominal sixe)	6.11	13	79.38	Cum	6326.05	502159.68

7	4.10	Providing and laying damp-proof Course 40mm thick with cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 12.5mm nominal size).	5.24	13	68.11	Sqm	370.85	25259.41
8	4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7Kg per Sqm on damp-proof course and in sunk floors after cleaning the surface with brushes and finally with the piece of cloth lightly soaked in kerosene oil.	5.24	13	68.11	Sqm	113.85	7754.57
9	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5coarse sand : 3 graded stone aggregate 20 mm nominal size).	11.21	13	145.72	Cum	10719.30	1562014.28
10	5.9.3	Centering and shuttering including strutting, propping and removal of form for, Suspended floors, roofs, landings, balconies and access platform	68.73	13	893.48	Sqm	766.55	684898.78
11	5.9.5	Centering and shuttering including strutting, propping and removal of form for, Lintels, beams, plinth beams, girders, bressumers and cantilevers.	3.85	13	50.02	Sqm	608.35	30428.62
12	5.9.7	Centering and shuttering including strutting, propping and removal of form for, Stairs, (excluding landings) except spiral-staircases.	13.90	13	180.67	Sqm	657.75	118838.32
13	5.9.13	Centering and shuttering including strutting, propping and removal of form for, Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.	5.08	13	66.02	Sqm	1100.40	72647.53
14	5.9.16.1	Centering and shuttering including strutting, propping and removal of form for, Under 20 cm wide	58.41	13	759.33	Sqm	181.90	138122.13

15	5.22.6	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.: Thermo-Mechnically Treated bars	1008.83	13	13114.78	Kg	89.65	1175740.23
16	6.1.2	Brick work with common burnt clay F.P.S(non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement :6 coarse sand).	13.16	13	171.11	Cum	6658.25	1139323.02
17	6.4.2	Brick work with common burnt clay F.P.S(non modular) bricks of class designation 7.5 in superstructure above plinth level up to V level in all shapes and sizes in :Cement mortar 1:6 (1 cement :6 coarse sand).	28.44	13	369.76	Cum	8288.35	3064697.18
18	6.13.2	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floorv V level. : Cement mortar 1:4 (1 cement :4 coarse sand)	13.78	13	179.14	Sqm	1018.05	182373.48
19	9.21.1	Providing and fixing flush door shutters conforming to IS: 2202(part-i) non decorative type, core of block board construction with frame of Ist class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 35mm thick including anodised aluminium butt hinges with neccessary screws.	7.88	13	102.38	Sqm	2015.75	206362.41
20	9.76	Providing and fixing bright finished brass 100 mm mortice latch and lock 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	2	13	26.00	Nos	723.80	18818.80
21	9.74 (a)	Providing and fixing aluminium tower bolts anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. 250 x 10 mm	2	13	26.00	each	374.35	9733.10

22	9.100.1 (a)	Providing and fixing aluminium handles anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. 125mm	4	13	52.00	each	60.05	3122.60
23	9.101.2 (a)	Providing and fixing aluminium hanging floor door stopper anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour and shade with neccessary screws etc. complete. Twin rubber stopper	2	13	26.00	Each	62.25	1618.50
24	10.14.1.1	Providing and fixing pressed steel frames conforming to IS: 4351, manufactured from commercial mild steel sheel of 1.6 mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25 mm, or base tiles of 1.6 mm pressed mild steel welded or rigidly fixed together by mechanical means,including M.S pressed butt hinges 2.5 mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge. Profile B, Fixing with adjustable lugs with split end tail to each jab	20.55	13	267.15	Mtr	444.50	118748.18
25	10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with L-Type section made of 1.60mm thick M.S. Sheet, joints mitred and welded and grinded finish profiles required size with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primers.	88.46	13	1150.03	KG	146.55	168537.19

26	NS	Providing and fixing 2 mm thick homogeneous Polyvinyl chloride sheet in flooring and skirting in approved pattern on a smooth and damp proof base using rubber based adhesives of approved quality and manufacturer like Dunlop S-758, Fevicol SR-998 or equivalent including rolling with light wooden roller weighing about 5 kg all complete as directed by Engineer-in-Charge, in approved colour and shade.	16.07	13	208.94	Sqm	950.00	198489.20
27	11.3.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete. : 40mm thick with 20mm nominal size stone aggregate.	29.28	13	380.64	Sqm	545.00	207448.80
28	11.1.1	Brick on edge flooring with bricks of class designation 75 including cement slurry etc. complete in cement mortar with F.P.S. bricks: 1:4 (1 cement : 4 coarse sand)	1.50	13	19.50	Sqm	937.00	18271.50
29	8.31	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	11.87	13	154.25	Sqm	1063.45	164031.85
30	11.21.1.1	Providing and fixing 10 mm thick acid/or alkali resistant tiles of approved make and colour using acid/alkali resisting motor bedding,and joint filled with acid /or alkali resisting cement as per IS:4457, complte etc as per directive of Engineer -in - charge	8.25	13	107.28	Sqm	1515.45	162571.41

31	11.37	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	2.49	13	32.32	Sqm	935.60	30239.76
32	11.41.2	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete : Size of Tile 600x600 mm	16.17	13	210.21	Sqm	1416.65	297794.00
33	12.41.2	Providing and fixing on wall face un plasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.(i) Single socketed pipes.: 110 mm diameter	7.00	13	91.00	mtr.	319.75	29097.25
34	13.1.1	12 mm cement plaster of mix 1:4 (1 cement :4 coarse sand).	300.88	13	3911.49	Sqm	294.85	1153301.88
35	13.41.1	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade. New work (two or more coats) over and including priming coat with cement primer.	125.42	13	1630.43	Sqm	162.55	265027.05
36	13.43.1	Applying one coat of cement primer of approved brand and manufacture on wall surface : Cement primer.	282.75	13	3675.72	Sqm	64.45	236900.41

37	13.44.1	Finishing walls with water proofing cement paint of required shade : New work(Two or more coats applied @3.28 ltr/10 sq.m	157.33	13	2045.29	Sqm	97.60	199620.30
38	13.61.1	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	26.17	13	340.18	Sqm	131.45	44716.33
39	17.2.1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	1.00	13	13.00	each	5540.55	72027.15
40	17.7.1	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps,32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	1.00	13	13.00	each	3392.85	44107.05
41	17.31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	1.00	13	13.00	each	1411.15	18344.95
42	17.33	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	1.00	13	13.00	each	942.15	12247.95
43	17.34.1	Providing and fixing toilet paper holder : C.P. brass	1.00	13	13.00	each	680.80	8850.40

44	17.35.1.1	Providing and fixing soil, waste and vent pipes : 100 mm dia. Sand cast iron S&S pipe as per IS: 1729.	8.00	13	104.00	metre	1018.05	105877.20
45	17.35.2.1	Providing and fixing soil, waste and vent pipes : 75 mm diameter :Sand cast iron S&S pipe as per IS: 1729.	8.00	13	104.00	metre	931.55	96881.20
46	17.39.1.1	Providing and fixing plain bend of required degree. 100 mm, Sand cast iron S&S as per IS - 1729	2.00	13	26.00	each	412.95	10736.70
47	17.39.2.1	Providing and fixing plain bend of required degree. 75 mm, Sand cast iron S&S as per IS -1729	2.00	13	26.00	each	311.55	8100.30
48	17.43.1.1	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. : Sand cast iron S&S as per IS - 1729	1.00	13	13.00	each	671.20	8725.60
49	17.43.2.1	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. :Sand cast iron S&S as per IS - 1729	1.00	13	13.00	each	573.80	7459.40
50	17.58.1	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter: 100 mm	8.00	13	104.00	each	549.65	57163.60
51	17.58.2	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter: 75 mm	8.00	13	104.00	each	466.40	48505.60
52	17.60.2.2	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors : Sand Cast Iron S&S as per IS- 1729.	1.00	13	13.00	each	1296.40	16853.20

53	18.8.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work including cutting chases and making good the walls etc. : 15 mm nominal outer dia .Pipes.	18.00	13	234.00	metre	441.15	103229.10
54	18.8.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work including cutting chases and making good the walls etc. 20 mm nominal outer dia .Pipes.	9.00	13	117.00	metre	513.75	60108.75
55	18.15.1	Providing and fixing brass bib cock of approved quality : 15 mm nominal bore	1.00	13	13.00	each	303.85	3950.05
56	18.16.1	Providing and fixing brass stop cock of approved quality : 15 mm nominal bore	3.00	13	39.00	each	303.85	11850.15
57	18.17.1	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) : 25 mm nominal bore	1.00	13	13.00	each	532.35	6920.55
58	18.18.2	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 20 mm nominal bore	1.00	13	13.00	each	397.45	5166.85

59	19.4.2.1	Providing and fixing square-mouth S.W. gully trap grade 'A" complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : With F.P.S. bricks class designation 75	1.00	13	13.00	each	2474.40	32167.20
60	19.7.1.1	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : 19.7.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 : With F.P.S. bricks with class designation 75	1.00	13	13.00	each	11687.10	151932.30
61	19.6.2	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 150 mm dia. R.C.C. pipe	2.00	13	26.00	mtr.	493.10	12820.60
62	1.3.2	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor	25	13	325.00	Point	1488.00	483600.00

		single core cable etc. as required : Group B						
63	1.4	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required	2	13	26.00	Point	1981.00	51506.00
64	1.5	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	12	13	156.00	Meter	433.00	67548.00
65	1.6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	9	13	117.00	Meter	662.00	77454.00
66	1.7.1	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required : 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	250	13	3250.00	Meter	327.00	1062750.00
67	1.7.2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required : 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	30	13	390.00	Meter	369.00	143910.00

68	1.7.3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required : 2 X 4 sq. mm + 1 X 4 sq. mm earth wire	140	13	1820.00	Meter	428.00	778960.00
69	1.18.2	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required : 2 Pair	60	13	780.00	Meter	38.00	29640.00
70	1.20.1	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required :20 mm	30	13	390.00	Meter	223.00	86970.00
71	1.20.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required :25 mm	30	13	390.00	Meter	256.00	99840.00
72	1.21.1	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required :20 mm	40	13	520.00	Meter	128.00	66560.00
73	1.21.2	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required :25 mm	50	13	650.00	Meter	145.00	94250.00

74	1.24.1	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. :5/6 A switch	9	13	117.00	Each	103.00	12051.00
75	1.24.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : 15/16 A switch	12	13	156.00	Each	156.00	24336.00
76	1.24.4	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. :3 pin 5/6 A socket outlet	9	13	117.00	Each	122.00	14274.00
77	1.24.5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : 6 pin 15/16 A socket outlet	12	13	156.00	Each	197.00	30732.00
78	1.24.6	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : Telephone socket outlet	1	13	13.00	Each	148.00	1924.00
79	1.24.7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : TV antenna socket outlet	1	13	13.00	Each	148.00	1924.00

80	1.24.8	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : Bell push	3	13	39.00	Each	140.00	5460.00
81	1.25	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	6	13	78.00	Each	369.00	28782.00
82	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	12	13	156.00	Each	40.00	6240.00
83	1.27.2	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required 3 Module (100mmX75mm)	21	13	273.00	Each	327.00	89271.00
84	1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required	3	13	39.00	Each	99.00	3861.00
85	2.4.1	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) : 4 way (4 + 12), Double door	1	13	13.00	Each	4091.00	53183.00
86	2.10.1	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required : Single pole	11	13	143.00	Each	256.00	36608.00
87	2.13.2	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. : 63 Amp.	1	13	13.00	Each	1034.00	13442.00

88	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	1	13	13.00	Set	6855.00	89115.00
89	5.12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	10	13	130.00	Meter	287.00	37310.00
90	5.16	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required	10	13	130.00	Meter	70.00	9100.00
		Total Amount (inclusive of taxes) (in Rs.)						**17217934.51**

Summary of SOR-

SOR	Category	Nos. of Room	Total Cost (In Rs.)
A	Single Rooms	127	8,61,19,995.75
B	Double Rooms	13	1,72,17,934.51
Total (in Rs.) (SOR-A + SOR-B)			10,33,37,930.00

Tenderer's offer : " I/We hereby offer to do the work at following rates

In Figure	**% Rates Above/Below/At par the Schedule of rates**
In Words	**% Rates Above/Below/At par the Schedule of rates**

Note:-

1. ***Above quoted rates are inclusive of all type of applicable taxes, transportation & insurance. In case above/below is not mentioned, it would be considered as below.***
2. ***Payments of Execution items will be done on prorata basis.***
3. ***Evaluation will be done on the basis of total cost for SOR-A and SOR-B combined.***

Signature of Tenderer with Seal

SECTION-I

CHAPTER - 2

BID DATA SHEET

(BDS)

SECTION-I

CHAPTER-5

BID DATA SHEET (BDS)

The section consists of provisions that are specific to various clauses ofPreamble, Instruction to Tenderers and conditions of tendering (ITT), General Condition of Contract (GCC) and Special Condition of Contract (SCC) of Section-Iof the tender document.

BID DATA SHEET (BDS)

Reference Clause	Description
Name of the Work: (Preamble Clause1)	**CONSTRUCTION OF SINGLE ROOM & DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL - 127 NOS OF SINGLE ROOM & 13 NOS. OF DOUBLE ROOM.**
List of Section/s where work for RailTel is to be done: (Preamble Clause 2.4)	As per Annexure-A.
Pre bid Conference: (Preamble Clause 3)	**NOT APPLICABLE**
Last Date and Time for Submission of e-Tender: (Preamble Clause 6)	06-02-2023 upto 15:00 Hrs **Online Only**
Date and Time for Opening of e-Tender: (Preamble Clause 7)	06-02-2023 upto 15:30 Hrs
Completion Period of Work: (Preamble Clause 8)	18 months from the date of issue of Letter of Acceptance (LOA).
Authority and Address: (Preamble Clause 9)	Executive Director, Northern Region, **RailTel Corporation of India Ltd,** 6th Floor, Block III, Delhi IT Park, Shastri Park, Delhi-110053
Earnest Money: (Preamble Clause 10)	**Rs. 20,00,000/-**
Work to be done by RailTel (if any): (Preamble Clause 15)	Items of works to be done by RailTel if any are indicated in Bid Data Sheet (BDS).
Materials to be supplied by RailTel (if any): (Preamble Clause 16)	NIL
Unit Prices: (ITT Clause 12)	*The unit rate and the prices quoted by the bidder shall be in Indian Rupees (INR) only and inclusive of all Taxes, Transport, insurance charges etc.*
Validity of offer: (ITT Clause 13)	60 days (Sixty days) from the date of opening of tender
Minimum Qualifying Criteria: (ITT Clause19.1.4(i))	The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited: *i. Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or*

	ii. Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or iii. *One similar work each costing not less than the amount equal to 60% of advertised value of the tender.*
Financial Eligibility Criteria : [ITT Clause 19.1.4 (ii)]	*The tenderer must have received total contractual payments (operating turnover) in the previous three financial years and the current financial year up to the date of inviting of tender, at least 150% of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be an attested Certificate from the concerned department / client or Audited Balance Sheet duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet.*
Meaning of similar Works: (ITT Clause 20)	Works similar to the scope of work as contained in this tender shall mean the work as indicated in Tender Notice & executed in India as per the scope of the work/specifications given in the Tender document executed for Govt./PSU's /reputed Private organization. **For this tender "similar single work" means at least one complete work comprising of: Civil and structural, Finishing, electrical and plumbing.**
Period of Maintenance: (SCC Clause 24)	12 months from the date of passing of the certificate of completion/Professional Acceptance Certificate (PAC).
Maintenance Supervision: (SCC Clause 26.3)	The contractor shall be responsible for proper maintenance supervision of work for a period of 12 months from the date of issue of Provisional Acceptance Certificate (PAC) of each section/block section.
Warranty: (SCC Clause 29)	All materials supplied/work done by the contractor shall be guaranteed against the defects for a period of 12 months from the date of issue of Provisional Acceptance Certificate (PAC).
Contract Performance Guarantee: (SCC-Clause 3, Chapter –4,	Contract Performance Guarantee should be **3%** of Contract value. However, if the PG amount is less than Rs. 5 lakhs, them the same has to be submitted in the form of DD/Banker's Cheque or online transfer only.

SECTION - I

Chapter – 3

PREAMBLE

1. Name of work:

The name of the work as mentioned in Tender Notice is also indicated in Bid Data Sheet (BDS) Chapter 5 Section I.

2. Scope of work:

2.1 The scope of work shall constitute the following responsibilities of the tenderer.

2.2 **Supply**

Supply of items conforming to industry standards and RDSO specifications (where ever applicable)as per Schedule of Requirements and the technical specifications.

2.3 **Services**

Complete supply and construction involving civil, structural, interior and exterior finishing, electrical, plumbing and allied works for one room small and one room big as Schedule Of Requirements (SOR) enclosed and technical specifications.

2.4 **List of Section/s where work for RailTel is to be done:**

The details of the section/s where the work for RailTel is required to be done are indicated in Bid Data Sheet (BDS) Chapter 5 Section I.

3. Pre-bid conference

Not Used

4. Tender Bid

The tender bid shall be submitted in Single sealed covers as detailed in **Instructions to Tenderers and Condition of Tendering (ITT)**Clause No.**10 Chapter 3 Part I, Section 1**.

5. Qualifying Criteria

Please refer ITT Clause no. 19. It will be incumbent on the part of tenderer to list specifically the details in respect of each of the sub clauses of clause 19 as to how the tenderer fulfils the qualifying criteria.

6. Last date of Submission

The tender shall be received at the address and not later than the date and time indicated in Bid Data Sheet (BDS) Chapter 5 Section I.

7. Date of Opening of Tender

The tenders will be opened at the address, date and time indicated in BDS.

8. Completion Period of Work:

The works in different sub sections are to be executed concurrently such that the total work is completed & commissioned in each of the section within the period prescribed in Bid Data Sheet from the date of issue of **"**Letter of Acceptance**"** (LOA) of the tender.

9. Authority and address: The Authority and address to which correspondence and documents relating to the tender/contract should be sent is indicated in BDS.

10. Earnest Money

Tenderer shall deposit a sum as indicated in Bid Data Sheet (BDS) Chapter 5 Section I as Earnest Money in a manner prescribed in ITT Clause 7.

11. Security Deposit

On receipt of Letter of Acceptance of Tender from the RailTel, the successful tenderer shall be required to deposit an amount towards Security Deposit in terms of General Conditions of Contract Clause 16 Section I Chapter – 3 Part II for due fulfillment of contract.

12. Specifications

Reference of specifications of the important equipments and materials required for execution of the contract is given in the schedule of requirement and Technical supplement (Section-II of Tender document). The work shall be executed in compliance with all the technical requirements given therein.

13. Schedule of Requirement

The various items to be supplied and services to be provided by the tenderer are indicated in Schedule of Requirement as enclosed (Section 1, Chapter 7). The make and model of all the equipments/materials proposed to be supplied must be indicated by the tenderer/s in the Schedule of Requirement.

The quantity indicated in the Schedule of Requirement is the estimated requirement and may change depending on the detailed survey / system design. On this and other developments, the purchaser may exercise the option of increase / decrease of the quantity of items as specified in **Clause 19 of Chapter 4, Section- I (SCC).**

14. Supplier's Credit

Not used

15. Work to be done by the RailTel

Items of works to be done by RailTel, if any, are indicated in Bid Data Sheet (BDS).

16. Materials to be supplied by RailTel

16.1 Materials to be supplied by RailTel if any, for the scope of work under this tender are indicated in Bid Data Sheet (BDS).

16.2 In case any material required for this work is supplied by RailTel due to failure of contractor in timely arranging the same, it will be charged @ 19.5% over and above the accepted SOR rates.

17. Materials to be supplied by Contractor

Tenderer's special attention is invited to the fact that no material shall be arranged/supplied except as specified in BDS by RailTel for construction of rooms. All materials including the

materials covered under the Schedule of Requirement and those required to achieve the end objective as required vide Section II of the tender document are to be supplied by the contractor.

18. As a good tender practice, the tenderer is expected to submit giving all the information in the relevant forms attached as Annexure to this document and suitably numbering each page of the bid documents with a content list indicating availability of various documents with their serial numbers. In the absence of numbering of pages and the content list, there is a likelihood of any important document going unnoticed for which the tenderer shall be solely responsible.

19. Maintenance Support

The tenderer should submit their strategy for providing maintenance support during warranty and post warranty period in terms of Clause no. 24 (Maintenance of Works), Clause no.27 (Placing in Service & Maintenance supervision) and Clause No. 29 (Warranty) of SCC.

20. Not used.

21. Form C if required by contractor for respective section/s as specified in clause 2.4, shall be issued from the office of Executive Director, Northern Region,Delhi (Clause 38.2 of SCC). Necessary Road permits to reach the equipment into the specified section/s shall be arranged by the contractor through the respective state authorities wherever required.

SECTION-I
Chapter - 4-A

Instructions to Bidders for e-Tendering

These are the Special Instructions to the Bidders for e-Tendering.

Note:- e-Tendering Instructions to Bidders terms given in others chapters shall be superseded by the terms given in Chapter-2 A.

1-Order of Priority of Contract Documents:
Where there is any conflict between the various documents in the contract, the following order of priority shall be followed i.e. a document appearing earlier shall override the document appearing subsequently:

a) Agreement
b) Letter of Acceptance of Tender
c) Notice Inviting Tender
d) Bid Data Sheet
e) Schedule of Requirements
f) Instructions to the Bidders
g) Annexure/Appendix to Tender
h) Form of Bid
i) Commercial Terms and Conditions of the Contract
j) Technical Specifications
k) Relevant Codes and Standards
l) Drawings.

2. **Submission of Bids through online process is mandatory for this Tender**.

e-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, RailTel has decided to use the portal https://www.ireps.gov.in, Indian Railways E-Procurement system (IREPS).
Benefits to Suppliers are outlined on the Home-page of the portal. Bidders are advised to visit the IREPS Portal for details related to E-Tender i.e. Registration, FAQ, Helpdesk, Learning Center etc.

3. **Tender Bidding Methodology:**

Bid System - 'Single packet'for this bid, bidder has to submit both Technical and Financial Bids "ONLINE" at IREPS portal.

IREPS Helpdesk Please visit Helpdesk section on IREPS Portal.

RailTel's Contact Person /Designation: (for general Information)

Mr. Mayur Ahuja, Sr. Manager/Projects Mobile: 9906277456 E-mail ID: mayurahuja@railtelindia.com	Shri P. Lal , GM/Projects Mobile: 9717649428 E-mail ID: plal.rdso@railtelindia.com

4. Bid related Information for this Tender (Sealed Bid).
   The entire bid-submission would be online on IREPS Portal. Broad outline of submissions are as follows:

   a. Proof of Submission of EMD & cost of tender document.
   b. Submission of digitally signed copy of Tender Documents/Addenda
   c. Single Packet.
   d. Online response to Terms & Conditions of Tender.
   e. (Optional) Online Submission of modification, substitution bids for technical or financial parts, or withdrawal bid.
   f. Submission of Affidavit as per Form- 2A is mandatory.
   g. Submission of Power of Attorney for authorized signatory in accordance with Clause 10, Chapter 3.
   h. Other documents for meeting the eligibility criteria for meeting the tender conditions.

NOTE: Bidder must ensure that the bid is successfully submitted online as per instructions of IREPS Portal.

5. Offline Submissions: DELETED

6. **Submission of Eligibility Criteria related documents:**

Eligibility Criteria related documents as applicable shall also be scanned and submitted ONLINE. NOTE: In case of internet related problem at a bidder's end, especially during 'critical events' such as - a short period before bid-submission deadline, during online public tender opening event, during e-auction, it is the bidder's responsibility to have backup internet connections.

In case there is a problem at the e-procurement/ e-auction service provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of RailTel by the bidders in time, then RailTel will promptly re-schedule the affected event(s).

7. Instructions for Tender Document to the bidders.

The RailTel Tenders are published on www.railtelindia.com and on IREPS Portal https://www.ireps.gov.in/.

NOTE: For online bid submission, the bidder will have to necessarily download an official online copy of the tender documents from IREPS portal, and this should be done well before the deadline for bid-submission.

8. Submission of Offers and Filling of Tender:
This e-tender should be duly submitted online using the e-Procurement Portal https://www.ireps.gov.in/.For detailed instructions please refer to IREPS Portal.

9. Fax Quotations & Late Tenders:
Fax Tender documents and Late/Delayed tenders would not be considered.

10. Attendance of Representatives for Tender Opening:
Representatives of bidders desirous to attend the tender opening can do so on production of a proper letter of authority from the respective firm, failing which they may not be allowed to attend the tender opening. Authorized representatives of those firms who have submitted the tender documents alone shall be allowed to attend the tender opening.

11. Addenda / Corrigenda:

Addenda / Corrigenda to the tender documents may be issued by RailTel prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions or in the design. Such addendum/corrigendum will be available on IREPS Portal as well at Railtel portal. Bids not conforming to the requirements of the RailTel Tender are liable to be rejected.

12. Ambiguity/ Pre- Bid Clarification Requests:

If there is any ambiguity or doubt as to the meaning of any of the tender clauses/ conditions or if any additional information required, the matter should be immediately brought to RailTel authorities in writing through emails to RailTel Contact persons mentioned above.

13. Bid submission and Opening date:

a) The bid should be submitted online along with Credential/Techno - commercial & Price bid document (all documents).

b) Power of attorney in favor of the signatory duly authorizing the signatory shall be submitted in a separate envelope to the tendering authority before the due date and time of submission of the e-Tender.

c) The bids shall be opened on scheduled date & time as mentioned in NIT, online simultaneous in presence of such Bidders/ Representatives who choose to be present online. The Tenders/Representatives can also choose to be physically present in the office of RailTel for the Online Public Tender Opening Event.

d) Bids received after due date and time shall be summarily rejected and will not be opened.

SECTION-I

Chapter-4B

PART I

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

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Clause No. Content

1. General Instructions
2. Interpretations & Definitions
3. Tender Form
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5. Local Conditions
6. Compliance to Tender Conditions,
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8. Earnest Money/Bid Guarantee
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12. Constitution of Firm and Power of Attorney
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17. Period of Completion and Time Progress Graph
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19. Consortium Bids
20. Qualifying Criteria
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SECTION – I

Chapter-4B

PART - I

INSTRUCTIONS TO TENDERERS & CONDITIONS OF TENDERING

1. GENERAL INSTRUCTIONS

1.1 These Regulations for Tenders and Contracts shall be read in conjunction with the General Conditions of Contract, which are referred to herein and shall be subject to modifications, additions or supersession by Special Conditions of Contract and/or Special Specifications, if any, annexed to the Tender Forms.

2. INTERPRETATIONS & DEFINITIONS OF SOME GENERAL TERMS

The following terms wherever occurring in the tender papers and wherever used throughout the execution of the work, shall, unless excluded by or repugnant to the context, have the meaning attributed thereto as follows:

"Tender Document"

The Special Conditions of Contract (SCC), Instructions to Tenderers and Conditions of Tendering (ITT), General Conditions of Contract (GCC), Bid Data Sheet (BDS), Technical Specifications & Supplement, Preamble including Schedule of Requirements (SOR), all Annexures, Forms, Corrigendum & Addendum issued, if any, etc. shall, hereafter, be collectively referred to as the "**Tender Document**".

"**RailTel**" shall mean Office of General Manager (Northern Region) of RAILTEL CORPORATION OF INDIA LIMITED, (a Company with its Regional &Registered Corporate Office at 6th Floor, Block III, Delhi IT Park, Shastri Park, Delhi-110053 or its authorised Officers or other Employees authorised to deal with any matters with which these persons are concerned, on its behalf..

"**Executive Director**" shall mean the officer incharge for the general superintendence and control of the RailTel's Northern region and shall mean and include their successors of this region of RailTel.

"**CONTRACT**" shall mean the Contract resulting from the acceptance by the Purchaser of this Tender whether in whole or in part. "Contract" shall mean and include the Agreement of Work Order, the accepted schedule of rates or the Schedule of Rates of RailTel modified by the tender percentage for items of works quantified or not quantified, the General Conditions of Contract, the Special Conditions of Contracts, if any, the drawings, the specifications, the special specifications, if any, and tender forms, if any, and the document submitted by the Tenderer which have been specifically been accepted by RailTel.

"**CONTRACTOR**" shall mean the successful Tenderer, i.e., the Tenderer whose Tender has been accepted either in whole or in part and shall include their personal representatives, successors and permitted assigns.

'TENDER SPECIFICATIONS' shall mean the Special Conditions, Technical Specifications, appendices, Site information and drawings pertaining to the work for which the tenderers are required to submit their offer.

"**CONTRACTOR's REPRESENTATIVE**" shall mean a person in supervisory capacity who shall be so declared by the Contractor and who shall be authorized under a duly executed power of attorney to receive materials issued by the Purchaser to the Contractor for the works. He shall be responsible for proper execution of works at each or all places and shall take orders from Purchaser's Engineers and carry out the same.

'LETTER OF INTENT / WORK ORDER' shall mean the intimation by a letter / telegram / telex / fax to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the Contractor commences from the date of issue of this letter and all the terms and conditions of contract are applicable from this date.

'COMPLETION TIME' shall mean the period by date specified in the Letter of Intent / Work Order i.e., the time allowed for completion of the work including Sundays & holidays from the date of issue of Letter of Intent / Work Order.

'PLANT' shall mean and connote the entire assembly of the plant and equipment covered by the Contract.

'EQUIPMENT' shall mean all equipment, machineries, materials, structures, electrical and other components of the plant covered by the Contract.

'TEST' shall mean and include such test or tests to be carried out by the Contractor as are prescribed in the Contract or considered necessary by RAILTEL in order to ascertain the Quality, Workmanship, Performance and Efficiency of the contracted work or part thereof.

'APPROVED', 'DIRECTED' or **'INSTRUCTED'** shall mean approved, directed or instructed by RAILTEL, Northern Region.

"**ENGINEER /ENGINEER-IN-CHARGE**" shall mean Regional General Managerof RailTel in charge of works and shall include the senior executives of RailTel. He is responsible for ensuring that all field works covered by the contract are carried out in accordance with approved designs, drawings & specifications and conditions of contract as agreed to.

"**ENGINEER'S REPRESENTATIVE"** shall mean the supervisor of RailTel in direct charge of the works or any official nominated by Regional General Manager.

"**EQUIPMENT"** shall mean all or any equipment considered necessary by the Purchaser's Engineers for satisfactory operation, as a whole, of the installations.

"**MONTH"** shall mean any consecutive period of thirty days.

"**MATERIALS"** shall mean all equipments, components, fittings and other materials including raw materials required to complete the work.
"PURCHASER" shall mean RailTel Corporation of India Limited, Northern Region, New Delhi.

"**PURCHASER'S ENGINEER"** shall mean the Regional General Managerof RailTel or successor who will decide all matters relating to design, manufacture, and installation and commissioning of the plant and equipment at site.

"**SUB-CONTRACTOR "** shall mean an individual or a firm of Contractor or a Company registered under Indian Company Act or an approved supplier of materials to whom the Contractor sublets portions of the contract.

"CONSIGNEE" shall mean the person specified in the Acceptance of Tender to whom Stores covered in the contract are to be delivered at the destination.

"INSPECTING OFFICER" shall mean the person, or organization specified in the contract for the purpose of inspection of stores of work under the contract and includes his/ their authorized representative.

"**SITE"** shall mean the areas to be taken up for the permanent works, together with any other area or areas as shall be determined by the Purchaser's Engineer, which may be placed at the disposal of the Contractor for the purpose of the contract and also such area or areas used for store yards, works yards or workshop in proximity of the works as the Purchaser's Engineer may have authorized as an extension of the site, irrespective of the terms and conditions under which they are occupied by the Contractor.

"**BLOCK SECTION**" shall mean the distance along the railway track between two consecutive Railway stations.

"**TENDERER"** shall mean and includes any firm of engineers or Contractors or any company or body, corporate or otherwise, who submit the Tender which has been invited.

"**LIMITED TENDER"** shall mean tenders invited from all or some contractors on the approved or selected list for the similar type of work executed and approved by the Purchaser.

"**OPEN TENDER**" shall mean the tenders invited in open and public manner and with adequate notice.

"WORK OR WORKS" shall mean all or any of the items of the work for which the Tenderer/Contractor has Tendered/contracted according to the specifications, drawings and Annexure hereto annexed or to be implied there from, or incidental thereto or to be hereafter specified or required in such explanatory instructions and drawings, being in conformity with the original specifications, drawings, Annexure and schedules and also such instructions and drawings additional to the aforementioned as may from time to time be issued by the Purchaser's Engineer during the progress of the contracted work.

"**SPECIFICATIONS"** shall mean the specifications for materials and works of the RailTel issued under the authority of the Regional General Manageror as amplified / added to / or supported special specifications if any, appended to the tender forms.

"DRAWINGS" shall mean the map, drawings, plans and tracings or prints thereof annexed to the tender forms and shall include any modifications of such drawings and further drawings as may be issued by the Regional General Manager time to time.
"WRITING" includes all matters written, typewritten or printed either in whole or in part.

3. **TENDER FORM:** Tender Forms shall embody the contents of the contract documents either directly or by reference. Tender Forms shall be issued on payment of the prescribed fees or downloaded from the website of the RailTel, be furnished with Tender Forms and they shall be required to submit evidence regarding their financial status, previous experience and ability to execute the works, without which their tenders will not be considered.

4. **ERRORS, OMISSIONS AND DISCREPANCIES**: Should a Tenderer find discrepancies or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders who may send a written instruction to all tenderers. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of the tender and the successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

In case of any contradiction only the printed rules and books should be followed and no claim for the mis-interpretation shall be entertained.

5. **LOCAL CONDITIONS**

5.1 It will be imperative on each tenderer to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the contract and cost of the stores. The purchaser shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for the change of price, or time schedule of delivery of stores shall be entertained on account of any local condition or factor after the offer is accepted by the purchaser.

5.2 The intending tenderer is advised to study the tender documents carefully. Submission of a quotation by the tenderer shall be deemed to have been done after a careful study and examination of these documents with full understanding of the implication thereof. These conditions and specifications shall be deemed to have been accepted unless otherwise, specifically commented upon by the Tenderer in his quotation. Failure to adhere to anyone or all these instructions may render his offer liable to be ignored without any reference.

6. **COMPLIANCE TO TENDER CONDITIONS, SPECIFICATIONS & DRAWINGS**

6.1 The tenderer shall indicate clause by clause for each section of the tender document that either his tender complies in every respect with the requirements of each clause and sub clause or if not, precisely how they differ from the requirements of the tender. In later case, the tenderer shall enclose a separate statement as per proforma (see Form 5 of Section-I, Chapter-6), indicating only the deviations for any clause or sub clause of Special Conditions of Contract, Instructions to Tenderers and General Conditions of Contract, Technical Specifications, Preamble etc. which he proposes with justifications for deviations proposed. The purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final

6.2 The tenderer should serially number all the pages of the bid. The tenderer should provide information about the compliance of various clauses /sub clauses/ paragraphs (when tenderer plans to give separate compliance of each paragraph or sub clause) of the tender document as per following table:

S.N.	Clause no. with chapter	First few words of clause / sub clause / paragraph	Compliance status	Reference of clause /page no. of supporting document (this page no. shall correspond to the serial numbering of the bid)	Remarks if any

The table given above, duly filled in all respects, must be submitted along with offer.

In case of "NIL" deviation also, the information must be submitted in Form-5 Chapter 6 Section I.

6.3 Firms should give as proof of work experience {Form (2) and Form (13)}. Details of works executed giving details of the name of the project, date of award, length of the section, No. of Stations, value of the contract, the original execution period and the actual execution time taken. The certificate from the actual user about the satisfactory performance indicating all the details as given herein shall be enclosed with the tender.

6.3.1 The tenderer shall submit along with the tender document, docments in support of his/their claim to fulfill the eligibility criteria as mentioned in the tender document. Each page of the copy of documents/certificates in support of credentials, submitted by the tenderer, shall be self-attested/digitally signed by the tenderer or authorized representative of the tendering firm. Self-attestation shall include signature, stamp and date (on each page). Only those documents which are declared explicitly by the tenderer as "documents supporting the claim of qualifying the laid down eligibility criteria"' will be considered for evaluating his/their tender.

6.3.2 "The tenderers shall submit a notarized affidavit on a non-judical stamp paper stating that they are not liable to the disqualified and all their statements/documents submitted alongwith bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as Form-2(A). Non submission of an affidavit by the bidder shall result in summary rejection of his/their bid. And it shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of the RailTel to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned."

6.3.3 The RailTel reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel, make available all such information, evidence and documents and may be necessary for such verification. Any such verification or lack of such verification, by the RailTel not relieve the bidder of its obligations or liabilities here under nor will it affect any rights of the RailTel thereunder.

6.3.4 In case of any wrong information submitted by the tenderer, the contract shall be terminated, Earnest Money Deport (EMD), Performance Guarantee (PG) and Secutiry Deposit (SD) of contract forfeited and agency barred for doing business on entire RailTel for 5 (five) years.

7. EARNEST MONEY

7.1 The Tenderer shall be required to deposit earnest money with the Tender for the due performance of the stipulation to keep the offer open till such date as specified in the Tender under the conditions of Tender.

(a) The earnest money shall be 2% of the estimated tender value or as indicated in Tender Notice. The exact amount of Earnest Money required to be deposited is indicated in Bid Data Sheet (BDS).

(b) The tenderers shall hold the offer open till such date as specified in NIT. It being understood that the tender documents have been sold/issued to the tenderer and the tenderer has been permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions, thereof in a manner not acceptable to RailTel. If the tenderer fails to observe or comply with the foregoing stipulation the aforesaid amount deposited as earnestmoney shall be liable to be forfeited by the RailTel.

(c) If his tender is accepted this earnest money mentioned in sub clause (a) above will be retained as part security for the due and faithful fulfillment of the contract. The Earnest Money of other tenderers shall, save as herein before provided, be returned to them, but RailTel shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.

7.2 The earnest money should be deposited through IREPS portal.

7.3 The Earnest Money receipt shall be incorporated in the original copy of the Bid. Other copies of the offer shall contain true copies of Earnest Money receipt.

7.4 The bid guarantee / earnest money may be forfeited:

7.5 If a tenderer withdraws its tender during the period of tender's validity specified in Instructions to Tenderers and Conditions of Tendering. In the case of successful tenderer, if the tenderer fails to Sign the contract in accordance with Clause 2 of Special Conditions of Contract and to furnish performance guarantee in accordance with Clause 3 of Special Conditions of Contract.

7.6 The Earnest Money of unsuccessful tenderer will save as herein before provided, be returned within reasonable time to the unsuccessful tenderer but the RailTel shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the above stipulation to keep offer open for the period specified in the tender documents or to the Earnest Money while in their possession nor be liable to pay interest thereon.

7.7 Tender not accompanied by Earnest Money will be summarily rejected. However, if there is any changes in Government guidelines for EMD, then Corrigendum in that regard will be issued in due course of time.

8. Care in Submission of Tenders

(a) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all inclusive to accord with the provisions in Caluse-37 of the General conditions of Contract for the completion of works to the entire satisfaction of the Engineer.

(b) When work is tendered for by a firm or company of contractors, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.

(c) The RailTel will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of contract. It may, however recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor.

9. Right of RailTel to deal with Tenders

9.1 The RailTel reserves the right of not to invite tenders for any of RailTel work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action.

9.2 The authority for the acceptance of the tender will rest with the RailTel. It shall not be obligatory on the said authority to accept the lowest tender or any other tender and no tenderer (s) shall demand any explanation for the cause of rejection of his/their tender nor the RailTel undertake to assign reasons for declining to consider or reject any particular tender or tenders.

9.3 If the Tenderer (s) deliberately gives/give wrong information in his/their tender or creates/create circumstances for the acceptance of his/their tender, the RailTel reserves the right to reject such tender at any stage.

9.4 If the Tenderer (s)/Partner(s) expire after the submission of his/their tender or after the acceptance of his/their tender, the RailTel shall deem such tender cancelled, unless the firm retains its character.

10. SUBMISSION OF OFFERS

10.1 All offers in the prescribed forms should be submitted before the time and date fixed for the receipt of the offers. Offers received after the stipulated time and date will be summarily rejected.

10.2 In case the date of opening happens to be a holiday, the tender will be received and opened at the same time on the next working day.

10.3 All offers shall be either type written or written neatly in indelible ink in English. Each page of the offer must be numbered consecutively. A reference to total number of pages comprising the offer must be made at the top right hand corner of the top page. The supporting documents should be submitted either in original or duly signed by the authorized signatory of the tenderer. The original documents shall be produced for verification when called for.

10.4 All copies of the tender papers shall be signed in ink by the tenderer, on each page including closing page in token of his having studied the tender papers carefully.

10.5 In case tenderer considers necessary to include new item of work not included in schedule of requirement but considered necessary for achieving the end objective he may do so by submitting a new schedule of requirement marked as "C" quoting the rates and quantities along with the detailed justification.

10.6 **RATES IN FIGURES & WORDS**

(i) All prices and other information like discounts etc. having a bearing on the price shall be written both in figures and in words in the prescribed offer form. In case of difference in words and figures the amount written in words will be taken into consideration.

(ii) In the event of any discrepancy between unit rate and total cost, the value shown in unit rate will be taken for evaluation purpose.

(iii) In case the schedule of requirement quoted by tenderer is incomplete with reference to tender document, the offer is liable to be rejected.

10.7 **ATTESTATION OF ALTERATION**: No scribbling is permissible in the tender documents. Tender containing erasures and alterations in the Tender documents are liable to be rejected. Any correction made by the tenderer/ tenderers in his/their entries must be signed (not initialed) by him/them.

10.8 The tenderer shall submit his bid online at IREPS portal. The tender shall be complete in all respects. The original tender documents may be downloaded from IREPS .

10.9 **Offline documents:** The envelope containing offline documents should bear ***the Tender No., its description and date of closing/opening***. The completeTender Bid shall be addressed to:

The Executive Director,
Northern Region,
RailTel Corporation of India Limited,
6th Floor, Block III, Delhi IT Park, Shastri Park, Delhi-110053

10.10 **The Bid Document shall consist of the following:-**

1) Offer Letter complete. (Form No.1 of Section-I, Chapter-6)

2) Schedule of Requirements duly filled and signed. (Section-I,Chapter-7).

3) Earnest Money in prescribed form. (Clause 7 of Section-I, Chapter-3)

4) Not used.

5) Constitution of Firm and Power of Attorney (Clause 11)

6) Clause wise compliance to tender conditions & statement of deviations (Clause 6). (Form No.5 of Chapter-6, Section-I)

7) Details of similar works executed or under execution. (Form No.13) (Clause 19.1.3)

8) User's Certificate (Form No. 2 of chapter-6, Section-I) (Clause 19.1.4)

9) System performance guarantee (Clause 21) of Section 1, Chapter 3 Part I. (Form No.7)

10) Complete technical data and particulars of the equipments offered, as specified in the Tender Document together with descriptive literature, leaflets, Drawings, if any, complete with list etc. (Clause 19.4).

11) Name of manufacturers, place of manufacture and documentary proof of equipment being proven and working for more than one year along with user certificate clearly indicating the date of commissioning in the user network.

12) Not used .

13) Any other information desired to be submitted by the tenderer.

14) Works/Contracts in hand as per the Format (Form No.9).

10.11 The Schedule of Requirements are mentioned in Chapter – I (SOR). The tenderer has to quote percentage (%) below or above of the total SOR cost (SOR-A + SOR-B) and SOR must be dully signed by the authorized representative of the tenderer**.**

11. CONSTITUTION OF FIRM AND POWER OF ATTORNEY

11.1 Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing:-

(a) As sole proprietor of the concern or as attorney of the sole proprietor;

(b) As a partner or partners of the firm;

(c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the authority conferred by Memorandum of Association.

11.2 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.

11.3 The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.

11.4 In case where the Power of Attorney partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by Advocate, authorized translators of Courts and Licensed Petition Writers should be supplied by the Contractor(s) while tendering for the work.

11.5 The duly notorised Power of Attorney, Partnership Deed, Memorandum of Joint Venture as the case may be in original or duly signed.

12. **UNIT PRICES**

The Unit prices should be quoted by the Contractor as an all inclusive price, after taking all the relevant factors into consideration and these should be Firm and all inclusive without any variation clauses. These shall include all taxes & duties such as GST etc. as payable under the law of land and purchaser shall not accept any liability for the same after award and acceptance of contract. The prices shall be quoted in Indian Rupees for the units under metric system. Reference may be made to **Clause 38** of Special Conditions of Contract. Bids not confirming to **clause 38** of SCC will be summarily rejected.

13. **VALIDITY OF OFFER**

The tenderer shall keep the offer open for a minimum period as indicated in Bid Data Sheet from the date of opening of tender. Within that period the tenderer cannot withdraw his offer subject to the period being extended further, if required, by mutual agreement from time to time. Any contravention of the above condition will make the tenderer liable for forfeiture of his Earnest Money.

14. **RATES DURING NEGOTIATION**

The tenderer/s shall not increase his/their quoted rates including payment terms in case the RailTel Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the tenderer/s.

15. **INCOME TAX CLEARANCE CERTIFICATE (ITCC) AND WORKS CONTRACT TAX CERTIFICATE**.

I. Deleted

II. The successful tenderer should be registered with GSTN where he is having place of business.

16. **PERIOD OF COMPLETION AND TIME PROGRESS GRAPH**

16.1 The works/work are/is to be completed within a period as mentioned in Bid Data Sheet (BDS) from the date of issue of Letter of Acceptance of the tender.

16.2 The Tenderers should submit the bar chart including each activities of the Schedule of Requirements indicating his planning to complete the work within the stipulated completion period.

17. **OPENING OF TENDER:**

17.1 Tenderer's Bid will be opened at the time & date of opening of the tender given in the Bid Data Sheet (BDS) in presence of such Tenderers/Representatives who choose to be present.

17.4 **NON-TRANSFERABILITY AND NON-REFUNDABILITY**

The tender documents are not transferable. The cost of tender paper is not refundable.

18. **CONSORTIUM BIDS**

Deleted

19. **QUALIFYING CRITERIA:**

19.1 General:

19.1.1 Qualifying criteria under this para lays down minimum acceptable qualifications in various areas to ensure that qualified tenderer has necessary experience, technical expertise, equipments and financial and human resources to successfully complete the project.

19.1.2 **ELIGIBILITY CRITERIA & TECHNICAL REQUIREMENTS FOR QUOTING IN THIS TENDER**

19.1.3 The work covered by this tender is extremely skilled and technical in nature and only the firms having sufficiently skilled and experienced staff with them and who have carried out tight targeted Telecom works shall quote against this Tender.

19.1.4 The tenderer shall necessarily satisfy the eligibility conditions as listed below:-

(a) The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

*"**Three similar works** each costing not less than the amount equal to **30%** of advertised value of the tender", or*

*"**Two similar works** each costing not less than the amount equal to **40%** of advertised value of the tender", or*

*"**One similar work** each costing not less than the amount equal to **60%** of advertised value of the tender".*

Note for Item 19.1.4:

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organisation, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of opening of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

19.1.5 **Financial Eligibility Criteria***:*

The tenderer must have received total contractual payments(operating turnover) in the previous three financial years and the current financial year up to the date of inviting of tender, at least

150% of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be an attested Certificate from the concerned department / client or Audited Balance Sheet duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

Note for 19.1.5: Client certificate from other than Govt Organization should be duly supported by Form 16A/26AS generated through TRACES of Income Tax Department of India.

TECHNICAL REQUIREMENTS

Tenderer must have proper Office Set up, Man power, Equipments and Machinery as follows:

Office Setup: Tenderer should have a proper office with regular staff, Computers, Fax Machine and Telephone.

The Office Address, Telephone No, Fax No., E-mail ID must be specified.

Minimum Technical Man Power: Tenderer should have:

Engineer - 1No.

Supervisor (Diploma Holder) - 1 No.

Electrican - 1No.

Helper - 2 Nos.

Skilled & Unskilled Man Power - (Sufficient)

Minimum Equipment's and Machinery:Tenderer should own or should submit a document to establish hiring/leasing agreement with the owner of machinery/equipment.

1. Concrete Mixer Machine	2 Nos.
2. Vibrator Needle	2 Nos.
3. Vibrator Plate	2 Nos.
4. Steel Shuttering Plate	1000 sq. ft.
5. Steel Jacks 18 feet height	100 Nos.
6. Steel Spans	10 Nos.
7. Wooden Props	200 Nos.
8. H Frame (Steel) Scaffolding	30 Nos.
9. Material Shifting Trolleys	2 Nos.
10. Theodolite	1 Nos.
11. Dumpy Level	1 Nos.
12. Water Pumps	2 Nos.
13. Hoist	NA
14. Earth Rammer Compactor	1 No.
15. Generator	As per Requirement
16. Air Compressors	1 No.
17. Welding Machine	1 No.
18. Floor Polishing Machine	1 No.
19. Concrete Cube Testing Equipment	1 No.
20. Vacuum Dewatering Machine	As per Requirement

Table to be submitted duly filled: (Annexure-I)

Eligibility Clause No	Actual Available	Whether Requirement Fulfilled (Yes/No)	Documentary evidence enclosed at
19.1.4 **1.1**The tenderer should have completed in the last three financial year (i. e. current year and three previous financial years) at least one similar single work for a minimum value of 35% of the advertised tender value of the work. **1.2**Similar nature of work physically completed within the qualifying period, i.e. the last 3 financial year and current financial year (even though the work might have commenced before the qualifying period) shall only be considered in evaluating the eligibility criteria. **1.3**The total value of similar nature of work completed during the qualifying period and not the payments received within qualifying period alone, shall be considered.			
19.1.4 (2) The total contact amount received by the tenderer during the last three years should be a minimum of150% of the advertised tender value of the work. (Last audit report from registered CharteredAccountant to be enclosed).			
19.2.(i) Office setup: **1.Office Address,** **2.Telephone No ,** **3. Fax No.** **4.E-mail ID**			
19.2.(ii) Man Power: **1.** Engineer -1No. **2.** Supervisor (Diploma Holder) - 1No. **3.** Electrician -1No. **4.** Helper - 2 Nos. **5.** Skilled &Unskilled Man Power - (Sufficient)			

19.2.(iii)Equipments/Machinery as per list attached **1**. Concrete Mixer Machine-2 Nos. **2**. Vibrator Needle-2 Nos. **3**. Vibrator Plate-2 Nos. **4.** Steel Shuttering Plate-1000 sq. ft. **5**. Steel Jacks 18 feet height -100 Nos. **6.** Steel Spans-100 Nos. **7.**Wooden Props-200 Nos. **8.**H Frame (Steel) Scaffolding-30 Nos. **9.**Material Shifting Trolleys-2 Nos. **10.** Theodolite-1 Nos. **11.** Dumpy Level-1 Nos. **12.** Water Pumps-2 Nos. **13.** Hoist-NA **14.** Earth Rammer Compactor-1 No. **15.** Generator-As per Requirement **16.** Air Compressors-1 No. **17.** Welding Machine-1 No. **18.** Floor Polishing Machine-1 No. **19.** Concrete Cube Testing Equipment- 1 No. **20.** Vacuum Dewatering Machine- As per Requirement			

Signature of Contractor

19.3 Not Used

19.4 Equipment/Material

19.4.1 The tenderer shall clearly identify the sources from which the equipment/ material to be supplied under this tender will be obtained. The tenderer should also enclose an undertaking from the sources, from where he is procuring the material to the effect that the material shall be supplied in time so as to enable the tenderer to complete the work withincompletion period.

19.4.2 All equipments/ materials proposed to be used shall be of proven design andperformance. The equipment/ materials shall has been successfully commissioned and remained in satisfactory service atleast for a period of two years on date of tender submission. Certificate from the actual user of the equipment about satisfactory performance shall be enclosed with the tender.

19.4.3 The equipments / materials shall be covered by performance guarantee by the contractor duly supported by the original manufacturer.

19.5 Not Used.
19.6 Not used.

19.7 **WORKS IN HAND**

The tenderer should submit the present workload of the telecom works/Contracts in hand as per the format (Form No.9 of Section-I, Chapter-6). The performance of the tenderer with regard to satisfactory execution of more than one contract simultaneously in the past shall be taken into account.

20. MEANING OF SIMILAR WORKS

20.1 Similar Works shall mean the work as indicated in Tender Notice & Bid Data Sheet executed in India as per the scope of the work/specifications given in the Tender document executed for Govt./PSU's /reputed Private organization dealing with Telecom/Electrical utilities only. In case of mixed nature of work, cost of above-mentioned activities should constitute atleast 60% of the total cost of work.

21. SYSTEM PERFORMANCE GUARANTEE

21.1 The tenderer shall give unqualified and unconditional guarantee that when the equipment / material supplied by him is installed and commissioned at site, it shall achieve the desired objective and that in the event of performance of the system when installed not complying with the end objective or with the specifications, he shall provide further inputs to enable the RailTel to realize the end objectives with full compliance of the specifications contained in these documents. No additional payment will be made to the contractor for supply of any additional goods and service required in this regard.

21.2 This certificate in the proforma given in Form No. 7, shall accompany the final offer. Absence of this certificate which will form part of the agreement shall disqualify the tenderer automatically.

21.3 In case the tender is not the original equipment manufacturer, the unqualified & unconditional support to be provided by the original equipment manufacturer for the equipment to be supplied against this tender should be submitted by the tenderer.

22. EVALUATION OF OFFER

The authority for the acceptance of the tender rests with the Purchaser. The tenders received will be evaluated by the Purchaser to ascertain the best acceptable tender in the interest of the Purchaser.

However, the purchaser shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. "The purchaser reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever".

23. EXECUTION of CONTRACT

23.1 The Tenderer whose tender is accepted shall be required to appear in person in the office of Executive Director, RailTel Northern Region or in the office of concerned Engineer, as the case may be or if a firm or corporation, a duly authorized representative shall so appear and execute the contract documents within 15 days after the contract has been awarded to him as indicated in Clause 2 of Special Conditions of Contract (SCC). Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender in which case the full value of the earnest money accompanying the tender shall stand forfeited without prejudice to any other rights or remedies.

23.2 In the event of any tenderers whose tender is accepted shall refuse to execute the contract documents as herein before provided, the RailTel may determine that such tenderer has abandoned the contract and thereupon his tender and acceptance thereof shall be treated as cancelled and RailTel shall be entitled to forfeit the full amount of the Earnest Money and to recover the damages for such default.

24. **Deleted**

25. **TENDERER'S ADDRESS**

Tenderer shall state in the tender his postal address fully and clearly. Any communication sent to the tenderers by post at the said address shall be deemed to have reached the tenderer duly & timely, not withstanding the fact that the communication could not reach the tenderer at all or in time for whatever reason. Important documents shall be sent by Registered Post/ Speed post/Couriers.

26. PREFERENCE TO PUBLIC SECTOR UNDERTAKING

Due preference as per the extant rules applicable on the day of opening of this tender will be given to Central Public Sector Undertakings as per Government of India, Department of Public Enterprises letter No. DPE 13 (12) 2003-Fin.Vol.II dated 18.07.2005, or latest.

SECTION-I

Chapter-5

PART II

GENERAL CONDITIONS OF CONTRACT

1. Definitions
2. General Obligations
3. Law governing the Contract
4. Communications to be in writing
5. Service of Notices on Contractors
6. Occupations and use of land
7. Assignment or subletting of contract
8. Assistance by the RailTel for the stores be obtained by the Contractor
9. Railway Passes
10. Carriage of materials
11. Force Majeure Clause
12. Representation on Works
13. Relics and Treasures
14. Excavated material
15. Indemnity by Contractors
16. Earnest Money and Security Deposit
17. Completion Period
18. Illegal Gratification
19. Execution of Works
20. Compliance to Engineer's Instructions
21. Instructions of Engineer's Representative
22. Adherence to specifications and drawings
23. Working during night
24. Damage to RailTel property or private life and property
25. Sheds, Stores houses and Yards
26. Provision of efficient and competent staff
27. Workmanship and Testing
28. Facilities for Inspection
29. Examination of work before covering up
30. Temporary works
31. Contractors to supply water for works
32. Property in material and plants
33. Tools, Plant and Materials supplied by the RailTel
34. Precaution during progress of work
35. Use of Explosives
36. Suspension of works
37. Rates for items of works
38. Demurrage and wharfage dues
39. Rates for extra items of works
40. Handing over of works
41. Modification to Contract to be in writing
42. Powers of Modification to Contract

43. Monthly Statement of Claims
44. Qualities in schedule annexed to Contract
45. Measurements of Works
46. "On-Account" Payment
47. Maintenance of works
48. Certificate of Completion of Works
49. Approval only by Maintenance Certificate
50. Maintenance Certificate
51. Final payment
52. Withholding and lien in respect of sums claimed
53. Signature on Receipts for Amounts
54. Wages to Labour
55. Provisions of Payments of Wages Act
56. Reporting of Accidents to Labour
57. Provisions of Workmen's Compensation Act
58. RailTel not to provide quarters for Contractor
59. Labour camps
60. Non-Employment of Labourers below the age of 15
61. Determination of Contract
62. Termination of contract owing to default of contractor
63. Matters finally determined by the RailTel
64. Settlement of dispute and Arbitration

SECTION – 1

Chapter - 5

PART II

GENERAL CONDITIONS OF CONTRACT FOR USE IN CONNECTION WITH RAILTEL's WORKS

DEFINITIONS AND INTERPRETATION

1. Definitions:

1.1 The meaning of terms/interpretations shall be taken as defined in Chapter-3 Part- I of Section - 1 (INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING).

(a) "**Constructional Plant**" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or the temporary works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.

(b) "**Temporary Works**" shall mean all temporary works of every kind required for the execution, completion and/or maintenance of the works.

(c) "**Period of maintenance**" shall mean the specified period of the maintenance from the date of completion of the work as certified by the Engineer.

1.2 **Singular and Plural**: Works importing the singular number shall also include the plural and vice versa where the context requires.

1.3 **Headings & marginal headings**: The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

2. GENERAL OBLIGATIONS

2.1 Execution Co-relation and intent of contract documents: -

The contract documents shall be signed in triplicate by the RailTel and the Contractor. The contract documents are complementary, and what is called for by any one shall be as binding as if called of try all; the intention of the documents is to include all labour and materials, equipments and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the RailTel to the contractors unless distinctly specified in the contract documents. Materials or works described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standards.

2.2 If a work is transferred from the jurisdiction of one region of RailTel to another region or to a Project authority or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the other region in the same manner & take effect in all respects as if the Contractor

and the other region were parties thereto from the inception and the corresponding officer or the competent authority in the other region will exercise the same powers and enjoy the same authority as conferred to the Predecessor RailTel/Project under the original contract/agreement entered into.

2.3 If for administrative or other reasons the contract is transferred to the other region of RailTel the contract shall notwithstanding anything contained herein contrary thereto, be binding on the Contractor the and the other region in the same manner and take effect in all respects as if the contractor and the other region had been parties thereto from the date of this contract.

3. **Law Governing the Contract:**

3.1 The Contract shall be govern by the law for the time being in the republic of India.

3.2 Compliance to regulations and bye-laws – The Contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statue, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

4. **Communications to be in writing** – All notices, communications, references and complaints made by the RailTel or the Engineer or the Engineer's representative or the Contractor interest concerning the works shall be in writing and no notice, communication, references or complaint not in writing shall be recognized.

5. **Service of Notices on Contractors** – The Contractor shall furnish to the Regional General Manager/RailTel the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the contract if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by contractor to the Regional General Manager/RailTel.

6. **Occupation and use of land** – No land belonging to or in the possession of the Railway/RailTel shall be occupied by the contractor without the permission of the RailTel. The Contractor shall not use, or allow to be used, the site for any purposes other than that executing the works.

7. **Assignment or subletting of contract**: - The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein in any manner whatsoever without the special permission in writing of the RailTel. Any breach of this condition shall entitle the RailTel to rescind the contract under clause 62 of these conditions and also render the contractor liable for payment to the RailTel in respect of any loss or damage arising or ensuring from such cancellation. Provided always that execution of the details of the work by petty contractor under the direct and personal supervision of the contractor or his agent shall not be deemed to be sub-letting under this clause. The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub-contractor and the RailTel and shall not relieve the Contractor of any responsibility under the Contract.

8. **Assistance by the RailTel for the stores to be obtained by the Contractor:** Owing to difficulty in obtaining certain materials (including Tools & Plants) in the market, the RailTel may have agreed without any liability therefore, to endeavor to obtain or assist the Contractor in obtaining the required quantities of such materials as may be specified in the Tender. In the event of delay or failure in obtaining the required quantities of the aforesaid materials, the Contractor shall not be deemed absolved of his own responsibility and shall keep in touch with the day to day position regarding their availability and accordingly adjust progress of works including employment of labour and the RailTel shall not in any way be liable for the supply of materials or for the non supply thereof for any reasons whatsoever not for any loss or damage arising in consequence of such delay or non supply.

9. **Railway Passes** – No free Railway passes shall be issued by the RailTel to the Contractor or any of his employee/worker.

10. **Carriage of materials** – No forwarding orders shall be issued by the RailTel for the conveyance of Contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight at public tariff rates therefore.

11. **Force Majeure Clause**

11.1 If at any time, during the continuance of this Contract, the performance, in whole or part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil Commotion, Sabotage, Fires, Floods, Earth quakes, explosions, strikes, epidemics, quarantine restrictions, lockouts, any statute, statutory rules/ regulations, order of requisitions issued by any Government Department or Competent Authority of acts of God (here-in-after referred to as event) then provided notice of the happening of any such event is given by either party to the other within twenty one days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate this Contract nor shall either party have any claim for damage against the other in respect of such non- performance or delay in performance, and the obligations under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, PROVIDED FURTHER that if the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event beyond a period as mutually agreed to by the RailTel and the Contractor after any event or 60 days in the absence of such an agreement whichever is more, either party may at its option terminate the Contract provided also that if the contract is so terminated under this clause the RailTel may at the time of such termination take over from the Contractor at prices as provided for in the contract, all works executed or works under execution.

12. **Representation on Works** – The Contractor shall, when he is not personally present on the site of the works place and keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Regional General Manager/RailTel and orders given by the Engineer or the Engineer's Representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the RailTel to rescind the contract under Clause 62 of these conditions.

13. **Relics and Treasures** – All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures, relics, antiquities and other similar things which shall be found in or upon the site shall be property of the RailTel and the Contractor shall duly preserve the

same to the satisfaction of the RailTel and shall from time to time deliver the same to such person or persons as the RailTel may appoint to receive the same.

14. **Excavated material** – The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings, and produce shall be the property of the RailTel provided that the Contractor may, with the permission of the Regional General Manager/RailTel, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.

15. **Indemnity by Contractors** – The Contract shall indemnify and save harmless the RailTel from and against all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the RailTel's by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

16. **Security Deposit**

16.1 The Earnest Money deposited by the Contractor with his tender will be retained by RailTel as part of security deposit for the due and faithful fulfillment of the contract by the contractor. The balance to make up the security deposit, may be deposited by Contractor in the form of Demand Drafts or may be recovered by percentage deduction from the contractor's "on account" bills. Provided also that in case of defaulting contractor the RailTel may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained may not exceed 10% of the total value of the contract.

16.2 Unless otherwise specified in the special conditions, if any, the rates for Deposit/ rate of recovery / mode of recovery shall be as under:

a) Security Deposit for each work should be 5% of the contract value.
b) The rate of recovery should be at the rate of 10% of the bill amount till The full security deposit is recovered.
c) Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc shall be accepted towards Security Deposit.

Security Deposit shall be returned to the contractor after the physical completion of the work as certified by the competent authority. The competent authority shall normally be the authority that is competent to sign the contract.

16.3 No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the Contract.

17 **Completion Period:-**

17.1 Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under

conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:

17.1.2 If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the clause thereof shall arise and in any case not less then one month before the expiry of the date fixed for completion of the works.

17.1.3 If in the opinion of the Engineer the progress of work has any time been delayed by any act or neglect of RailTel's employees or by other contractor employed by the RailTel under sub-clause (4) of clause 20 of these conditions or in executing the work not forming part of the contract but on which contractor's performance necessarily depends or by reason of proceeding taken or threat-tended by or dispute with adjoining or neighboring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration` or in consequences of the contractor not having received in due time necessary instructions from the RailTel for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening but shall nevertheless make constantly his best endeavors to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. The engineer on receipt of such request from the contractor shall consider the same and shall grant such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forwarded to the extended period of time, the same rates, terms and conditions of contract being applicable as if such extended period of time was originally in the original contract itself.

17.1.4 In the event of any failure or delay by the RailTel to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the RailTel due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the contractor to damages or compensation therefore but in any such case, the RailTel may grant such extension or extensions of the completion date as may be considered reasonable.

17.2 **Extension of time for delay due to contractor** – The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in clause 11 and 17.1 above, the RailTel may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor further extension of time as the Engineer may decide. On such extension the RailTel will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the contractor as agreed damages and not by way of penalty a sum equivalent to 1/2% of the contract value of the works for each week or part of the week.

17.2.1 For the purpose of this clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition, shall not exceed 10% of the total value of the contract. Provided further, that if the RailTel is not satisfied that

the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the RailTel shall be entitled, without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's security deposit and rescind the contract under clause 62 of these conditions, whether or not actual damage is caused by such default.

18. **Illegal Gratification**

18.1 Any bribe, commission, gift or advantage given, promised or offered by or on behalf to the Contractor or his partner, agent or servant or anyone on his behalf, to any officer or employees of the RailTel, or to any person on his behalf in relation to obtaining or the execution of this or any other contract with the RailTel shall, in addition to any criminal liability which he may incur, subject the contractor to the rescission of the contract and all other contracts with the RailTel and to the payment of any loss or damage resulting from such decision and the RailTel shall be entitled to deduct the amounts so payable from any moneys due to the Contractor (s) under this contract or any other contracts with the RailTel.

18.2 The Contractor shall not lend or borrow from or have or enter into any monitory dealings or transactions either directly or indirectly with any employee of the RailTel and if he shall do so, the RailTel shall be entitled forthwith to rescind the contract an all other contracts with the RailTel. Any question or dispute as to the commission or any shall offence or compensation payable to the RailTel under this clause shall be settled by the Regional General Managerof RailTel, in such a manner as shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the Contractor will not be paid any compensation whatsoever except payments for the work done up-to-date of rescission.

19. **EXECUTION OF WORKS**

19.1 **Contractor's understanding** – It is understood and agreed that the Contract has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.

19.2 **Commencement of works** – The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the RailTel and shall proceed with the same with due expedition and without delay.

19.2.1 **Accepted programme of work** – The Contractor who has been awarded the work shall as soon as possible but not later than 7 days from the date of receipt of the acceptance letter in respect of contracts with initial completion period of one year or less or not later than 15 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall and endeavor to fulfill this programme of work. The progress of work will be watched accordingly in the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall precludethe contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

19.4 **Setting out of works** – The Contractor shall be responsible for the correct setting out of all works in relation to original reference at his cost. The Contractor shall execute the work true to specifications, drawings, plans and dimensions as mentioned in the contract document and as directed by the Engineer's representative and shall check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall cooperate with the Engineer's representative at all time, during the progress of the works. Any error shall appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work.

20 **Compliance to Engineer's Instructions**

20.1 The Engineer shall direct the order in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.

20.2 **Alterations to be authorized** – No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions from the Engineer, and the Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.

20.3 **Extra Works** – Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works, which may be carried out by another contractor or contractors or by other Mean at the option of the RailTel.

20.4 **Separate Contracts in connection with works** – The RailTel shall have the right to let other contracts in connection with the works. The Contractor shall afford other contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the Contractor's work depends for proper execution or result upon the work of another contractor(s) the Contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The Contractor failure so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.

21. **Instructions of Engineer's Representative** – Any instructions or approval given by the Engineer's representative to Contractor in connection with the works shall bind the Contractor as though it had been given by the Engineer provided always as follows: -

21.1 Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.

21.2 If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative he shall be entitled to refer the matter to the Engineer who shall there-upon confirm or vary such decision.

22. **Adherence to specifications and drawings**

22.1 The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If the Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuring there-from and shall be responsible for all loss to the RailTel.

22.2.1 **Drawings and specifications on the works** – The contractor shall keep one copy of Drawings and specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative.

22.2.2 The supply of equipment and materials shall include supply of one set of printed documents from original equipment manufacturers with each equipment as given in technical supplement.

22.3 **Ownership of Drawings and Specifications** – All drawings and Specifications and copies thereof furnished by the RailTel to the Contractor are deemed to be the property of the RailTel. They shall not be used another works and with the exception of the signed contract set, shall be returned by the Contractor to the RailTel on completion of the work or termination of the Contract.

22.4 **Compliance with Contractor's request for details** – The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request for the same, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.

22.5 **Meaning and Intent of specification and drawings** – If any ambiguity arises as to the meaning and intent of any portion of the Specifications and Drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the Contractor) to the competent authority in RailTel who shall have the power correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.

23 **Working during night** – The Contractor shall not carry out any work between sunset and sunrise without the previous permission of the Engineer.

24. Damage to Railways/RailTel property or private life and property – The Contractor shall be responsible for all risk to the works and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or any other property of the Railways/RailTel or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the RailTel and this although all reasonable and proper precautions may have been taken by the Contractor, and in case the RailTel shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor the amount of any costs or charges including costs and charges in connection with legal proceedings, which the RailTel may incur in reference thereto, shall be charged to the Contractor. The RailTel shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the Contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to

Contractor, as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defense or compromise, and the incurring of any such expenses shall not be called in question by the Contractor.

25. **Sheds, Stores houses and Yards** – The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, store houses and yards a sufficient quantity of materials and plant in stock as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, store houses or yards by the contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the executive of the works.

26. **Provision of efficient and competent staff –** The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and labourers in or about the execution of any of these works as are careful and skilled in various trades and callings. The Contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him. In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect take on the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the RailTel to rescind the contract under Clause 62 of these conditions.

27. **Workmanship and Testing**

27.1 The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars. Instructions and drawings may be found requisite to be given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions, which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the Contractor.

27.2 **Removal of Improper work and materials** – The Engineer or the Engineer's representative shall be entitled to order from time to time: -

27.2.1 The removal from the site within the time specified in the order of any materials, which in his opinion are not in accordance with the specifications or drawings.

27.2.2 The substitution of proper and suitable materials, and

27.2.3 The removal and proper re-execution, notwithstanding any previous tests thereof or "on account" payments therefore, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order the RailTel shall be entitled to rescind the contract under Clause 62 of these conditions.

28. **Facilities for Inspection:** - The Contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, instruments, appliances and things of every kinds required for the purpose and the Engineer and the Engineer's representative shall at all time have free access to every part of the works and to all places at which materials for the work are stored or being prepared.

29. **Examination of work before covering up**: - The Contractor shall give two days notice to the Engineer or the Engineer's Representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the Reach of Measurements in order that the work may be inspected or that correct dimension may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's Representative be uncovered and measured at the contractor's expense or no allowance shall be made for such work or materials.

30. **Temporary works:** - All Temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor and subject to the consent of the Engineer, shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charge shall be recovered from the Contractor. If temporary huts are provided by the Contractor on the Railway land for labour engaged by him and the work is completed but the contractor's labour refused to vacate and have to be removed by the RailTel, necessary expenses incurred by the RailTel in connection therewith shall be borne by the Contractor.

31. **Contractor to supply water for works**

31.1 Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of water for the works.

31.2 Water supply from the Railway system

31.3 Water supply by Railway Transport: Deleted

31.4 Contractor to arrange supply of Electric power for works

31.4.1 Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of Electric Power for the works.

31.4.2 **Electric supply from the Railway system** – The RailTel may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the Railway's existing electric supply systems at or near the site of works on specified terms and conditions and such charges as shall be determined by the RailTel and payable by the contractor provided the cost of arranging necessary connection to the Railway's Electric supply systems, and laying of underground/overhead conducts circuit protection, electric power meters, transmissionstructure, shall be borne by the Contractor and that the contractor shall not be entitled to ay compensation for interruption or failure of the Electric supply system.

32. **Property in material and Plants**: Deleted

33. **Tools, Plant and Materials Supplied by the RailTel.**

33.1 The Contractor shall take all responsible care of all tools, plants and materials or other property whether of a like description or not belonging to the RailTel and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents permitted sub-contractor or his workmen or others while they are in his charge. The Contractor shall sign accountable receipts for tools, plants and materials made over to him by the Engineer and on completion of the works shall handover the unused balance of the same to the Engineer in good order and repair, fair wear and tear excepted and shall be responsible for any failure to account for the same or any damage done thereto.

33.2 **Hire of RailTel's Plant:** Deleted.

34. **Precaution during progress of work:**

34.1 During the execution of works, unless otherwise specified the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury, loss is caused or likely to be caused to any person or property.

34.2 **Roads and watercourses:** Existing roads or watercourses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any authorized closure, or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due to him in terms of contract or otherwise according to law.

34.3 **Provision of access to premises**: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision of the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or meant for lightning which may be interrupted by reason of the execution of the works and shall react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.

34.4 **Safety of Public**: The Contractor shall be responsible to take all precautions to ensure the safety of the public or Railway/RailTel's property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.

35. **Use of Explosives**: Explosive shall not be used on the works or on the site by the Contractor without the permission of the Engineer and then only in the manner and to the extent to which such permission is given. Where explosives are required for the works, the same shall be stored in a special magazine to be provided by and at the cost of the Contractor in accordance with the Explosive Rules. The Contractor shall obtain the necessary license for the storage and the use of explosives and all operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the Railway/RailTel in respect thereof.

36. **Suspension of works**

36.1 The Contractor shall on the order of Engineer suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is: -

(a) Provided for in the contract, or
(b) Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Contractor, and or
(c) Necessary for the safety of the works or any part thereof.

36.2 The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works; but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contractor shall be entitled to such extension of time for completion of the works as the engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspensions.

36.3 **Suspension lasting more than 3 months** – If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as on omission of such part or where it affects the whole of the works, as an abandonment of the contract by the RailTel.

37. **Rates for items of works** – The rates entered in the accepted Schedule of Rates of the Contract are intended to provide for works duly and properly completed in accordance with the general and special conditions of the contract and the specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply including full freight of materials, stores, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the RailTel, the erection, maintenance and removal of all temporary works and buildings, all arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the RailTel, the setting of all work and of the construction, repair and upkeep of all center lines, bench marks and level pegs thereon, site clearance, all fees, duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract, and all such other incidental charges or contingencies as may have been specially provided for in the specifications.

38. **Demurrage and wharfage dues**

38.1 Demurrage charges calculated in accordance with the scale inforce for the time being on the RailTel and incurred by the Contractor failing to load or unload any goods of materials within the time allowed by RailTel for loadings as also wharfage charges, of materials not removed in time as also charges due

on consignments booked by or to him shall be paid by the Contractor, failing which such charges shall be debited to the Contractor's account in the hands of the RailTel and shall be deducted from any sums which may become due to him in terms of the contracts.

39. **Rates for extra items of works**

39.1 Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted schedule of rates shall be executed at the rates set forth in the "Schedule of Rates' modified by the tender percentage and such items are not contained in the latter, at the rate agreed upon between the Engineer and the Contractor before the execution of such items of work and the contractors shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted schedule of rates does not include rate or rates for the extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the RailTel shall be entitled to execute the extra works by other Mean and the contractor shall have no claim for loss or damage that may result from such procedure.

39.2 Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However if the contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the competent authority of RailTel within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The competent authority of RailTel's decision after hearing both the parties in the matter would be final and binding on the Contractor.

40. **Handing over of works:**

40.1 The Contractor shall be bound to hand over the works executed under the contract to the RailTel complete in all respect to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the contractor and the contractor shall be bound to observe any such determination of the Engineer.

40.2 **Clearance of Site on Completion:** On completion of the works the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the work shall be paid, held to be due or shall be made to the contractor till, in addition to any other condition necessary for such final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. Should it become necessary for the Engineer to have the site cleared at the expense of the Contractor, the RailTel shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be effected by Mean of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.

VARIATIONS IN EXTENT OF CONTRACT

41. **Modification to Contract to be in writing** – In the event of any of the provisions of the Contract requiring to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the RailTel and the Contractor, and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the Contract or any of the terms thereof shall be deemed conditional and shall not be binding on the RailTel unless and until the same is incorporated in a formal instrument and signed by the RailTel and the Contractor and till then the RailTel shall have the right to repudiate such arrangement.

42. **Powers of Modification to Contract**

42.1 The Engineer on behalf of the RailTel shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character, position, site quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled to any compensation for any increase / reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.

42.2.1 Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity for each individual item of the contract would be up to $\pm$25% of the quantity originally contracted. The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation, whatsoever upto the limit of $\pm$25% variation in quantity of individual items of works.

42.3 **Valuation of Variations** – The enlargements, extensions, diminution, reduction, alterations or additions referred to in sub-clause (2) of this clause shall in no degree affect the validity of the contract but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted schedule of rates. Any extra items/quantities of work falling outside the purview of the provisions of sub-clause (2) above shall be paid for at the rates determined under clause 39 of these conditions.

CLAIMS

43. **Monthly Statement of Claims**

43.1 The contractor shall prepare and furnish to the Engineer once in every month an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding month and no claim for payment for and such work will be considered which has not been included in such particulars.

43.2 **Signing of "No Claim" Certificate** – The Contractor shall not be entitled to make any claim whatsoever against the RailTel under or by virtue of or arising out of this contract, nor shall the RailTel entertain or consider any such claim, if made by the Contractor, after he shall have signed a 'No Claim'

certificate in favour of the RailTel, in such form as shall be required by the RailTel, after the works are

finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim Certificate" or demanding a preference to arbitration in respect thereof.

MEASUREMENTS, CERTIFICATES AND PAYMENTS

44. Qualities in schedule annexed to Contract- The quantities set out in the accepted schedule of rates with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the works to be executed by the Contractor in fulfillments of his obligations under the contract.

45 **Measurements of Works**: The Contractor shall be paid for the works at the rates in the accepted schedule of rates and for extra works at rates determined under Clause 39 of these conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the RailTel. The quantities for items the unit of which in the accepted schedule of rates is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for item the unit of which in the accepted schedule of rates is single, the quantities shall be calculated to places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which "on account" or final measurements are to be made shall be communicated to the Contractor who shall e present at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Falling the Contractor's attendance the work may be measured up in his absence and such measurements shall, not-withstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement book provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:

(a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequences of objection made by the contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurement.

(b) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.

46. **"On-Account" Payments**

46.1 The Contractor shall be entitled to be paid from time to time by way of "On Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payment due on the Engineer's or the Engineer's Representatives certificate of measurements shall be subject to any deduction which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of these conditions a retentions of 10% by way of security deposits, until the amount of security deposit by way of retained earnest money and such retentions shall amount to 10% of the total value of the contract

provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall havebeen issued by him and that the Engineer may withhold any certificate if the works or any part thereof are not being carried out to this satisfactions.

46.2 **Rounding off amounts:** The total amount due on the certificate shall be rounded off to the nearest rupee i.e. sums less that 50 paise shall be omitted and sums of 50 paise and more upto Rs. 1/- will be reckoned as Rs. 1/-.

46.3 **On-Account Payments not prejudicial to final settlements:**

"On Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurement are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such account not of any particular quantity of work having been executed not of the manner of its execution being satisfactory.

46.4 **Manner of payment:**
Unless otherwise specified payments to the Contractor will be made throughRTGS.

47. **Maintenance of works:** The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the tender form after the date of passing of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer be responsible for and effectively maintain and uphold in good substantial sound and perfect conditions all and every part of the work and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and shall pay and make good to the RailTel or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damage, costs and expenses they or any of them may incur or be put or be liable or, by reason or in consequence of the operations of the Contractor or of his failure in any respect.

For this purpose the tenderer will submit their strategy for providing maintenance support including the staff who will be available along with the set of spares for attending to various faults/problems during maintenance period.

48. **Certificate of Completion of works**

48.1 As soon as in the opinion of the Engineer the works shall have been substantially completed and shall satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a Certificate of the completion (Provisional Acceptance Certificate) in respect of the works and period of maintenance of the works shall commence from the date of such certificate provided that the Engineer may issue such a certificate with respect to any part of the works before the completion of the whole of the works or with respect to any substantial part of the works which has been both completed to the satisfaction of the Engineer and occupied or used by the RailTel and when any such certificate is given in respect of part of the works such part shall be considered as completed and the period of the maintenance of such part shall commence from the date of such certificate.

48.2 **Contractor not absolved by Provisional Completion Certificate (PAC):** The Certificate of completion in respect of the works referred to in sub-clause 48.1 of this clause shall not absolve

the Contractor from his liability to make good any defect, imperfection, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawing or specifications or instructions of the Engineer, which defect, imperfections, shrinkages or faults hall upon the direction in writing of the Engineer, be amended and made good by the Contractor at his own cost; and in case of default on the part of Contractor the Engineer may employ, labour and material or appoint another Contractor to amend and make good such defect, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.

49. **Approval only by Maintenance Certificate/Final Acceptance Certificate(FAC)**: No certificate other than maintenance certificate referred to in Clause 50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or of the accuracy of any claim or demand made by the Contractor or of additional varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineers.

50 **Maintenance Certificate (FAC)**

50.1 The contract shall not be considered as completed until a maintenance certificate (Final Acceptance Certificate) shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The maintenance certificate shall be given by the Engineer upon the expiration of the period of maintenance or as soon thereafter as any work ordered during such period pursuant to clause 48.2 of these conditions shall have been completed to the satisfaction of the Engineer and full effect shall be given to this Clause not with standing the taking possession of or using the works or any part thereof by RailTels.

50.2 **Cessation of RailTel's Liability**: The RailTel shall not be liable to the Contractor for any matter arising of or in connection with the contract of the execution of the works unless the Contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate (FAC) under this clause.

50.3 **Unfulfilled obligations:** Notwithstanding the issue of the Maintenance Certificate the Contractor and (subject to clause 50.2) the RailTel shall remain liable for the fulfillment of any obligation incurred under the provision of the contract prior to the issue of the maintenance Certificate which remains unperformed at the time such certificate is issued and for the purposes of determining the nature and extent of any such obligations the contract shall be deemed to remain in force between the parties thereto.

51. **Final payment**

51.1 On the Engineer's certificate of completion in respect of the works an adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's on the accepted schedule or rates and for extra works on rates determined under Clause 39 of these conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having delivered to the Engineer either a full account in detail of all claims he may have on the RailTel in respect of the works or having delivered "No Claim" Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claim are correct, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all

properties, works and things removed, disturbed or injured in consequence of the works have been property replaced and made good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or good and all expenses and demands incurred by or made upon the RailTel for or in the respect of damage or loss by from kin consequence of the works, have been satisfied agreeably and in conformity with the contract.

51.2 **Post payment Audit** – It is an agreed term of contract that the RailTel reserves to itself the right to carry out a post-payment audit and/or technical examination of the works and the final bill including all supporting vouchers, abstracts, etc., and to make a claim on the contractor for the refund of any excess amount paid to him if as a result of such examination any over-payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

51.3 **Refund of security deposit** – The total security deposit shall become due and shall be paid to the Contractor after the expiration of the warranty period and issue of the certificate of final acceptance of entire system, specified in the tender, provided that all the stipulations of the clause have been fulfilled by the Contractor and all claim and demands made against the RailTel for and in respect of damage or loss by, from or in consequence of the works have been finally satisfied, provided further that in the event of different maintenance periods having become applicable to different parts of the works pursuant to sub clause (i) of clause 48 of these condition, the expression "expiration of the period of warranty shall for the purpose of this clause, be deemed to mean the expiry of the latest of such periods".

51.4 **Production of vouchers etc. by the Contractor**

(i) For a contract of more than one crore of rupees, the contractor shall, whenever required, produce for examination by the Engineer any quotation, invoice, cost or other account, book of accounts, voucher, receipt letter, memorandum, paper of writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the Engineer on the question of relevancy of any documents, information or return being final and binding on the parties.) The contractor shall similarly produce vouchers, etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract.

(ii) If any portion of the work in a contract of value more than one crore of rupees be carried out by the a sub-contractor or any subsidiary or allied firm or company (as per Clause 7 of the General Conditions of Contract), the Engineer shall have power to secure the book of such sub-contract or any subsidiary or allied firm or company, through the contractor, and such book shall be open to his inspection.

(iii) The obligations imposed by sub clause (i) and (ii) above is without prejudice to the obligations of the contractor under any statute rules or orders binding on the contractor.

52. **Withholding and lien in respect of sums claimed** – Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the RailTel shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the RailTel shall be entitled to withhold the said security deposit or the security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the RailTel shall be entitled to withhold

and have a lien to the extent of the such claimed amount or amounts referred to supra from any sum or sums found payable orwhich at any time thereafter may become payable to the contractor under the same contract or any other contract with this or any other RailTel or any Department of the Central Government pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so with held or retained under the lien referred to above, by the RailTels will be kept withheld or retained as such by the RailTel till the claim arising out of or under the contract is determined by the arbitrator (if the Contract is covered by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the RailTel shall be entitled to withhold and also have a lien to retain to-words such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be whether in his individual capacity or otherwise.

52.1 **Lien in respect of claims in Other Contracts** – Any sum of money due and payable to the contractor (Including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the RailTel, against any claim of this or any other RailTel or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of Central Government.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the RailTel will be kept withheld or retained as such by the RailTel till the Claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

53. **Signature on Receipts for Amounts** – Every receipt which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by any one of the partners of a Contractors firm be a good and sufficient discharge to the RailTel in respect of the moneys or security purported to be acknowledged thereby and in the event of death of any of the Contractor partners during the pendency of the contract it is hereby expressly agreed that every receipt by any one of the surviving Contractor partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the RailTel may hereafter have against the legal representative of any contractor partner so dying, for or in respect of any breach of any of the conditions of the contract, provided also, that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representative of any deceased Contractor partners interse.

54. **LABOUR**

Wages to Labour – The Contractor shall be responsible to ensure compliance with the provisions of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act") and the Rules made there-under in respect of any employees directly or through petty contractors or sub-contractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract. If in compliance with the terms of the contract, the contractor supplied any labour to be used wholly or partly under

the direct orders and control of the RailTels whether in connection with any work being executed by the contractor orotherwise for the purpose of the RailTel such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor.

If any moneys shall as a result of any claim or any claim or application made under the said Act be directed to be paid by the RailTels, such moneys shall be deemed to be moneys payable to the RailTel by the Contractor and on failure by the Contractor to repay any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the RailTels shall be entitled to recover the same form any moneys due or accruing to the contractor under this or any other Contractor with the RailTels.

54.1 **Apprentices Act** – The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly through petty contractors or sub-contractors employed by him for purpose of carrying out the contract.

If the Contractor directly or through petty contractor or sub-contractors fails to do so, his failure will be a breach of the contract and the RailTel may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

55. **Provisions of Payments of Wages Act** – The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works. If in compliance with the terms of the contract, the contractor directly or through petty contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall nevertheless be deemed to comprise persons employed by the contractor, and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the contractor to repay such money to the RailTel deduct the same from any moneys due to the contractor in terms of the contract. The RailTel shall be entitled to deduct from any moneys due to the contractor (Whether under this contract or any other contract all moneys paid or payable by the RailTel by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the contractor.

55.1 Provision of Contract Labour (Regulation and Abolition) Act 1970

(1) The Contractor shall comply with the provision of the Contract Labour (Regulation and Abolition) Act 1970 and the Contract Labour (Regulation and Abolition) Act, Central Rules 1971 as modified from time to time, whenever applicable and shall also indemnify the RailTel from and against any claims under the aforesaid Act and the Rules.

(2) The Contractor shall obtain a valid licence under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid licence until the completion of the work. Any failure to fulfill this requirement shall attract the penal provision of the Contract arising out of the resultant non-execution of the work.

(3) The Contractor shall pay to the labour employed by him directly or through sub-contractors the wages as per provisions of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour indirectly engaged on the work including any engaged by his sub-

contractors in connection with the said work, as if the labour had been immediately employed by him.

(4) In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of the contract the contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and the Rules wherever applicable.

(5) In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the RailTel is obliged to pay any amount of wages to a workmen employed by the contractor or his sub-contractor in execution of the work or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act and the Rules or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act the Rules or to incur any expenditure on account of the contingent liability of the RailTel due to contractor's failure to fulfill his statutory obligations under the aforesaid Act or the Rules the RailTel will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the RailTel under section 20, sub-section (2) and section 2 sub-section (4) of the aforesaid Act, the RailTel shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/or from any sum due by the RailTel to the contractor whether under the contract or otherwise. The RailTel shall not be bound to contest any claim made against it under sub-section (1) of section 20 and sub-section (4) of section 21 of the aforesaid Act except on the written request of the contractor and upon his giving to the RailTel full security for all costs for which the RailTel might become liable in contesting such claim. The decision of the RailTel regarding the amount actually recoverable from the contractor as stated above, shall be final and binding on the contractor.

56. **Reporting of Accidents to Labour** – The Contractor shall be responsible for the safety of all employees directly or through petty contractors or sub-contractors employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineer's Representative and shall make every arrangement to render all possible assistance.

57. **Provisions of Workmen's Compensation Act** – In every case in which by virtue of the provision of Section 12 sub-section (1) of the Workmen's Compensation Act, 1923, RailTel is obliged to pay compensation to a workman directly or through the petty Contractor employed by the Contractor or sub-contractor in executing the work, RailTel will recover from the contractor the amount of the compensation so paid, and, without prejudice to the right of RailTel under Section 12 sub-section (2) of the said Act. RailTel shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by RailTel to the Contractor whether under these conditions or otherwise, RailTel shall not be bound to contest any claim made against it under Section 12, sub-section (1) of the said Act except on the written request of the Contractor and upon his giving to RailTel full security for all costs for which RailTel might become liable in consequence of contesting such claim.

57.1 **Provision of Mines Act** – Deleted

58. RailTel not to provide quarters for Contractor – No quarters shall be provided by the RailTel for the accommodation of the contractor or any of his staff employed on the work.

59 **Labour camps:**

(1) The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workman

directly or through the petty contractors or sub-contractors and for temporary crèche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on RailTel land, if available, may be allotted to the Contractor for the erection of labour camps either free of charge or on such terms and conditions that may be prescribed by the RailTel. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.

(2) **Compliance to Rules for Employment of Labour** – The Contractor(s) shall conform to all laws, bye-laws, rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty Contractors or sub-contractors on the works.

(3) **Preservation of Peace** – The Contractor shall take requisite precautions and use his best endeavors to prevent any riotous or unlawful behavior by or amongst his workmen and others employed directly or through petty contractor or sub-contractors on the works and preserve the health and safety of all staff employed directly or through petty Contractors or sub-contractors on the works.

(4) **Sanitary Arrangement** – The contractor shall obey all sanitary rules and carry out all sanitary measures that may time to time be prescribed by the RailTel Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the RailTel. Should the Contractor fail to make adequate sanitary arrangements, these will be provided by the RailTel and the cost therefore recovered from the contractor.

(5) **Outbreak of Infectious Disease** – The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the Railway/RailTel Medical Authority. Should Cholera, Plague or other infectious disease break out, the Contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the RailTel and the cost therefore recovered from the Contractor.

(6) **Treatment of Contractor's staff in Railway Hospitals** – Deleted

(7) **Medical facilities at site** – The contractor shall provide medical facilities at the site as may be prescribed by the engineer on the advice of the medical authority in relation to the strength of the contractor's resident staff, and workmen.

(8) **Use of Intoxicants** – The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.

(9) **Non-employment of Female Labour** – The contractor shall see that the employment of female labour in cantonment areas, particularly in the neighborhood of soldier's barracks, should be avoided as far as possible.

10) **Restrictions on the employment of retired Engineers of Railway services within two years of their Retirement** – The contractor shall not, if he is a retired government

engineer of Gazetted rank, who has not completed two years from the date of retirement, in connection with his contract in any manner whatsoever without obtaining prior permission of the President and if the contractor is found to have contravened this provision, it will constitute a breach of contract and Administration will be entitled to terminate the contract of the contractor and forfeit his security deposit.

60. **Non-Employment of Labourers below the age of 15**

(1) The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or sub-contractors for the execution of work.

(2) **Medical Certificate of Fitness for Labour** – It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under this contract unless a medical certificate of fitness in the prescribed from granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work, a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expense to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.

(3) **Period of Validity of Medical Fitness Certificate** – A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.

(4) **Medical Re-examination of Labourer –** Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15-19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such person shall be examined by a certifying surgeon and such person shall not, if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of illness or a fresh certificate or a fresh certificate of illness, as the case may be.

61. **DETERMINATION OF CONTRACT**

61.1.1 **Right of RailTel to determine the contract**: The RailTel shall be entitled to determine and terminate the contract at any time, should in the RailTel's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons therefore shall be conclusive evidence thereof.

61.2 **Payment on determination of contract**: Should the contract be determined under sub-clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the RailTel shall admit and consider such

claims as are deemed reasonable and are supported by vouchers to the satisfactions of the Engineer. The RailTel's decision on the necessity and propriety of such expenditure shall be final and conclusive.

61.3 The contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

62. **TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:**

62.1 If the Contractor should:

(i) Become bankrupt or insolvent, or

(ii) Make an arrangement with or assignment in favour of his creditors, or

(iii) Being a Company or Corporation, go into liquidation (other than voluntary) liquidation for the purpose of amalgamation or reconstruction, or

(iv) Have an execution levied on his goods or property on the works, or assign the contract or any part thereof otherwise than as provided in clause-21 of SCC, or

(v) Abandon the contract, or

(vi) Persistently disregard the instructions of the RailTel's Engineer with regard to work, or

(vii) Contravene any provision of the contract, or

(viii) Fail to adhere to the agreed programme of work by a margin of 10% of the Stipulated period, or

(ix) Fail to remove materials from the site or to pull down and replace the work after receiving from the Engineer's notice to the effect that the said materials or works have been condemned or rejected, or

(x) Fail to take steps to employ competent or additional staff and labour as required under clause 7 of SCC (Chapter 4 Section-I) or

(xi) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under clause 28, or

(xii) Promise offer or give any bribe, commission, and gift or advantage either himself or through his partner, agent or servant to any officer or employee of RailTel or any person on his or on their behalf in relation to the execution of this or any other contract with the RailTel,

(xiii)(A) At any time after the tender relating to the contract has been signed and submitted by the contractor, being a partnership firm admit as one of its partners or employ under it or being an incorporated company elect or nominate or allow to act as one of its directors or employ under it in any capacity whatsoever any retired engineer of the gazetted rank or any other retired gazetted officer working before his retirement, whether in the executive or administrative capacity, or whether holding any pensionable post or not, in the Engineering Department of the Railways for the time being owned and administered by the President of India before the expiry of two years from the date of retirement from the said service of such Engineer or Officer unless

such Engineer or Officer has obtained permission from the President of India or any officer duly authorized by him in this behalf to become a partner or a director or to take employment under the contract as the case may be, or

B) **Fail to give at time of submitting the said tender:-**

a) The correct information as to the date of retirement of such retired engineer or retired officer from the said service, or as to whether any such retired engineer or retired officer was under the employment of the contractor at the time of submitting the said tender, or

a) the correct information as to such engineers or officers obtaining permission to take employment under the contractor, or

b) being a partnership firm the correct information as to, whether any of its partners was such a retired engineer or retired officer, or

c) being an incorporated company, the correct information as to, whether any of its directors was such a retired engineer or retired officer, or

d) being such a retired engineer or retired officer suppress and not disclose at the time of submitting the said tender the fact of his being such a retired engineer or a retired officer or make at the time of submitting the said tender a wrong statement in relation to his obtaining permission to take the contract or if the contractor be a partnership firm or an incorporated company to be a partner of director of such firm or company as the case may be or to seek employment under the contractor.

Then and in any of these said clauses, the Engineer on behalf of the RailTel may serve the Contractor with a notice in writing to that effect and if the Contractor does not, within 7 days after the delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid to the entire satisfaction of the Engineer, the RailTel shall be entitled after giving 48 hours notice in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and adopt either or both the following courses: A final termination notice will be issued by RailTel after expiry of 48 hrs notice.

62.2 RIGHT OF RAILTEL AFTER TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:

In the event of any or several of the courses, referred in clause 62.1 above, being adopted:

(a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any works thereto not actually performed under the contract, unless or until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.

(b) The Engineer or Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery or buildings on the works or on the property on which these are being or ought to have been executed, and to retain the employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being

entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.

(c) The Engineer shall, as soon as may be practicable after removal of the Contractor fix and determine expert or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) has at the time of termination of the

contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract what was the value of any unused or partially used materials, any constructional plants and any temporary works upon the site. The legitimate amount due to the contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

63. Matters finally determined by the RailTel: All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract shall be referred by the contractor to the RailTel and the RailTel shall within 120 days receipt of the Contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matters for which provision has been made in clause 8, 18, 22.5, 29, 43.2, 45(a), 55, 55.1(5), 57, 61.1, 61.2 and 62.1 of General Condition of Contract or in any clause of the Special Conditions of the Contract shall be deemed as 'excepted matters' and decisions of the RailTel's authority, thereon shall be final and binding on the contractor provided further that 'excepted matters' shall stand specifically excluded from the purview of the arbitration clause and not be referred to arbitration.

64. SETTLEMENT OF DISPUTE AND ARBITRATION

64.1 With Private Parties

64.1.1 Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by a sole arbitrator in accordance with provisions contained in Arbitration and Conciliation Act, 1996 as amended and the award made in pursuance thereof shall be binding on the parties. The venue of such arbitration or proceedings thereof shall be New Delhi.

64.1.2 All arbitration proceedings shall be conducted in English. Resources against any Arbitral award so rendered may be entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.

64.1.3 The Arbitral Tribunal shall consist of the sole Arbitrator if the value of claim is upto Rs. 10 lakhs. The arbitrator will be by the Managing Director of RailTel Corporation of India Limited. If the value of claim or amount under dispute is more than Rs. 10 lakhs, the matter shall be referred to the adjudication of arbitral council. Managing Director/ RailTel shall furnish a panel of three names to the contractor, out of which contractor will recommend one name to be his nominee and then Managing Director /RailTel shall appoint out of the panel one name as RailTel's nominee and these two arbitrators with mutual consent appoint a third arbitrator who shall act as deciding arbitrator. The award of the Sole arbitrator or the Arbitral council, as the case may be, shall be final and binding on both the parties, i.e. Contractor and RailTel.

64.1.4 Each of the parties agree that no withstanding that the matter may be referred to Arbitrator as provided herein, the parties shall nevertheless pending the resolution of the controversy or disagreement continue to fulfil their obligation under this Agreement so far as they are reasonably able to do so.

64.2 With CPSE/ Govt. Department/ Govt. Organisation

64.2.1 In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice,Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

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SECTION – I

CHAPTER- 6

SPECIAL CONDITIONS OF CONTRACT

(SCC)

I N D E X

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2.	Agreement
3.	Contract performance Guarantee
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5.	Use of Railway Land
6.	Program of work.
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8.	Not used
9.	Not used
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11.	Stores to be supplied by contractor
12.	Supply of Technical Literatures, Documentation Drawings & Completion Plan etc.
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14.	Long term availability of spares & System support
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17.	Inspection of materials
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Chapter- 6

SPECIAL CONDITIONS OF CONTRACT

1. TENDER DOCUMENTS

1.1 The goods and services required, bidding procedure and contract terms are prescribed in the tender documents. The set of tender documents issued for the purpose of bidding includes any addendum and corrigendum thereto.

1.2 If the Tender submitted by a Tenderer is accepted and the contract awarded to the Tenderer the various works coming under the purview of the contract shall be governed by tender documents mentioned above.

1.3 Any special conditions stated by the Tenderer in the covering letter submitted alongwith the tender shall be deemed to be a part of the Contract to such extent only as have been explicitly accepted by the RailTel.

2. AGREEMENT

The successful Tenderer shall **within 15** days after award of contract be bound to execute an agreement based on accepted rates and conditions, in such form as the RailTel may prescribe, and lodge the same with the RailTel together with the conditions of contract, specifications and Schedule of prices referred to therein duly completed. (Form No.3 of Section-I, Chapter-6).

3. CONTRACT PERFORMANCE GUARANTEE

3.1 On receipt of the Letter of Acceptance of Tender from the RailTel, the successful Tenderer ***should give a Performance Guarantee in the form of irrevocable bank guarantee from State Bank of India/any Nationalized Bank or from any Scheduled Bank in the Form-4, amounting to 3% of the contract value***.
NOTE: ***However, if the PG amount is less than Rs. 5 lakhs, them the same has to be submitted in the form of DD/Banker's Cheque only***.
The successful bidder shall have to submit a Performance Guarantee (PG) within 15 (fifteen) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 15 (fifteen) days and upto 30 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e., from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The *failed contractor shall be debarred from participating in re-tender* for that work.

3.2 The Performance Guarantee should be furnished by the successful contractor after letter of acceptance has been issued, but before singing of the agreement. The agreement should normally be signed within 30 days after issue of LOA and Performance Guarantee should also be submitted within this time limit. The instruments for Performance Guarantee should be valid for four months beyond the warranty period (Clause 29) of SCC.

A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's Bank through SFMS and only after this the BG will become acceptable to RailTel. It is therefore in own interest of bidder to obtain RailTel's bank IFSC code, its branch and address and advise these particulars to the BG issuing bank and request them to send advice of BG through SFMS to the RailTel's Bank.

3.3 Performance Guarantee shall be released after satisfactory completion of the work, maintenance period and on expiry of the warranty period and issue of the certificate of final acceptance of the entire system. The procedure for releasing should be same as for Security Deposit.

3.4 Wherever the contracts are rescinded, the security deposit should be forfeited and the Performance Guarantee shall be encashed and the balance work should be got done separately.

3.5 The balance work shall be got done independently without risk and cost of the original contractor.

3.6 The original contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a Joint Venture (JV) of or a partnership firm, then every member/partner of such a firm would be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.

4. CONTRACTOR'S OFFICE & STORES DEPOT

The Contractor shall within ten days of issue of Letter of Acceptance (LOA) of tender establish an office and store depot at a convenient place for receiving and storing equipments and materials and progressing field work expeditiously in consultation and with the approval of the purchaser's Engineer. He shall intimate the purchaser's Engineer address thereof to which all correspondence should be sent. Any communication sent to the contractor by post at his said address shall be deemed to have reached the contractor duly and in time. Important documents shall be sent by Registered post.

5. USE OF RAILWAY LAND - Deleted

6. PROGRAMME OF WORK

6.1 The Contractor shall have necessary resources to execute the work so that the entire work is completed within a period as mentioned in the preamble from the date of issue of Letter of Acceptance of the tender. He shall also have necessary resources to take up the work simultaneously at more than one independent places in order to expedite the completion of work.

6.2 The Contractor who has been awarded the work shall as soon as possible but not later than 7 days from the date of receipt of the acceptance letter in respect of contracts with initial completion period of one year or less or not later than 15 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall and endeavor to fulfill this programme of work. The progress of work will be watched accordingly in the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall

preclude the contractor in achieving earlier completion of item or whole of the works than indicated in the programme

6.3 The Contractor shall be held responsible for the execution of the work according to the Programme given above in full compliance of the various clauses of the Technical specifications, instructions/ drawings etc. Failure to comply with any of these will be dealt with as per provision laid down in Conditions of Tendering.

6.4 Approach roads, where ever available can be used for carting materials. While RailTel may facilitate the contractor for getting approval from the Railways, if required, for carting the material to the site, the responsibility for ensuring that the material reaches the site in time, lies entirely with the contractor. The contractor has to bear the necessary expenses for carting the material to the site and he shall also arrange for the necessary Road permits in case of carriage of material by Road.

6.5 The contractor will programme his work in such a manner so as not to interfere in the working and movement of trains.

7. **COMPETENT SUPERVISORS**

7.1 The Contractor shall place and keep prescribed number of competent representatives / Supervisors / Engineers as his representative on the works who will be authorized to receive and acknowledge materials issued by the RailTel and take all orders issued by the RailTel. The said representatives shall be present at site during working hours and any written orders or instructions which the purchaser's Engineer may give to the said representatives of the contractor shall be deemed to have been duly given or communicated to the contractor.

8 & 9 Not used

10. **TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.**

Special tools & instruments required for installation and commissioning of the work as detailed in preamble shall be arranged by contractor at his own cost.
All tests and measuring instruments and other arrangements required for carrying out all the acceptance tests etc as detailed in preamble shall be provided by the contractor at his own cost.

11. **STORES TO BE SUPPLIED BY CONTRACTOR**

All materials required for the execution of the contract shall be arranged and supplied by the Contractor so as to realize the end objective. The supply of equipments and materials shall also include required installation and other materials and documents etc which may not be specifically mentioned herein but which are necessary for completing the work in all respects.

12. **SUPPLY OF TECHNICAL LITERATURES, DOCUMENTATION, DRAWINGS, INSTRUCTION BOOK & COMPLETION PLANS ETC.**

12.1 The supply of equipment and materials shall include supply of one set of printed documents from original equipment manufacturers with each equipment as given in technical supplement.

12.2 Except where printed documents are supplied with each equipment by original equipment manufacturer, all other documentation and information as mentioned in the technical specifications shall be prepared using CAD or any other software package duly approved by

Engineer. In addition to what is specified in the technical specifications, two complete hard sets of documents shall also be supplied for ready use duly bounded in good plastic folders.

13 & 14 **DELETED**

15. **QUALITY ASSURANCE**

15.1 In the event of RailTel waving off the inspection, the quality assurance department of the manufacturer shall carry out all the tests as per the specification and issue a certificate indicating clearly the test results and the adherence to the technical specifications. This is without prejudice to the purchaser's right to accept or reject the supplies if not found in conformity to its requirement.

16. Not used

17. **INSPECTION OF MATERIALS**

17.1 Equipment of all types as per SOR shall be subjected to Acceptance test by RailTel or their authorized representative. The materials to be supplied by the tenderer as per RDSO specifications/Drawings shall be procured from RDSO approved firms only and shall be suppliedinspected by RDSO. RDSO specification mentioned shall be with the latest alteration/amendment, if any.

17.2 All equipments materials fittings and components will be subject to inspection by the purchaser or his representative at the manufacturer's factory/tenderer works before dispatch and no materials shall be dispatched until these are inspected and/or approved. The materials may also be inspected by the purchaser or his representative again at the contractor's depot.

17.3 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer. The Contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.

17.4 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the Contractor.

17.5 The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser.

18. INSPECTION OF WORKS

The Engineer or his representative may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of materials, workmanship or design in comparison to what is called for in the specification. In the event of rejection of any work already executed and not in accordance with specification as in this tender and/or as determined by the Engineer or which the Contractor has been apprised, the Contractor shall carry out alterations/ replacements to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the RailTel.

19. QUANTUM OF WORK AND VARIATION IN QUANTITY OF ITEMS:

19.1 Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be upto 25% of the quantity originally contracted, except in case of foundation work.

19.2 The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever upto the limit of 25% variation in quantity of individual item of works.

19.3 In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates:

(a) *Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded* for that item in that particular tender;

(b) *Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded* for that item in that particular tender;

(c) *Variation in quantities of individual items beyond 150% will be avoided* and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

(d) *Variation to quantities of Minor Value Item*:
The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original agreement value.

i. Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the
ii. rate awarded for that item in that particular tender;
iii. Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;
iv. Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

20. Not used

21. SUBLETTING AND ASSIGNMENT

21.1 The contractor may enter into contract with suppliers for supply of materials under this contract.

21.2 The contractor may subcontract the execution of part(s) of the project with the prior approval of RailTel under following conditions-

The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub-contractor and the RailTel and shall not relieve the contractor of any responsibility under the contract.

The contractor shall arrange for effective supervision of sub contractor's work and remain solely responsible for materials supplied and for works carried out on his behalf by the sub contractor.

21.3 The contractor shall arrange for effective supervision of sub contractor’s work and remain solely responsible for materials supplied and for works carried out on his behalf by the sub contractor.

22. EXECUTION OF WORK

All the works shall be executed in strict conformity to the provisions of the contract document and with such explanatory detailed drawings, specifications and instructions as may be approved from time to time based on detailed design and engineering carried out by contractor

in line with requirements as per contract document. The contractor shall be responsible for ensuring that the work throughout are executed in the most substantial, proper and workmanlike manner with the quality of material and workmanship in strict accordance with the specifications and as per sound industrial practices and to the entire satisfaction of the RailTel.

23. Not used

24. **MAINTENANCE OF WORKS**

The contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the tender form and after the date of passing of the certificate of completion by the RailTel's representative or any other earlier date subsequent to the completion of the works that may be fixed by RailTel's representative be responsible for and effectively maintain and uphold in good, substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times, as often as the RailTel's representative shall require, any damage or defect that may, during the above period, arise in or be discovered or be in any way connected with the works provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot and the contractor shall be liable for and shall pay and make good to the RailTel or other persons legally entitled thereto whenever required by the RailTel's representative so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to, by reason or inconsequence of the operations of the contractor or his failure in any respect.
For this purpose the tenderer will submit their strategy for providing maintenance support including the staff who will be available along with the set of spares for attending to various faults/problems during maintenance period.

25. **CLEARANCE OF SITE**

At the end of the work at each location the Contractor shall as a part of is Contractual obligation leave the area completely neat and clean.

26. **PROVISIONAL ACCEPTANCE**

26.1 Immediately after the completion of the work at each Block section or after completion of work in Zonal Rlys/division and or sub- section to be decided by the engineer, the contractor shall certify and in writing that the installation is (i) complete (ii) ready for satisfactory commercial service and (iii) ready to be handed over.

26.2 The test or tests specified in Technical Specifications will be conducted jointly by purchaser and contractor as soon as possible after receipt of advice of completion of one section by purchaser from the contractor. The test schedule shall be finalized by mutual discussion between the contractor and RailTel. Any component, modules, sub assemblies or equipment failing during the commissioning test shall be replaced/repaired free of cost by tenderer.

26.3 Purchaser's Engineer shall issue a Provisional Acceptance Certificate for successful commissioning of a complete section covering all materials and services included in the Schedule of Requirements and the performance has been found to meet the specifications. RailTel's decision in this respect shall be final. The Provisional Acceptance Certificate shall be signed by both the parties. The period of maintenance of works shall commence from the

date of issue of Provisional Acceptance Certificate of the respective section/block section and accepted by RailTel.

27. PLACING IN SERVICE & MAINTENANCE SUPERVISION

27.1 After the work has been completed & placed in service and Provisional Acceptance Certificate issued by Purchaser's Engineer, the contractor shall be responsible for proper maintenance supervision of the work for a period of twelve months from the date of issue of PAC of the each section/block section as mentioned in Clause 26.3 above.

For this purpose the tenderer shall prepare a maintenance plan and make available the services of qualified maintenance engineers stationed at the locations along with the set of spares approved by Purchaser's Engineer, to guide and only supervise the work of RailTel or Railway maintenance staff. The maintenance engineer of the contractor will visit the total installation at least once in a month. The headquarter location of their engineer where spares also will be kept on the ready shall be indicated in the maintenance plan.

27.2 During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of deficiency in the design or installation, the contractor will rectify the same free of cost. During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract. Use of spare modules covered under the Schedule of material of this tender shall not be permitted to be used during installation, commissioning and period of maintenance.

27.3 During the maintenance supervision period contractor should stabilize the working of the system. Purchaser has the right to extend the period of supervision of the maintenance free of cost till the system stabilizes and works satisfactorily for a reasonable period of time. If during the time any equipment etc is to be added or deficiencies are to be rectified to make the system work trouble free, the same also will have to be done by the contractor free of cost as to make good all the deficiencies.

28. FINAL ACCEPTANCE

28.1 The final acceptance of the works completed shall take effect from the date of expiry of the period of maintenance supervision as defined in Clause 27 above provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract.

28.2 Notwithstanding the issue of Final Acceptance Certificate the contractor and the purchaser (subject to Sub Clause as above) shall remain liable for fulfillment of any obligation incurred under the provision of the contract prior to the issue of Final Acceptance Certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

29. WARRANTY

29.1 All materials supplied/work done by the Contractor shall be guaranteed against the defects for a period as prescribed in BDS from the date of issue of Provisional Acceptance Certificate. The contractor shall provide comprehensive warranty maintenance for all the items executed by him against this tender.

29.2 During the period of warranty, the contractor shall remain responsible to arrange replacement and for setting right at his own cost any equipment installed by him which is of defective manufacture or design or becomes unworkable due to any cause whatsoever. The decision of the RailTel's representative in this regard to direct the contractor to attend to any damage or defect in work shall be final and binding on the Contractor.

29.3 During the period of warranty, the contractor shall be responsible to the extent expressed in this clause for any defects that may develop under the conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship in the plant, or from faulty execution of the plant by the contractor but not otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the portion is faulty.

29.4 If it becomes necessary for the contractor to replace or renew any defective portions of the system under this clause the provisions of this clause shall apply to the portions of the plant to be replaced or renewed until the expiration of three months from the date of such replacement or renewal or until the end of the warranty period whichever may be later. If any defect is not remedied within reasonable time, the purchaser may proceed to do the work at contractor's risk and expense, but without prejudice to any other rights which the purchaser may have against the contractor in respect of such defects. The tenderer has to recoup the faulty unit/equipment from the set of his own spares kept by him within a period of 24 hours. The locations where such spares are to be handed over to the Tenderer shall be indicated in the bid by the tenderer.

29.5 Deleted

29.6 Until the Final Acceptance Certificate shall have been issued, the contractor shall have the right of entry, at his own risk and expense, by himself or his duly authorized representatives, whose names shall have previously been communicated in writing to the purchaser at all reasonable working hours upon all necessary parts of the works for the purpose of inspecting the working and the records of the system and taking notes therefrom and, if he desires at his own risk and expense, making any tests subject to the approval of the purchaser which shall not be unreasonably withheld.

29.7 In subject of this warranty, the contractor shall make his Performance Guarantee as required under Clause 3 of Special Conditions of Contract, valid to cover the period of warranty as per Clause 29.4

29.8 Tenderer shall quote the repair charges as percentage of the costs of each module/ card/assembly/ subassembly, which will remain valid for 2 years after the free warranty maintenance. RailTel may exercise the options of getting the defective modules/ cards repaired from the contractor for 2 years after the free warranty maintenance period is over, at the costs quoted by the tenderer.

30. TRAINING (NOT APPLICABLE FOR THIS TENDER)

30.1 The tenderer shall undertake to train RailTel engineers and other Railway staff nominated by the RailTel in different aspects of equipment designs, functioning, field installation, testing, commissioning, operation, maintenance and repair, covering both hardware and software. The training should be comprehensive for transfer of complete know-how so as to impart full knowledge and competence to independently and successfully execute the installation, operation, user related software changes, maintenance and repair of all equipment. The

training courses should, apart from formal class room training, include hands on practical experience at the manufacturer's premises or other locations and visits to working installation.

30.2 In the event of any equipment/sub-system being manufactured in India in technical collaboration with foreign firm by the tenderer or any of its sub-contractor, the training as per schedule shall be provided at the collaborator's premises/training centre in India at the Purchaser's discretion. Tenderer may quote separately against this schedule for the two options separately if required.

30.3 The contractor shall at every stage of installation; testing and commissioning provide all facilities for adequate training of RailTel personnel who may be deputed to work on the project.

30.4 The requirement of training in man-weeks has been indicated in the schedule of requirements. The tenderer shall quote for the man week rates duly taking in to account Para 30.2 above. Details of training proposal shall be submitted by the tenderer.

30.5 Set of Documents related to training to each of the trainees shall be provided.

30.6 All expenses for travel to and from the place of training, boarding and lodging of the trainees shall be borne by the RailTel.

31. **INFRINGEMENT OF PATENTS**:

(a) The Contractor is forbidden to use any patents or registered drawings, processes or patterns in fulfilling his contract without prior consent in writing of the owner of such patents, drawings, patterns or trade marks except where these are specified by the Purchaser himself. Royalties where payable for the use of such patented processes, registered drawings or patterns shall be borne exclusively by the Contractor. The Contractor shall advise the Purchaser of any proprietary rights that may exist on such processes, drawings or patterns which he may use of his own accord.

(b) In the case of patents taken out by the Contractor of the drawings or patterns registered by him or of those patents, drawings or patterns for which he holds a license, the signing of the contract automatically gives the Purchaser the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him for carrying out the repair work. In the event of infringement of any patent rights due to above action of the Purchaser he shall be entitled to claim damages from the Contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.

32. **LICENSE AS PER GOVT. OF INDIA CONTRACT LABOUR ACT**

The Contractors are required to produce license as enjoined in the Government of India Contract Labour (Regulation and Abolition) Act (1978) with latest amendments, if any. They shall not be allowed to undertake or execute any work through contract Labour except under and in accordance with a license issued under the said Act in that behalf by the authorized licensing Officer.

33. **DEFAULTS AND DELAYS**

The Contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Purchaser's Engineers in connection with the work or

contravene the provision of the Contract or the progress of work lags persistently behind the time schedule due to his neglect, the Purchaser shall be at liberty to give seven days notice in writing to the Contractor requiring him to make good the neglect or contravention complained of and should the Contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take the work wholly or in part out of the Contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the Contractor without prejudice to any other right or remedy of the Purchaser. The contract shall be treated as terminated on the date a notice is issued by the purchaser to take the work wholly or in part out of the Contractor's hands. The purchaser shall be at liberty to encash the performance guarantee and forfeit the security deposit after the contract is terminated to reimburse the loss to purchaser.

34. **LOSS SUSTAINED DUE TO DEFAULTS AND DELAYS**

In the event of any loss to the purchaser on account of execution and/or completion of the work or any part thereof by agencies other than the contractor, in terms of clause 33 the contractor shall be liable to reimburse the loss to purchaser without prejudice to the other rights and remedies of the purchaser and the reimbursement in full or in part, as the case may be, shall be met at the option of the purchaser from out of all or any of the following sources viz :

(a) i) Any amount due and payable to the contractor by the purchaser on any account whatsoever;

ii) The Contractor's security deposit in the hands of the purchaser as far as available, and;

iii) Any other assets whatsoever of the contractor;

(b) In the event of re-imbursement from out of sources (i) and/or (ii) above mentioned, the purchaser shall have the right of appropriation suo moto.

35. **PENALTY FOR DELAY IN COMPLETION**

35.1 If the contractor fails to execute and complete the work within the time specified in the Agreement or within the period of extension granted under clause 36, for any reason whatsoever other than the non availability of the terminated OFC, 220V power supply and the Equipment Room, the contractor shall accept reduction in the total amount payable to him by the purchaser *at the rate of 0.5% per week or part thereof* (rounded off to the nearest whole number) of the total value of the contract for the delay occasioned beyond the appointed time by which the work should have been completed under the contract.

35.2 The total value of penalty on account of above shall be limited to *maximum of 10%* (Ten percent) of the total contract value.

35.3 Such reduction shall be accepted by the purchaser in full satisfaction of the contractor's liability arising from delay only. This penalty for delay in completion will be applicable separately for each stage of completion of work when two or more stage of completion are specified in the contract. The purchaser's engineer shall at his sole discretion specify a time limit within which the unfinished portion of the work shall be completed after serving on the contractor a notice of Purchaser's intention to recover the said penalty in Form 11. In the event of failure of the contractor, the purchaser shall be at liberty to take action in accordance with provisions in Clause 33 and 34.

NOTE: For purpose of this clause the value of work shall be calculated on the basis of unit prices included in schedule of requirements.

36. ADHERENCE OF TIME SCHEDULE

36.1 *Timely completion of the work is the essence of the contract. Delay in execution will attract penalty.*

36.2 If any delay as aforesaid in clause 35 shall have arisen from any cause which the Purchaser may agree as being a reasonable ground for extension of time the purchaser's engineer or his representative may allow such additional time as he may in his absolute discretion consider to be reasonably justified by the circumstances of the case. Such extensions shall be granted , on request from contractor, with or without liquidated damages in the Form No.11 (Section-I, Chapter-6).

37. CONTRACTOR'S LIABILITIES FOR COSTS AND DAMAGES

Please refer clause 52 of General Condition of Contract (Part II of Chapter 3, Section I).

38. UNIT PRICES

38.1 The prices quoted by the Tenderer shall include the prices of materials including all incidental charges for transport, loading/ unloading and handling of materials, commission for arranging dispatch by rail direct from manufacturer's factory and completing all necessary formalities in this respect, such as submission of forwarding notes, arranging placement of Wagon, collection of banker's charges for Bank guarantee, Indemnity Bonds inclusive of cost of Stamp etc. as also siding or shunting charges, if any, levied by the Railway.

38.2 The prices shall include all taxes, duties, Royalty, GST and levies (including Octroi etc.) applicable on this Works Contract. Therefore, they should quote their prices taking into account all types of taxes including GST on works contract as leviable. Ambiguous charges without firm and specific figures quoted as "extra" will make the bid liable to be summarily rejected.

38.3 The prices quoted by the tenderer shall include cost of commissioning and testing and all costs of Administration of Contract, Insurance Premium, Banker's charges for guarantees, cost of storage, loading-unloading and handling of materials and for any road transport which the contractor may use for carriage of materials to his depot and the site of work. The prices shall include the cost of works and adjustments necessary to be done by the contractor during or after tests carried out by the purchaser.

38.4 The price to be quoted by the tenderers should take into account the credit availed on inputs under the CENVAT scheme. The tenderers should give a declaration that any set off in respect of duties on inputs as admissible under law is being totally and unconditionally passed on to the purchaser in the price quoted by him (see clause 43).

38.5 While the price quoted in the contract are inclusive of all taxes i.e. GST levied by any statutory authority, the purchaser shall make any deduction toward GST on works contract if statutorily required to do so. The deducted sales tax on works contract shall be remitted to the concerned GST authority and the purchaser shall in no way be responsible for any disputes between the GST authorities and the contractor in this regard.

38.6 All taxes, duties and levies (Including GST etc.) arising out of the transaction between the contractor and his sub contractor/supplier for this work will be included in the rates quoted by the contractor in the relevant Schedule.

38.7 No import license shall be arranged by the RailTel for this work.

38.8.1 The price quoted in the offer should be firm, fixed indicated the breakup and inclusive of all taxes & duties like import, custom, Anti dumping, CGST, SGST, IGST, UTGST etc. The offer should be inclusive of packing, forwarding, freight up to destination, insurance charges.

38.8.2 Bidder shall issue valid tax invoice to RailTel for availing proper credit of CGST/SGST/IGST/UTGST incase of award of contract. GST will not be reimbursed in the absence of valid tax invoice.

38.8.3 For all the taxable supplies made by the vendor, the vendor shall furnish all the details of such taxable supplies in the relevant returns to be filed under GST Act.

38.8.4 If the vendor fails to comply with any of the above, the vendor shall pay to purchaser any expense, interest, penalty as applicable under the GST Act.

38.8.5 In case of incorrect reporting of the supply made by the vendor in the relevant return, leading to disallowance of inpurt credit to purchaser, the vendor shall be liable to pay applicable interest under the GST Act to the Credit of purchaser. The same provisions shall be applicable in case of debit/credit notes.

38.8.6 Tenderer shall quote all inclusive rates, but there shall be break up of basic price and all type of applicable taxes such as SGST/CGST/IGST/UT GST alongwith respective HSN/SAC Code under GST Law (including tax under reverse charges payable by the recipient).

38.8.7 Wherever the law makes it statutory for the Purchaser to deduct any amount towards GST at sources, the same will be deducted and remitted to the concerned authority.

38.8.8 In regards to works contract, the tenderer should have registration no. for GST, shall furnish GST registration certificate along with Tender.

38.8.9 The imposition of any new tax and/or increase/ in the aforesaid taxes, duties levies, after the last stipulated date for the receipt of tender including extensions if any and the bidder there upon necessarily and properly pays such taxes/levies/cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of RailTel attributable to delay in execution of work within the control of bidder. The bidder shall, within a period of 30 days of the imposition of any such tax or levy or cess, give a written notice thereof to RailTel that the same is given pursuant to this condition, together with all necessary information including details of input credit relating thereto. In the event of non-payment/default in payment of any of the above taxes, RailTel reserves the right to with-hold the dues/payments of bidder and make payment to state/Central Government authorities as may be applicable. However, if the rates are reduced after the last stipulated date for receipt of tender, bidder has to pass on the benefits to RailTel.

38.8.10 Incase of imported equipment: - Not applicable

38.8.11 Evaluation Criteria: - Inter se position of the offers will be determined on total unit rate on CIP destination basis which will include basic rate, custom duty, CGST, SGST, IGST, GST, Freight, Insurance and any other charge or cost quoted by the tenderer, including GST payable.

38.8.12 In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the RailTel shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned Tax Authority.

On reverse charge by RailTel, wherever applicable.

39. MEASUREMENT OF WORKS

39.1 Payments for the works shall be made in accordance with approved designs & drawings and measured in relevant units except where provided or otherwise. The measurements will be made generally in accordance with standard engineering practices.

39.2 All measurement, method of measurement, meaning intent of specifications and interpretation of Special Conditions of Contract, given and made by the Purchaser or by the Purchaser's Engineer shall be final and binding.

39.3 All payments due to the Contracter shall be made by RTGS/NEFT only.

39.4 Payments for the works shall be made in accordance with approved design & drawings and measured in relevant units except where provided or otherwise. The measurements will be made generally in accordance with standard engineering practices. The abstract of quantities arrived shall be entered in the measurement book and signed by the contractor and the authorised representative of RAILTEL.

40. TERMS OF PAYMENT

40.1 All bills shall be submitted to the Territory Manager, Northern Region under whose jurisdiction the work has been executed. While submitting the bills, the break-up of taxes may be furnished so that any GST INPUT credit may be availed by RailTel.

40.2 **DELETED**

40.3 Subject to any deductions or recovery which the RailTel may be entitled to make under contract, the Contractor will be entitled to be paid from time to time by way of 'on account payment' for supply of goods and 'progress payment' for works as in the opinion of the Engineer he has executed in terms of Contract.

40.4 GST component charged in the invoice by successful tenderer shall be released only when such GST is reflected against GSTN of RailTel.

40.5 ON ACCOUNT PAYMENT FOR SUPPLY OF EQUIPMENT & MATERIAL

"On account payment" for supply of equipments, materials indicated in the Schedule of Requirements subject to recoveries of liquidated damages, if any, shall be made as given below:

Where goods to be supplied also need installation and commissioning by the supplier, the payment terms are:

i. In case of supply only: 100% of the value of the part supply of the equipment on receipt by the consignee at site duly inspected and accompanied with following documents:

   (a) On receipt of materials at site as certified by the purchaser's representative.

(b) Original Inspection certificate issued by Inspecting Officer.
(c) Challan / Tax Invoice in duplicate.
(d) A certificate that the materials supplied are as per the specifications mentioned in the contract and the amount claimed in the invoice is correct as per terms of the contract.
(e) Original Certificate covering insurance of the items supplied.
(f) Jointly signed Installation and Commissioning Report between consignee and Supplier.

ii. In case of supply and installation:
   a. 80% of the value of the part supply of equipment on receipt by the consignee at site duly inspected and accompanied with valid documents.
   b. Balance 20% of the value of the part supply on successful installation and commissioning at site. Bidder has to install and commission the equipment within 30 days from the communication by RailTel EIC (Engineer In-Charge). In case installation and commissioning is delayed on account of RailTel then 20% payment can be released after submission of a Bank Guarantee of equal amount valid for a period of one year.

40.6 **PROGRESS PAYMENT FOR EXECUTION OF WORKS:**

'Progress payment' shall be made separately for each item/sub-item of work given in the Schedule of Requirements (SORs).

40.6.1 **90%** (Ninety percent) of the progress payment for each item of Schedule of Requirements (SOR) items shall be paid for the quantities completed at various locations after joint measurement and testing to the satisfaction of Engineer / Supervisor in-charge of the work and proper entry in the Measurement book jointly by contractor and Engineer/supervisor in-charge of RailTel.

40.6.2 **5%** (Five percent) value of the works/services completed shall be made on issue of **Provisional Acceptance Certificate** (PAC) by RailTel as per clause 12 above.

40.6.3 Payment will be released only when OFC laid, terminated and end to end testing of fibre is completed and PAC is issued.

41. FINAL PAYMENT

Final payment of **5%** (Five percent) of the contract value shall be made after satisfactory operation & maintenance of the work under the supervision of the contractor for a period of one year after commissioning and issue of **Final Acceptance Certificate (FAC)**.

41.1 On the basis of Final Acceptance Certificate from the Purchaser's Engineer for all the works at all the locations covered in this contract and reconciliation of materials issued, the final bill for the balance payment for each item of work shall be submitted by the Contractor along with a clear 'No Claim Certificate'. The Final Acceptance Certificate shall be issued by the Purchaser's Engineer only when he has accepted the work wholly after conducting the acceptance tests as per the details given in the technical specification and supplement.

42 **FINAL SETTLEMENT**

On expiry of the warranty period and issue of the certificate of final acceptance of the entire installations, the security deposit (Clause 3) will be refunded or Bank Guarantee released to the Contractor after adjustment of any dues payable by the contractor.

43. **CERTIFICATES FOR MODVAT BENEFITS ON BILLS**

a) The Contractor should submit the following certificate along with the bills:-
(See clause 38.4) "We certify that no additional duty set offs on the Goods supplied by us have accrued under the GST input credit Scheme in force on the date of supply after we submitted our quotations and submitted the present bill".

b) In the event of GST input credit being extended by the Government of India to more items that already covered, the firm should advise the purchaser about the additional benefits accrued through a letter containing the following certificate, or any variation thereof, as may be considered necessary by RailTel administration:- "We hereby declare that we can avail additional duty set offs as per latest GST scheme in force now and we hereby give a reduction of (----------) per unit and agree to revise the prices indicated in the order. The current GST of (----------) is payable on this reduced price. Therefore, we request you to amend the order accordingly."

44. **DEDUCTION FROM ON ACCOUNT PAYMENT BILLS**

(i) All costs, damages or expenses, which RailTel may have been paid or incurred which under the provisions of contract are Contractor's obligations will be deducted by RailTel from progress payment Bills/Invoice of Contractor, as and when it is understood that such an expense has been incurred or paid for.

(ii) All such claims of RailTel shall, however, be duly supported by appropriate and certified vouchers, receipts or explanations as are available to enable the Contractor to identify such claims.

45 **TAXES**

45.1 The Contractor and all personnel employed by him shall pay such taxes like Income Tax as are payable under statutory laws of India and the Purchaser WILL NOT ACCEPT any liability for the same.

45.2 Deduction of Income Tax at source as per provisions of Finance Act and Income Tax in force shall be made from the Contractor/Sub-Contractor and the amount so deducted may be credited to the Central Government.

45.3 Wherever the law makes it statutory for the Purchaser to deduct any amount towards Sales Tax on Works Contract, the same will be deducted and remitted to the concerned authority.

45.4 Labour Cess shall be deducted from Running Bills as applicable.

46. **MOBILISATION ADVANCE**: Not applicable

47. **INSURANCE**

47.1 The Contractor shall take out and keep in force a policy or policies of insurance from the date, the delivery of material start against all liabilities of the Contractor or the Purchaser at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site. The Contractor shall also take out and keep in force a policy or policies of Insurance against all recognized risks to their offices and depots. Such insurance shall in all respects be to the approval of the Purchaser and if he so requires in RailTel's name.

47.2 **INSURANCE OF MATERIALS & INSTALLATIONS**

The Contractor shall take out and keep in force a Policy or policies of Insurance for all materials including RailTel supply materials/ equipments irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such works are provisionally handed over to the RailTel. For this purpose, the works are deemed to have been provisionally handed over when provisional acceptance certificate is issued for the locations as per clause 26.

47.3 The Contractor shall not be liable for losses/damages to the materials either used up in the portion of work done or his material kept for use at site, in consequence of Mutiny, or other similar causes over which the Contractor has no control and which cannot be insured. Such losses or damages shall be the liability of the Purchaser and if required by the Purchaser, be made good by the contractor at the cost of the Purchaser.

47.4 The Contractor should, however, insure the stores brought to site, against risks in consequence of war and invasion, as required under the Emergency Risk (Goods) Insurance Act inforce from time to time.

47.5 It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favour of RailTel. The contractor shall keep the policy/policies current till the installations are provisionally handed over to the purchaser. It may also be noted that in the event of contractor's failure to keep the policy current and alive, renewal of policy will be done by purchaser for which the cost of the premium plus 20% of premium shall be recovered from the contractor.

47.6 For the purpose of enabling the contractor to take the insurance cover in connection with this contract, the purchaser's Engineer will advise the approximate price of all the RailTel supply materials to the Contractor.

48. Rights of RailTel:

RAILTEL reserves to itself the following rights in respect of this contract without entitling the Contractor to any compensation.

48.1 To get the work done through another agency at the risk and cost of the Contractor, in the event of poor progress or the Contractor's inability to progress the work for Completion as stipulated in the contract, poor quality of work, persistent disregard of instructions of Architect / **RAILTEL,** assignment, transfer, subletting of the contracted work without written permission of **RAILTEL**, non-fulfillment of any contractual obligations etc. and to claim / recover compensation for such losses from the Contractor including **RAILTEL'**s supervision charges and overheads from Security Deposit / other dues.

48.2 To withdraw any portion of work and / or to restrict / alter quantum of work as indicated in the contract during the progress of work and get it done through the contractor of the adjacent

section and / or by the departmental labour to suit **RAILTEL's** requirements or in case **RAILTEL** decides to advance the compensation due to other emergent reasons.

48.3 To terminate the contract after due notice and forfeit the Security Deposit and recover the loss sustained in getting the balance work done through other agencies in addition to liquidated damages in the event of:

- Contractor's continued poor progress.
- Withdrawal from or abandonment of the work before completion of the work.
- Corrupt act of the Contractor.
- Insolvency of the Contractor.
- Persistent disregard of the instructions of **RAILTEL**.
- Assignment, transfer, subletting of the contract work without written permission.
- Non-fulfillment of any contractual obligations.

48.4 To recover any moneys due from the Contractor from out of any moneys due to the Contractor under this or any other Contract or from the Security Deposit.

48.5 To determine the Contract or to restrict the quantum of work and pay for the portion of work done as per the satisfaction of **RAILTEL**.

48.6 To effect recoveries from any amounts due to the Contractor under this or any other contract or in any other form the moneys which RAILTEL is forced to pay to anybody due to Contractor's failure to fulfill any of his obligations.

48.7 To restrict or increase the quantity and nature of work to suit site requirements, since the tender specifications are based on preliminary documents and quantities furnished therein are indicative and approximate and the rates quoted shall not be subject to revision in any manner whatsoever.

48.8 To deploy **RAILTEL's** or adjacent-section-contractor's skilled and semiskilled workmen in case of emergency / poor progress / deficiency in skill on the part of the employees of the Contractor and to recover the expenditure on account of the same from the moneys due to the Contractor.

48.9 While every endeavour will be made by **RAILTEL** to this end, **RAILTEL** cannot guarantee uninterrupted work due to conditions beyond its control. The Contractor will not be entitled to any compensation / extra payment on this account.

In the event of any dispute of technical nature, the decision of RAILTEL shall be final and binding to the Contractor.

49. Responsibilities of Contractor in respect of local taxing rules, local laws, employment for workers etc.:

The following are the responsibilities of the Contractor in respect of observance of local laws, employment of personnel, payment of taxes etc.

49.1 DELETED.

49.2 As far as possible, unskilled workers shall be engaged from the local areas in which the work is being executed.

49.3 The Contractor at all times during the continuance of this contract, shall in all his dealings with the local labour for the time being employed on or in connection with the work, has due regard to all local festivals, religious and other customs.

49.4 The Contractor shall comply with all State and Central Laws, Statutory Rules, Regulations etc., such as The Payment of Wages Act, The Minimum Wages Act, The Workmen's Compensation Act, The Employer's Liability Act, The Industrial Disputes Act, The Employee's Provident Fund Act, Employee's State Insurance Scheme, The Contract Labour (Regulations and Abolitions Act, 1970) and other Acts, Rules and Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at site. The Contractor shall give to the local Governing Body, Police and other concerned authorities all such notice as may be required under law.

49.5 The Contractor will obtain independent licence under the Contract Labour (Regulations and Abolition Act, 1970) from the concerned authorities based on the certificate (Form -V) issued by the principal employer / customer, if such license is required under the law.

49.6 The Contractor shall pay all taxes, fees, licence charges, deposits, duties, tolls, royalty, commissions or other charges which may be leviable on account of any of his operations connected with this contract. In case, RAILTEL is forced to make any such payment, RAILTEL shall recover the same from the Contractor either from moneys due to him or otherwise as deemed fit.

49.7 The Contractor shall be responsible for the provision of health and sanitary arrangements more particularly described in the Contract Labour (Regulations and Abolition Act, 1970) and safety precautions as may be required for safe and satisfactory execution of the contract.

49.8 The Contractor shall be responsible for proper accommodation including adequate medical facilities for the personnel employed by him.

49.9 The Contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.

49.10 The Contractor shall ensure that no damage is caused to any person / property of other parties working at site. If any such damage is caused, it shall be the responsibility of the Contractor to make good the losses and compensate them.

49.11 All the properties/equipment/components of **RAILTEL** loaned with or without deposit, to the Contractor shall remain the properties of **RAILTEL**. The Contractor shall use such properties for the purpose of execution of this contract. All such properties/ equipment / component shall be taken to be in good condition unless notified to the contrary by the Contractor within 48 hours. The Contractor shall return them in good condition as and when required by **RAILTEL**. In case of non-return, loss, damage, repairs etc., the cost thereof, as may be fixed by the Engineer, will be recovered from the Contractor.

49.12 It shall not be obligatory on the part of **RAILTEL** to supply any tools and tackles or materials other than those specifically agreed to be given by **RAILTEL**.

49.13 The Contractor shall fully indemnify and keep indemnified **RAILTEL** against all claims of whatever nature arising during the course of execution of this contract.

49.14 In case the Contractor is required to undertake any work outside the scope of this contract, the amount payable shall be as may be mutually agreed upon.

49.15 Any delay in completion of works or non-achievement of periodical targets, due to reasons attributable to the Contractor, will have to be compensated by the Contractor either by increased manpower and resources or by working extra hours or more than one shift at no extra cost to **RAILTEL**.

49.16 The Contractor will be directly responsible for payment of wages to his workmen. A pay-roll sheet giving details of all payments made to the workmen duly signed by the Contractor's representative should be furnished to **RAILTEL**, if called for.

49.17 In case of any class of work for which there is no specification laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

49.18 No levy, payment or charges made or imposed shall be impeached by reason of any clerical error or by reason of any mistake in the amount levied, demanded or charged.

49.19 No idle labour charges will be admissible in the event of any stoppage of work resulting in the Contractor's workmen being rendered idle due to any reason at any time.

49.20 The Contractor shall take all reasonable care to protect the materials and the work till such time it has been taken over by RAILTEL.

49.21 Contractor shall not stop work or abandon the site for whatsoever reason or dispute, excepting for force majeure conditions. All problems / disputes shall be separately discussed and settled without effecting the progress of work. Stoppage or abandonment of work other than under force majeure conditions shall be treated as breach of work of contract and dealt with accordingly.

49.22 The Contractor shall keep the area of work clean and shall remove the debris etc. outside of RailTel's premises, while executing day-to-day work. Upon completion of work, the Contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The Contractor will also demolish all the hutments, sheds, offices, etc., constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the **RAILTEL** and the expenses recovered from the Contractor.

49.23 The Contractor shall execute the work in the most substantial and workmen like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The Contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/or as per the instructions of the Engineer.

49.24 The Contractor shall furnish fortnightly labour deployment report indicating the classification and number of workmen engaged, date wise and category wise. Besides, the Contractor shall also furnish progress reports on work at regular intervals as required by the Engineer.

50. Responsibility of contractor in respect of safety of men, equipment, material and environment:

All safety rules and codes applied by **RAILTEL** at site shall be observed by the Contractor and his workmen without exception. The Contractor shall be responsible for the safety of the equipment / material and work to be performed by him.

50.1 Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer, with a view to prevent pilferage, accidents, fire hazards etc. Suitable number of Clerical Staff, watch and ward, Storekeepers to take care of equipment, material, construction tools and tackles shall be posted at site by the Contractor till the completion of work under this contract. The Contractor shall arrange for such safety devices as are necessary for this type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per usual standards and practices.

50.2 The Contractor shall provide to its work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorized **RAILTEL** officials:

- Safety Helmets conforming to IS - 2925.
- Safety Belts conforming to IS - 3521.
- Safety Shoes conforming to IS - 1989.
- Eye & Face Protection devices conforming to IS-8520 & IS-8940.
- Hand & Body Protection devices conforming to IS-2573, IS-6994, IS-8807 & IS-8519.

50.3 All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, safety nets, ladders, equipment etc. used by the Contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorized **RAILTEL** official who shall have the right to ban the use of any item.

50.4 All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the Contractor to carry out all types of electrical works. All electrical appliances including portable electric tools used by Contractor shall have safe plugging system to source of Power and be appropriately earthed.
Where it becomes necessary to provide and / or store petroleum products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the Contractor shall be responsible for carrying out such provision and / or storage in accordance with the rules and regulations laid down in the relevant Government Acts, such as Petroleum Act, Explosive Act, Petroleum and Carbide of Calcium Manual of the Chief Controller of Explosives, Government of India etc. Prior approval of the authorized **RAILTEL** official at the site shall also be taken by the Contractor in all such matters.

50.5 The Contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working, when natural daylight may not be adequate for clear visibility.

50.6 In case of a fatal or disabling injury/accident to any person at construction sites due to lapses by the Contractor, the victim and/or his/her dependants shall be compensated by the Contractor as per statutory requirements. However, if considered necessary, **RAILTEL** shall have the right to impose appropriate financial penalty on the Contractor and recover the same from payments due to the Contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by **RAILTEL** giving opportunity to the Contractor to present his case.

50.7 In case of any damage to property due to lapses by the Contractor, RAILTEL shall have the right to recover the cost of such damages from the payments due to the Contractor after holding an appropriate enquiry.

50.8 In case of any delay in the completion of jobs due to mishaps attributable to lapses by the Contractor, RAILTEL shall have the right to recover cost of such delay from the payments due

to the Contractor, after notifying the Contractor suitably and giving him opportunity to present his case.

50.9 If the Contractor fails to improve the standards of safety in its operation to the satisfaction of **RAILTEL**, after being given reasonable opportunity to do so and / or if the Contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorised **RAILTEL** official, **RAILTEL** shall have the right to take the corrective steps after giving a notice of not less than seven days indicating the steps that would be taken by **RAILTEL.**

50.10 The Contractor shall submit report of all accidents, fires, Property damage and dangerous occurrences to the authorised **RAILTEL** official immediately after such occurrence, but in any case not later than 12 hours of the occurrence. Such reports shall be furnished in the manner prescribed by RAILTEL. In addition, periodic reports on safety shall also be submitted by Contractor to the authorised RAILTEL official from time to time as prescribed.

50.11 During the course of construction, alteration or repair scrap lumbers with protruding nails, sharp edges etc., and all other debris including combustible scrap shall be kept cleared from working areas, passage ways and stair in and around site.
Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dropped, struck or permitted to strike each other violently. When cylinders are transported by powered vehicles, they shall be secured in a vertical position.

50.12 All the Contractor's supervisory personnel and sufficient number of workers shall be trained for fire fighting and shall be assigned specific fire protection duties. Enough number of such trained personnel must be available during the tenure of the contract.

50.13 Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, erection site, other temporary structures, labour colony area etc. Access to such fire protection equipment shall be easy and kept open at all times. Compliance of the above requirement under fire protection shall in no way relieve the Contractor of any of his responsibility and liabilities to fire accident occurring. In the event fire safety measures are not to **RAILTEL's** satisfaction, **RAILTEL** shall have option to provide the same and recover the cost plus incidentals from Contractor's bills and / or impose penalty as deemed fit by the authorised representative of **RAILTEL.**

51. Deleted.

52. Strikes and Lockouts:

The Contractor will be solely responsible for all disputes and other issues connected with his workmen. In the event of Contractor's workmen resorting to strike or the Contractor resorting to lockout and if the strike or lockout so declared is not settled within a period of one month, RAILTEL shall have the right to get the work executed by employing its own men or through other agencies or both. The cost incurred by RAILTEL in this regard shall be recovered from the Contractor.

For any purpose whatsoever, the employees of the Contractor shall not be deemed to be in the employment of RAILTEL.

53. Guarantee:

Even though the work will be carried out under the supervision of the authorized representative of RAILTEL, the Contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of **one year from the date of completion of work** as certified by the authorized representative of RAILTEL and shall rectify free of cost to

RAILTEL all defects arising out of faulty erection during the guarantee period starting from the date of completion of rectification. In the event of the Contractor failing to repair the defective works within the time specified by the authorized representative of RAILTEL, RAILTEL may proceed to undertake the repairs of such defective works at the Contractor's risk and cost, without prejudice to any other rights and recover the same from out of any moneys payable to the Contractor or by other legal means.

53.1 The Tenderers has to enter in the register all the material / tools and plants brought to the site for working in the premises available with the Security Staff / Site Incharge / Site Register.

53.2 The Tenderers should get all the materials inspected and approved from the authorized representative of RAILTEL before use. In case of non-approval, if authorized representative of RAILTEL wish to check the material, cost of breakages and re-doing the same Work will be the sole responsibility of the Contractor own.

53.3 The rates should be quoted in the same units as mentioned in the tender schedule.
The Bill of Quantities enclosed are very indicative and can vary as per the Site conditions, requirements of RAILTEL or Design of authorized representative of RAILTEL and the rates quoted shall not be subject to revision.

53.4 The rates quoted in the tender shall include all charges of material, labour, lifts, scaffoldings, any tools & plants, freight, labour conditions, fluctuations in the rates, GST, shift working & other taxes and shall be firm for the duration of the contract and any extended period of the contract. No escalation in the rates shall be allowed under any circumstances even in case of extension of time period.

53.5 The successful Tenderer is bound to carry out all the items of work necessary for the completion of the job even though the same may not have been included in the schedule of quantities. Rates for such items shall be settled in consultation with authorized representative of RAILTEL.
The successful Tenderer will have to make samples (proto-type) of all the furniture items for the final approval of authorized representative of RAILTEL before taking up the entire execution of the work. In case of any modifications / additions, the same shall be incorporated in the entire furniture items without any additional financial implications.
Water and Electricity shall be provided free of cost at one point on each floor, further extensions if required shall be borne / arrange by the Tenderer on its own.

54. Rates of extra items/quantity:

The rates of the extra items will be derived from the tender wherever possible.

54.1 In case the rates do not exist in the tender, the rate will be derived as per the market rates. The Tenderer shall submit analysis of rates as per Annexure, with assumption of any one item.

54.2 If the quantity of any item under execution is varying up to ± 25% of the total quantity (as per the Schedule of Requirement), the contractor shall have to execute the same item at **similar rates** as applicable in the contract agreement.

54.3 RailTel reserves the rights to vary the quantity by 25% above or below the BOQ without assigning any reason to the contractor.

54.4 All the work executed should be got approved by the authorized representative of RAILTEL and in case of any bad workmanship pointed out shall be either rectified or be taken away from the site if it is not rectifiable and shall be replaced without any extra cost by the Tenderer.

54.5 The Tenderer should indicate the breakup of the items of %age of the unit cost for material, wastage, labour, taxes, profits & overheads, etc. separately. This %age shall be the basis for evaluation of the rates of the extra items.
Measurements of the items shall be as per the IS1200 / CPWD manual / BOQ units.

54.6 All Government taxes, levies etc. like Works Contract – GST, TDS shall be deducted from all the running bills of the Contractors.

54.7 All the works executed or under execution finished or semi-finished including all materials lying at site shall become the property of RAILTEL immediately on receipt of bills of the Contractors for the same.

54.8 The procurement of Cement, Steel, as required for completion of work shall be the responsibility of the Contractor.

54.9 All Fittings / Fixtures, Materials shall confirm to the relevant ISI specifications and Shall be approved by the authorised representative of RAILTEL

55. **LABOUR WELFARE:**

55.1 The contractor shall obtain a valid license under the contract labour (R&A) Act 1970 and the contract labour (Regulation & Abolition) central Rules 1971 before the commencement of the work, and continue to have valid license until the completion of the work .(Registration of ESI, EPF for the workers under his control.)

55.2 The contractor comply with the provisions of the

"The Building and other Construction Workers (Regulation of Employment & condition of service) Act, 1996 and the" The Building and other Construction Workers Welfare Cess Act, 1996" amended from time to time and rules framed there under. The contractor shall comply with the provision of the "The Building and other Construction Workers (Regulation of Employment & condition of service) rules 1998" amended from time to time. The RAILTEL at the time of making any payment to the contractor for the work done and measured under the contract shall deduct such sum at the rate, as prescribed in the Building and other Construction Workers Welfare Cess Rules as applicable in the state. where the work is situated, of gross value of the work done from each running bill and final bill. Such deduction shall be transferred to the State Workers Welfare Board by the Engineer-in-charge, as Principal Employer, shall continue to monitor the rigorous implementation of the act rules during the currency of the contract.

The contractor shall registered himself under "The Building and other Construction Workers (Regulation of Employment & condition of service) Act, 1996" and " The Building and other Construction Workers (Regulation of Employment & condition of service) rules 1998" and the "The Building and other Construction Workers Welfare Cess Act, 1996" The Building and other Construction Workers Welfare Cess Rulr". The deduction of cess @ 1% is obligatory under the Central Act as a labour welfare measure.

55.2.1 Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

55.3 No labour below the age of eighteen years shall be employed on the work.

56. Special Conditions of contract for mandatory updation of labour data on Railway's shramikkalyam portal by contractor.

56.1 In order to increase transparency in payment of contract Labour wages and other payments, a web based e-application has been developed and hosted on website **www.shramikkalyan.indianrailways.gov.in.**

56.2 All contractors are required to upload details of their LOA's engaged workmen, wage payment details ,PF/ESI details, bonus details ,on monthly basis. The details so uploaded shall be available in public domain.

56.3 Contractor is to abide by the provisions of payment of wages act & Minimum wages act. In order to ensure the same ,an application has been developed and hosted on website **www.shramikkalyan.indianrailways.gov.in.** Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal.These details shall be available in public domain. The Registration /updation of portal shall be done as under:

a) Contractor shall apply for one time registration of his company /Firm etc. in the Sharmikkalyan portal with requisite details subsequent to issue of letter of Acceptance.Railtel's Engineer(i.e Territory Manager) shall approve the contractor's registration on the portal with in 7 days of receipt of such request.

b) Contractor once approved by any Railtel's Engineer (i.e Territory Manager), can create password with login ID (PAN No.) for subsequent use of portal for all LOAs issued in his favour.

c) The contractor once registered on the portal ,shall provide details on his letter of Acceptances(LOA)/Contract Agreements on shramikkalyan portal within 15 days of date of issue of any LOA for approval of concerned engineer(i.e Territory Manager). Engineer(i.e Territory Manager) shall update (if required)and approve the details of LOA filled by contactor within 7 days of receipt of such request.

d) After approval of LOA by Engineer (i.e Territory Manager), contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.

e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.

B. While processing payment of any 'On Account bill' or Final bill or release of 'Advances' or Performance Guarantee/Security deposit',contractor shall submit a certificate to the Engineer or Engineer's representatives (i.e Territory Manager) that I have uploaded the correct details of contract labours engaged in connection with this contract and payment made to them during the wage period in Railway's Shramikkalyan portal at **'www.shramikkalyan.indianrailways.gov.in'. till ___month____year**

****

SECTION-I

CHAPTER-7

FORMS OF TENDER

FORMS OF TENDER

Form No. 1	**:**	Offer Letter
Form No. 2	**:**	Qualifying Criteria / User's Certificate
Form No. 2(A)	**:**	Affidavit
Form No. 3	**:**	Agreement
Form No. 4	**:**	Guarantee Bond for Security Deposit
Form No. 5	**:**	Statement of Deviations
Form No. 6	**:**	Standing Indemnity Bond for 'On Account' Payments and Stores supplied by RailTel
Form No. 7	**:**	System Performance Guarantee
Form No. 8	**:**	Not used
Form No. 9	**:**	Work in Hand
Form No. 10	**:**	Not used
Form No. 11	**:**	Extension of period of completion of work on account of contractor
Form No. 12	**:**	Not used
Form No. 13	**:**	Qualification Experience
Form No. 14	**:**	Guarantee Bond against 'On Account Payments'

Form No. 1

OFFER LETTER

To

General Manager/Projects
RailTel Corporation of India Limited
6th Floor, Block III, Delhi IT Park,
Shastri Park,Delhi-110053

I/We _____ have read the various conditions detailed in tender documents attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of 60 days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to do the work of **CONSTRUCTION OF SINGLE ROOM & DOUBLE ROOM MASONRY BUILDINGS (BRICK STRUCTURE) AT VARIOUS RAILWAY STATIONS FOR NORTHERN REGION OF RAILTEL – 127 NOS OF SINGLE ROOM & 13 NOS. OF DOUBLE ROOM** at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work within 18 months from the date of issue of Letter of Acceptance of the tender. I/We also hereby agree to abide by the various Conditions of Contract and to carry out the work according to the Specifications for materials and works laid down by the RailTel for the present contract.

A sum of Rs. 20,00,000/- (Rupees Twenty laksh only)to be deposited through IREPS portal as "Earnest Money". The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if,

I/We do not execute the contract agreement within 15 days after receipt of notice issued by the RailTel that such documents are ready or,

I/We do not commence the work within 15 days after receipt of orders to that effect.

Until a formal agreement is prepared and executed the acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the "Letter of Acceptance" of my/our offer for this work.

ACCEPTENCE OF TENDER

I accept the tender as above and agree to pay the rate as entered in Schedule of Requirements.

Signature Of Contractor's (S)

Contractor (S) Address

For and on behalf of
RailTel Corporation of India Limited,
Northern Region, New Delhi-110053

WITNESS

1- 2-

WITNESS

1- 2-

Form No. 2

QUALIFYING CRITERIA

USER's CERTIFICATE

1.	Name of the Firm	
2.	Contract Agrement No. & date	
3.	Scope of Work	
4.	Contract Amount (in Indian Rupees)	
5.	Date of Completion (Original as per contract)	
6.	Extended Date of Completion (whether with LD or without LD)	
7.	Actual Completion Date	
8.	Performance (satisfactory or not)	

Name:
Dated:
Designation:

Signature of the Contractor with Company
Seal

Note: The relevant User's certificate to be attached.

Form No. 2(A)

FORMAT FOR AFFIDAVIT
(TO BE UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS)

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs.100/-. The stamp paper has to be in the name of the tenderer) **

I……..(Name and Designation)** appointed as the attorney/authorized signatory of the tenderer (including its constituents),

M/s_____(hereafter called the tenderer) for the purpose of the Tender documents for the work of _____as per the tender No._____ of (----------RailTel), do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer (s), am/are signing the document after carefully reading the contents.

2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.

3. I/We hereby declare that I/we have downloaded the tender documents from RailTel website www.railtelindia.com. I/we have verified the contentof the document from the website and there is no addition, no deletion or no alternation to the content of the Tender Document. In case of discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.

4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.

5. I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted alongwith the offer and same shall be binding upon me/us.

6. I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.

7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the tenderer)**_____ and all my/our constituents understand that my/our offer shall be summarily rejected.

8. I/we also understand the if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, alongwith forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

DEPONENT
SEAL AND SIGNATURE
OF THE TENDERER

VERIFICATION

I/we above named tenderer do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT
SEAL AND SIGNATURE
OF THE TENDERER

Place:
Dated:

** The contents in Italics are only for guidance purpose. Details as appropriate, are to be filled in suitably by tenderer. Attestation before Magistrate/Notary Public

Form No. 3

AGREEMENT

(CA No. …….)

This AGREEMENT is made at New Delhi on this _day of_____ two thousand and Seventeen by and between RailTel Corporation of India Limited (A Govt. of India Undertaking) having its Registered & Corporate office at 6th Floor, Block III, Delhi IT Park, Shastri Park, Delhi-110053, acting in the premises through ED/Northern Region (hereinafter referred to as 'RailTel', which expression should unless repugnant to the context or meaning thereof include its successors and permitted assigns) of the one part;

And _____having its registered office at ---------- ------ acting in the premises through……. (hereafter referred to as "Contractor", which expression should unless repugnant to the context or meaning thereof include its successor and permitted assigns) of the other part.

Whereas in response to a call for Tender by RailTel for the work of "……" for RailTel Corporation of India Limited as per tender papers at Annexure 'A' read with Corrigendum……..issued by RailTel hereto, the Contractor has submitted a Tender as per Annexure 'B' hereto

AND WHEREAS the said Tender of the Contractor has been accepted for the work of"……" for RailTel Corporation of India Limited as per copy of Letter of Acceptance of Tender No. _____dated_____complete with enclosures at the accepted rates and agreed deviations from tender papers as per Annexure-C hereto at contract value of Rs._____(Rupees _____ Only) duly accepted by the contractor.

Now this agreement witnesses that in consideration of the premises and the payment to be made by the Purchaser (RailTel) to the Contractor provided for herein, the Contractor shall supply all equipment and materials and execute and perform all works for which the said Tender of the Contractor has been accepted strictly according to the various provisions in Annexure 'B' and 'C' hereto and upon such supply, execute and performance to the satisfaction of the purchaser (RailTel) and the purchaser (RailTel) shall pay to the Contractor at the rates accepted as per the said Annexure 'C' and in terms of the provisions therein.

IN WITNESS whereof both the parties have hereunto set and subscribed their respective hands and/or seals on the day and year respectively mentioned against their respective signatures.

Signed and delivered by Shri _____ for and on behalf of RailTel Corporation of India Ltd.

The contract within named in the presence of :

2. Signatures
Date
Name in Block Capitals
Address:

3. Signatures
Date
Name in Block Capitals
Address:

Signed and delivered by Shri. _____ for and on behalf of _____

The contractor within named in the presence of :

4. Signatures
Date
Name in Block Capitals
Address:

5. Signature
Date
Name in Block Capitals
Address:

Annexure 'A' :Tender Paper No……. with corrigendum, if any.
Annexure 'B' :Firm's offer.
Annexure 'C' :Letter of Acceptance No…….. with all enclosures.
Annexure 'D' :Copy ofContract Performance Guarantee

CONTRACT PERFORMANCE GUARANTEE BOND

(On Stamp Paper of Rs one hundred)
(To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited, Northern Region, 6th Floor, Block III, Delhi IT Park, Shastri Park, Delhi-110053 (Herein after called the RailTel) having agreed to exempt …….. (Hereinafter called "the said Contractor(s)") from the demand, under the terms and conditions of an Agreement No. …… …… dated …… made between RailTel Corporation of India Limited and …….. for (hereinafter called "the said Agreement") of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. …….. (Rs. …….. only). We, …… (indicate the name of the Bank) hereinafter referred to as "the Bank") at the request of ……. ……. Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs. ……. Against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

We, ……(name of Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount as claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ……only.

We, ……(name of bank) undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

We, ……(name of bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the ……. We shall be discharged from all liability under this Guarantee thereafter.

We,……(name of bank) further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time or to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the

terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor(s) or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s)/ Supplier(s).

We ……. (the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated the ……..day of ……. 2020

for ……..
(indicate the name of the Bank)

Witness

Signature
Name

Signature
Name

NOTE: The Guarantee shall be valid for a period of four months after the expiry of the warranty period of the equipment as per Clause 29 Special Condition of the Contract (SCC).

STATEMENT OF DEVIATIONS

(PROFORMA FOR STATEMENT OF DEVIATIONS)

6. The following are the particulars of deviations from Preamble, requirements of the Instructions to Tenderers and Conditions of Tendering and Special conditions of Contract (Section –I):

Preamble (Chapter 2)

Clause	Deviation	Remarks (Including Justification)

Instructions to Tenderers and Conditions of Tendering(Chapter 3)

Clause	Deviation	Remarks (Including Justification)

Special Conditions of Contract (Chapter 4)

Clause	Deviation	Remarks (Including Justification)

7. The following are the particulars of deviations from requirements of the **Technical specifications (Section –II)**

Chapter	Clause	Deviation	Remarks (Including Justification)

Note: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "**no deviations**".

SIGNATURE AND SEAL OF THE
MANUFACTURER / TENDERER

Form No. 6

STANDING INDEMNITY BOND

(For On Account Payments and Stores supplied by RailTel)

(On Stamp paper of Requisite Value)

We, _____ hereby undertake that we hold at our Stores Depot/s at _____ for and on behalf of RailTel Corporation of India Limited in the premises through Executive Director/N R or his successor hereinafter referred to as "the Purchaser" all materials for which 'On Account' payments have been made to us against the Contract for ---------- vide letter of Acceptance of Tender No. _____and the materials handed over to us by the Purchaser for all purpose of execution of the said Contract, until such time the materials are duly erected or otherwise handed over to him.

We shall be entirely responsible for the safe custody and protection of said materials against all risk till they are duly delivered as erected equipment to the purchaser or as he may direct otherwise and shall indemnify the Purchaser against any loss, damage or deterioration whatsoever in respect of the said materials while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any engineer authorized by the Regional General Manager /N R (whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the purchaser shall be entitled to recover from us the full cost as per prices included in the Contract (as applicable) and also compensation for such loss or damage, if any, alongwith the amount to be refunded without prejudice to any other remedies available to his by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

Dated this _____ day of _____ 2022

for and on behalf of

_____

(Contractor)

Signature of witness

Name and witness in Block letters

Address

Form No. 7

SYSTEM PERFORMANCE GUARANTEE

(PROFORMA FOR THE SYSTEM PERFORMANCE GUARANTEE)

To
The Executive Director/ Northern Region

I / We ……. Hereby guarantee that the design on the basis of which we have submitted our tender no. …… has been carefully made to conform to the end objectives in the tender documents and to technical specification therein. We further guarantee that in the event of the performance of the system, when installed, not complying with the end objectives or with the specifications contained in the tender documents, we shall provide further inputs to enable the RailTel to realize the end objectives contained in these documents without any additional payment for any additional equipment which may be required in this regard. We further guarantee that all the expenses for providing the additional inputs under the System Guarantee will be borne by us. We further guarantee that these additional inputs will be provided by us to make the system workable within 1 month from the date on which this guarantee is invoked by the Purchaser. The guarantee is valid for four months beyond the warranty period.

(Signature of Firm's Authorized Officer)
Seal

Signature of witness:

…….

…….

WORKS IN HAND

S.N	System and Name of Project	Party's address for whom the work is being done	Total value of contract	Schedule period of execution (in months)	%age progress in terms of works done	Likely date of compl etion	No. of Extensi ons Grante d	Payment s received till date	Remarks

Form No. 11

EXTENSION OF PERIOD OF COMPLETION OF WORK

No. Date:

To

……..

……..

Sub: (i) Name of Work
8. Acceptance Letter No.
9. Agreement No.

Ref: …….(Quote specific application of the Contractor for extension to date, if received).

Dear Sir,

The stipulated date for completion of the work mentioned above is …….. . From the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or) However, the work was not completed on this date.

Expecting that you may be able to complete the work if some time is given by that Executive Director/N.Region, RailTel Corporation of India Limited, New Delhi, although not bound to do so, hereby extends the time for completion from …… to …… .

* In consideration of the circumstances explained in your letter of request RailTel has extended the completion period by ……. Days without any liquidated damages. Please ensure the completion and commissioning of the project well within the extended period.

* Please note that an amount equal to 0.5 % of the total value of the contract per week or part thereof (rounded off to the nearest whole number) subject to a maximum of 10% of the total contract value of the works as a recovery for delay in the completion of the work after the expiry of (1) ……. Will be recovered from as mentioned in clause 35 chapter IV of the special conditions of contract for the extended period notwithstanding the grant of this extension. You may proceed with the work accordingly.

The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.

Please intimate within a week of the receipt of this letter your acceptance of the extension on the conditions stated above.

Please note that in the event of declining to accept the extension on the above said conditions or, in the event of your failure after accepting or acting up to this extension to complete the work by (2) ……. (here mention the extended date), further action will be taken in terms of relevant clause of special conditions of contract.

Yours faithfully,

for & on behalf of RailTel Corporation of India Limited

Note:

(1) Give here the stipulated date for completion without any penalty fixed earlier.

(2) Here mention the extended date.

* Strike out one of the clauses as applicable.

QUALIFICATION EXPERIENCE

Details of works executed and under execution by Tenderer during the last 5 years should be furnished in the following format (similar certificate for OEM also regarding their qualifications as per tender is also required to be submitted with details on similar lines).

SN	Name of work with description	Party's address for whom the work was done	Total value of contract Rs. in Lakhs	Year of award	Actual Date of Completion	No. of Extensions Granted	Payments received till date	Remarks

Note: A certificate from the organization, for which the work was executed, should be submitted to indicate that the contract was satisfactorily performed.

Signature of the Tenderer
with Seal

GUARANTEE BOND AGAINST 'ON ACCOUNT' PAYMENTS

(On Stamp paper of requisite value)
(To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited (hereinafter called "the RailTel") having agreed to exempt …… ……..(hereinafter called " the said Contractor(s)") from the demand, under the terms and conditions of an Agreement No. …… ……dated……made between …… and ……..
for (hereinafter called " the said Agreement") of on Account Payment for the due fulfillment by the said contractor)s) of the terms and conditions contained in the said Agreement, or production of a Bank Guarantee for Rs. …….. (Rs. …….. only). We, ……(indicate the name of the Bank) hereinafter referred to as " the Bank") at the request of ……. ……. Contractor(s) do hereby undertake to pay the government an amount not exceeding Rs. ……. Against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

We, ……. Bank do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ……

We, …….. Bank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

We, ……. Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the ……. (1) ……. We shall be discharged from all liability under this Guarantee thereafter.

We, ……(indicate the name of Bank)……. further agree with the RailTel that the government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor(s) or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s) Supplier(s).

We, …….. (Indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated the day of 2020

for ……..
(Indicate the name of the Bank)

Witness

10. Signature
Name

11. Signature
Name

Note: The Guarantee shall be valid for four months beyond the date of completion of work.

Section – I

Annexure – 1

List of materials to be supplied by RaiTel to the contractor:

The material shall be supplied as given in BDS

Section-II
Chapter-1
Role of PMC

1.1 Introduction

RailTel shall appoint a Project Management Consultant (PMC) who shall provide the professional services i.e. basic design of the buildings, detailed engineering design and supervision, bill verification etc. in the following areas:-

- Architectural Design and site development.
- Structural Design: The structural design is included in scope of work. However, RailTel/Railway reserves the option to get the design checked by another reputed structural for the purpose and shall extend full cooperation for getting the same checked. Therefore, the PMC shall provide all the documents (design parameters adopted, structural analysis, Member Design, Design calculation, structural designs etc.) as required to check the design. The checking of design by the third party would not absolve the PMC of his responsibility for accuracy and soundness of design.
- Electrical design including general illumination, exhaust/ventilation etc.
- Project Management Services (PMS).

1.2 Schedule of Professional Services:

The services to be provided by the PMC shall include but not be limited to the followings:-

i) Incorporating the suggestions and requirements of RailTel/Railway and finalizing the concept design prepared at the stage of design completion and submission of the revised cost estimates.

ii) Prepare report on site evaluation, state of existing buildings, if any; and analysis and impact of existing and/ or proposed development on its immediate surroundings.

iii) Prepare drawings and documents to enable the RailTel to obtain requisite approval from respective Railways.

iv) Furnish, report on measures required to be taken to mitigate the adverse impact, if any, of the existing and/or proposed development on its immediate environs.

v) Prepare drawing (Building Plans) necessary for statutory approvals and ensure compliance with RailTel authority Bye-laws, codes, standards and legislation, as applicable and obtain the statutory approvals thereof. Effective follow-up and liasioning with RailTel/Railway to obta in early sanctions.

vi) Preparation of Tender Document comprising of, bill of quantities (SOR), detailed specifications, approved makes of materials, tender drawings, RailTel/Railway standard terms & conditions, detailed item-wise cost estimate based on latest rates with permissible escalation for scheduled items and market rates for non-scheduled items for the purpose of inviting Open Tender for selection of contractor.

vii) Evaluation and analysis of technical as well as price bids of the contractors including making comparative statements, comparing the offers with the detailed estimated cost, attending techno-commercial discussion/pre-bid discussions, responding to the queries of contractors and advise RailTel on appointment of contractors.

viii) Preparation of detailed working drawings and details comprising of Architectural, Civil, Structural and Utility and Services to be issued to the Contractor and Vendors, adequate and good for execution to work at site. The drawings shall be marked "Good for Construction".

ix) Attending meetings in RailTel/Railway offices as and when required in connection with the work.

x) Visit the site of work to inspect and evaluate the Construction Works, provide periodic supervision and where necessary clarify and decision, offer interpretation of the drawings/specifications, and attend conferences and meting to ensure that the project proceeds generally in accordance with the conditions of contract and keep the RailTel informed and render advice on actions, if required. The visits to the site shall be at least once a week.

xi) Monitoring and checking the performance of the Contractor as per schedule. Verification of contractor's bills for payment including examining and verifying the rate analysis for extra/substituted items.

xii) Getting the work inspected at any level as required by the RailTel/Railway authority.

xiii) Prepare and submit completion reports and drawings for the project as required and obtain "Completion/ Occupancy Certificate" from Railway/RailTel authorities.

xiv) Preparation and submission of drawings including services and structures.

1.3 <u>Day-to Day Supervision</u>:

The PMC shall appoint a Civil Engineer for day-to-day supervision of work at site who will be deputed at site from start of work at site till the handing over of building including verification of final bill of contractors. The Engineers shall be a degree/diploma holder in the respective discipline with requisite post qualification experience. The fees of the PMC shall include the salary and expenses of site staff.

The scope of his services shall include but not be limited to the following:

- Guiding contractor in execution of job as per drawings and specifications.
- Ensuring that the quality of work done is as per specifications and drawings.
- Checking the bar-chart/PERT chart prepared by the contractor and up dated it from time to time.
- Organizing the Site meetings as per agreed schedule and preparation of minutes of meetings and circulating the same to the concerned parties.
- Maintaining requisite site records.
- Carrying out site tests of materials and recording test results, coordinate testing of materials and recording test results, Coordinate testing of materials form approved lab.
- Carrying out joint measurements of works with the contractor and processing bills of contractor for payments.
- Maintaining coordination among contractor, PMC and RailTel.
- Assisting RAILTEL's Engineer to carry out Test Checks to measurements verified by the concerned RailTel Executive/Managers.
- Periodically showing the Site Records to RailTel/Railway Engineer for their verification.

PMC shall furnish the Bio-Data of Engineer for the approval of RailTel before deputing him at site. Additionally, the RailTel may ask the PMC to replace the Engineer in case his performance has not been found to be up to the mark and the PMC shall immediately act on it.

Note: Verification of quality of work and measurements by RailTel Engineer would not absolve the PMC of his responsibility towards quality of work and correctness of measurements and bills.

1.4 Drawings and Documents to be supplied by PMC:

The PMC shall supply the following quantities of drawings:

1.4.1 3 Sets of all the Drawings and Details for reference and record of RailTel.
1.4.2 6 Sets of all the working drawings marked "Good for Construction" and details (2 set each to the contractor, RailTel and PMC's Engineer at site for execution of work at site).
1.4.3 2 Sets of 'As Built Drawings "for reference and records of RailTel".
1.4.4 15 sets of tender documents along with drawings for inviting offers from contractors. Tender document in softcopy shall also be made available.
1.4.5 3 Sets of contract documents between RailTel and Contractor.
1.4.6 Original building plans sanctioned by Railtel.
1.4.7 Original Completion/Occupancy Certificate issued by RailTel.

1.4.8 One complete set of transparencies of all the drawings and details.
1.4.9 CD of drawings.

1.5 Size of Drawings:

The submission of building plans shall be made to the scale and size specified by the RailTel. Other drawings shall be of A2 or bigger size except for a single detail, which may be on A3, or bigger size.

Chapter-2

TECHNICAL SPECIFICATIONS FOR CIVIL, STRUCTURAL, INTERIOR AND EXTERIOR FINISHING, PLUMBING AND ALLIED WORKS

SITE PREPARATION

1. **Extent of Work**

The work comprises all building work necessary for construction of the proposed building together with temporary building works and other ancillary works ordered by the Architect for the construction, completion and maintenance of the Project.

2. **The Site**

The exact location of the site may be obtained from Consultant. The site shall be investigated by tendering contractor who must judge themselves the conditions under which the work is to be carried out, access to the site, availability of material, water and labour, the nature of ground, the ground water table and the like.

3. **Temporary Access Roads**

The contractor shall provide any necessary temporary or light guage tracks for access to work and maintain, alter and adopt as required and remove, on completion.

4. **Facilities for Architect's site staff**

Immediately upon taking over the site, the Contractor shall construct temporary site office accommodation and services for the use of the Architect's site staff. Such accommodation and services shall be maintained for the duration of contract and demolished and cleared away and the site made good upon completion.

5. **Drawings and Specifications to be returned**

Safeguard as necessary during the progress of the work, preserve and return drawings and specifications to the Consultant within one month from the date of the certified completion of work.

6. **Excavation and Earth Work**

6.1 **Setting Out** – The setting out of the entire building shall be properly set out by Contractor as shown on the drawings and inspected and approved by the Consultant and his representative prior to commencing excavation.

6.2 **Size and depth of excavations** – Excavation shall be cut to the size and taken down to the formation level as per the Consultant's instructions.

6.3 **Shoring and excavation** – The sides of excavation shall be supported as necessary to maintain a vertical face and/or prevent caving in of any nature, especially during subsequent operations. The Contractor shall be responsible for design, supply, fixing,

safety, and removal of all planking, strutting and shoring required to the sides of excavation.

6.4 **Preparation and inspection of excavation** – All excavations shall be kept free of water arising from whatsoever source and shall be properly cleaned out from all loose and foreign matters, levelled and rammed. The contractor is to report to Consultant when excavations are ready for inspection.

7. **Filling**

All filling materials shall be approved by the Consultant before being placed in position. Approved earth and sand shall be used to make up levels as shown on the drawings. The material shall be placed in successive layers each having a finished thickness not exceeding 20 cm watered, well rammed with mechanical rammers prior to the placement of the successive layer.

8. **Disposal of surplus material**

All surplus excavated material not used in back filling or levelling shall be carted away from site.

9. **Measurements**

9.1 The measurement of work shall be the exact length and width of the lowest steps of the footings according to the drawing of the Architect and the depth shall be measured vertically. It shall be priced per unit of cubic meter.

9.2 Rate for excavation shall include labour for returning, watering and ramming spoil of excavation between sides of trenches and foundation masonry and plinth, spreading on site, if required, and carting away surplus earth.

9.3 No extra shall be allowed for planning and strutting or shorting of sides of excavations for walls and piers and for keeping the excavation free from water unless otherwise specified.

10. **Excavation in rock**

10.1 Cutting in rock shall be done either by blasting or chiselling as direfted to the required width and depths. As far as possible, the beds shall be in level.

10.2 Rock excavation shall be measured by working out sections by reference to levels before and after excavation, measured from a permanent bench mark.

10.3 In case of small work of rock excavation the measurements of excavated rock shall be by stacks which shall be made with the spoils with leaving minimum voids and the rate shall be per unit of cubic meter.

10.4 A deduction of 20% shall be made in measurements for voids in well stacked depots.

10.5 The spoils of rock excavation will be the property of the employers.

GENERAL SPECIFICATIONS FOR RCC WORK

SPECIFICATION FOR REINFORCED CONCRETE WORK

1.0 General

1.1 All R.C.C. work shall be executed in strict accordance with the instructions, drawings and details of the Architect.

1.2 The rates for R.C.C. items shall include for all labour material (including form work), planks, tools and all the operations involved but shall exclude M.S. Reinforcement, which shall be measured and paid for separately.

1.3 The rate shall allow for chamfers, grooves, lines in R.C.C. members as well as necessary slope and drops, drip moulds, etc.

1.4 All M.S. reinforcement shall be measured on the quantity actually going into the job according to the drawing and detail. The rate allow for the wastage and binding wire which shall not be paid for separately. Overlaps will not be paid separately.

1.5 The work shall be in the conformity with the requirements of Indian Standard Code of Practice for Plain and Reinforced Concrete for General Building Construction IS:456 or latest relevant revision.

2.0 Portland Cement

2.1 Cement shall be ordinary setting cement of approved Indian Manufacturer and shall comply with Indian Standard Specification No. 269 for the time being in force for such cement. Compression tests on cements sand cubes shall be made as well as tensile tests.

2.2 All cement shall be flesh when delivered. Cement shall be delivered in sound and properly secured bags, barrels or other packages ready for immediate use and shall be used direct from bag or barrel.

2.3 Cement shall be stored in a perfectly water tight, well ventilated and otherwise suitable shed or godown, which will have a wooden floor. The wooden floor shall be raised not less than 150mm from the ground. If supplies of cement are arranged by owner it will be the responsibility of contractor to ensure adequate and proper storage. Damaged or partly set cement will not be permitted to be used, and shall be removed from the site. Consignment of cement shall be consumed in the order of their delivery. The contractor shall maintain sufficient stock of cement to ensure

continuity the work and each consignment shall be stacked separately so as to permit easy access for inspection and identification.

3.0 Aggregates

3.1 **General:** Materials used as aggregate shall be obtained from a source known to produce aggregates satisfactory for concrete and shall be chemically inert, strong, hard, durable, of limited porosity and free from adhering, coatings, clay lumps, coal residues and organic or other impurities that may cause corrosion of reinforcement or may impair the strength or durability of the concrete. Aggregates shall be tested in accordance with the requirements of IS: 383 or IS: 515and the results of such tests shall be as hereinafter specified, the percentage being by weight unless the context indicates otherwise.

3.2 **Fine Aggregates:**

3.2.1 Fine aggregates shall be natural sand or sand derived by crushing material like gravel or stone and shall be free from coagulated lumps. Sand derived from stone unsuitable for coarse aggregates shall not be used as fine aggregates. The caustic soda test for organic impurities shall show a colour not deeper than that of the standard solution. The amount of fine particles as ascertained by the Laboratory Sedimentaiton test shall not exceed 10% for crushed stone shall be made and after being allowed to set in for three hours the thickness of the layer of silt deposited on the coarser material shall not exceed 10%. The grading of a natural sand or crushed stone i.e. fine aggregate shall be such that not more than 5 (five) percent shall exceed 5mm in size, not more than 10% shall pass I.S. Sieve No.150 not less than 45% or more than 85% shall pass I.S. Sieve No.1. 18mm and not less than 25% or more than 60% shall pass I.S. Sieve No.600 micron.

3.2.2 Only washed sand of quality and grading specified herein above shall be used. Admixture of sand obtained by crushing, natural stone may be permitted by the Consultant, provided the mixture satisfies the requirements for fine aggregates hereinafter specified. But not more than once part of the sand obtained by crushing natural stone may be added to two parts of washed sand.

3.3 **Coarse Aggregate:**

3.3.1 Coarse aggregates shall be crushed stone. The pieces shall be angular, rounded in shape and shall have granular or crystalline or smooth (but not glossy) non-powdery surfaces. Triable, flaky and laminated pieces and mice shall not be present.

3.3.2 The "aggregate crushing value" shall not exceed 45%. The amount of fine particles occurring in a free state or as a loose apparent shall not exceed 1%. When determined by the laboratory sedimentation test, after 24 hours immersion in water. A previously dried sample of the coarse aggregates shall not have gained in weight more than 5%.

3.3.3 The grading of coarse aggregate shall be such that no more than 5% shall be larger than 20mm and not more than 10% shall be smaller than 5mm and not less than 25% or more than 55% shall be smaller than 10mm.

3.3.4 Maximum size of coarse aggregate shall be 20mm unless otherwise noted.

3.3.5 The grading of coarse aggregates of nominal size of 40mm shall be such that not more than 5% shall be larger than 40mm and not more than 5% shall be smaller than 5mm and not less than 10% or more than 10mm.

3.3.6 Aggregate (fine and coarse) shall be thoroughly washed with clean water if so directed by the Consultant.

4.0 Water

4.1 Water shall be cleaned and fresh and free from organic or inorganic matter in solution or suspension. Filtered water shall be obtained from approved supply. Water from excavations shall not be used. Water used for washing aggregates, shuttering, curing concrete and for similar purpose shall be of the same quality as water used for mixing concrete.

5.0 Steel Reinforcement

5.1 Mild steel bars shall be plain, round, hot rolled steel bars complying with the Indian Standard specifications No.432. Specifications for Mild Steel and High Tensile Steel bars and hard drawn steel wire for concrete reinforcement.

5.2 Reinforcement shall be free pitting, loose ruse, mill scale, paint, oil, grease, adhering earth, snow or ice or any other material that may impair the bond between the concrete and the reinforcement or disintegration of the concrete. Adhering cement wash shall be permitted.

5.3 Bars with kniks or sharp ends shall not be used.

5.4 Neither the size nor the length of a bar or wire shall be less than the size or length described in the bar schedule or elsehere.

6.0 **High Tensile Strength**

6.1 High tensile steel may be deformed or ribbed bars conforming to IS: 1139 cold twisted steel conforming to IS: 1786 bars and hard down steel wire and fabrics conforming to Indian Standard Specification No. 1566.

7.0 **Proportions of Concrete**

7.1 For ordinary concrete the aggregates shall be measured by volume in any accurate guage box or by other approved means. The gauge box or other approved container shall be filled without compacting with the aggregate to a pre-determined uniform depth, accurate allowance being made for bulking due to the moisture in the fine aggregate. The cement shall be measured by weight. One or more complete bags containing 50 kgs. of cement shall be mixed in the following proportion:

(a) 1:2:4 concrete shall be mixed in the proportion of 50 kgs. of cement to 75 litres of sand (measured when dry) and 150 litres of coarse aggregate.

(b) 1:½:3 concrete shall be mixed in proportion of 50 kgs. of cement to 50 litres of sand (measured when dry) and 100 litres of coarse aggregate. These quantities shall be altered if instructed and any alteration between the proportion of 1 part of fine aggregate to 1½ parts of coarse aggregate and 1 part of fine aggregate to 2 parts of the coarse aggregate shall be made without any alteration in the price of the reinforced concrete work. Any other special mixes shall be as directed by the Consultant.

7.2 For controlled concrete, the mix will be specified by grade of concrete and the minimum compressive strength for works test of hereinafter specified. However, the maximum total quantity of aggregate by weight per 50 kg. of cement shall not exceed 450 kgs.

7.3 The contractor must submit, free of charge, a test report of sand and aggregate and grading of the same when required. If the grading is not proper, as per specifications, the mix is liable to change. The contractor must submit, while tendering his basic analysis for basis rates of concrete. This analysis will be taken as the basis for rates of any revised mixes.

7.4 Water:

7.4.1 Only water shall be added to the cement and aggregate during mixing to produce concrete having sufficient workability to enable it to be well consolidated, to be worked into the corners of the shuttering and around the reinforcement to give the specified surface finish, and to have the specified strength. Water cement ratio shall

be maintained as per IS:456 when a suitable amount of water has been determined, the resulting consistency shall be maintained throughout the corresponding parts of the work and tests shall be conducted to ensure the maintenance of this consistency according to the standard method of test for consistency of concrete (slump test) as below:

7.4.2

Description of Work	Maximum Slump in mms
Beams and slabs	100 to 150
Walls and stairs	125
Columns	100 to 125
Footings 80	

7.5 Consistency

If the difficulty be experienced in placing concrete of the specified proportions and approved consistency between and below the reinforcement bars, in the bottom of beams and similar members, the bars shall be embedded in concrete of approved workability by increasing the amount of cement as approved by using aggregates of approved smaller maximum size than specified.

7.6 Mixing Concrete

7.6.1 The cement and aggregates shall be thoroughly mixed together in the proportions described in batch type mechanical mixer, unless otherwise approved. The water shall not be admitted to the drum of the mixer until all the cement and aggregate constituting the batch are in the drum. Mixing shall continue until the concrete is uniform in colour and for not less than two minutes after all the materials and water are in the drum. The entire contents of the drum shall be discharged before the materials for succeeding batch are fed into the drum. No partly set or retempered concrete shall be used.

7.6.2 Partly set or excessively wet concrete shall not be used on the work and shall be immediately removed therefrom.

7.6.3 Hand mixing shall be allowed for small quantities with prior permission and approval of the consultant. It shall be carried out on a water tight platform and care shall be taken to ensure that mixing is continued until the mass is uniform in colour and consistency. For hand mixing 10% extra cement shall be used than normally required. Hand mixing shall be confined to one bag batch system.

7.7 Strength of Concrete

7.7.1 The minimum quantity of cement for various proportions and their strength at 28 days for normal concrete shall be as follows:-

By vol. mix	Cement in kg/cub.mtr. of concrete	Preliminary test results for minimum crushing strength at 28days	Min. crushing strength at 28 days
1:4:8	180 kgs.	75 kgs/sq.cms.	78 kgs\sq.cms.
1:3:6	233 kgs.	100 kgs/sq.cms.	115 kgs/sq.cms.
1:2:4	323 kgs.	150 kgs/sq.cms.	225 kgs/sq.cms.
1.1½:3	412 kgs.	200 kgs/sq.cms.	265 kgs/sq.cms.
1:1:2	640 kgs.	250 kgs/sq.cms.	336 kgs/sq.cms.

7.7.2 For controlled concrete by strength, the minimum stresses shall not be less than as specified below:

Grade	Min. crushing at 7days	Strength in kg/sq.cms @ 28 days
M-100	70	100
M-150	100	150
M-200	135	200
M-250	170	250
M-300	200	300
M-350	235	350
M-400	270	400

7.8 Distribution of Concrete

Concrete shall be distributed from the mixer to the position of placing in the works by approved means which do not cause separation or segregation of aggregates or otherwise impair the quality of the concrete.

Mixing and distribution equipment shall be cleaned before commencing mixing and distribution of the concrete and such equipment shall be kept free from set concrete.

7.9 Placing of Concrete

7.9.1 Placing of concrete shall not commence before the shuttering and the reinforcement fixed position in the shuttering, has been inspected and approved by the consultant. The contractor shall maintain a record of such inspection and approvals and shall obtain all approvals to proceed with the placing of concrete in writing.

7.9.2 Before proceeding to place the concrete, the shuttering shall be realigned, if necessary, and water and rubbish therein shall be removed by approved means immediately prior to placing the concrete. The shuttering shall be wetted, except in frosty weather, and inspection opening shall be closed.

7.9.3 The interval between adding the water to the dry materials and completion of the placing of the concrete shall not exceed 20 minutes.

7.9.4 Except where otherwise approved, concrete shall be placed in the shuttering by shovels or approved implements and shall not be dropped from a height or handled in a manner which will cause separation. Accumulations of set concrete on the reinforcement shall be avoided. Concrete shall be placed directly in its permanent position and shall not be worked along the shuttering to that position.

7.9.5 Each layer of concrete while being place shall be consolidated either by ramming, tamping or by mechanical vibration as required to form a dense material with all surface free from honey combing and free from water accumulating on the surface of newly placed concrete shall be removed by approved means. No further concrete shall be placed thereon until such water is removed.

7.9.6 No unset concrete shall be brought into contact with unset concrete containing cement of different type.

7.9.7 Unless otherwise approved, concrete shall be placed in a single operation to the full thickness of slabs, beams and similar members and shall be placed in horizontal layers not exceeding 1m deep in walls, columns and similar members. Concrete shall be placed continuously until completion of the work. Construction joints, as specified hereinafter, of a part up to approved extent. At the completion of a specified or approved part construction joint shall be made when the work is stopped.

7.9.8 All the concrete for the machinery or special foundations shall be cast in one operation and shall be machine vibrated.

7.10 Placing concrete in cold weather

No concrete shall be mixed or placed while the temperature is below 40 degree C on a raising thermometer or below 4 degree C on a falling thermometer. The contractor shall supply an accurate maximum and minimum thermometer and hang it in an approved position on the works.

Aggregates that have been exposed to frost shall not be used until completely thawed. Concrete shall be maintained by approved means at a temperature of not less than 4 degree C during placing, and for a period of three days thereafter. All concrete placed during cold weather or when a frost is predicated or is likely to occur or occurs contrary to expectation, shall be protected from freezing by approved means.

7.11 Placing of concrete in wet weather

Concrete shall not be mixed and/or placed in rainy weather or when there is likelihood of impending heavy showers. If it becomes necessary to place concrete during rainy weather the contractor shall provide adequate protection by means of tarpaulin or similar other waterproof material or immediately cover fresh concrete to prevent rain falling over it. This protection shall be left on the concrete for a period of 24 hours after placing of concrete.

7.12 Consolidated by mechanical vibration

All concrete specified to be vibrated shall be consolidated by internal vibrators. The frequency of vibration shall not be less than 3000 complete cycles (or vibrations) per minute. The amount of water for mixing concrete shall be reduced for all concrete that is required to be compacted by vibration (about 20% less than the water used for concrete to be compacted by ramming and temping). Water required for mixing concrete that is to be consolidated by mechanical vibration shall be determined by slump test. As a general rule vibration should be stopped when air rubbles cease or practically cease coming up the surface and the surface itself is continuous.

Vibrations shall be inserted and withdrawn at many points from 0.5m to 1m apart from short intervals (usually from 5 to 15 seconds is sufficient) in preference to insertion for longer periods at wider intervals. Systematic spacing of insertions of the concrete remains unvibrated.

7.13 Construction joints

7.13.1 Construction joints shall be provided in the position described on the drawings or elsewhere and where not so described on the drawings or else shall be in accordance with the following:

7.13.2 A joint shall be formed horizontally at the top of a foundation and 75mm below the lowest soffit of the beams meeting at the head of a column.

7.13.3 A joint shall be formed in the rib of a large tee beam and all beams 25mm below the soffit of the slab.

7.13.4 Concrete in a haunch or a splay on beam or a brace, and in the head of a column where one or more beams meet, shall be placed without a joint at the same time as that in the beam or beams or brace.

7.13.5 Concrete in the splay at the junction of a wall and slab shall be placed throughout without a joint, but if the provisions of a joint is unavoidable, the joint shall be vertical and the middle of a span.

7.13.6 A joint in the slab shall be vertical and parallel to the principal reinforcement, where it is unavoidable, at the right angles to the principal reinforcement, the joint shall be vertical and at the middle of the span.

7.13.7 Before placing new concrete against that has already hardened the face of old concrete shall be cleaned and roughened and scrum and loose aggregate removed from the form. Immediately before placing the new concrete the face shall be thoroughly wetted and coating of neat cement grout applied thereto. The new concrete shall be well rammed against the prepared face before the grout sets.

7.14 Structure joints

7.14.1 Expansion joints, hinges or other permanent structural joints shall be provided in the positions and of the form described in the drawings or elsewhere.

7.15 Protection and curing concrete

7.15.1 Newly placed concrete shall be protected by approved means from frost, rain, sun and drying winds. Exposed faces of concrete shall be kept moist by approved means for 21 days after placing, except of there is a likelihood of curing water of damp covering, freezing, when the period shall be instructed by the consultants.

7.15.2 Concrete placed below the ground shall be protected from failing earth during and after placing. Concrete placed in ground containing deleterious substances shall be kept free therefrom during placing and for a period of seven days or as otherwise instructed hereafter. The ground water around a structure below the ground shall be kept to an approved level of pumping, or the works shall be taken to prevent floatation. Approved means shall be taken to protect immature concrete from damage by debris, excessive loading, vibration, and abrasion, deleterious ground water, mixing with earth or other materials, floatation and other influences that may impair the strength and durability of the concrete.

7.16 Removal of Shuttering

7.16.1 Shuttering shall be removed by a gradual easing without jarring. Before removal of the shuttering, the concrete shall be examined and removal shall proceed only in the presence of a competent supervisor and after the concrete has attained sufficient strength to support, its own weight and any imposition of a load exceeding the design load is anticipated, propos shall be provided in an approved manner, after removal of the shuttering and before the imposition of lead exceeding the design load. The contractor shall record on the drawings or elsewhere the date upon which the concrete is placed in each part of the work and the dates upon which the shuttering is removed therefrom. The assessment concrete and removing the shuttering and consequence arising therefrom shall be the contractor's entire responsibility. Permissible tolerance in the dimension of form work shall be as per IS:456.

7.16.2 The shuttering for a part of a structure suspended from concrete placed subsequently to that or in the shuttering concerned shall not be removed until the supporting concrete has matured and such shuttering shall be prominently remarked as a warning against premature removal

7.17 Finish

7.17.1 Honey comb surface shall be made good immediately upon removal of the shuttering and superficial water and air holes shall be filled in. Unless instructed placed against shuttering shall be rubbed down immediately upon removal of the shuttering to remove fins or other irregularities. The face of concrete for which shuttering is not provided other than slabs shall be smoothed with a wooden float to give a finish equal that of the rubbed down face where shuttering is provided. The top face of slabs which is not intended to be covered with other materials shall be levelled and floated while unset to a smooth finish at the levels of falls shown on the drawings or elsewhere. The floating shall be done so as to bring an excess of mortar to be the surface of the concrete. Concrete shall be so finished that no plaster work should be necessary.

7.17.2 Surface which are to be finished with plaster shall have indentations formed on them by approved implements to the depths and patterns required so as to provide key for the plaster or finishes.

7.17.3 All exposed concrete work shall be rubbed down smooth and not plastered but finished smooth and given one coat of cement wash without any extra charge when directed.

7.17.4 All concrete slabs, where directed shall be finished smooth and levelled with neat cement grout immediately after concreting without any extra charge.

7.18 Fittings and accessories

7.18.1 Holes for bolts or for any other purpose shall be moulded during the work of concrete in the positions shown on the drawings. Openings already to receive pipes, wires and other fittings, shall be formed where shown or otherwise detailed.

7.18.2 Bolts, pipe holes, hangers and other connections and fittings shown on the drawings or as directed by the consultant shall as far as practicable, be built in as the work proceeds.

7.18.3 Pipes for the conveyance of steam, water and gas etc. shall be carried along with exterior of the concrete work, except where special ducts for laying these pipes have been provided or otherwise as shown in the drawings. Conduit pipes for carrying electric cables, if so required, shall be embedded in concrete work or as directed by the consultant.

7.19 Testing of concrete

7.19.1 The contractor must make his own arrangement for testing of the concrete blocks from time to time as required by the consultant and all the cost of testing and

conveyance shall be borne by the contractor. At least three blocks of 150 x 150 x 1150 per 30 cm of R.C. work must be taken as directed and tested. The employer reserves right to test the blocks at the cost of contractor if the contractor fails to follow this clause.

7.19.2 The compressive strength shall be ascertained by crushing 150mm cubes of concrete. The cubes to be made on the works and tested in accordance with IS:516.

7.19.3 Three test specimens shall be made for each stage at which tests are required. It is usual to cast six specimens and test three specimens at 7 days age remaining three specimens at 28 days age, at every stage of construction or for every 30 cm concrete or as directed, tests shall be made. Testing of cubes shall be carried out at any approved laboratory and the results obtained shall be forwarded to the consultant.

7.20 Structure Tests

7.20.1 The consultant shall instruct the contractor to make a loading test on the works or any part thereof, if in the consultant's opinion, such a test is necessary.

7.20.2 The consultant shall instruct the contractor to make the test for the reason that the works cube tests show strength below the specified strength and/or because of one more circumstances attributed to alleged negligence on the part of the contractor and/or for the purpose of the testing the finished completed structure.

The contractor shall include and allow the cost of test or tests in his prices and shall carryout them without additional payment.

7.20.3 For the purpose of testing floors, roofs and similar structure and their supports, in addition to all dead load supported by the structures, the test load shall be equivalent to one and a quarter times the live load (or super load) for which the works or part thereof to be tested has been designed, and all the test load shall not be applied within 28 days of the completion of placing of the concrete in the part of works to be tested, and the later shall be unsupported during the test by the shuttering or other non-permanent supports. The test shall be made as instructed.

7.20.4 For a test on a floor, roof or similar construction the result shall be deemed to be satisfactory if upon removal of the load the residual deflection does not exceed one quarter of the maximum deflection after maintaining the load in position. If the residual shall be repeated, and the result shall be deemed to be satisfactory if the residual deflection after removal of the load for the second time does not exceed one quarter of the maximum deflection occurring during the second test.

7.20.5 If the result of the tests is not satisfactory, the consultant shall instruct that the part of the works concerned shall be taken down or cut and the reconstructed to comply with this specification, or test other measures shall be taken to make the work secure. The contractor is liable to conduct the test at his own cost if directed and he shall also at his own cost take down or cut and reconstruct the defective work or shall execute remedial measures as instructed.

8.0 **Reinforcement**

8.1 Cutting and bending of reinforcement:

8.1.1 All reinforcement bars shall be made perfectly straight before bending. Bars shall be bent by suitable machine or manually round a pin having a diameter of not less than 4 times the diameter of the bar, producing a gradual and even motion. Bars shall be bent cold unless the consultant shall approve bard of over 25mm in the size being hot. Bars bent hot shall not be heated beyond cherry red colour and after bending shall be allowed to cool slowly without quenching. Bars dependent on cold working for their strength shall always be bent cold.

8.1.2 Bars incorrectly bent shall be used only if the means used for strengthening and re-bending shall be such as shall not injure the material. No reinforcement shall be bent when imposition on the works, without approval whether or not it is partially embedded in hardened concrete.

8.1.3 Bending shall comply with the dimensions given in the bending schedule given by the consultant. Dimensions of bent bars and internal dimensions of binders and the like shall not be more than ½% shorter than the specified dimensions.

8.1.4 The internal radial of bends shall not be less than twice the size of the bars unless described to the contrary. The internal radial of the bends at corners of binders or the like shall be half the purpose of this requirement the size of a bar shall mean the diameter of a plain round bar or wire.

8.2 Fixing of Reinforcement

8.2.1 Reinforcement shall be accurately fixed and by approved means maintained in the position described on the drawings or elsewhere in accordance with IS: 2502. Bars intended to be in contact at passing points shall be securely wired together at all such positions with No.16 gauge annealed soft iron binding wire, binders and the like shall tightly embrace the bars with which they are intended to be in contact and shall be securely wired, or if approved, welded thereto.

8.2.2 Bars shall be accurately set and held in place by system of bar chairs, bolsters, wire items, etc. of not less than 16 B.W.G. Spacing and location shall be shown on drawings.

8.2.3 Immediately before placing the concrete, the reinforcements shall be examined for accuracy of placing and cleanliness and corrected, if necessary.

8.2.4 Reinforcement projecting from work being concrete of already concreted shall not be bent out of its correct position for any reason unless approved and shall be protected from deformation or other damage. No reinforcement shall be placed in the same forms within 10m of concrete being poured.

8.3 Cover

8.3.1 The cover of concrete to the reinforcement shall be as described on the drawings and shall be provided and maintained within a tolerance of 3mm under and over, by means of distance pieces of cement mortar or other approved material. Blocks of concrete on ground to hold the reinforcement, in proper level shall be of 225 kg. sqmm strength. The clear spacing between bars shall be not less than 1½ times the maximum size of the coarse aggregate not less than 25mm.

8.3.2 The vertical distance required between successive layers of bars or similar members shall be maintained by the provisions of mild steel space bars inserted at such intervals that the main bars do not perceptibly sag between space bars.

8.4 Lapping and Splicing

8.4.1 Bars shall be lapped as per I.S. Standards unless otherwise shown on the drawings. Splicing of bars shall be at selected positions to be at selected positions to be determined by the consultant.

8.5 Welding Reinforcement

8.5.1 Welding may be permitted and shall be carried out as directed by the consultant, by competent and experienced welders, using electrodes and according to first class technique.

8.5.2 If butt jointing of reinforcement bars by electric arc welding be approved, the consultant's requirement of the regulations of the work as per IS: 456/1964 and IS 2751/1966 shall be complied with and all operations connected therewith shall be done only by man skied thereat. These requirements shall not apply to the spot welding of binders or the like, to main bars, where approved of, to electrically welded fabric.

8.6 Exposed Reinforcement

8.6.1 Exposed reinforcement intended for bending with future extensions shall be protected from corrosion.

9.0 **Shuttering and form work**

9.1 General

9.1.1 The contractor shall be responsible for the sufficiency of the form work. If so instructed, calculations and designs for the shuttering shall be submitted for approval before construction. Form work may be on plywood, metal rough board or concrete.

9.2 Fixing of Shuttering

9.2.1 Shuttering for concrete shall be rigidly constructed of material and shall be true to the shape and dimensions described on the working drawings. Timber shall be well seasoned, free from losse knots and wrought on all faces. Faces in contact shall be free from adhering, grout, projecting, nails, splits or other defects. Joint shall be sufficiently tight to prevent leakage of cement grout and to avoid the formation of fins or other blemishes. Faulty joints shall be caulked. Where described on the working drawings or elsewhere, the position and direction of the joints shall be as so described. Opening for inspection of the inside of the shuttering and for the escape of water used for washing out shall be formed so that they can be conveniently closed before placing the concrete.

9.3 Connections

9.3.1 Connections shall be constructed to permit easy removal of the shuttering and shall be either nailed, screwed, bolted, clamped, wired or otherwise secured so as to be strong enough to restrain the correct shape during consolidation of the concrete. Bolt holes in concrete shall be made good after removal of the bolts. Wire ties passing through concrete shall be used only where approved and the ends of the wires shall be concealed and measured taken to prevent rust stains on the concrete.

9.4 Sloping Work

Shuttering shall be provided for the top faces of slopping work, and anchored to prevent floatation where the slope exceeds 1 in 1½.

9.5 Deflections

Shuttering shall be true to line and braced and structured to prevent deformation under the weight and pressure of the wet concrete, constructional loads, wind and

other forces. The deflection shall not exceed 3mm. Bottom of beams boxes shall be erected with an upward camber of 6mm for each 3m of span.

9.6 Beams and Slabs

The shuttering of beams and slabs shall be erected so that the shuttering on the sides of the beam and of the soffits of slabs can be removed without disturbing the beam bottoms. Reproping of beams shall not be done except with the approval of the consultant. Props may be reinstated in anticipation of loads in excess of the design load. Vertical props shall be supported on wedges, or other measures shall be taken when commencing to remove the shuttering. Props for an upper storey shall be placed directly over those in the lower storey and sufficiently.

9.7 Columns

In the shuttering for a column, one side shall be left open and shall be built upon in sections as placing of the concrete proceeds.

9.8 Fixtures

Before placing the concrete, bolts and fixings shall be in position and cords and other devices used for forming openings holes, pockets, chases, recessed and other cavities shall be fixed to the shuttering. No holes shall be cut in any concrete unless approved.

9.9 Mould Oil

Any approved mould oil or other material shall be in position, and cords and other devices used for forming openings holes, pockets, chases, recesses and other cavities shall be fixed on the shuttering. No holes shall be cut in any concrete unless approved.

9.10 Props

The props used for shuttering shall be of full length. Joined props shall not be allowed. They should be of sufficient size and suitably placed as per the instructions of the consultant.

Where shuttering at high altitude is to be done, the contractor shall provide special props and beams to the approval of the consultant.

9.11 Removal of Shuttering

The shuttering will be struck for different parts of the structure, after expiry of the following periods, unless stated otherwise:

Vertical sides of slabs, beams and columns	:	48 hours
Bottom of slabs upto 4M span	:	7 days
Bottom of slabs above 4M span, bottom of beams up to 5M span and arch rib bottom upto 5M	:	14 days
Bottom of beams over 5M span and arch rib bottom above 5M span	:	21 days

10.0 **Restricted Concrete Work**

10.1 General

10.1.1 All specifications hereinbefore given will be applicable to prestress concrete except in addition to as stated hereinafter.

10.2 Concrete

10.2.1 All concrete used for pre-stressed work shall be controlled concrete with a cube crushing strength of 350 kg/cm at 28 days of 150mm cubes.

10.2.2 The maximum size of coarse aggregate shall not exceed 20mm.

10.3.2 Moulds shall be sufficiently strong and rigid to withstand, without distortion, the effects of placing and compacting concrete.

10.3.3 Moulds shall be made sufficiently water tight to prevent loss of mortar or grout from the concrete.

10.4 Prestressing Steel

The prestressed steel shall be stored, handled, and used in accordance with the specification laid out in "INDIAN STANDARD CODE OF PRACTICE FORPRESTRESSED CONCRETE" I.S. 1343.

10.5 Stressing

The beam shall be pre-tensioned by line method of construction.

The specified force shall be maintained by the use of approved fixing devices at the ends of the tensioned steel during concreting and curring, until the concrete has

attained the strength specified. The tensioned steel than be released gradually and uniformly.

10.6 Lifting, Stacking and Launching

The precast members shall be lifted by suitable tackle only at specified points.

11.0 **Measurements**

11.1 General

11.1.1 The item rates shall be cost of all materials (unless otherwise specified) including labour tools, plants and other accessories required to complete the job in workman like manner.

11.1.2 Mode of measurement of items of reinforced concrete work shall be as stated below and shall be the net cubic metre as specified in the schedule of quantities or the net area of specified thickness of cast concrete. The thickness of plaster finishing shall not be taken into account in measuring the work even though the price may be of structural members in concrete, the measurement of encased concrete shall be net cubic meter as specified without any deduction of structural members.

11.1.3 No extras shall be paid for provision of pockets and holes up to 150mm x 150mm areas but concrete will be paid without deduction for such holes in pockets and holes larger than 150mm x 150mm actual areas of shuttering will be paid at rates in the schedule, but the volume of pockets will be deducted from the concrete, quantities.

11.1.4 If due to some fault or mistake of the contractor, the sizes cast are more than those shown on the drawing, the contractor shall be paid only as per the sizes shown on the drawings. In case the sizes are cast smaller than those shown on the drawings, the contractor shall rectify the same or if similar size is approved by the consultant, it may be allowed, but the actual size cast will be paid to the contractor.

11.1.5 No extra will be paid for placing cable and other pipes, anchor bars or bolts, anchor rails etc., which will be supplied by the employer.

11.2 Concrete

11.2.1 Footing and rafts shall be measured in cubic meter.

11.2.2 Columns shall be measured in cubit meter being the products of the area of cross section multiplied by the height, as measured in between the top of footings or slab

to the underside of slab immediately above as per drawings. In case slabs of different thickness the underside of the thicker slab shall be guiding factor.

11.2.3 Rectangular beams and lintels shall be measured in cubit meter being the product of the cross sectional area and length between supporting columns or beams. Where such beams or lintels rest or masonry work, the length is equal to the clear distance between the faces of masonry plus the length of bearings as shown on the drawings.

11.2.4 T & L Beams (i.e. beams cast with floor or roof slabs) shall be measured in cubic meter. The length shall be the distance between the faces of supporting columns or the faces of the supporting beams or girders, the breadth shall be the breadth of the stem projecting below the slab and the depth shall be the portion projecting below the underside of the slab (thicker one in case of slabs of different thickness). It shall be the net cubic contents of the portion projecting below the underside of the thickest slab and between the faces of supporting beams or columns.

11.2.5 Slabs, cornices, projections, stairs, waist slab and the triangular concrete portion of steps shall be measured in cubic meter, or in sq. meter with specified width, in case of slabs of different thicknesses, thicker slab will be measured upto the face of the beam on the side of the thinner slab.

11.2.6 Chajjas shall be measured in square meter or cubic meter being the products of the projection beyond the face of supporting beams and the length and of average thickness as per drawing.

11.2.7 Pardi walls, partition walls, drop walls, railing walls, fins of specified thickness, coping, etc. shall be measured in square meter or cubic meter.

11.3 Shuttering and Form Work

11.3.1 Shuttering is to be measured as the area in square meter of the finished structure which is required to be supported during the deposition of concrete.

11.3.2 The shuttering required to form the construction joints, skew backs, stunt ends, steppings, the bonding, chases and the like, which may be necessary to uphold the concrete during the operations of deposition and setting shall not be measured and hence the cost of this is to be covered by the rate of concrete.

11.3.3 Where shuttering is included in the item rates of concrete, shuttering will not be measured separately.

11.4 Steel Reinforcement

11.4.1 The unit of weight shall be 1 M. Tonne or 1000 kg.

11.4.2 The reinforcing bars or rods are to be measured according to the weight as calculated from the drawings. The basis of calculated weights shall be as per I.S. Specifications. No allowance being made for waste or rolling margin.

11.4.3 The length of the bars shall be the total length to be cut as shown in the drawing or as specified by the consultants including hooks, bends, loops etc.

11.4.4 Binding wire required for tying reinforcement shall not be measured. The items rate shall include the same.

11.4.5 Pins and other types of special supports required for supporting reinforcement shall be measured.

11.4.6 The laps provided as per drawing and/or instructions shall be paid for where they are unavoidable. Alternatively, the bars may be welded if permitted by the consultant for which the cost of laps will be paid. The consultant's decision with regard to the necessary and/or regarding the position of laps or welds shall be final.

11.4.7 No allowance shall be made for wastage. The item rate shall include the same.

11.4.8 The concrete briquettes required for providing proper cover over to reinforcement shall not be measured. The item rates shall include the same.

BRICK MASONRY

1. **General**

1.1 All brick work shall be carried out as shown on the drawings with set backs, projections, cuttings, tooling, etc.

1.2 Whenever the proportion of cement mortar has not been specifically mentioned, cement mortar in the proportion of 1:6 (cement : sand) shall be used.

1.3 All external brick walls shall be built with cement mortar having proportion of 1:5 (cement : sand).

1.4 Flat brick arches shall be provided wherever required without any extra cost.

1.5 Brick work shall be kept we while in progress till mortar has properly set. On holidays or work is stopped, top of all unfinished masonry shall be kept wet.

1.6 If the mortar becomes dry, whit or powdery, for want of curing, work shall be pulled down and rebuilt at the contractor's expenses.

2. **Material**

2.1 Bricks

The bricks shall generally comply with IS: 1077. The bricks shall be the best quality locally available, table moulded, well burnt, have plane rectangular faces with paralleled sides and sharp right angled edges, have a fine compact and uniform texture. The bricks shall be free from cracks, chips, flaws, stones or lumps of any kind and shall not show efflorescence either dry or subsequent to soaking in water.

The brick shall smite a clear ringing sound on being struck and shall not absorb water more than 20% by weight.

Common building bricks shall have a minimum compressive strength of 35 kg./sq.cm. unless otherwise stated in the schedule o f quantities.

2.2 Cement

Unless otherwise specified the cement to be used shall be ordinary Portland cement complying with the latest publication of IS: 269.

2.3 Lime

Lime shall comply in every respect with the requirements of IS: 712.

Lime shall be made from approved lime stone or kankar and properly burnt. It shall be free from excess or unburnt kankar or lime stone ashes or any other extraneous materials.

Lime shall be stored in weather proof sheds.

Lime which has been damaged by rain, moisture or air slaking shall not be used and shall be removed from the site of work immediately.

Lime shall be slaked with fresh water and screened through appropriate screen and stored and used within 14 days provided it is protected from drying out.

Field tests according to ISL 1624 shall be carried out from time to time to determine the quality of lime.

2.4 Sand

Sand shall conform to ISL 383 and IS: 515.

Sand shall pass through 1.5 sieve 4.75mm (3/16 B.S.) test sieve, leaving a residue not more than 5%. Sand shall be from natural source or crushed stone screenings, chemically inert, clean, sharp, hard, well graded and free from dust, clay, shala, large pebbles, salt, organic mater, mica or other deleterious matter. The sum of all deleterious material in sand shall not be more than 5% by weight.

Sand shall be washed, if directed, to reduce the percentage of deleterious substances to acceptable limits.

2.5 Water

Water for mixing cement/lime mortar shall be clean and free from acids, vegetable matter, etc. Only water fit for drinking shall be approved for use. In case of doubt, water shall be tested in approved lab at contractor's expense.

2.6 Mortar

The mortar to be used for brick masonry shall be from cement/ lime as instructed by the Architects. The ingredients in the proportions specified shall be measured in gauge boxes and thoroughly mixed dry on a clean approved platform with water added afterwards until all parts are completely incorporated and brought to a proper consistency and used within an hour.

No partially or wholly set mortar will be allowed to be used or re-mixed.

When large quantities are required, the mortar shall be mixed by mechanical means.

3. **Workmanship**

3.1 Bricks shall be thoroughly cleaned, well wetted and soaked in fresh water for at least 12 hours before using it.

3.2 English bond shall be used throughout in walling except brick on edge and half brick walls shall be built in structure bond. A good bond shall be maintained throughout the work, both laterally and transversely.

3.3 All brick work shall be set out and built to the dimensions shown horizontal and in plumb with the frogs facing upwards. Vertical joints shall not exceed 10mm thickness and shall be full of mortar.

3.4 No broken bricks shall be used except as closers.

3.5 After days work all joints shall be raked to 12mm before commencing further brick work.

3.6 The top of walling hall be wetted where let off, before commencing further brick work.

3.7 Whole of the masonry work shall be brought up at one uniform level, throughout the structure. Where breaks are unavoidable, joints shall be made in good long steps.

All junctions of walls and cross walls shall be carefully bonded into the main walls.

3.8 During rains, the work shall be carefully covered to prevent mortar being washed away. Should any mortar or cement washed away, the work shall be removed and rebuilt at the contractor's expenses.

3.9 Mortar to be used shall be as specified in respective items.

3.10 The wall shall be kept wet for three days after construction.

3.11 Wooden plates, door frames or window frames shall be bedded in brick work with fixing clamps or holdfasts embedded in courses of brick work.

4. **Mode of Measurement:**

4.1 Finishes to brick work such as plaster and cement pointing will be paid for separately under plaster.

4.2 75mm thick 1:2:4 PCC band shall be provided in half brick thick partition walls and in brick on edge walls at every 1.5M height or as directed PCC band shall not be measured and paid separately.

4.3 One brick or more thick walls shall be measured in cubic meter that is length and height multiplied by the thickness. Thickness shall be measured in multiples of half

brick which shall be deemed to be inclusive of mortar joints. Half brick thick or brick-on-edge walls shall be measured in square meter.

GENERAL SPECIFICATIONS FOR WOOD WORK

WOOD WORK

1. **General**

1.1 The timber used for wood work shall be sound, wall conditions, properly seasoned to suit the particular use and free from defects or combination of defects rendering it unsuitable for the purpose intended.

1.2 All timber used structurally shall comply with the relevant requirements of Indian Standards.

1.3 All timber is to be ordered and delivered immediately to the site for open stacking for as long as possible before use. All timber will b e inspected by the supervising officer and if not approved by him shall be removed from the site immediately. Notwith-standing the supervising officer's approval, any timber incorporated in the works found to be in any way defective before the expiry of the Defects Liability Period, shall be removed and replaced at the sole expense of the contractor.

1.4 Timber shall be free from hire borer, beatles or other insects attack when brought to the site. The contractor shall be responsible till be end of maintenance period for executing any work necessary to eradicate insect attack at his own expenses including the replacement of timber attacked or suspected of being attacked, notwithstanding that the timber may have been inspected already and passed as fit for use.

1.5 The moisture content of the timber used for internal joinery is to be 10% and that used for external doors and frames is to be 16% when the joinery is delivered to the site, and these moisture contents are to be maintained until the building is finished. The consultant will require evidence of correct moisture content to be submitted to him before the joinery is fixed.

The moisture content of timber shall be determined according to method described in paragraph 4 of I.S. 287 for "Maximum Permissible Moisture Content of Timber used for Different Purposes in Different Climatic Zones".

2. **Material and Workmanship:**

2.1 Teak Wood

This shall be Dandeli, Balarshah or Malabar Teak, or any other approved quality teak wood. It shall be of good quality and well seasoned. It shall have uniform colour, reasonably straight grains and shall be free from large, loose, dead knots, cracks, shakes, warps, twists, bends, bovver holes, sap wood or defects of any kind.

No individual hard and sound knot shall be more than 1cm in diameter and aggregate area of all knots shall not exceed 0.5% of the area of the piece.

It shall be close grained and there shall not be less than 6 growth rings per 2.5cm width.

2.2 Flush Doors

Flush doors shall be solid core unless otherwise specified, consisting of wood core or framing covered with 6mm plywood both sides and complying where applicable with the IS: 2202.

The solid core shall be wood laminates prepared from battens of wall seasoned and treated good quality wood having straight grains. The battens shall be of uniform size of about 25mm width. These shall be properly glued and machine pressed together with grains of each piece reversed from that of adjoining one. The longitudinal joints of the battens shall be staggered and no piece shall be less than 50cms length.

Alternatively, the core shall be of solid teak particle board. Edges of the board shall be lipped internally with teak wood battens of 4cm (minimum) depth, glued and machine pressed alongwith the core. If specified the flush doors shall be veneered and polished as per the standard methods specified or to be provided with laminations as specified.

Thermosetting synthetic resin conforming to IS: 303 or moisture-proof plywood grade MP F.I. shall be used in manufacture.

All flush doors shall be edged all round with 25mm thick wood lipping, tongued and glued in.

Doors described as “external” shall be covered both sides with 6mm exterior quality plywood.

All flush doors shall be plain on both faces and be free from all waves, ripples or distortions of any kind.

Any door, which after the application of paint or polish, shows any defect of this nature shall be removed and replaced at the contractor’s expense.

2.3 Plywood

Plywood shall be obtained from an approved source to the correct thickness specified. The contractor will not be permitted to make up the required thickness by glueing together sheets of thinner plywood.

Plywood shall be manufactured from topical hardwoods of the first grade for “interior” quality.

Where veneered plywood is specified, samples must be submitted to the supervising officer for his prior approval.

2.4 Block Board

Block board shall be of approved manufacture and comply with relevant I.S. and shall be "exterior quality".

2.5 Frames

Frames to doors, windows and other joinery shall be provided and built in to the size shown on the drawings.

Frames of doors, windows, ventilators, etc. and shutter styles, rails, etc. shall be of best quality teak.

The scantlings shall be accurately planned smooth. Rebates, roundings and mouldings shall be made as shown on the drawings. Patching or plugging of any kind shall not be allowed.

Joints shall be single, neat and strong. Frame joints shall b e glued together with synthetic resin. All mortice and tenon joints shall fit in fully and accurately without wedging or filling. The joints shall be pinned with hard wood or bamboo pins of 10mm to 12mm dia after the frames are put together and pressed in position by means of a press.

All portions of timber abutting against or embedded in masonry or concrete shall be treated against termites by giving a coat of approved wood preservative.

Frames shall be securely fixed on walls, columns, and beams by means of hold-fasts.

Holdfasts shall be secured to frame and laid in the course of brick masonry.

When door or windows to be fixed to RCC column, wall or beam, holdfasts shall be substituted by suitable arrangements such as coach screws, rawl bolts, etc.

If the width of the door or window exceeds 1 mtr holdfasts or coach screws or rawl bolts shall be provided at the top and bottom (if applicable). These shall be at minimum distance of 60 cms.

The frames shall be protected during progress of work by suitable means.

Frames and shutters shall not be erected before the approval of the Architect.

Frames shall be polished or painted as specified.

2.7 Architraves

Architraves shall be as shown on the drawings and all properly mitred at inter-sections. Architraves shall not be installed until after the wall coverings have been formed or constructed, unless otherwise specified.

Where Architraves are required to be installed before the wall coverings have been formed or constructed because of their design and detail, they shall be protected against damage by suitable casings.

2.8 Framed and Panelled Doors

These shall be from the timber approved by the supervising officer. The styles and rails of the frames shall be mortised and tenoned together, or joined by dowels where specified. The thickness of each tenon shall be approx. one third the thickness of the door, and the width of each tenon shall not exceed five times its own thickness. Haunching shall be sunk to a depth not less than 10mm. Dowels shall be straight grained and keyed for glueing. The stiles and rails shall be grooved to a depth of 10mm to receive the panels.

Panels shall be of pattern and size as shown on the drawings.

Solid teak wood panels shall be in one piece wherever possible. Where two or more pieces are permitted they shall be of equal width, tongue and grooved.

Panels shall be framed into grooves made in styles and rails to the full depth of groove and faces shall be closely fitted to sides of groove.

Where panels specified are block board, or chip board, it shall also be fixed in similar manner as shown above. Partly paneled and partly glazed shutter shall be similar to paneled shuttered except glazed parts shall receive plain or ground glass as specified. Styles and rails shall be rebated 12mm to receive glass. Sash bars shall be moulded and rebated and mitred on sides to receive glass. The glass shall be fixed with wooden beads.

2.9 Skirting

Skirting shall be from teak wood as specified and shall be as shown on the drawings.

Skirting shall not be installed until after the flooring is laid, unless otherwise specified.

Where skirting are required to be installed before the flooring is laid because of their design and detail, skirting beads shall be scribed on their lower edges to follow the contour of the flooring and shall be secured back to the wall by screws.

2.10 Scribing

All skirtings, architraves, plates and other joinery works shall be accurately scribed to fit the contour of any irregular surface against which they may be required to form a close butt connection.

2.11 Iron Mongery

The contractor shall provide and fix the iron monger required by the particular specification or shown on the drawings or as per Architect's instruction. The use of nails for fixing iron monger will not be permitted. The contractor shall hand over all the work in a finished stated and to the satisfaction of the Architect.

All iron mongers shall be of first quality and shall be obtained from an approved manufacturer.

The contractor will be required to submit for approval samples of all items of iron monger he proposed to use.

3.1 Measurements

3.01 Measurements for doors and windows will be out of main frame. Architraves, cover moulds, plaster beads, shall be measured separately in running meter. Door height for payment will be measured from finished floor to top of main frame. Teakwood hand rails will be measured in running meter measure and false ceiling in square meter of actual work done.

3.02 The rates quoted should include for all materials and labour and tools for execution of work at any level. Lift of materials will not forma criteria for any extra amount.

GENERAL SPECIFICATIONS FOR METAL WORK

METAL WORK

1. **Material**

1.1 Mild Steel

Mild steel shall comply with IS: 226 of 1955 and IS: 1977 of 1962.

This steel shall not have more than 0;.06% of sulphur and 0.065% of phosphorous. The carbon content shall not exceed 0.30% and the steel shall be of weldable quality.

1.2 Aluminium

Aluminium shall be of the approved alloy and shall comply with IS: 733.

The aluminium shall be anodized to minimum thickness of 25 microns.

2. Workmanship

2.1 Smithing, Shearing and Cutting

All smithing, welding, cutting and bending shall be soundly and neatly executed, care being taken not to overheat. All frame cut edges and welds shall be neatly grounded off on completion.

2.2 Aluminium Doors and Windows

2.2.1 General

Minimum thickness of aluminium section shall be 2mm. All the frames shall be made to the exact size of the opening, without leaving any gap. Any small discrepancies shall be filled with gun applied mastic. The frames coming in contact with zinc chromate conforming to IS: 104 – 1950.

All anodized surfaces of aluminium shall be covered with a thick layer of clear transparent lacquer based on methacrylates or cellulose butyrate for protection against accidental damage or from wet cement during the progress of work. This coating shall be removed on completion.

All aluminium work shall be washed with mild solution of non-alkali soap and water before handing over.

2.2.2 Aluminium Openable Door

The outer frame shall be out of minimum 100 x 45mm. The fixed gralzed fanlight if any shall also be made out of 100 x 45mm or as specified in the drawing. The glazing shall be fixed by means of PVC glazing gaskets with concealed screwless beveled glazing clips. Minimum glass thickness for doors shall be 5mm and optically true. The openable shutters shall be provided with dead lock, aluminium handles, floor springs, concealed tower bolt if two shutters.

Approved weather stripping shall be provided to stop completely air and water infiltration.

The openable shutter shall have bottom and top styles out of minimum 100m x 45mm and vertical styles out of minimum 50mm x 45mm or as specified.

2.2.3 Aluminium Windows

The outer frame shall be cut of minimum 65mm x 40mm sections or as speciried.

The openable shutters shall be from Z sections out of minimum 40mm x 40mm or as speciried.

The glazing shall be fixed by means of concealed screwless snap on clips with PVC gaskets.

Approved weather stripping shall be provided to stop completely air and water infiltration.

The openable shutter shall be provided with standard hardware like hinges or pivots, with pins, handles, locking arrangement, etc.

The louvered window (if provided) shall have approved hardware for adjustable louvre blades.

The glazing shall be minimum 5mm thick and optically true.

2.7 Shop Inspection

The supervising officer shall be granted full facilities and any necessary assistance for inspection of materials and assembled parts in the contractor's (or his sub-contractor's) workshop. Atleast two weeks notice shall be given to the Engineer in writing prior to the despatch of finished components to the site to enable the Engineer to inspect and approve the materials and workmanship at the workshop.

Approval of work at the workshop does not relieve the contractor of his obligation to carry out the work complete at the site to the Consultants' satisfaction and in accordance with the contract.

3. Measurement

3.1 Clear openings as given by the Architect's in the plan shall be considered (length and height) for payment of doors, windows.

3.2 Floor springs in aluminium doors, if required, shall be paid extra.

GLASS WORK

1. **General**

1.1 Glass generally shall comply with the requirement of relevant I.S. and be free from bubbles, specks, waves, flaws or any other defects.

2. **Material**

2.1 Clear Plate Glass

The clear plate glass shall be minimum 5mm thick flat drawn sheet of selected glazing.

2.2 Glass for Louvers

The glass for louvers blades shall be rough cast obscured rolled glass, 5mm thick with all exposed edges ground and polished.

2.3 Putty

The putty for glazing to timber frames and to metal frames to be of approved manufacture.

3. **Workmanship**

3.1 All glass shall be accurately cut to fit easily into rebates with a tolerance of 2mm all round. It shall be back puttied, sprigged for timber rebates (pagged for metal rebates) and neatly front puttied. Care to be taken to ensure that the putty does not appear above the sight lines.

3.2 The contractor must allow in his rates for the protection of all work in this section and for replacing any cracked, scratched, broken or defective glass prior to handing over. He must also allow for cleaning all the windows inside and out and other glass on completion with an approved window cleaner and wash leather and for removal of all paint splashes.

4. **Measurements**

4.1 The rates for glazing is included in the respective items of doors, windows, ventilators etc.

4.2 No separate payment shall be made for glazing unless otherwise specified.

GENERAL SPECIFICATIONS FOR FLOORS, WALL & CEILING FINISHES

FLOOR, WALL & CEILING FINISHES

1. **General**

1.1 Portland cement and sand shall be as described in 'Contractor' Technical Specifications.

1.2 Contractor shall submit samples of all kinds of tiles, stones, marble, etc. for approval before ordering the same or as an alternative all kinds of tiles, stones, marbles shall be used as per the samples shown to the contractor.

1.3 Where required the flooring shall be machine polished.

1.4 Surface to receive flooring tiles, etc. shall be cleaned thoroughly from all dust, dirt, mortar deposits, laitance water, etc. and washed clean with water.

1.5 Minimum 25mm thick line mortar (1:2) bedding floated with cement slurry or as specified in Schedule of Quantity shall be laid in such levels and thickness as required in the area of work. The thickness mentioned is only indicative and may vary in some particular areas. No extra will be paid on account of any variations in thickness or bedding mortar. The bedding mortar shall be compacted with wooden floats. For dado work the bedding material will be 15mm to 20mm thick (1:4) cement mortar.

1.6 The joints in tiles shall be neatly pointed with coloured cement to match with the tiles.

1.7 Kota stone or marble stone slabs to be obtained from approved quarries and to be free from all defects.

1.8 Coloured ceramic pattern glazed tiles, white glazed tiles shall be H&R Johnson first quality make in sizes specified in the Schedule of Quantities. The pattern and colour will be selected by the Architect before ordering these tiles. Chipped, cracked or worked tiles shall not be used in the work. The tiles shall be minimum 6mm thick and the best quality.

1.9 Marble mosaic tiles and specials (skirting) shall be of the best quality and of approved make. Tiles shall be minimum 20mm thick having a base of 12mm thick in cement and sand mortar in proportion (1:3) with top layer of 8mm thick in neat coloured cement and marble chips facing. They will be compacted under minimum pressure of 300 lbs per sq.ft. All the edges shall be exactly to size free from chipping and the top surface and edges shall be smooth, but the base shall be rough.

The marble chips shall be smaller and of approved colour in neutral shade. The tiles and specials shall be cured in water for at least one month before delivery.

2.0 Indian Patent Stone Flooring

2.1 Indian patent stone flooring shall be 40mm thick to be laid in 2 layers, bottom later 30mm thick in one part of Portland cement, two parts of sand and four parts of crushed stone aggregates ½" down well graded machine mixed with not more than 25 litres of water for each bag of cement, 2½ parts of selected crushed stone chips, 1/8" down with just enough sand maximum 1 part to make workable mix, machine mixed with not more than 25 litres of water. Top layer to be laid before the bottom layer has hardened. Flooring shall be laid in square or bays as directed and each layer shall be well compacted by ramming with heavy teakwood floats. The top shall be brought to a smooth and even surface free and blemishes and finished smooth by steel trowelling. After the concrete surface has hardened sufficiently to prevent dislodgement of aggregates, the patent stone shall be polished with No.1 and 3 polishing stones. The flooring shall be kept wet for seven days for curing.

3.0 Plain & Coloured Cement Tiles, Marble Mosaic & Terrazzo Tiles Flooring, Dado and Skirting

3.1 The tiles shall conform to IS: 1237.

3.2 The rates shall include provision of border tiles and tiles of different colours in pattern, if directed.

3.3 The sub-grade shall be thoroughly wetted after cleaning of all dirt, laitance and loose material.

A bed of lime/cement mortar shall be laid evenly to an average thickness of 25mm and the surface kept slightly rough to form a key for tiles.

Neat cement plaster of honey like consistency shall be spread over mortar bed (over such area that may accommodate about 20 tiles).

Tiles shall be soaked in water for 15 minutes and allowed to dry for the same duration.

Tiles shall then be fixed with a thin coat of cement paste on the back of each tiles and then each tile being gently tapped with a wooden mallet till it is properly bedded and in level with adjoining tiles.

Joints shall be fine and as imperceptible as possible.

After tiles have been laid in a room or a day's fixing work is complete, surplus cement grout that may have come out of the joints may be wiped off gently and joints cleaned.

A thin slurry of coloured cement matching to the colour of tiles shall be spread over it and rubbed so as to seal even a thinnest joint between the tiles and make it impervious.

The flooring shall be cured for seven days.

The tiles shall be polished and finished according to the instruction of Architect and in conformity of IS: 1443.

3.4 For dado and skirting – The tiles shall match with the flooring times and/or as per the Architect's instructions.

3.4.1 The tiles shall be fixed with neat cement grout on a backing coat consisting of 1:4 cement sand plaster of 15mm to 20mm thickness.

3.4.2 The top and bottom junctions of tiles shall be rounded off neatly as directed.

3.4.3 The joints shall be filled with matching shade coloured cement slurry.

3.4.4 The surface shall be kept wet for seven days and then polished with carborundum stone to obtain smooth surface and fine polish.

4. **Marble Mosaic – In Situ Terrazo Flooring**

4.1 The surface of the base slan shall be struck off reasonably true at a level not less than 45mm below the required finished level. The work shall be of the larger size shall be spread over the topping during rolling until 85% of the finished surface shall be composed of marble chips. Immediately after rolling the surface shall be floated and trowelled once. No attempts shall be made to remove trowel marks.

4.10 After the terrazzo concrete has hardened enough to prevent dislodgement of aggregate particles, it shall be ground down with an approved type of grinding machine shed with free, rapid cutting carborundum stones to expose the coarse aggregates. All materials ground off shall be removed by squeezing and flushing with water.

4.11 Air hones, pits and other blemishes shall then be filled with a thin grout composed of neat cement. This grout shall be spread over the surface and worked into the pits. After all patch fillers have hardened for seven days, the floors surface shall receive

a second and final grinding to remove the film of cement paste and to give the floor a polish. It shall then be thoroughly washed and all surface material removed.

4.12 All freshly placed concrete shall be protected from the elements and from the defacements due to building operations. The contractor shall provide and use, when necessary tarpaulins to cover completely or enclose all freshly finished concrete.

4.13 As soon as the concrete has hardened to prevent damage, it shall be covered by at least one inch of wet sand or other covering approved by the Architect and shall be kept continually wet by sprinkling with soap water for at least ten days.

4.14 After removing all loose material the finish shall be scrubbed with warm water and soap and mopped dry.

5. Stone Flooring, Dado & Skirting

5.1 General

5.1.1 The stone shall be hand cut, machine polished or rough, free from cracks and flakes and uniform in colour. The edges shall be straight and square.

5.1.2 The stone slab be laid and finished as described under “cement tiles” or a bedding of lime/cement mortar 25mm (average) thickness. The finished stone surface thus laid shall then be polished as approved by the Architect.

5.1.3 For dados and skirtings the stone slabs shall be laid on a backing plaster of cement mortar 1:4 of 15mm to 20mm thickness and finished as described under “cement tiles”.

5.2 Marble Flooring and Lining

5.2.1 The marble shall be as approved by the Architect.

The exposed surface of marble shall be polished or otherwise as specified and shall be free from scratches and other defects.

The marble shall be machine cut, machine polished (if specified) free from cracks or flakes and uniform in colour. The edges shall be straight and square.

5.2.2 The marble shall be bedded in lime/cement sand mortar with cement floated. The joints shall be laid with fine invisible joint or otherwise as instructed.

5.2.3 The contractor shall take care to match the grains of the marble, if instructed.

5.2.4 Marble for treads and risers shall be in one piece upto 1.5 meter length. The thickness shall be as per the Architect's instructions.

5.2.5 Marble lining to walls, columns and the like shall be fixed with copper clamps and hooks. The clamp shall be 25 x 50 x 100mm girth, one end built into wall. Mortices shall be carefully cut and thoroughly grouted.

5.2.6 Whenever the marble is exposed to weather, the vertical faces must be well bonded to the base by applying glue and aggregate as per the Architect's instructions.

5.2.7 The exposed edges and mouldings shall be protected by means of timber nosing.

5.2.8 After laying, the work shall be polished as required and unevenness removed to the satisfaction of the Architect.

6. Glazed Tiles Flooring & Dado

6.1 All glazed tiles to be used shall be from an approved manufacturer conforming to IS: 777. The colour, size etc. shall be as per the Architect's approval.

6.2 All the tiles shall be immersed in clear water for 6 hours before laying. The tiles shall be laid on cement grout, with a true vertical or horizontal face and continuous horizontal and vertical joints.

The surplus grout shall be removed after laying of tiles and joints shall be cleaned off the grey cement grout with a wire brush or trowel to a depth of 5mm.

Joints then shall be flush pointed with white cement with approved pigment.

The floor shall be cured for seven days. After curing the surface shall be washed with mild hydrochloric acid and clean water.

The finished flooring/dado shall not sound hollow when tapped with a wooden mallet.

7. Measurements

The rates quoted should include for all materials and labour and for execution of work at any level. Lift of material will not form a criterian for any extra amount. It also includes providing and fixing scaffolding and removing the same after completion, machine polishing, hand polishing, curing and cleaning the entire work on completion.

8. **Neeru Finish Cement Plaster**

8.01 Cement mortar shall consist of one part of cement to 4 parts of screened and washed sand.

The plaster on wall shall be in two coats, the first under coat of approx. 10mm to 12mm thick, dashed against wall and roughly levelled. To ensure proper line and level gauged patches shall be made at 1.5m to 2m apart in both directions.

The second or finishing coat shall be a thin coat of cream of lime putty evenly applied and trowelled smooth, to produce a perfectly smooth and even surface.

Plaster to concrete ceilings shall be as thin as possible but not less than 12mm. The under coat and finishing coat shall be as well.

8.02 Sand faced Cement Plaster

The surface to be prepared as instructed before.

The under coat shall be in the proportion of 1:3 (cement:sand) with approved waterproofing compound added at the rate of 1.50 kg. per bag as specified by the manufacturer. This shall be applied uniformly all over the surface with dashing to a thickness of 12mm and finished true to level and line. Keys shall be formed to receive finishing coat. The surface shall be kept moist till the finishing coat is applied.

The finishing coat shall be applied after four days. The proportion of mortar shall be 1:3 cement, well graded and washed sand. This coat shall be applied in a uniform thickness of 6mm. The surface shall be dabbed to have uniform grained texture by using sponge pads.

The curing shall start after 24 hours and the surface shall be kept wet for seven days.

8.03 Rough Cast Plaster

The under coat shall be prepared as per sand faced cement plaster.

Mortar for finishing coat shall be in the proportion of 1:1:1 cement specially graded sand: gravel of 3mm to 6mm size. This mortar shall be dashed to the first coat with large trowel to form a even and decorative coat. The thickness of this coat shall be about 12mm. The plaster shall be cured for seven days.

8.04 Measurements

The rates quoted should include for all materials and labour and for execution of work at any level. Lift of materials will not form a criterion for any extra amount. It also include providing and fixing scaffolding and removing the same after completion of work, raking out joints, hacking and hatching the concrete surface and providing the key for holding down the plaster, watering, curing etc. complete. Nothing extra will be paid for work if arises, round angles, fair edges, narrow return works, V-joints, splays, drip mouldings, grooves 1" wide x ½" deep in plaster, making good around pipes, conduits, timbers, cill, brackets, railing etc. and making good after all specialists have done their work. Measurement will be of actual area of work done.

GENERAL SPECIFICATIONS FOR
PAINTING & POLISHING

PAINTING & POLISHING

1. **General**

1.1 All paintings shall be carried out by a skilled painted with paints and shades as approved by the Architect.

1.2 Paints generally shall be ready mixed and supplied and delivered to site in sealed containers clearly labelled.

1.3 Paints are to be used strictly in accordance with the manufacturer's instructions and no contamination by mixing with other brands or materials will be permitted. Thinning is also permitted if it is in accordance with the manufacturer's printed instructions.

1.4 Wherever required scaffolding shall be double scaffolding so it is independent of structure or walls.

1.5 The surface to receive the paint shall be thoroughly cleaned from mortar droppings and foreign matter. All broken edges, cracks, loose plaster and wavy surfaces shall be brought up by patch plaster work or by plaster of Paris.

1.6 All metal fittings and fastenings are to be removed before preparatory processes, cleaned and refixed in position on completion. Wherever it is not possible the fittings shall be protected by covering it with polythene sheet or clothes, etc. at no extra cost.

1.7 All cracks, crevices and holes to be scrapped out, primed and made good with hard stoppings, faced up, rubbed down to an even surface. The hard stopping must be of approved make, or made up on the job site according to the approved practice.

All knots in wood work to be treated to prevent bleeding. Large or loose knots to be cut out and replaced with ground wood or cut back and the surface made good with stopper. Smaller knots to be treated with two thin coats of knotting. The knotting used shall be of approved make, free from resin.

1.8 This preparation and priming should be followed immediately by painting, with approved paint.

1.9 Painting shall be done to the entire satisfaction of the Architect. If Architect feels that surfaced is not achieved properly, additional coat/coats of paint shall be applied until the required surface is achieved at no extra cost.

1.10 All rubbish to be cleaned from time to time as it accumulates, and the premises left clean and fit. All locks to be eased and oiled. Hot and cold water tanks and flushing

tanks of WC's cleaned out and all taps washed. All floors to be scrubbed on completion of the work.

2. **Materials and Application**

2.1 White Wash

White wash shall be prepared from lime slaked on site, mixed and stirred with sufficient water to make a thin cream. Approximately five litres of water to be added per one kg.of lime to make the required cream. This shall be allowed to stand for 24 hours and shall be screened through clean cloth. Four kgs.of gum dissolved in hot water shall be added to each cubic meter of the cream. Blue shall be added if required to give whiteness.

White wash shall be applied in specified coats by using brush or spray pump. Each coat shall be allowed to dry before the next coat is applied.

The finished dry surfaces shall not show any signs of cracking or peeling and shall not come off readily while rubbing with hand.

2.2 Colour Wash

Same as white wash but mineral colours to be added, which are not affected by lime to white wash.

2.3 Dry Distemper

A primer coat of white wash or otherwise shall be first applied to the surface prepared and then sand prepared to receive second coat. The second coat shall be of approved primer or sizing evenly on the surface.

Distemper prepared as per the manufacturer's specification shall be applied now in minimum of two coats. Distemper shall be applied with brush or roller.

The finished surface shall be even, uniform, free from chalking when rubbed and shall not show any brush marks.

2.4 Oil Bound Distemper

The surface shall be prepared as specified before. A primer coat of either cement primer or approved distemper primer shall be applied. After the primer coat has dried, the surface shall be lightly sand papered and dusted to make it smooth to receive distemper.

Distemper shall be prepared as per the manufacturer's instructions and applied as specified in "Dry Distemper".

2.5 Cement Paint

The surface shall be prepared as specified before and shall be thoroughly wetted with clean water before the paint is applied.

The paint shall be prepared as manufacturer's instructions and in such quantity which can be used in an hour.

The paint then shall be applied on clean wetted surface with a brush or spraying machine.

The paint shall be stirred during the process of application.

The direct heat of the sun should be avoided as far as possible.

The completed work shall be cured sufficiently.

Sufficient time gap shall be allowed in between subsequent coats.

2.6 Oil, Enamel or Plastic Emulsion Paint

The surface shall be prepared as specified. A coat of approved primer shall be applied on the prepared surface.

After 24 hours a coat of paint shall be applied evenly and sand papered after drying. Then a filler putty coating shall be done for smooth and levelled finish of the surface.

Over this number of paint shall be applied as directed (minimum two coats shall be applied). Each coat shall be allowed to dry thoroughly and then lightly rubbed down with sand paper and cleaned of dust, before the next coat is applied.

The final cost if directed shall be rolled with an approved roller or stippled with a brush. On completion of the job the surface shall be uniform in finish without any hair marks from the brush or clogging of paint puddles in the corners of panels, angles of mouldings etc.

2.7 Polishing and Varnishing

General

Refer Item No.1.7 in conjunction with this. Holes and indentations on surface shall be filled with putty made of whiting and linseed oil.

Surface shall be given a coat of filler made of 2.25 kg. of whiting in 1.5 litres of methylated spirit. When it dries, surfaces shall be rubbed down perfectly smooth with sand paper again and wiped out.

2.7.1 French Polishing

French spirit polish shall be of an approved made conforming to IS: 346. If it is to be prepared on site, the polish shall be made by dissolving 0.7 kg. of best Shellac in 4.5 litres of methylated spirit without heating. Pigment may be mixed to obtain required shade.

The pad, made out of clean fine cotton cloth and cotton wool, shall be used to apply polish. The pad shall be moistened with polish and rubbed hard on the surface applying the polish sparingly but uniformly and completely over the entire surface. Another coat shall be applied in the same way after the first coat has dried sufficiently.

The finishing coat shall be applied with new clean pad slightly damped with methylated spirit and rubbed lightly and quickly with a circular motion, till the surface attains uniform texture and high gloss as per the satisfaction of the Architect.

2.7.2 Wax Polishing

Wax polish shall be bought readymade from the market as approved by the Architect or otherwise it shall be prepared on the site as below.

This shall not prepared from a mixture of pure bees was, linseed oil, turpentine oil and varnish in the ratio of 2:1½:1:½ by weight. The bees wax and the boiled linseed oil shall be heated over a slow fir. When the wax is completely dissolved the mixture shall be cooled till it is just warm and turpentine oil and varnish added in the required proportion and well stirred.

The first coat shall be applied with the prepared mixture, evenly with a clean cloth pad in such a way that no blank patches are left. This coat shall be rubbed continuously for half an hour.

When the surface is dry a second coat shall be applied in the same manner but shall be rubbed continuously for an hour or until the surface is dry.

Final cost then shall be applied and rubbed for two hours or more until the surface has assumed a uniform gloss showing no sign of stickness when touched. The rubbing shall be continuous with uniform pressure and frequent change in direction.

2.7.3 Varnishing

After preparation of surfaces as described before, two coats of clean linseed oil with sufficient interval of time shall be applied evenly.

After this has dried two coats of varnish shall be applied keeping sufficient interval of time.

3. **Measurements**

3.1 The work will have to be executed at any height above ground level. Lift of material will not form a criterion for extra amount.

3.2 Rates quoted shall include for all materials and labour, providing and fixing scaffolding and removing the scaffolding after completion of work. Nothing extra will be paid for work if arises, round angles, fair edges, narrow returns, splays, mouldings, grooves etc.

3.3 Where painting, polishing etc. is included in the items such as doors, windows, ventilators, gates and false ceiling etc., painting will not be measured separately.

3.4 While painting work is being carried out, flowing, dado, skirting and other finished works shall be fully protected from being smeared with paint. Any paint marks shall be cleaned instantly. The contractor shall cover for this in his rates and clean the areas after the painting is over.

PRODUCT MAKE AND DESCRIPTION

3.3 Product makes &description

S. NO.	DESCRIPTION	MAKE / BRAND	REMARKS
1.	Teakwood (Tectonia Grandis)		Teakwood shall mean first class C.P. teakwood (sagwan type). Individual hard and sound knot shall not be more than 12mm. In diameter and the aggregate area of all the knots shall not exceed one-half percent of the area of the piece. It shall be close grained.
2.	Kailwood (Pinus Walli Chiana)		No individual hard and sound knot shall be more than 25mm. Diameter and the aggregate area of all the live knots shall not exceed 1% of

S. NO.	DESCRIPTION	MAKE / BRAND	REMARKS
			the area of the piece.
3	Hollack – Hardwood (Terminalia Myriocarpa)	Duro / Century / Green	Plywood shall be formed by three or more layers of veneer glued and hot pressed together with the grain of adjacent veneers running at right angles to each other. The veneers for all grades shall be either rotary cut or sliced. The thickness of all veneers shall be uniform within a tolerance of +5%. Corresponding veneers on either side of the center shall be of the same thickness and species. In a 3 ply-board upto 6mm. Thick, the combined thickness of the face veneers shall not exceed twice the thickness of center ply. Ina multi-ply board, the thickness of any veneer shall not be more than thrice the thickness of any other veneer.
5	MDF Board	Nuwud / Duratuff	
6.	Plastic Laminate	Formica	
7.	Natural Veneer	Century / Duro (Sharda Plywood Industries)	
8.	Block board	Duro/century/green	
9.	Fibre Board	Cellotex	
10.	Gypsum Board / GI Ceiling frame	India Gypsum	
11.	Perforated Gypsum Board	India Gypsum	
12.	Glasswood	Punj Lloyd	
13.	Fabric	Floor & Furnishing / Fabindia	

14.	Latex Rubber Form	MM Foam	
15.	Synthetic Carpet	Mohawk / Salisbury	
16.	Ceramic Tiles	Kajaria	
17.	Vinyl Flooring	Royal Cushion House	
18.	Plastic Emulsion Paint	Dulux / Berger	
19.	Wood Polish	Dark / Light natural spirit polish	
20.	Powder Coating Paint	Berger	
21.	Waterproofing compound	CICO	
22.	Anti Termite Chemical	Aldrin / Lethal	
23.	Vertical Blinds	Vista Levelor / Mac Blinds	
24.	Venetian Blinds	Vista Levelor / Mac Blinds	
25.	Glass	Modi Float Glass / TATA Ashai / St. Goabin	
26.	Drawer Channels	Elbco / Flyrail	
27.	Cup Off Hinges	Elbco	
28.	Brass hinges and fittings	Flora	
29.	Locks	Godrej / Icra	
30.	Door closer / floor spring	Doorking / Everite	
31.	Aluminum Section	Hindalco	

Note: Incase of unavailability of any material of specific make an equivalent make can be used only after a written approval of the Architect.

3.5 List of important relevant applicable codes

i.	IS:204	Specifications for Tower Bolts
ii.	IS:287	Recommendations for max. permissible moisture content of timber
iii.	IS:303	Specification for plywood for general purposes
iv.	IS:451	Technical supply condition for wood screws
V.	IS:513	Specifications for Sheet steel components
vi.	IS:729	Specifications for drawer locks, cupboard locks & box locks
vii.	IS:848	Specifications for Synthetic resin, adhesive for plywood (phenolic and amino plastics)
viii.	IS: 1200	(P14) method of measurement of building and civil engineering works
ix.	IS: 1200	(P21) Wood work and Joinery
x.	IS: 1328	Specifications for veneered decorative plywood
xi.	IS: 1659	Specifications for block board
xii.	IS:1734	Determination of density and moisture contents
xiii.	IS:2338	Code of Practice for finishing of wood and wood based materials (Part – 1)
xiv.	IS:2932	Specifications for enamel, synthetic, type-1 (a) undercoating, (b) finishing, colour as required
xv.	IS:3087	Specifications for wood particle boards
xvi.	IS:3097	Specifications for veneered particle boards
xvii.	IS:3618	Phosphate treatment for anti rust treatment
xviii.	IS:5807	Method of tests for clear finishes for wooden furniture
xix.	IS:6005	Degreasing, Pickling and Passivation for anti rust treatment
xx.	IS:8756	Specifications for mortise ball catches

Note: Only latest editions of above referred codes shall be followed.

ELECTRICAL AND PLUMBING SPECIFICATIONS

ELECTRICAL WORK

E.1 The materials, equipment and workmanship shall conform to the following Indianstandards, unless otherwise called for:

Switchgear

IS:375	Markings and arrangements for switchgear bus-bars, main connections and Auxiliary wirings.

Cables:

IS: 1554	Specification for PVC insulated (Heavy duty) electric cables part -1 for voltage upto 1100 volts.
IS: 694 II	Specification for PVC insulated cables (for voltage upto 1100 V) (Part - 11) with aluminum conductors
IS: 1653	Specification Rigid Steel conduits for electrical wiring.
IS: 3837	Specification for accessories for rigid steel conduits for electrical wiring.
IS:5133	Boxes for the enclosure of electrical accessories (Part -1, Steel & C.I.Boxes).
IS: 1293	3 pin plugs & socket outlets
IS: 371	Ceiling roses
IS: 2448	Adhesive insulating tapes for Electrical purposes (Part I & 11)
IS: 191	General & safety requirements for electric lighting fitting.
IS: 374	Electric ceiling fans and regulators
IS: 2312	Propeller type AC ventilating fans
IS: 3043	Code of practice for earthing.
IS: 1885	Glossary of terms for Electrical cables and conductors.
IS: 1646	Code of practice for safety of buildings (General) electrical installation.
IS: 2309	Protection of buildings & allied structures against lighting

List of approved makes of materials for Electrical Work

S. No.	Item Description	Make / Brand
1.	PVC insulated / copper wire 650 V grade conforming to IS:694/1977	Finolex, Skyline, Grandlay, National Rkabel
2.	PVC conduit pipe (ISI Marked)	BEC, Steel Krafts, AKG
3.	Switches and Sockets	North West, MK, LK
4.	MCB & DB	Standard, MDS, Schneider
5.	ELCB & MCCB	MDS, Schindler, Siemens, L&T
6.	Metal Clad Sockets	MDS, Schindler, MK
7.	Telephone outlet sockets / computers	CPL, Precision, North West, Anchor, Roma
8.	Telephone Wires	Finolex
9.	UTP Cable	Avaya (AT&T USA)
10.	GI pipe for earthing	TATA, Gujarat Steel Tube, Jindal
11.	Armoured Cable	Finolex, CCI, FortGiloster
12.	Ceiling / wall / exhaust fan	GEC, Crompton, Khaitan
13.	FI fittings / CFL	Philips, Wipro, Crompton
14.	Incandescent Lights	Philips, Wipro, Decon

Note: Incase of unavailability of any material of specific make an equivalent make can be used only after a written approval of the Architect. Also the preference of make/ brand of the material listed above will be decided by the Architect. The make/ brand of any other item will be as mentioned in the drawings issued by the Architect.

P.0 Sanitary and Plumbing work

P.1 General Requirements:

P.1.1 All exposed G.L, C.I. or lead pipes and fittings shall be painted with approved quality of paint and shade as specified.

P.1.2 All sanitary and plumbing work shall be carried out through licensed plumbers.

P.1.3 On completion of work, the site shall be cleaned and all rubbish disposed off.

P.1.4 Painting: The brackets shall be painted with 2 coats of white synthetic enamel paint of approved manufacture over and including a priming coat of red lead.

P.1.5 Floor traps: shall be of self cleansing design ‘P’ or 'S' type with min. 50 mm seal of approved make with C.P. brass gratings The traps shall be placed in position and encased abound with 150 mm thick concrete 1: 2: 4; wherever necessary vertical pieces with sockets shall be joined to traps to accommodate C.P. brass grating at floor level.

P.2 Water supply

P.2.1 Galvanized Iron pipes and fittings: The pipes shall be galvanized mild conforming to IS 1239:1968. All pipes shall be electric resistance welded screwed with taper, threads and sockets with parallel threads. The pipes and sockets shall be cleanly finished, well galvanized in and out and free from cracks, surface flaws, laminations and other defects.

All screw heads shall be clean and well cut. The ends shall be cut cleanly and square with axis of the tube. The Fittings shall be designated by the respective nominal bores of the pipes for which they are intended.

(i) Cutting, laying and jointing of pipes and fittings: Where pipes have to be cut or re-threaded, ends shall be carefully filed out so that no obstruction to bore is offered. The end of the pipes shall then be threaded conforming to requirements of IS 554-1955 with pipe dies and tapes carefully in such a manner as will not result in stickiness of joints when two pieces are screwed together. The pipes shall be cleaned and cleared of all foreign matters before being laid. All pipes and fittings shall be properly joined to make the joints completely watertight and all pipes kept free from dust. Burr shall be removed from the joints after screwing. Pipes passing through wall or floor shall be provided with M.S. tube sleeves.

(ii) Clamps and Holder Bats: All pipes and fittings shall be fixed truly vertical and horizontal unless unavoidable. The pipes shall be fixed to walls with standard pattern holder bat clamps of required shape and size so as to fit tightly on the pipes when tightened with screwed bolts. These clamps shall be embedded in brickwork in cement mortar 1: 3 (1 cement: 3 coarse sand). All pipes shall be provided with unions at the location of fixing valves, pumps or any other fixed equipment.

(iii) Testing: After laying and jointing the pipes and fittings shall be inspected under working conditions of pressure and flow. Any joint found leaking shall be redone and all leaking pipes removed and replaced. The pipes shall be slowly and carefully charged with water so that all air is expelled from the lines. The draw of taps and stopcocks shall then be plugged and hydraulic pressure of 6Kg./sqcm shall be applied gradually. Pressure gauge shall be accurate and recalibrated before the test. The test pump having been stopped, the pressure shall maintain itself without measure able loss for at least half an hour.

(iv) Cleaning and Disinfection of supply system: All water lines shall be thoroughly disinfected before being taken into use and also after very major repair.

Approved Makes of Sanitary Materials

S. No.	Item Description	Make / Brand
1.	Sanitary fixtures	Cera / Neycer / Hindustan
2.	Sanitary fittings	Parko / Dripless / Kingston
3.	GI pipes and fittings	Jindal
4.	CI pipes and fittings	RIF
5.	PVC tank	Sintex
6.	Geyser	Racold
7.	Mono block pumping set	Crompton

LIST OF STATIONS FOR SINGLE ROOM

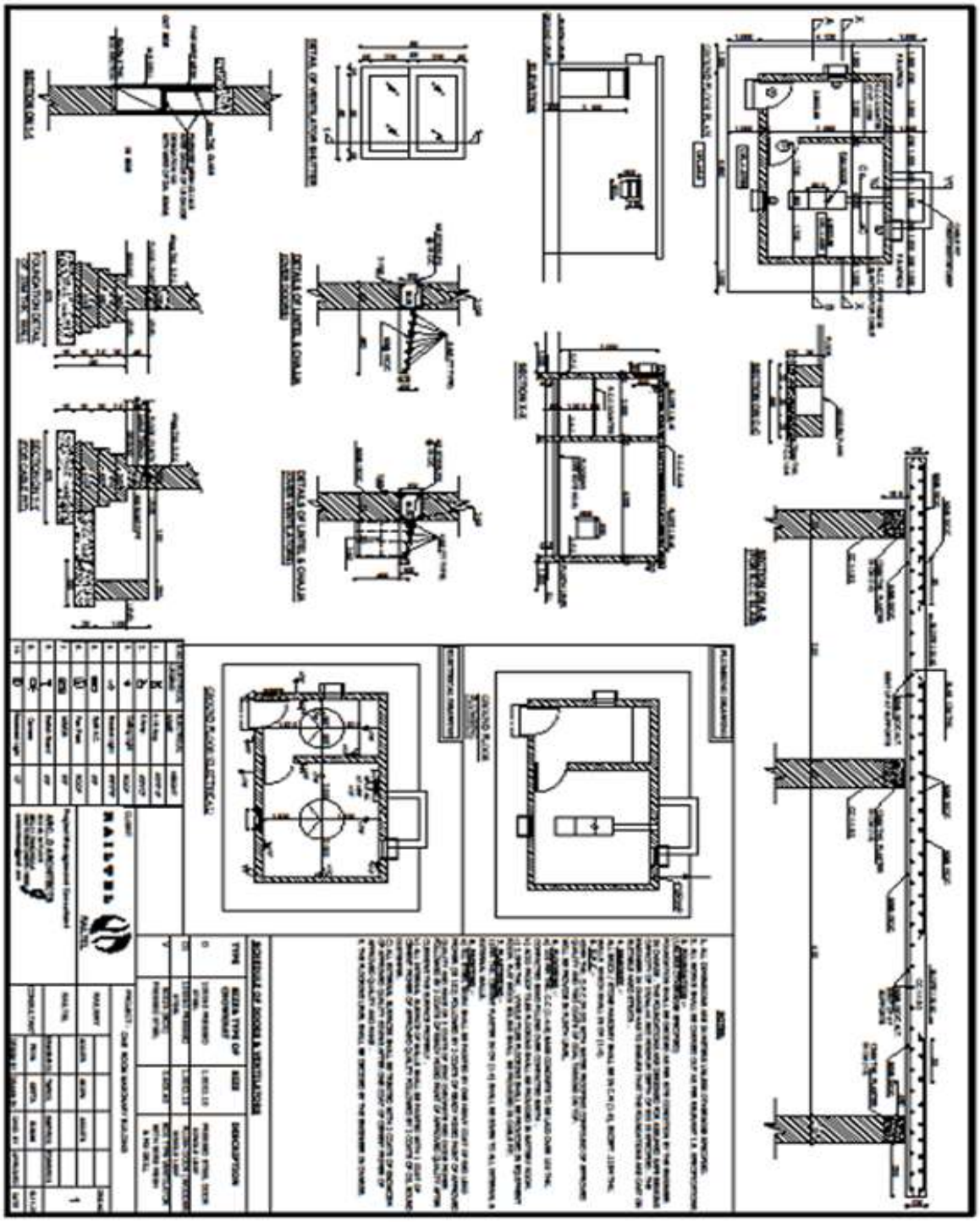
SN	Name of Rly. Station	RailTel Territory	Qty
	Single Room		
1	Jalandhar, Beas, Amritsar, Dhariwal, Gurdaspur, Bharoli, Hiranagr, Jammu, Batala, Dausa, Rajpura, Solan, Jagadhri, Bareilly, Moradabad, Gajraula, Dhampur, Nazibabad, Saharanpur, Haridwar, Roorkee, Dehradun, Jind, Mansa, Bhatinda, Sirhind, Dhuri, Sunam, Malerkotla, Jhakhal, Jagraon, Phoswara, Rohtak, Moga, Makhu, Sonipat, Karnal, Kurukshetra, Morinda, Anantnag, Srinagar, Banihal, Baramulla, Katra, Kapurthala	Chandigarh	45
2	Kosi, Palwal, Dholpur, Raja Ki Mandi, Tundla, Pora, Khurja, MuzaffarNagar, Muradnagar, Hapur, Gwalior, Dabra, Lalitpur, Faridabad, Okhla, Tughlakabad, Bulandshahr, Idgah, Fatehpur Sikri	Delhi	19
3	Alwar, Mahendergarh, Loharu, Churu, Ratangarh, Kolayat, Sird, Phalodi, Osian, Luni, Bandikui, Dosa, Ringas, Beawar, Chandawal, Pali, Falna, Sirohi Road, Abu Road, Dhirera, Mahajan, Suratgarh, Hanumangarh, Mandi Dabwali, Makrana, Jaisalmer, Shri Bhadriya Lathi, Ramdeora, Sujangarh, Didwana, Degana, Merta Road, Pipar Road, Bhildi, Dhanera, Malwara, Modran, Bishangarh, Samdari	Jaipur	39
4	Amethi, Gonda, Hardoi, Jaunpur, Mau, Partapgarh, Raebarelli, Shajahanpur, Shankergarh, ShriKrishna Nagar, Sultanpur, Gyanpur, Ghazipur, Phephna, Sarayan, Sitapur, Shahganj, Azamgarh, Mankapur, Ayodhya, Thawe, Pokhrayan, Orai, Moth	Lucknow	24
	Sub Total		**127**

LIST OF STATIONS FOR DOUBLE ROOM

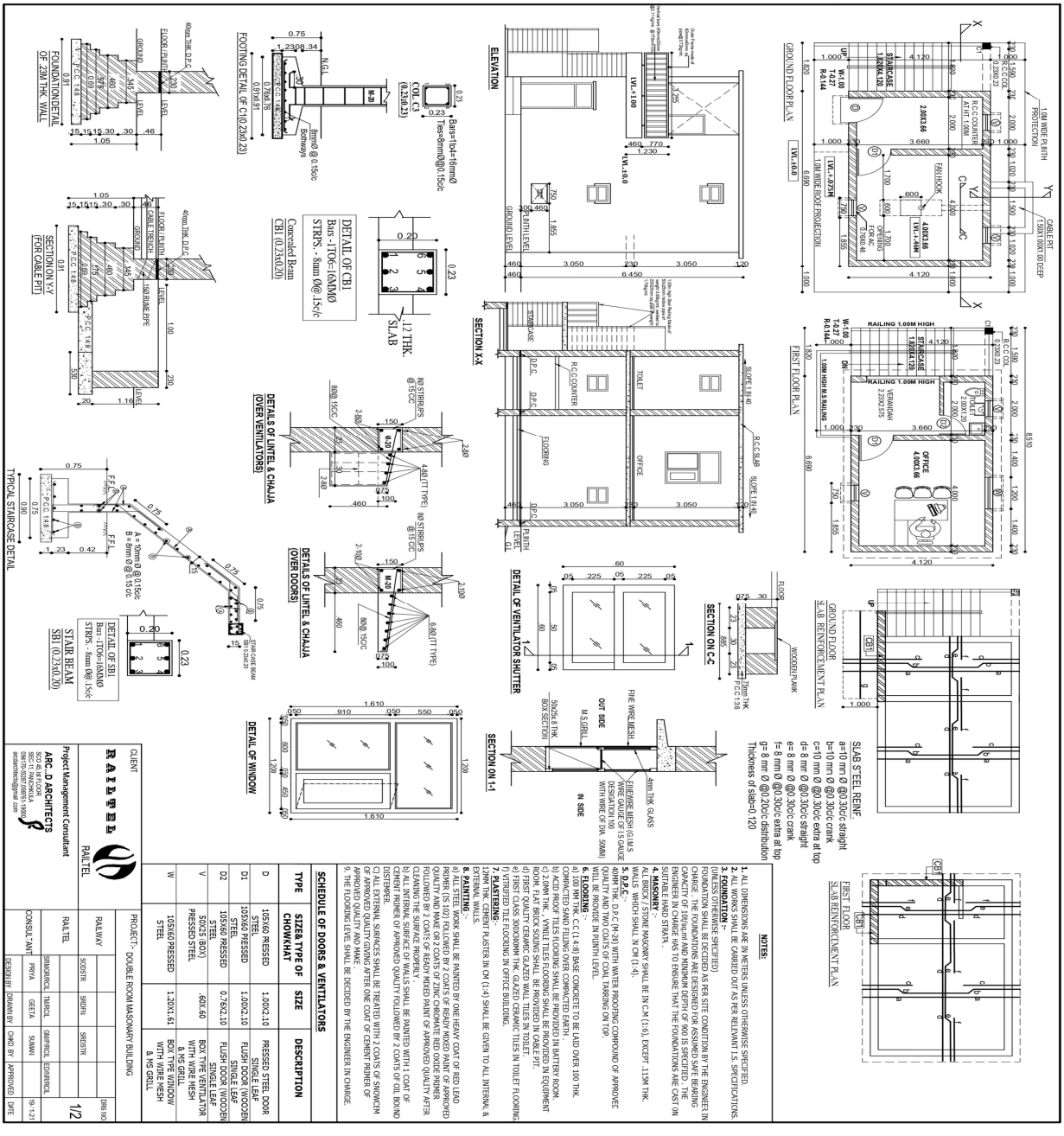
SN	Name of Rly. Station	RailTel Territory	Qty
	Double Room		
1	Firozpur	Chandigarh	1
2	Ghaziabad, Meerut, Jhansi, Agra Fort, Mathura, Aligarh	Delhi	6
3	Jaipur/ MW, Jodhpur, Bikaner	Jaipur	3
4	Allahabad, Kanpur, Varanasi	Lucknow	3
	Sub Total		**13**
	Gross Total		**140**

Annexure-B

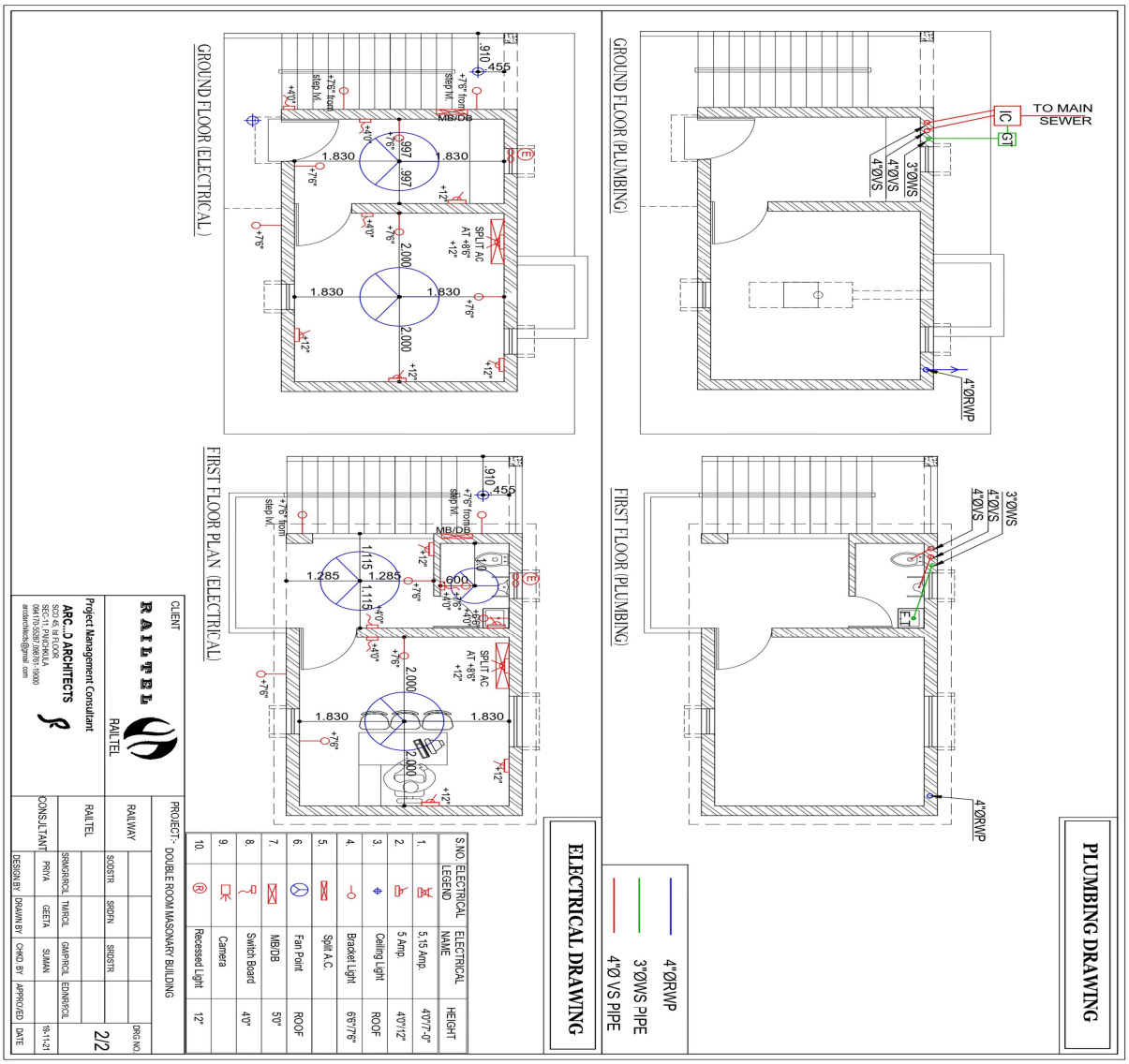
DRAWING OF STATIONS FOR SINGLE ROOM



DRAWING OF STATIONS FOR DOUBLE ROOM- I



DRAWING OF STATIONS FOR DOUBLE ROOM- II



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