सैन्ट्रल रेलसाइड वेअरहाउस कम्पनी लिमिटेड
(भारत सरकार का उद्यम)
CENTRAL RAILSIDE WAREHOUSE COMPANY LIMITED
(A Govt. of India Enterprise)
सीआईएन : यू63023डीएल2007पीएलसी165676
CIN:U63023DL2007PLC165676

मिनी रत्न
Mini Ratna PSU

(A Govt. of India Enterprise)

(E- Tendering Mode Only)

(E NIT No. CRWC/ V- NIT, RWC- Thokur 22-23/849 Date: 08.08.2022

FOR

CONSTRUCTION OF ADMIN BUILDING, MISC. BUILDING AND WAREHOUSE FOR CRWCL AT THOKUR RAILWAY STATION OF KONKAN RAILWAY

Abbreviation of the words used in Tender document

NIT	=	Notice Inviting Tender
CRWC	=	Central Railside Warehouse Company Limited
CPWD	=	Central Public Works Department
MES	=	Military Engineering Services
PWD	=	Public Works Department
PSU	=	Public Sector Undertaking
EMD	=	Earnest Money Deposit
CPP	=	Central Procurement Portal
PF	=	Provident Fund
SD	=	Security Deposit
LD	=	Liquidated damage
GCC	=	General Condition of Contract
BIS	=	Bureau of Indian Standard
IRC	=	Indian Roads Congress
CTE	=	Chief Technical Examiner
MORTH	=	Ministry of Road Transport & Highway
DSR	=	Delhi Schedule of Rates
SOR	=	Schedules of Rates
PERT	=	Programme Evaluation Review Technique.
MD	=	Managing Director
BG	=	Bank Guarantee
FD/FDR	=	Fixed Deposit Receipt
IPC	=	Indian Penal Code
PC	=	Prevention of Corruption
EOT	=	Extension of Time
OPC	=	Ordinary Portland Cement
PPC	=	Pozzolana Portland Cement
RMC	=	Ready Mixed Concrete
IIT	=	Indian Institute of Technology
T&P	=	Tools & Plants
CAR Policy	=	Contractor's all Risk Policy
WC Policy	=	Workmen Compensation Policy
ESI	=	Employees State Insurance
PQ	=	Pre-Qualifying
GST	=	Goods and Services Tax
CGST	=	Central Goods and Services tax
SGST	=	State Goods and Services tax/
IGST	=	Integrated Goods and Services tax
UGST	=	Union Territory Goods and Services tax
LAR	=	Last Approved Rates
PQC	=	Pavement Quality Concrete
WBM	=	Water Bound Macadam
WMM	=	Wet Mix Macadam
DBM	=	Dense Bituminous Macadam
DPC	=	Damp Proof Course
CC	=	Cement Concrete
RCC	=	Reinforced Cement Concrete
DLC	=	Dry Lean Concrete
MT	=	Metric Tonne

INDEX

SL	Section	Content	Page No.
CHAPTER – I (NIT & INSTRUCTIONS TO TENDERER)			
1.	Notice Inviting Tender		04
2.	Important Instructions		05-07
3.	Check List to be Filled by Bidder & Submitted along with the Tender		08-9
4.	Pre-Qualifying Performa to be Filled by Bidder & Submitted along with Tender		10-11
5.	Section-I	Instructions to Tenderers	12-19
6.	Section-II	**Annexure – A**: Minimum Eligibility Criteria for the Tenderers	20-22
7.	Section-III	• Tender Forms & Annexures-I to X to be filled by bidder • Operative Schedule – Annexure-XI	23-50
CHAPTER – II			
9.	Section-IV	Special condition of contract	51-62
10.	Section-V	CRWC's General Condition of Contract	63-119
11.	Section-VI	Model rules for the protection of health and sanitary arrangements for workers	120-125
12.	Section-VII	Contractor's Labour Regulations	126-162
CHAPTER – III			
13.	Section-VIII	Technical conditions and specifications	163-184
14.	Section-IX	Work Registers and testing proformas	185-204
15.	Section-X	Field quality plan (list & proforma of mandatory tests)	205-214
16.		Price Sub-Schedules	215-279
17.	Section-XI	Layout Plan	280

CHAPTER-I

सैन्ट्रल रेलसाइड वेअरहाउस कम्पनी लिमिटेड
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CIN:U63023DL2007PLC165676
मिनी रत्न
Mini Ratna PSU

NO.CRWC/V- NIT, RWC-Thokur/22-23/ 849 **Date: 08.08.2022**

NOTICE INVITING TENDER

(E NIT No. CRWC/ V- NIT, RWC- /22-23/849)

(E-tendering Mode)

On-line percentage rate E-tender in two bid system is invited for the below mentioned works from Contractors of appropriate class of CPWD/Railways/MES/State PWD/other Government Organization/ Public Sector Undertakings & their Subsidiaries or having worked/ working with aforesaid Government Departments/ Agencies –

Tender No.	**CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022**
Name of Work	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway.
Estimated Cost put to Tender (Rs.)	**Rs. 11,11,33,448.42**
Earnest Money (Rs.)	Rs. 22,22,670/-
Cost of Tender Document *(Non-refundable)*	Rs.1180/-*(incl. GST)*
Time Allowed for Completion of Work	12 months.
Tendering Processing Fee*(Non-refundable)*	Rs. 5900/-(*incl. GST)*
Last Date &Time of submission of cost of tender & e-tender processing fee, EMD and downloading of tender documents (Tech. &Price Bid)	22.08.2022 upto 15:00 hrs.
Date & Time of opening of Technical Bid	22.08.2022 upto 15:30 hrs.
Date & Time of opening of Financial Bid	Date of opening of Financial Bid will be intimated separately for technically qualified Tenderers

Tender documents including Contract Conditions and Schedule of Work may be downloaded by the intending contractors, who wish to participate, from CRWC www.crwc.in or e-tender website https://crwc.euniwizarde.com , **www.cewacor.nic.in,** **http://www.tenderdetail.com** and **http://www.eprocure.gov.in** upto 3.00 p.m. of 22.08.2022.

IMPORTANT INSTRUCTIONS

1. ELIGIBILITY CRITERIA:

Contractor who fulfils the following requirements shall only be eligible to quote the rates.

Mandatory Documents –

(i) EMD, Cost of Tender & Tender Processing Fees: As per Annexure-A

(ii) Experience Certificate: As per Annexure-A

(iii) Turnover: As per Annexure-A

(iv) Affidavit: As per Annexure-A

Other Documents –

(v) Integrity Pact:

Tenderer will have to sign the Integrity Pact as per proforma at **ANNEXURE-V** for contracts having estimated value of Rs. 3 (three) crore or more and duly signed copy has to be submitted with the tender.

(vi) Net Worth:

Tenderer should submit with the tender the Positive Net Worth Certificate, duly certified by a practising Chartered Accountant as per **ANNEXURE I** based on the accounts for the latest financial year, i.e., Profit & Loss Account and Balance Sheet.

(vii) GST Registration:

Contractor must have valid GST Registration Certificate from the concerned authority (as applicable) and copy to be enclosed with the tender.

(viii) PAN Card :

Tenderer must enclose copy of PAN Card alongwith the tender.

(ix) PF Registration :

Tenderers must have valid PF Registration Certificate from the concerned authority and copy to be enclosed with the tender.

(x) Organisation Details :

In case the Tenderer is a Proprietorship Firm, they will submit an affidavit as per **ANNEXURE II.**

In case the Tenderer is a Partnership Firm, a certified copy of the partnership deed shall be submitted by the Tenderer.

In case the Tenderer is a Company (whether Private or Public), a certified copy of Certificate of In COMPANY together with Memorandum and Article of Association shall be submitted.

Certificate of Registration with Registrars of Company (ROC) in case of Ltd. / Pvt. Ltd. Company / PSU, if required shall be submitted by the Tenderer.

In other cases, certified copy of Certificate of In Company shall be submitted by the Tenderer. See Annexure-A

(xi) Tenderer shall submit a Power of Attorney in favour of signatory (ies) duly attested by the Notary as per **ANNEXURE III.** *{This format is for guidance only and deviation in the wording can be accepted.}*

(xii) Declaration of near relative

Tenderer shall submit a declaration about their near relative in compliance of clause 36 of General condition of contract as per **ANNEXURE-VI**

(xiii) A Bar Chart / PERT Network indicating various milestones and date of completion vis-a-vis deployment of resources to be enclosed with the tender.

(xiv) Declaration to be given by the bidder for works in Hand (in progress) on letter head of firm (**ANNEXURE-IX**).

IMPORTANT NOTES:

(xv) Participation of Joint Venture (JV) Firms will not be applicable in the tenders of CRWC.

(xvi) Experience gained by executing work on back-to-back contract basis is acceptable. Back-to-back Contract means work awarded by owner to first agency and then by the first agency to the second agency. To get the weightage of experience, following conditions must be fulfilled.

(a) Work should be actually executed by the second agency with due concurrence of the owner as per agreement. It should be backed by valid agreement and experience certificate.

(b)Payments received by second agency should be reflected in income tax statements (form 26AS).

(c) Owner of the project and first agency should jointly certify the experience certificate.

(xvii) Experience of a petty contractor, labour rate contractor, work shall not be accepted. Experience of works on foreign soil shall not be accepted.

(xviii) Experience of work where delay is compensated by bidder with levy of LD shall not be accepted.

(xix) Where the tenderer is not under statutory obligation to get his Accounts audited, he can upload a certificate of practising Chartered Accountant certifying his Annual Turnover and Profit after Tax for preceding three financial years.

2. OTHER IMPORTANT GUIDELINES:

(xx) **Technical Bids would be opened at 3.30 pm on 22.08.2022** and the same would be examined by the committee of the CRWC officers. In the event of any of the documents found fabricated/tempered/forged/altered/manipulated/false during the evaluation of bid at any stage, it will lead to rejection of the bid and forfeiture of EMD of the tenderer. CRWC reserve its rights to disqualify the tenderer and to blacklist /debar for future participation for the next five years.

In the event of any of the documents found fabricated/tempered/forged/altered/ manipulated/false in the bid even after the award of the contract, it will lead to termination of the contract, forfeiture of EMD or Performance Security / Security Deposit whichever is available at the time of termination. CRWC reserve its rights to disqualify the tenderer and blacklist/debar for future participation in next five years.

(xxi) In case the contractor fails to submit the requisite Performance Guarantee even after the period specified in Clause 1 of Schedule 'F' from the date of issue of Letter of Acceptance (LOA), the contract shall be terminated, duly forfeiting EMD and other dues, if any payable against the contract. The failed contractor shall be debarred from participating in future tender/procurement process of the Company for two years from the date of debarring.

(xxii) Date of opening of Financial Bids shall be intimated later separately to the technically qualified Tenderers.

(xxiii) Tenderers or their authorized representative, who may wish to be present, may attend the opening of the technical bids whereas financial bids will be opened in presence of only those who are found eligible in technical bids.

(xxiv) Corrigendum/Addendum to this Tender, if any, will be published on website, www.crwc.in and https:// crwc.euniwizarde.com only. Newspaper press advertisement shall not be issued for the same.

(xxv) It is a Works Contract and hence, there is no exemption for EMD & Tender Cost on account of MSME.

(xxvi) (a) Tenderer / Bidder shall quote their rate inclusive of GST, ESI, EPF, Building & Construction Workers Cess and any other taxes, levies, duties, as applicable on complete work and after studying the relevant Clauses. CRWC will not entertain any claim whatsoever in this respect. This should be included in the rates quoted by the contractor.

b) (1) The tenderers should quote their percentage rate separately for each Sub Schedule in Financial bid i.e separate for DSR CIVIL, DSR E&M, Market rates (Civil) / Market Rate (E&M) etc.

Contractor shall quote the rate in financial bid XLS sheet only and will submit digitally signed copy on Web Tender portal of CRWC as mentioned in NIT/Press notice.

(2) No price shall be mentioned elsewhere in technical bid document. Any mention of prices elsewhere other than at appropriate place in financial bid XLS sheet, will be summarily rejected and will not be entertained.

(3) Work shall be awarded to only valid L1 bidder.

Valid L1 shall be decided among all technically qualified bidders whose technical bid is accepted based on the criteria mentioned in NIT.

Valid L1 shall be decided based on over all lowest quote calculated by arithmetic sum of amount quoted in all sub schedule.

(xxvii) Bidder should visit the site of work to be well versed with site geological, geographical, metrological environment. Address of Construction Site /Project Location is below. It is imperative on the part of the bidder to quote the rate accordingly.

Address	Thokur Railway Station Mangaluru, Karnataka 575030
Nearby Major Railway Stations.	Thokur Railway Station
Nearest City/District	Dakshina Kannada, Karnataka
Nearest Airport	Kempegowda International Airport

(xxviii) For any difficulty in downloading & submission of tender documents please contact at euniwizarde helpdesk no.+919355030616 (Mr. Anshuman Thakur)

Note: For any technical query please contact at +91-9763409599 (Dy. Manager/Civil)

ADDL. GM (P&E)

CHECK LIST

{To be Filled by Bidder & Submitted Alongwith the Tender}

SL	Documents to be Submitted by the Tenderer	Check & Confirm Attachment of Documents	
		Yes	No
1.	Earnest Money Deposit (EMD):**Only through e-payment gateway of e-procurement system**		
2.	Proof of Tender Cost Paid: **Only through e-payment gateway of e-procurement system**		
3.	Experience Certificate: For Executing Works of Similar Nature as per tender eligibility criteria (Annexure-A)		
4.	Chartered Accountant's Certificate: For tenderer's Annual Turnover, complete Audited Balance Sheet and Statement of Profit & Loss for preceding three financial years (as per Annexure A)		
5.	Affidavit on Stamp Paper: Duly attested by the Notary as per Annexure **IV**		
6.	Integrity Pact : As per **Annexure-V**, duly signed by Tenderer		
7.	Certificate of Net Worth: Duly certified by the Chartered Accountant as per **ANNEXURE I**		
8.	GST Registration Certificate (as applicable)		
9.	Permanent Account Number (PAN) Card		
10.	PF Registration Certificate		
11.	(a) Affidavit for Sole Proprietary Firm as per **ANNEXURE II** or (b) Copy of Partnership Deed of a Partnership Firm or (c) Certificate of In Company, Memorandum of Association & Articles of Association for Company alongwith resolution of the		

SL	Documents to be Submitted by the Tenderer	Check & Confirm Attachment of Documents	
		Yes	No
	Company for authorizing the Director / Authorised Signatory to sign the document		
12.	Certificate of Registration with Registrars of Company (ROC)in case of Ltd. / Pvt. Ltd. Company/PSU, if required		
13.	Power of Attorney in favour of signatory(ies) : Duly attested by Notary as per **ANNEXURE III**, if required		
14.	Declaration of near relative as per **Annexure VI**		
15.	Bar Chart : Duly signed		
16.	Declaration of works in hand as per **as per Annexure-IX**		
17.	Valid Registration Certificates of Contractor or Proof of having worked/working with CPWD/Railways/MES/State PWD/Other Govt. Organization/Govt. Sector Construction Agency/Public Sector Undertaking& their Subsidiary		
18.	List of Permanent Technical Persons		
19.	List of Plant & Machinery		
20.	Pre-Qualifying (PQ) Proforma		
21.	Bank Details (Account No., Bank Name, MICR No., RTGS No. & copy of Cancelled Cheque)		
22.	Electrical License, if required		
23.	Submission of Complete Tender Document : Duly signed		

Pre-Qualifying (PQ) Proforma/Comparative Statement

{To be Filled by Bidder and Submitted alongwith Tender Document}

NAME OF THE WORK: Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway.

Tender No. : (CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022)

Name of the Firm: _____

SL	Description	Details
1.	Name, Address, Organization ID, Tel./Fax No. &E-mail address of Bidder	
2.	Attested copy of Firm Details (Proprietorship/Partnership/ Private Limited / Limited)	
3.	Attested Copy of Power of Attorney details to sign the Tender Document	
4.	Earnest Money Deposit (EMD) of Rs. 22,22,670/-/-:**Only through e-payment Gateway**	
5.	Cost of Tender Documents of **Rs. 1180/- : Only through e-payment Gateway**	
6.	PF Registration	
7.	GST Registration (as applicable)	
8.	PAN No. of the Firm	
9.	Contractor Registration	
10.	Chartered Accountant's Certificate for Annual financial turnover/revenue (income) from operations of specified preceding three years	
11.	Annual Financial Turnover/Revenue (Income) from operations (as per P&L Account)	
	(a) FY – 2018- 2019 (only when audited turnover for FY-2021-22 is not available)	
	(b) FY - 2019 – 2020	
	(c) FY - 2020 – 2021 (d) FY - 2021- 2022 case audited balance sheet & P&L statement is not prepared for immediate preceding financial year, the account for one more preceding financial year.	
12.	**Financial Eligibility Criteria:** The sum total (arithmetic sum) of tenderer's turnover: revenue (income) from operations for the last three financial year should be of value not less than **₹ 1000.20 Lakh** (90% of advertised Estimated Cost).	

SL	Description	Details
	The information shall be supported by audited Balance Sheets and Profit & Loss Statements of specified period. In case Balance Sheet and Statement of Profit/Loss for the immediate preceding financial year have not been prepared / audited; the account for one more preceding financial year can be submitted. In case, Bidder does not submit Audited balance sheet and P&L accounts for a particular year (among previous three years as mentioned above), turn over for that particular year will be considered '0'(zero) for calculating arithmetic sum of previous three years. *{Please see eligibility criteria as per Annexure-A in Tender document& important notes S.No. XIX under Chapter Important instructions in Tender document}*	
13.	**Experience w.r.t. Similar Nature of Work :** Tenderer must have completed successfully at least one similar nature of work **"(i.e. Construction of Warehouse/ Godowns OR industrial sheds OR Building, OR Railside warehouse complex, alongwith associated works of drain, road, circulating area, internal & external electrification and other allied works.)"** of value not less than **Rs. 388.97 lakhs** (35% of the advertised Estimated Cost) during the last four financial years (i.e. 2018-19, 2019-20, 2020-21& 2021-22) & current year (2022-23) upto the date of tender submission. Certificate should include the name of work, agreement no., date of start, actual date of completion & gross amount of work done upto the completion. *{Please see eligibility criteria as per Annexure-A in Tender document & important notes from s.no. xv to xix under chapter "important instructions" of NIT/tender document}*	
14.	Organizational detail as per S.No. X under chapter "Important instructions" of NIT/Tender Document	

Note:

1. Tenderers have to fill complete details in Pre-Qualifying Proforma.
2. Documents pertaining to above details should be scanned and uploaded on e-tendering website at the time of on-line tender submission.
3. RTGS/NEFT E-payment Challans with UTR no. duly authenticated by Bank may also be scanned & uploaded alongwith tender submission.
4. Affidavit (**Annexure-IV**) must be submitted by the Bidder.

Tenderers to please also see Clause –28, 29, 30 &31 of 'Instructions to Tenderers'.

SECTION – I
(INSTRUCTIONS TO TENDERERS)

INSTRUCTIONS TO TENDERERS

On-line Percentage Rate E-tenders on behalf of Central Railside Warehouse Co. Ltd.

Tenderer should upload all the required documents with the tender under valid digital signature. Uploading of tender with digital signature shall imply that all tender terms & conditions have been accepted by the tenderer.

1. Tenderer's digital signature on the E-Tender Form will be considered as confirmation that they have read and accepted all the conditions laid down in the tender documents, unless specific deviation is quoted in the technical bid.
2. E-Tender form is not transferrable and the same is to be submitted through scanned copy having digital signature of the pre-authorized personnel of the tenderer. Tender is to be submitted through e-tender-mode only at website https://crwc.euniwizarde.com alongwith scanned copies of credential papers.
3. For whatsoever reasons, if any part of CRWC tender document is not uploaded/submitted by the Tenderer, other than financial & technical offers and requisite Pre-Qualifying credentials; in that case, the missing part of the tender document shall be treated as read and accepted by Tenderer. **Missing part of CRWC tender document shall not be called for re-submission; however, the same shall form part of contract agreement and shall be binding on Tenderer.**
4. **Tender without the prescribed Earnest Money, shall be summarily rejected**.
5. Any request for recovery from outstanding bills for Earnest Money against present tender will not, under any circumstance, be entertained. Tenders submitted with earnest money in the forms other than specified in NIT, shall not be considered.
6. No interest shall be allowed on the Earnest Money.
7. EMD to the unsuccessful tenderers shall be returned within 30 days after the expiry of stipulated bid validity period or after the award of contract whichever is earlier. The Tenderer is advised to provide name of bank, account no., branch code and RTGS code for account maintained by them/him for any financial transaction, if found necessary.
8. For the successful Tenderer, Earnest Money will be retained as part of the Security Deposit in terms of **Clauses of Contract**. The earnest money of other Tenderers shall, save as herein before provided, be returned to them; but CRWC shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay any interest thereon.
9. Tender Notice and Notice Inviting Tender shall form part of the contract document. The successful Tenderer/s shall be required to execute an agreement with CRWC in prescribed Proforma at **Annexure-VII** within a maximum period of 15 days after date of issue of Work Order for carrying out the work as per the agreed conditions. Failure to do so shall constitute a breach, in which case, CRWC would be at liberty to not only terminate the contract, but also forfeit EMD and Performance Guarantee if any. Cost of stamp paper for the agreement will be borne by contractor.

   The contract agreement shall consist of:

The Press Notification, Tender Notice, Notice Inviting Tender, Instructions to Tenderers, all the Documents of Tender &Contract for works including Special Conditions of Contract, Technical Specifications and Drawings, if any, forming the part of tender documents, as issued/downloaded by the Tenderer from the websites at the time of invitation of tender and acceptance thereof together with any correspondence with them leading thereto and also the correspondence related with verification of credentials.

10. The contract operations and proceeding in connection with the works at all times be conducted during the continuance of contract in accordance with the laws, ordinances, rules and regulations for the time being in force and the contractors shall further observe and comply with the by-laws & regulations of the Govt. of India, State Govts., local Municipalities and other authorities, having jurisdiction over area involved in connection with the works of site & over operations, such as those as carried out by the contractor/s and shall give all notices required by such by-laws & regulations. The hospital and medical regulations in force for the time being shall also be complied with by the contractor/contractors and their workmen.

11. The contractor shall be responsible for observance of the rules and regulations under Mines Act, Mineral Rules and Indian Metallurgical rules & regulations of State Govt. concerned, as amended from time to time.

12. The contractor shall, at all times, keep CRWC indemnified against all penalties that may be imposed by the Govt. of India or State Govt. for infringement of any other clauses of the mines act and rules made there under in respect of the quarries from which the quarry material for these works is procured.

13. The Tenderer/s shall not increase his/their rate in case CRWC negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of original offer and rates originally quoted will be binding on the Tenderer/s.

14. The Tenderer/s shall submit an analysis of rates, if called upon to do so.

    A format for prices of material & labour is given in price bid which needs to be filled by the contractor in support of rate analysis which may be used to see the reasonability of rates quoted by the bidder.

15. Contractor is required to get himself registered as per Building & Other Construction Workers Cess Act 1996, PF Registration, GST etc. as per Govt. of India law.

16. Time is the essence of the contract. In order to complete the work within the scheduled time, the Tenderer is required to submit copy of GST registration Certificate, PAN Card, PERT/BAR CHART for major milestones for various activities indicating time required for the same alongwith tender documents / Performance Guarantee.

17. Copies of the drawing and documents pertaining to the works will be open for inspection by the Tenderers in the office of the Superintending Engineer / Chief Engineer, CRWC.

18. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, accommodation they may require and in general, shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender.

    In case of hindrances, if any, because of telephone line, electric cables, overhead lines etc. passing over the site, the contractor shall be entitled for extension of time under Clause 5 of the agreement. No claim of extra payment and damages of any sort shall be entertained on this account.

    A Tenderer shall be deemed to have full knowledge of the site whether he/they inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The Tenderer shall be responsible for arranging and maintaining at his own cost, all materials, tools and plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for, in the contract documents.

Submission of tender by a Tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plants etc. will be issued (if any) to him by the Company and local conditions and other factors having a bearing on the execution of the work.

19. The Competent Authority on behalf of Central Railside Warehouse Company does not bind himself to accept the lowest or any other offer and reserves to himself the authority to reject any or all the tenders received without assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled and any condition including that of conditional rebate is put forth by the Tenderer, shall be summarily rejected.

20. The Competent Authority on behalf of Central Railside Warehouse Company does not bind himself to accept the lowest tender and reserves to himself the right of accepting the whole or any part of the tender and the Tenderer shall be bound to perform the same at the rate quoted.

21. Tenders containing any condition leading to unknown/indefinite liabilities shall be summarily rejected.

22. Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

23. In the financial bid, the prices/rates must be filled after downloading the financial bid document in the prescribed format, issued through online e-tendering website. The financial bid should be saved and duly filled up and uploaded to the e-tendering site using digital signatures for signing the documents / (signed and uploaded).

24. On acceptance of the tender, the name of the accredited representative(s) of the contractor, who would be responsible for taking instructions from the Engineer in-charge / Engineer shall be communicated to the Engineer-in-Charge.

25. Under Income Tax Act, 1961; a deduction for income tax alongwith surcharge, as applicable will be made from sums paid on account and final payments for carrying out the work under this contract.

26. The Tenderer shall be required to pay cess @ 1% of cost of construction work, or at the rate as mentioned in latest act/rules or guidelines of Government, in accordance with each bill payable on account of such construction to the concerned State Govt. (Labour Deptt.). Cost of material shall be outside the purview of cess, when supplied under a separate schedule items. CRWC shall not entertain any claim whatsoever in this respect.

27. The tenderer shall scan and upload the proof of submission of EMD, Cost of tender, CA Certificate & Balance Sheets with Profit & Loss Account of specified preceding three financial years in respect of financial turnover, Power of Attorney, Affidavit of Proprietorship / Memorandum & Article of Association, PF Registration Certificate, Pan Card, Bar Chart, Goods and Service Tax Registration Certificate, Similar Nature Works Completion Certificates, **Annexure IV**, Net Worth Certificate, Integrity Pact, if required, **Annexure VI** and **Annexure IX**.

28. No additional mandatory documents will be entertained after tender opening, except clarification documents required, if any regarding already submitted documents with tender. Any documents submitted suo-motu by the Tenderer through e-mail/post/hand delivery etc. shall neither be entertained nor considered for evaluation.

29. For deciding eligibility of tenderer, it is mandatory for Tenderer to submit Affidavit (as per **Annexure IV**), EMD, Financial Turnover (Balance Sheets with Profit & Loss Account of specified preceding three years as per NIT) and Similar Nature of Work Experience Certificates of requisite magnitude (as per NIT), failing which the tender shall be summarily rejected.

30. All other documents like Integrity Pact, Net Worth, Goods and Services Tax Registration Certificate, PAN Card, PF Registration, Organisation Details, Power of Attorney, Annexure VI, BAR/PERT Chart, Form of declaration as per **Annexure-VI &IX**, List of plant &

machinery, list of permanent technical persons, Bank details etc. as per NIT/pre-qualifying Proforma/ Comparative Statement, are also required to be submitted alongwith tender.

NOTE:

(a) CRWC (Company), if necessary, can ask the tenderer for any specific clarification relating to qualifying documents/conditions within the specified time of 07 days. For this purpose, the procedure stated below is to be followed and the specific clarification is required to be uploaded on the same portal as per the procedure prescribed therein.

(b) The tenderer has the option to respond or not to respond to these queries.

(c) The request for clarification by the Company and the response of the tenderer shall be in writing and no change in price or substance of the tender shall be sought, offered or permitted.

(d) If the tenderer fails to respond, within the stipulated time period or the clarification(s)/document(s) with respect to mandatory documents submitted is non-conforming to requirement of tender conditions; no further time will be given for submitting the same and the tender will be summarily rejected.

(e) All other documents should also be uploaded by the tenderer. However, if the tenderer has not uploaded any of the other documents as per NIT/Pre-qualifying Proforma/Comparative Statement, lowest tenderer should submit the same with submission of Performance Guarantee, If the lowest tenderer fails to do so, then no Agreement between CRWC and contractor will be executed and it will lead to rejection of bid and forfeiture of EMD & Performance Guarantee.

For obtaining clarification, following procedure is to be followed:

(i) An icon for clarification shall appear on "Bid Details" page (in front of each of the tenderer's name) at Company's end after opening of Technical /Financial Bid.

(ii) Company shall click on clarification icon for the desired tenderer and enter the details of clarifications sought within the prescribed time.

(iii) After entering the details of clarification sought by the Company, same icon shall appear at tenderer's end for replying to the particular clarification sought by the Company. The system will also send the alert to the tenderer at his registered e-mail address about the clarification sought by the Company.

(iv) Tenderer will click on clarification icon and will reply to the same and upload the required clarification/documents in support of clarification sought, if any, within the prescribed time. Tenderer cannot ask for any clarification from the Company.

(v) Once the prescribed time expires, clarification icon from tenderer site shall also disappear automatically.

(vi) After expiry of prescribed time, Company shall download the clarification/documents in support of clarification submitted by the Bidder.

31. If the tender is made by Proprietary firm, it shall be signed by the Proprietor with his full name and full name of his firm with its current address.

32. If the application is made by a Firm in Partnership, it shall be signed by all partners of the Firm above their full names and current addresses or by a partner holding the power of attorney for the Firm by signing the applications in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the Partnership Deed, current address of the Firm and the full names and current addresses of all the Partners of the Firm shall also accompany the application.

33. If the application is made by a limited Company or a limited Company, it shall be signed by a duly authorized person, holding the power of attorney for signing the application in which case a certified copy of the Power of Attorney shall accompany the application. Such Limited Company or Company will be required to furnish satisfactory evidence of its existence, before the contract is awarded.

34. In the event of any of the documents found fabricated/tempered/forged/altered/ manipulated/false during the evaluation of bid at any stage, it will lead to rejection of the bid and forfeiture of EMD of the tenderer. CRWC reserve its rights to disqualify the tenderer and to blacklist/debar for future participation for the next five years.

In the event of any of the documents found fabricated/tempered/forged/altered/ manipulated/false in the bid even after the award of the contract, it will lead to termination of the contract, forfeiture of EMD or Performance Security/Security Deposit, whichever is available at the time of termination. CRWC reserve its rights to disqualify the tenderer and to blacklist/debar for future participation for the next five years.

35. Notwithstanding anything contained in the Clause above, the Tenderer shall execute the Power of Attorney (POA) in prescribed format as mentioned in **ANNEXURE III** and shall conform to the following –

36.1 A Company, while executing Power of Attorney must make conformity with the Board Resolution and the charter documents giving the power to issue the said Power of Attorney including further sub-delegation of the same by the said POA holder only.

36.2 Unless notified in writing to the Tendering Authority, the Authority shall recognize only that POA holder for the purposes of tender submission and matters related thereto whose notice and necessary POA document was submitted to the Authority at the time of tender submission.

36.3 While for a Partnership Firm, either all the partners of the partnership firm shall execute and confirm the Power of Attorney if executed or there shall exist a Power of Attorney in favour of the Partners executing the Power of Attorney for the delegation of power on behalf of the Tenderer.

36.4 The Power of Attorney being executed by the Tenderer herein shall be executed in favour of only its Partner or Director or Salaried employee. And in case the POA is being executed by the Tenderer in favour of its salaried employee, the said employee should have worked for at least more than one year continuously with the Tenderer and the Tenderer should furnish the following:

(i) Name
(ii) Designation
(iii) Mobile/Contact no.
(iv) Employment Letter / Agreement issued by the Firm
(v) Identity Card with number, issued by the Firm
(vi) Information about the wages paid,i.e. Salary Slips
(vii) Form-16
(viii) PAN Card
(ix) PF Number
(x) Power of Attorney as per **ANNEXURE III**

36.5 CRWC will not be bound by the Power of Attorney furnished by the Tenderer and acceptance of the same shall be at the sole discretion of the CRWC.

36.6 There can validly exist only a single Power of Attorney at any given time. The Power of Attorney executed and accepted by CRWC shall stand revoked on issuance of any new Power of Attorney issued within the rules herein, with regard to this particular Project.

36.7 During the subsistence of contract, if Power of Attorney holder is found to be creating mischief or involved in any illegal or unlawful activity, CRWC will at its sole discretion reject the Power of Attorney of such person submitted by the Tenderer and the Tenderer would be required to issue a fresh Power of Attorney within the rules herein in favour of authorized person, stated above, within a period of 10 days of being so notified.

37. Should a Tenderer find discrepancies or omissions in the drawings or any of the Tender forms or should he be in doubt as to their meaning, he should at once notify (within 10 days of start of tender sale) to the authority inviting tenders, who may send a written

intimation to all Tenderers. It should be understood that every endeavour 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 & shall make no subsequent claim on account thereof.

38. The CRWC will not be bound by any power of attorney granted by the Tenderer or by change in the composition of the Firm and subsequent to the execution of the 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.

39. If a Tenderer expires after the submission of his tender or after the acceptance of his tender, the CRWC shall deem such tender as cancelled. If a partner of a Firm expires after the submission of their tender or after the acceptance of their tender, the CRWC shall deem such tender as cancelled, unless the Firm retains its character. However, in such cases, the amount of Earnest Money will be refunded to the legal heir on production of successor certificate.

40. **In E-Tendering, Bids in physical form in tender box/by post shall not be accepted**.

41. Submission of tender and credential documents through E-Tender website www.CRWCeprocure.com is sole risk & responsibility of the Tenderer. Any claim on this account will not be entertained. Hence, Tenderer should ensure that tender alongwith all requisite credential papers are submitted / uploaded on e-tender website on or before tender submission date & time.

42. Time is the essence of the contract. The work is required to be completed within stipulated time schedule to be reckoned from the date of issue of acceptance letter as given below:

Stipulated period of completion**: Twelve months (12) from the 15th day from date of issue of Letter of Acceptance.**

43. Tender documents consisting of plans, technical specifications, schedule of quantities of the various classes of work to be done and set of terms & conditions of the contract to be complied with by the contractor, whose tender may be accepted and other necessary documents, can be seen in the office of the Addl. GM (P&E), CRWC, Corporate Office, New Delhi between 11 am and 4 pm from 08.08.2022 to 18.08.2022 on every working day, except on Sundays and Public Holidays.

44 The contractor, whose tender is accepted, will be required to furnish Performance Guarantee @ 5% (five percent) of the contract amount within the period specified in Schedule 'F'. This Guarantee cannot be in the form of cash. Guarantee can be deposited in form of Demand Draft of any Scheduled Bank (in case guarantee amount is less than Rs.1,00,000)or Govt. Securities or Guarantee Bonds of any Scheduled Bank or the State Bank of India in favour of Central Railside Warehouse Company Ltd in accordance with the prescribed form. In case the contractor fails to deposit the said Performance Guarantee within the period, as indicated in Schedule 'F', including the extended period if any, the EMD by the contractor shall be forfeited automatically without any notice to them and the contract shall be treated as cancelled.

45 The contractor should quote the rate on-line in prescribed proforma, available with the tender in Excel format and sign the same digitally. In the event of signing the tender by the Tenderer in an Indian language, the percentage above or below the Estimated Cost and tendered amount in case of percentage rate tenders and total amount in case of item rate tender should also be written in the same language. In case of illiterate contractors, the rates or the amounts tendered to be attested by a witness.

46 In case, an increase in quantity of an individual item is considered unavoidable, then same shall be executed & paid as per detailed provisions contained in Clause 12.2-C of General Conditions of Contract, which may be gone through.

47. The Tenderer, apart from being a contractor of appropriate class must associate himself with agencies of the appropriate class which are eligible to tender for (i) Electrical, (ii)

Sanitary and Water Supply Installation, (iii) Fire safety installation works,(iv) Horticulture and others, if any.

48 The contractor shall not be permitted to tender for works in the Central Railside Warehouse Company Limited in which his near relative is posted as Accounts Officer or as any officer in any capacity between the grade of Chief Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the Central Railside Warehouse Company Limited or in the Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India, New Delhi. The Company reserves the right to debar the Tenderer from participating in future bidding processes of the Company for a minimum period of five years, which may be further extended at the discretion of the Company for any breach of this condition.

49 No Engineer employed in Engineering or Administrative duties in Engineering Division of the Company is allowed to work as a contractor and also an employee of contractor for a period of one year after his retirement from Company service, without the previous permission of the Central Railside Warehouse Company Limited in writing. This contract is liable to be cancelled, if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the Central Railside Warehouse Company as aforesaid before submission of the tender or engagement in the contractor's service.

50. Conditions of Contract and Specifications:

50.1 Works will be carried out according to the Conditions of Contract, CPWD Specifications with upto date correction slips alongwith Special Conditions of Contract, Technical Specifications and approved Drawings of CRWC, issued with this tender document. For roads and pavements, MORTH Specifications shall be followed. However, if any particular item or issue is not covered by these specifications and special specifications, the work shall be carried out in accordance to relevant BIS (IS) Codes and Code of Practice.

50.2 MORTH Standard Specification (latest revised edition) for Road and bridge work; alongwith up-to-date correction slips for roads "& pavements can be obtained from Secretary, Indian Road Congress, Jam Nagar House, New Delhi's book shop.

50.3 CPWD's Specifications& DSR with up-to-date correction slips can be obtained from CPWD office, Nirman Bhawan, New Delhi.

50.4 The bid document shall be taken as complimentary and mutually explanatory to each another; but in case of ambiguity or discrepancy, it shall take precedence as per Conditions of Contract.

51. The Special Conditions of Contract shall be read in conjunction with General Conditions of Contract. Where the provisions of Special Conditions of Contract are at variance with above mentioned documents, the Special Conditions of Contract shall prevail.

52. It is brought to the notice of tenderers that their tender will not be considered, if they fail to fulfil the Minimum Eligibility, as indicated in **Annexure 'A'**.

53. The Price quoted by the tenderer and accepted by CRWC, shall remain firm during the currency of contract including the extended period, if any extended due to any reason attributable to either CRWC or Contractor or Force majeure. No claim, whatsoever shall lie against the Company on account of any variation, escalation etc. in the rates.

54. Validity of the tender will be ninety (90) days from the date of opening of Technical Bid.

55. Tender form should be purchased by the Bidder who is participating in the tender,i.e. Tender form should be in name of bidder, otherwise tender will be summarily rejected.

Addl. GM (P&E)

For and on behalf of
Central Railside Warehouse Co. Ltd.

SECTION – II

(MINIMUM ELIGIBILITY CRITERIA FOR THE TENDERERS)

MINIMUM ELIGIBILITY CRITERIA

1. EMD, Cost of Tender & Tender Processing Fees:

- EMD to be paid in favour of Central Railside Warehouse Company Limited, New Delhi only through e-payment gateway of e-procurement &receipt of same should be scanned and uploaded on the e-tendering website www.CRWCeprocure.comalong with e-tender documents.
- Cost of tender to be paid only through e-payment gateway of e-procurement system. Proof should be submitted/uploaded with the tender.
- Tender processing fee (Non-refundable) would be paid mandatorily to M/s ITI Ltd. through e-payment on the portal https://crwc.euniwizarde.com

2. Experience Certificate:

Tenderer should have completed successfully at least one similar nature of work **"(i.e. Construction of Warehouse/ Godowns OR industrial sheds OR Building, OR Railside warehouse complex, alongwith associated works of drain, road, circulating area, internal & external electrification and other allied works.)"** " of value not less than **Rs. 388.97 Lakhs** (35% of the advertised Estimated Cost) during the preceding four financial years (i.e. 2018-19, 2019-20, 2020-21& 2021-22) & current year (2022-23) upto the date of tender submission. Certificate should include the name of work, agreement no., date of start, actual date of completion & gross amount of work done upto the completion.

It should be noted that credentials for the works executed for Private organizations shall not be considered.

{Please see "important notes from s.no. xv to xix under chapter "important instructions" of NIT/tender document"}

3. Turnover: Financial Eligibility Criteria:

The sum total (arithmetic sum) of tenderer's turnover: revenue (income) from operations for the last three financial years (i.e. 2019-20, 2020-21 & 2021-22) should be of value not less than **₹ 1000.20 Lakh (90% of advertised Estimated Cost).**

The information shall be supported by audited Balance Sheets and Profit & Loss Statements of specified period. In case Balance Sheet and Statement of Profit/Loss for the immediate preceding financial year have not been prepared / audited; the account for one more preceding financial year can be submitted.

In case, Bidder does not submit Audited balance sheet and P&L accounts for a particular year (among previous three years as mentioned above), turn over for that particular year will be considered '0'(zero) for calculating arithmetic sum of previous three years.

4. Affidavit :Duly filled up and signed on stamp paper as per **Annexure IV**.

Note:(i) Tenderer not fulfilling the above requirements or submission of clarification documents with respect to mandatory document, shall be summarily rejected.

(ii) The bidder, who have changed the name of Firm/merged/acquired/purchased any Firm whose credential papers are being used/submitted for qualification of tender, should submit the following documents in this regard:

(a) The copy of certificate of In Company of Firm or Registration Certificate of Firm.

(b) Copy of Memorandum and Articles of Association of Firm.

(c) Copy of Board Resolution regarding change of name of/take over/merger of Firm.

(d) Copy of sale deed/Memorandum of Understanding for Purchase/sale/merger of Firm alongwith assets and liabilities.

(e) Copy of PF Registration and PAN Card.

(f) Affidavit regarding change of name of Firm alongwith all assets and liabilities, if any.

(g) Affidavit regarding closure of business of Old Firm/Merged Firm.

(h) Copy of Certificate of CA/Company Secretary regarding Sale/Merger/Change of name of Firm.

In absence of the complete documentary evidence, such offer shall be summarily rejected.

(iv) No Technical and Financial credentials are required under the eligibility criteria of clause 2 & 3 of this Annexure-A for the tenders of value upto Rs. 25 lakhs-In following case

(a) If Tenderer is an enlisted contractor of CPWD / Railways / MES / State PWDs / Other Govt. Organisations / Public Sector Undertakings and their Subsidiaries and his enlistment is valid for at least one year from the date of tender opening.

OR

(b) Tenderer have worked / working with aforesaid Govt. Departments / Agencies during the last four financial years (i.e.,20__-20__, 20__-20__, 20__-20__ and 20__-20__)& current year (20__-20__) upto the date of tender submission.

OR

(c) Tenderer or one of his partners is an unemployed Graduate Engineer /Architect passed from Recognized university /Institute in India.

In such case, The Bidder will be considered qualified for Part2 (price bid opening) only if Bidder uploads Copy of Proof of enlistment/working or Experience/with CPWD / Railways / MES / State PWDs / Other Govt. Organisations / Public Sector Undertakings and their Subsidiaries or Copy of Degree awarded by Recognized university /Institute in India along with copy of valid Partnership deed or affidavit for sole-propertier firm (Annexure - II) .

Addl. GM (P&E)

SECTION – III
(TENDER FORMS & ANNEXURES)

"TENDER & CONTRACT"

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the Work of **"Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway."**

(i) To be submitted on-line at Website: https://crwc.euniwizarde.com latest by **3:00 p.m on 22.08.2022**

(ii) To be opened on-line at Website : https://crwc.euniwizarde.com in presence of Tenderers or their authorized representative who may wish to be present at **3.30 pm on 22.08.2022** in the office of Addl. GM (P&E), Central Railside Warehouse Company Ltd., Corporate Office, 4/1, Siri Institutional Area, August Kranti Marg, Hauz Khas, New Delhi -110016.

T E N D E R

I/We have read and examined the Tender Notice; Notice Inviting Tender; Schedules - A, B, C, D, E & F; Specifications applicable, Drawings &designs; General rules &directions; Conditions of contract; Clauses of contract; Special & technical conditions; Schedule of rate, Price Sub Schedules ;Other documents ;Rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I/We hereby tender for execution of the work, specified for the Central Railside Warehouse Company Ltd within the time specified in Schedule 'F', viz. Schedule of quantities in all sub-schedules and in accordance in all respects with the Specifications, Designs, Drawings and Instructions in writing, referred to in Rule 1 of General Rules &Directions and in line of technical, special, General Conditions of Contract and with such materials, as are provided for by and in respect & in accordance with such conditions, so far as applicable.

I/We agree to keep **the tender open for ninety (90) days from the date of opening of Technical Bid** under two bid system and not to make any modifications in its terms and conditions.

A sum of **Rs. 22,22,670/- including GST** is hereby submitted **through e-payment gateway of e-procurement as EMD and Cost of the tender Rs. 1180/-***. If I/We fail to furnish the prescribed Performance Guarantee within prescribed period after award of the contract to me/us; I/We agree that the Central Railside Warehouse Company Ltd. shall, without prejudice to any other right/remedy, be at liberty to forfeit the said Earnest Money absolutely. Further, if I/We, fail to commence the work as specified, I/We agree that the Central Railside Warehouse Company shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money and the Performance Guarantee absolutely, otherwise the said Earnest Money shall be retained by the Company towards Security Deposit to execute all the works referred to in the tender documents upon the terms and conditions, contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage

mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provisions contained in Clause 12.2 of general conditions of contract. Further, I/We agree that in case of forfeiture of Earnest Money or both Earnest Money and Performance Guarantee as aforesaid, I/We shall be debarred for participation and shall not be eligible to participate in future tender /procurement process of Central Railside Warehouse Company Ltd. for two years commencing from the date of debarment.

"I/we undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in CRWC in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee."

I/We hereby declare that I/We shall treat tender documents, drawings and other records connected with the work as secret / confidential documents and shall not communicate information/ derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner pre-judicial to the safety of the Company.

Dated __/__/____

Signature of Contractor
Postal Address

Witness:

Address:

Occupation:

* *Cost of the tender to be deposited along with the EMD would be applicable only to those contractors who will download the tenders from the websites as mentioned in the NIT.*

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of Central Railside Warehouse Company for a sum of Rs._____ (Rupees_____), i.e._____% above/below the estimated cost of work of Rs._____(Rupees_____ _____).

The letters referred below shall form part of this Contract Agreement –

(a) _____

(b) _____

(c) _____

Dated:__/__/____

For & on behalf of CRWC

Signature _____
Designation_____

ANNEXURE I

FORMAT OF NET WORTH

The Net Worth of Mr./Ms./M/s _____ for last Financial Year _____ - ____ is Rs._____ lakhs as per his/her/their books of Accounts.

(Note: Net Worth means sum total of paid up share capital plus free reserves. Further, any debit balance of Profit &Loss Account and Misc. Expenses to the extent not adjusted / or written off, if any, shall be reduced from Reserves and Surpluses.

Signature of Chartered Accountant

Name :

Membership No. :

Seal :

Date :

Signature of Contractor

ANNEXURE II

AFFIDAVIT

(For Sole Proprietary Firm)

(To be executed in presence of Public Notary on non-judicial stamp paper of appropriate value. The stamp paper has to be in the name of the tenderer.)

I, _____ R/o _____ _____ do hereby solemnly affirm and declare as under –

1. That I am Sole Proprietor of _____ _____ (Sole Proprietor Firm Name).

2. That the office of the firm is situated at _____ _____ (address).

Place:

DEPONENT

Date:

VERIFICATION

Verified that the contents of my above said affidavit are true and correct to the best of my knowledge &belief and nothing has been concealed the refrom.

Place :

DEPONENT

Date :

ANNEXURE III

FORMAT FOR POWER OF ATTORNEY TO AUTHORIZED SIGNATORY

POWER OF ATTORNEY

(To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the Firm / Company who is issuing the Power of Attorney)

We, M/s _____ (name of the Firm / Company with address of the registered office) hereby constitute, appoint and authorize Mr/Ms _____ (Name &residential address) who is presently with us and holding the position of _____ and whose signature is given below, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things, necessary or incidental to our bid for the work _____ (name of work), including signing and submission of application/ tender / proposal, participating in the meetings, responding to queries, submission of information/ documents and generally, to represent us in all the dealings with CRWC or any other Government Agency or any person, in connection with the works until culmination of the process of bidding, till the Contract Agreement is entered into with CRWC and thereafter, till the expiry of the Contact Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney, pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid Attorney shall always be deemed to have been done by us.

Dated this the _____ day of _____, 20__

_____

(Signature and Name of Authorized Signatory, being given Power of Attorney)

_____

Signature and Name in block letters of Proprietor / All the Partners of the Firm / Authorized Signatory for the Company) *(Strike out whichever is not applicable)*

Seal of the Proprietorship Firm / Partnership Firm / Company

Witness 1:	Witness 2:
Name:	Name:
Address:	Address:
Occupation:	Occupation:

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Power of Attorney is to be attested by Notary.

ANNEXURE IV

AFFIDAVIT

{TO BE SUBMITTED 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_____ (hereinafter called the tenderer) for the purpose of the Tender documents for the work of _____ as per the Tender No._____ of CRWC, do hereby solemnly affirm and state on behalf of the tenderer including its constituents, as under:

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

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

3. I/We hereby declare that I/We have downloaded the tender documents from CRWC tender portal https://crwc.euniwizarde.com and printed the same. I/We have verified the content of the printed document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage (i.e. evaluation of tenders & execution of work),the decision of CRWC with regard to such discrepancies 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.**

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

6. I/We understand 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 suspending of business for fiveyear. Further, I/We *[insert name of the tenderer]* and all my/our constituents understand that my/our offer shall be summarily rejected.

7. I/We also understand that 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 and suspending of business for five year.

8. I/We also understand that in case I/we fails to submit the requisite Performance Guarantee even after the period specified in Clause 1 of Schedule 'F' from the date of issue of Letter of Acceptance (LOA), the contract shall be terminated, duly forfeiting EMD and

other dues, if any payable against the contract or in case of termination of contract due to default at my/our end, I/we shall be debarred from participating in future tender/procurement process of the Company for two years from the date of debarring.

9. I/We certify that I/We are not black listed or debarred by MES/CPWD/Railways /any Govt. Department / State PWDs/ PSU (Public Sector Undertaking) and Govt. Sector Construction Agencies from participation in tenders/contract on the date of opening of bids.

10. I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CRWC in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee.

11. **COMPLIANCE TO BID REQUIREMENT:**

I/We hereby confirm that we have gone through and understood the Tender Document and our Bid complies with the requirements / terms & conditions of the Tender Document and subsequent Addendum / Corrigendum (if any), issued by CRWC, without any deviation / exception / comments / assumptions.

We also confirm that we have quoted the rates without any condition and deviation.

The Tender has been submitted alongwith the required documents and same have been uploaded under digital signatures of the authorized signatory. We undertake that the tender document shall be deemed to be our bid and in the event of award of work to us, the same shall be considered for constitution of contract agreement. Further, we shall sign and stamp each page of the Tender Document as token of acceptance and as part of contract in the event of award of contract to us. We further confirm that we have quoted our rates in our financial bid as per the conditions of the Tender Document and for all the items.

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:**

- Details, as appropriate, are to be filled in suitably by tenderer.
- Attestation before Magistrate/ Notary Public.

ANNEXURE-V

INTEGRITY PACT

To
The Bidder

_____
_____

Sub : **NIT No. CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022 for the work of Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway.**

Dear Sir,

It is hereby declared that Company is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the TENDERER will sign the Integrity Agreement, which is an integral part of tender/bid documents, failing which the TENDERER will stand disqualified from the tendering process and the bid of the TENDERER would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the Company

Yours faithfully

Addl. GM (P&E) / CRWC

INTEGRITY PACT

To

…….

……

_____

Sub : Submission of Tender for the work of _____

Dear Sir,

I/We acknowledge that Company is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by Company. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, Company shall have unqualified, absolute and unfettered right to disqualify the TENDERER and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the TENDERER)

INTEGRITY PACT

This Integrity Agreement (hereinafter called the Integrity Pact) is made on _____ day of the month of _____, 20__

between

Central Railside Warehouse Company (A Govt. of India Enterprise), 4/1 Siri Institutional area, Hauz Khas, New Delhi, acting through Chief Engineer/ Superintending Engineer, Central Railside Warehouse Company Ltd. (A Govt. of India Enterprise) (hereinafter called the "**Company**" which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

and

through M/s _____, represented by Shri _____, (Name of the Contractor) (hereinafter referred to as the "TENDERER" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns).

Preamble

WHEREAS the Company has floated the Tender (NIT No. _____) (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract to construct _____ MTC Godown (Name of work) alongwith _____ at _____ hereinafter referred to as the "**Contract**".

AND WHEREAS the COMPANY values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its TENDERER(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "**Integrity Pact**" or "**Pact**"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1 : Commitment of the Company

1.1 The Company commits itself to take all measures necessary to prevent corruption and to observe the following principles :

(a) No employee of the Company, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Company will, during the Tender process, treat all TENDERER(s) with equity and reason. The Company will, in particular, before and during the Tender process, provide to all TENDERER(s) the same information and will not provide to any TENDERER(s) confidential / additional information through which the TENDERER(s) could obtain an advantage in relation to the Tender process or the Contract execution.

(c) The COMPANY shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

1.2 If the COMPANY obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the COMPANY will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the TENDERER(s)

2.1 It is required that each TENDERER (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the COMPANY all suspected acts of fraud or

corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2.2 The TENDERER(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

(a) The TENDERER(s) will not, directly or through any other person or firm, offer, promise or give to any of the Company's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

(b) The TENDERER(s) will not enter with other TENDERER(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the tendering process.

(c) The TENDERER(s) will not commit any offence under the relevant IPC/PC Act. Further the TENDERER(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Company as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The TENDERER(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly, TENDERER(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer alongwith the first manufacturer in a subsequent/parallel tender for the same item.

(e) The TENDERER(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

2.3 The TENDERER(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.4 The TENDERER(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

2.5 The TENDERER(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: <u>Consequences of Breach</u>

Without prejudice to any rights that may be available to the Company under law or the Contract or its established policies and laid down procedures, the Company shall have the following rights in case of breach of this Integrity Pact by the TENDERER(s) and the TENDERER accepts and undertakes to respect and uphold the Company's absolute right:

3.1 If the TENDERER(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the COMPANY after giving 14 days' notice to the contractor shall have powers to disqualify the TENDERER(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the TENDERER from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Company. Such exclusion may be forever or for a limited period as decided by the Company.

3.2 Forfeiture of EMD/Performance Guarantee/Security Deposit:

If the Company has disqualified the TENDERER(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine

the Contract according to Article 3(1), the Company apart from exercising any legal rights that may have accrued to the Company, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the TENDERER.

3.3 Criminal Liability:

If the Company obtains knowledge of conduct of a TENDERER, or of an employee or a representative or an associate of a TENDERER which constitutes corruption within the meaning of IPC Act, or if the Company has substantive suspicion in this regard, the Company will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

4.1 The TENDERER declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

4.2 If the TENDERER makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/holiday listing of the TENDERER as deemed fit by the Company.

4.3 If the TENDERER can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Company may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Tenderers/Contractors/Sub-contractors

5.1 The TENDERER(s) undertake(s) to demand from all sub-contractors a commitment in conformity with this Integrity Pact. The TENDERER shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.

5.2 The Company will enter into Pacts on identical terms as this one with all TENDERER.

5.3 The Company will disqualify TENDERER, who do not submit, the duly signed Pact between the COMPANY and the bidder, alongwith the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6 : Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the TENDERER 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other TENDERERs, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, Company.

Article 7 : Other Provisions

7.1 This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Company, who has floated the Tender.

7.2 Changes and supplements need to be made in writing. Side agreements have not been made.

7.3 If the TENDERER is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

7.4 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

7.5 It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Company in accordance with this Integrity Agreement/Pact or interpretation thereof shall not be subject to arbitration.

Article 8 : Legal and Prior Rights

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of

brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

Article 9: <u>Independent Monitor</u>

9.1 The Company has appointed Sh. Anupam Kulshreshtha, Retd. Dy.C&AG,B-3/3, Yarrow Apartments, Plot C-58/5, Sector 62, Noida, UP-201309 an Independent Monitor (hereinafter referred to as Monitor) for this Pact in consultation with the Central Vigilance Commission.

9.2 The task of the Monitor shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

9.3 The Monitor shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

9.4 Both the Parties accept that the monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.

9.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the Company.

9.6 The TENDERER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Company including that provided by the TENDERER. The TENDERER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the TENDERER/Subcontractor(s) with confidentiality.

9.7 The Company will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.

9.8 The Monitor will submit a written report to the designated Authority of Company within 8 to 10 weeks from the date of reference or intimation to him by the Company / TENDERER and, should the occasion arise, submit proposals for correcting problematic situations

IN WITNESS WHEREOF the Parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

_____

(For and on behalf of Company)

_____

(For and on behalf of TENDERER)

WITNESSES:

1. _____ (signature, name and address)
2. _____ (signature, name and address)

Place:

Dated :

ANNEXURE-VI

DECLARATION

(On the letter head of firm)

Following are the near relative of the contractor are working as Officer or as an officer in any capacity Officer in the Central Railside Warehouse Company Ltd.or in the Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi:

S/N	Department	Name of officer	Relation	Remarks
1	Central Railside Warehouse Company Ltd.			
2	Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi:			

(Duly authorized signatory of the TENDERER)

CENTRAL RAILSIDE WAREHOUSECOMPANY

(A Govt. of India Enterprise)

Contract Agreement For Item / Percentage Rates For Works

This Agreement for execution of work executed at_____ this day of the _____, 20__ by the Central Railside Warehouse Company Ltd., New Delhi-16, established under Warehousing Company Act, 1956 (hereinafter called 'the' Company) and M/S _____, a Partnership Firm, consisting of partners namely (i)_____, (ii)_____, (iii)_____/ Company registered under Companies Act/ Individual carrying on business in the name and style of _____(herein under called "CONTRACTOR", which term shall mean and include unless repugnant to the context his/ their Executors, Administrators, Legal and Personal Representatives),Witnesseth as follows:

WHEREAS the Company requires _____to be constructed at _____and whereas the CONTRACTOR has agreed to execute the items of Work Section as per General Conditions of Contract and Schedule of Work attached.

AND WHEREAS the CONTRACTOR having agreed to execute the above referred items of Works / Section, it is hereby agreed that the terms and conditions of the contract, as enumerated in General Conditions of Contract (Broad Heading of which are given in the Index thereto), item of Works / Section as per Schedule of Work, the Work Order issued and Specification of the CPWD for the time being enforce, shall form an integral part sole repository of the terms &conditions of this contract.

In witness where of the aforementioned Parties to the contract have affixes their signatures.

Contractor	For and on behalf of the Company
Witness &Address	Witness &Address
1. _____	1. _____
_____	_____
Dated :	Dated :
2. _____	2. _____
_____	_____
Dated :	Dated :

Form of Performance and Security Bank Guarantee Bond

In consideration of Central Railside Warehouse Company Ltd. (A Govt. of India Enterprise), Warehousing Bhawan, 4/1 Siri Institutional Area, August Kranti Marg, Hauz Khas, New Delhi -110016 (hereinafter called "THE Company"), having offered to accept the Letter of Acceptance no._____, dated __/__/____ and the terms &conditions of the proposed agreement between Company and_____ {hereinafter called "THE said CONTRACTOR(s)"} for the work of _____ (hereinafter called "THE said AGREEMENT") having agreed to production of an irrevocable Bank Guarantee for Rs. _____ (Rupees_____only) as a Security/Guarantee from the CONTRACTOR(s) for compliance of his obligations in accordance with the terms &conditions in the said Agreement.

We_____*(indicate name of the Bank)* _____(hereinafter referred to as "the BANK") hereby undertake to pay Company an amount not exceeding Rs._____(Rupees_____only), on demand by the COMPANY.

1. We _____ *(indicate name of the Bank)* _____ do hereby undertake to pay the amounts due and payable under Guarantee without any demure, merely on a demand from the COMPANY, stating that the amount claimed is required to meet the recoveries due or likely to be due from the said CONTRACTOR(s). 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._____(Rupees_____only).

2. We, the said BANK further undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the CONTRACTOR(s) in any suit or proceeding 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 valid discharge of our liability for payment thereunder, and the CONTRACTORS (s) shall have no claim against us for making such payment.

3. We _____ *(indicate name of the Bank)* _____ further agree that the Guarantee herein contained shall remain in 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 Company under or by virtue of the said agreement have been fully paid and its claim satisfied or discharged or till Engineer-in-Charge on behalf of the Company certified that the terms &conditions of the said agreement have been fully and properly carried out by the said CONTRACTOR(s) and accordingly discharges this Guarantee.

4. We _____ *(indicate name of the Bank)* _____ further agree with the Central Railside Warehouse Company that the Company shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any

of the terms &conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Central Railside Warehouse Company Ltd. against the said CONTRACTOR(s) and to forbear or enforce any of the terms &conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension, being granted to the said CONTRACTOR(s) or for any forbearance, act if omission on the part of the Central Railside Warehouse Company or any indulgence by the Central Railside Warehouse Company Ltd to the said CONTRACTOR(s) or by any such matter or things whatsoever which under the law relating to sureties would, but for this provision, have effect of so reliving us.

5. This guarantee will not be discharged due to the change in the constitution of the BANK or the CONTRACTOR(s).

6. We _____ *(indicate name of the Bank)* _____ lastly undertake not to revoke this Guarantee except with the previous consent of the Central Railside Warehouse Company Ltd. in writing.

7. This Guarantee shall be valid upto _____, unless extended on demand by Central Railside Warehouse Company Ltd.. Notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs._____ (Rs._____only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this Guarantee, all our liabilities under this Guarantee shall stand discharged.

Dated the _____ date of _____ for _____ *(indicate name of the Bank)* ___

ANNEXURE-IX

WORKS IN HAND

(On letter head of firm)

The contractor shall submit list of works which are in hand (in-progress) in the following format –

SL	Name of Work	Name & Particulars of Division /Department/Organisation Where Work is being Executed	Amount of Work (Rs.)	Status of Work in Progress	Remarks
1	*2*	*3*	*4*	*5*	*6*

(Duly authorized signatory of the TENDERER)

ANNEXURE-X

AFFIDAVIT

(FOR THE TENDERS OF VALUE UPTO RS. 25 LAKH)

{TO BE SUBMITTED 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.)

UNDERTAKING

I, _____ R/o _____ _____ do hereby solemnly affirm and declare as under –

(a) That I am enlisted contractor of CPWD / Railways / MES / State PWDs / Other Govt. Organisations / Public Sector Undertakings and their Subsidiaries and his enlistment is valid for at least one year from the date of tender opening. **The copy of valid enlistment certificate is enclosed herewith.**

OR

(b) that I have worked / working with CPWD / Railways / MES / State PWDs / Other Govt. Organisations/Public Sector Undertakings and their Subsidiaries during the last four financial years (i.e., 20__-20__, 20__-20__, 20__-20__ and 20__-20__) & current year (20__-20__) up to the date of tender submission. **The copy of work order/work experience certificate/working certificate issued by above department/agency is enclosed herewith.**

OR

(c) that I …….. is an unemployed Graduate Engineer /Architect passed from ……(name of Indian university/institution during the year……..). **Copy of degree certificate awarded by Institute is enclosed herewith.**

OR

My one of the partner name……. is an unemployed Graduate Engineer/ Architect passed from ……(name of Indian university/institution during the year……..). **Copy of degree certificate awarded by Institute is enclosed herewith.**

(Duly authorized signatory of the TENDERER

ANNEXURE - XI

OPERATIVE SCHEDULES

SCHEDULE 'A'

Bill of Quantities cum price schedules and various Sub-Schedule

SCHEDULE 'B'

Schedule of Materials to be issued to the Contractor –

SL	Description of Item	Quantity	Rates in Figures & Words at which the Material will be Charged to the Contractor	Place of Issue
1	*2*	*3*	*4*	*5*
	NIL			

SCHEDULE 'C'

Tools & Plants to be hired to the Contractor –

SL	Description	Hire Charges per day	Place of Issue
1	*2*	*3*	*4*
NIL			

SCHEDULE 'D'

Extra Schedule for Specific Requirements / Document for the Work, if any

---

SCHEDULE 'E'

Name of Work : **Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway.**

Estimated Cost of Work: **Rs. 11,11,33,448.42**

(i) Earnest Money : **Rs. 22,22,670/-** *(to be adjusted in Security Deposit)*

(ii) Performance Guarantee: 5% of Tendered Value

(iii) Security Deposit: 5% of Tendered Value

Security Deposit may be deposited by the Contractor before release of first on account bill in cash or Term Deposit Receipt issued from Scheduled Bank, or may be recovered at the rate of 10% of the bill amount till the full Security Deposit is recovered.

SCHEDULE 'F'

(Refer relevant clauses of General Conditions of Contract (GCC) as mentioned below.)

GENERAL RULES & DIRECTIONS	Officer Inviting Tender	Addl. GM (P&E)
	Maximum Percentage for Quantity of Items of Work to be Executed beyond which rates are to be determined in accordance with Clauses 12.2 (c) of GCC	25% in Superstructure 25% in foundation

Definitions:

2(v) Engineer-in-Charge — Addl. GM (P&E)

2(vi) Accepting Authority — As per DOP

2(viii) Percentage on cost of materials and labour to cover all overheads and profits:15%

2(ix) Standard Schedule of Rates: DSR(Civil) 2021/ DSR Electrical 2018 /Market rates/DSR-2018 (Horticulture and Landscaping)

2(x) Department : Central Railside Warehouse Company Ltd.

Clause 1

(i) Time allowed for submission of Performance Guarantee, Programme Chart (Time & Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of LOA:**15 days**

(ii) Maximum allowable extension with late fee **@ 0.1% per day** of Performance Guarantee amount beyond the period provided in (i) above:**15 days**

Clause 2 Authority for fixing compensation under Clause 2 — Addl. GM (P&E)

Clause 2A

Clause 5 Number of days from the date of issue of Letter of Acceptance for reckoning date of start **15 days.**

Milestone(s) as per Table given below:

SL	Description of Milestone (Physical)	Time Allowed in Days (from Date of start)	Amount to be With-held in case of Non-achievement of Milestone
1.	Arrangement of material and T&P	Within 15 days from the date of issue of LOA	----
2.	Godown upto plinth level and upto PCC or Road and Rail level platform	120 Days	0.5% of contract value
3.	Godown with erection of PEB Structure and roof complete.	240 Days	0.25% of contract value
4.	Completion of Road and Rail level platform complete.	285 Days	0.5% of contract value
5.	Completion of electrical works	365 Days	0.25% of contract value
6.	Completion of the entire	12 Months	

	work		

Time Allowed for Execution of Work **:12 months**

Authority to Decide:

(i) Extension of Time : As per DOP

(ii) Rescheduling of Milestones : As per DOP

(iii) Shifting of Date of Start in case of delay in handing over of site: Addl. GM (P&E) /HOE as the case may be.

Schedule of Handing Over of Site

Part	Portion of Site	Description	Time Period for handing over reckoned from date of issue of Letter of Intent
Part A	Portion without any hindrance	--	---
Part B	Portions with encumbrances	--	---
Part C	Portions dependent on work of other agencies	--	---

Schedule of Issue of Designs

Part	Portion of design	Description	Time Period for Issue of Design reckoned from date of issue of Letter of Intent
Part A	Portion already included in NIT	--	---
Part B-1	Portions of Architectural Designs to be issued	--	---
Part B-2	Portions of Civil Designs to be issued	--	---
Part B-3	Portions of E&M Designs to be issued	--	---

Clause 5.1 Schedule of rate of recovery for delay in submission of modified programme in terms of delay days

SL	Contract Value	Recovery (Rs.)
I.	Less than or equal to Rs. 1 crore	500
II.	More than Rs. 1 Crore but less than or equal to Rs. 5 crore	1000
III.	More than Rs. 5 Crore but less than or equal to Rs. 20 crore	2500
IV.	More than 20 crore	5000

Clause 5.2 & 5.3 Nature of Hindrance Register (either Physical or Electronic)

Clause 7 Gross work to be done together with net payment after adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment, if work done payment is 5% or more of contract value Rs. _____

Clause 8A

(i) This shall not apply for maintenance or upgradation contracts, not involving any services

(ii) For other works, the limit shall be as below:

SL	Contract Value	**Limit** (Rs.)
I.	Less than or equal to Rs. 1 crore	10,000
II.	More than Rs. 1 Crore but less than or equal to Rs. 5 crore	35,000
III.	More than Rs. 5 Crore but less than or equal to Rs. 20 crore	1,00,000
IV.	More than 20 crore	2,00,000

Clause 10A

List of testing equipment to be provided by the contractor at site lab in addition of minimum specified in Technical condition of contract –

1)Screw Gauge, 2) Vernier calliper, 3) Measuring tape -5mtr.,10mtr. & 30mtr. 4) weighing machine 5) Setting of field laboratory with equipment such as sieve sets for coarse agg. & fine agg 6) equipment's for slump tests 7) compressive strength machine for paver block 8) measuring cylinder, 9)level machine.

Clause 11

Specifications to be followed for execution of work	CPWD Specifications Vol - I & II 2019 for Civil Works and CPWD General Specifications for Electrical Works Part-I (Internal) 2013 & Part-II (External) 1994 with up-to-date Correction Slips or Latest CPWD Specifications in vogue on the date of tender publication.

Clause 12

Type of Work *** **Construction works**

*** To be filled by NIT approving authority, either Project or original, work or Maintenance works including works of aesthetic, special repair, addition/alteration in buildings.

Items related to road work like up gradation or improvement of carriage-way by patch repair or annual/periodical repairs of road surface and A/R & M/O works pertaining to road shall be treated as maintenance work.

New road construction works, replacement of AC sheet roofing with Galvalume pre-coated steel sheet roofing and the strengthening of floor & road surface by repaving the same shall be considered as original works.

12.2 & 12.3	Deviation Limit beyond which Clause 12.2 & 12.3 shall apply for building work	As per provisions of Clause 12.2 of Conditions of Contract

Clause 16

Competent Authority for deciding reduced rates: Addl. GM (P&E)

Clause 18 List of mandatory machinery tools & plants to be deployed by contractor at site –

1. Concrete Mixer 2. Vibrator 3. Road Roller.

Clause 19(C) - Safety Provisions

In case the contractor fails to make arrangement and provide necessary facilities, he shall be liable to pay a penalty of Rs.500/- per day for the period he does not arrange the safety provision.

Clause 19(D)- Submission of statement

In case the contractor fails to submit the statement, he shall be liable to pay a penalty of Rs.500/- per week for the period he does not submit the statement.

Clause 19(G) – Default & breach of provisions.

In the event the contractor(s) committing a default or breach of any of the provision, he shall be liable to pay a penalty @ 0.05% for each day of default subject to a maximum of 5% of estimated cost.

Clause 19(K) – Employment of skilled/semi-skilled workers.

In case the contractor fails to deploy the qualified tradesman, he shall be liable to attract penalty of Rs.700/-per day.

Clause 25

Constitution of Dispute Redressal Committee (DRC) –

Chairman – Addl. GM (P&E) Member – Addl. GM (Finance); Member – Sr. Manager (Comml.)

Place of Arbitration - New Delhi

Clause 32: Requirement of Technical Staff for a Work and Rate of Recovery

SL	Cost of Work	Minimum Qualification of Technical Representative	Designation (Principal Technical / Technical Representative)	Minimum Experience (years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i)
1.	More than 100 Cr.	i)Graduate Engineer (Major Component)	Project Manager with degree in major discipline of Engineering Civil/Electrical	20 (and having experience of one similar nature of work)	1	Rs.60,000/- PM
		ii)Graduate Engineer	Deputy Project Manager	12(and having experience of one similar nature of work)	2+1	Rs.40,000/- PM per person
		iii)Graduate Engineer or Diploma Engineer	Project/Site Engineer	5 or 10 respectively	4+2	Rs.25,000/-PM per person
		iv)Graduate Engineer	Quality Engineer	8	1+1	Rs.25,000/-PM per person

		v)Diploma Engineer	Surveyor	8	1	Rs.15000/-PM per person
		vi)Graduate Engineer	Project Planning/billing	6	1+1	Rs.20000/- PM per person.
2	More than 50 to 100 Cr.	i)Graduate Engineer	Project Manager	20 (and having experience of one similar nature of work)	1	Rs.60,000/- PM
		ii)Graduate Engineer	Deputy Project Manager	12(and having experience of one similar nature of work)	1+1	Rs.40,000/- PM per person
		iii)Graduate Engineer or Diploma Engineer	Project/Site Engineer	5 or 10 respectively	1+1	Rs.25,000/-PM per person
		iv)Graduate Engineer	Quality Engineer	8	1+1	Rs.25,000/-PM per person
		v)Diploma Engineer	Surveyor	8	1	Rs.15000/-PM per person
		vi)Graduate Engineer	Project Planning/billing Engineer	6	1+1	Rs.20000/- PM per person.
3.	More than 20 to 50 cr.	i)Graduate Engineer	Project Manager	20 (and having experience of one similar nature of work)	1	Rs.60,000/- PM
		ii)Graduate Engineer	Deputy Project Manager	12(and having experience of one similar nature of work)	1	Rs.40,000/- PM per person
		iii)Graduate Engineer or Diploma Engineer	Project/Site Engineer	5 or 10 respectively	1+1	Rs.25,000/-PM per person
		iv)Graduate Engineer or Diploma Engineer	Quality Planning/quality/ billing Engineer	2 or 5 respectively	1+1	Rs.15,000/-PM per person

4.	More than 10 to 20cr.	(i) Graduate Engineer(Civil)	Principal Technical Representative/Project Manager	10 Years	1	Rs. 30,000 pm
		(ii) Graduate Engineer(Civil)	Technical Representative	5 Years	1	Rs. 25,000 pm
		(iii) Graduate Engineer (Civil) Or Diploma Engineer(Civil)	Project / Site Engineer and Project Planning / Billing Engineer	2 Years 5 Years	2 2	Rs. 15,000 pm Rs. 15,000 pm
5	More than 5 to 10Cr.	(i) Graduate Engineer(Civil)	Principal Technical Representative	5 Years	1	Rs. 25,000 pm
		(ii) Graduate Engineer(Civil) Or Diploma Engineer	Project / Site Engineer And Engineer	2 Years 5 Years	2 2	Rs. 15,000 pm Rs. 15,000 pm
6.	Above 1.5 cr. &Upto 5Cr.	i)Graduate Engineer Or Diploma Engineer	Principal Technical Representative Project Planning / Site / Billing Engineer	2 Years 5 Years	1 1	Rs. 15,000 pm Rs. 15,000 pm
7.	More than 1.5 lacs to 1.5 crore	ii)Graduate Engineer(Civil) or Diploma Engineer(Civil)	Project Manager cum Planning/Quality/ Site/billing Engineer	2 or 5 respectively	1 of major component	Rs.15,000/-PM

- Assistant Engineers retired from Govt. Services that are holding Diploma will be treated at par with Graduate Engineers.
- Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38

(I) (a) Schedule / Statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2021 printed by CPWD

(II) Variations permissible on theoretical quantities:

(a) Cement -

For works with estimated cost put to tender not more than Rs. 5 lakh +/- 3%

For works with estimated cost put to tender more than Rs. 5 lakh +/- 2%

For works with estimated cost put to

(b) Bitumen All Works : 2.5% plus & only & nil on minus side

(c) Steel Reinforcement and structural steel sections for each diameter, section and category +/- 2%

(d) All other materials Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

SL	Description of Item	Rates at which recovery shall be made from the Contractor	
		Excess Beyond Permissible Variation	Less use Beyond Permissible Variation
1.	Cement	-	Twice the rates mentioned in DSR adopted for estimation
2.	Steel reinforcement	-	do
3.	Structural Sections	-	do
4.	Bitumen	-	do
5.	Bitumen issued free	-	NA
6.	Bitumen issued at stipulated fixed price	-	NA

CHAPTER-II

SECTION – IV
(SPECIAL CONDITIONS OF CONTRACT)

SPECIAL CONDITIONS OF CONTRACT

Scope of Work includes:

1.0 General

1.1 The contractor will engage the experienced **Technical representatives** of concerned discipline on the project, who should have full knowledge of work and are capable of getting executed the work and removing defects, as pointed out by the Engineer-in-charge. Deployment of the technical representatives and recovery, in case the contractor fails to do so, shall be in accordance with the **Schedule-F**.

1.2 The contractor shall procure all construction materials well in advance, so that there is sufficient time for testing of materials and clearance of the same before in Company in the works. In case, untested material is used by the contractor and later, same is found not meeting to specification requirement, then the executed work with said material shall be dismantled and re-executed at the cost of contractor.

1.3 Wherever there is a reference to I.S. Code/Specifications or any other Code, it shall refer to latest Code with Correction Slips, as in vogue on the date of tendering.

1.4 The contractor shall make his programme for completion of work in consultation with the Engineer-in-Charge, keeping in view the availability of materials and unavoidable hindrance. No claim, whatsoever will be entertained due to delay on this account.

1.5 The contractor shall take levels and record them in prescribed Level Book before commencement of work. Levels taken shall be got verified from Engineer-in-Charge or his representative.

1.6 Work shall be carried out in a manner complying in all respects with the requirements of prevalent by-laws of the local Municipality/Municipal Company /Industrial development board/development authority as the case may be.

1.7 Rates quoted by the Tenderers/Contractors shall be inclusive of GST or all applicable taxes, Building and Other Construction Workers Welfare Cess, Levies, Duties on materials or services and on complete works in respect of this contract and shall be payable by the contactor. Central Railside Warehouse Company will not entertain any claim, whatsoever in this respect. This aspect should be included in the rates quoted by the contractor.

1.7.1 However, contractor is required to submit Tax Invoice as per rules under GST law.

1.7.2 CRWC shall deduct GST at source at applicable rates in case transactions under this contract are liable to GST deduction at source.

1.7.3 Under GST regime, the contractor is required to correctly and timely disclose the details of output supply to GST as per GST rules in his GST return. Non-compliance would result in mismatching of claims and denial of input tax credit to CRWC. Notwithstanding, anything contained in the agreement/contract in case of such default by the contractor, the amount of input tax credit, denied in GST along with interest and penalty shall be recovered from the contractor.

1.7.4 Unless expressly stated otherwise, where any identifiable cost saving are realized during the currency of contract by virtue of deduction :

(i) In rate of tax on supply of goods and services.

(ii) Any benefit of input tax credit accrued to the contractor, contactor shall pass on such benefit to CRWC by way of commensurate reduction in prices.

2.0 Period Of Completion

Time is the essence of the contract. The work is required to be completed within stipulated time schedule to be reckoned from the **15th day from date of issue of Letter of Acceptance.**

2.1 The contractor shall stick to the final completion date and will be liable to action for any delay due to contractor as per Conditions of Contract for stage as well as overall completion of the work.

2.2 In case of termination of contract due to default by contractor, available EMD, PG & Security Deposit with the department against the said contract will be forfeited. Contractor will be debarred from participating in any of the tenders/procurement process of CRWC for a period of Two years from the date of debarring.

3.0 Delay or Deferments

3.1 Where the Contractor has to work alongwith other agencies in and around the area allotted for his works, he shall execute all his works in complete coordination and cooperation with all such agencies, so that at no time either his work or the works of other agencies is stopped or delayed. In case of any dispute in this regard, decision of CRWC or their representative will be final and binding on the Contractor. No claim for idle labour, plant and machinery, under any circumstances will be entertained by CRWC.

3.2 During execution of the work, this Warehouse will be operational. Contractor has to execute all works in complete coordination and cooperation with all activities confined to the area within the scope of this work, so as not to affect the operation of Warehouse under any circumstances. In case of any dispute in this regard, decision of CRWC or their representative will be final and binding on the contractor. Contractor shall also note that work shall progress in phased manner as per operational requirement of CRWC, if any.

3.3 It is understood that Contractor has assessed CRWC operations at site of work and shall plan the deployment of resources in such a way that work is completed within stipulated time schedule despite running transactions/ operations of CRWC.

4.0 Measurements for Works/Record Measurements

4.1 The contractor shall ensure that measurements for all works, which may be partially or wholly hidden in the course of construction are duly recorded in the Measurement book before that portion of work becomes inaccessible for measurement.

4.2 For works running/on-account payments can be made on the basis of detailed measurements recorded in the measurement books for the actual work executed. Bills will be submitted by the contractor as per Bill Proforma enclosed and the date of submission of bills will be considered as the date of acceptance of bill / signing of bill, which is to be recommended & forwarded by the Engineer-in-Charge concerned for arranging payment.

5.0 Payment to be Made by CRWC

5.1 The price variation Clauses 10B(ii), (iii), (iv), 10C, 10CA and 10CC under GCC Clauses of CPWD Contract will not be applicable under this contract and any claim by the contractor in this regard will not be entertained.

5.2 (a) The contractor will submit running account/final bill of value not less than **5% value of the contract amount** towards the work done (excluding secured advance, if any).

(b) If the Contractor(s) does/do not prefer his/their specific and final claims in writing, within a period as stipulated in Clause 9 of GCC, he/they will deemed to have waived his/their claim(s) and CRWC shall be discharged and released of all liabilities under the contract in respect of these claims.

5.3 Following are the mandatory documents for payment of Running Account Bills.

- copy of paid challans of PF/ESI,
- Royalty (if applicable),
- paid bills of water & electricity,
- copy of **Workmen Compensation Policy**,
- copy of Labour License,
- Theoretical Consumption Statement of cement, steel & bitumen (if used in the work),
- Invoice of Cement, Paint, Floor Hardener, Steel & bitumen (as brought for use at Site)
- Test reports (Mandatory Items as per field quality plan)
- Proof of deployment of Site Engineer etc.

Above documents shall be required at the time of 1st RA bill & final bill.

For intermediate RA bills, above documents, if not available due to reasons stated by contractor with undertaking to comply and submit, may be relaxed by Engineer-in-charge. However, contractor must comply the statutory and other provisions. Contractor shall indemnify the CRWC against all losses / damages due to non-compliance of any of above provisions at intermediate stage, if any.

5.4 Income tax as well as Goods and Service Tax or any other Tax / Levy, as applicable by the Central / State Govt., shall be recovered on the gross amount of each bill.

5.5 To enhance the transparency in processing and settlement of bills /Invoices, Central Railside Warehouse Company have introduced a bill tracking system for its contractors or vendors. The contractor will have to register on CRWC/CWC BTS (Bill tracking system). His registration will enable the contactor and CRWC officials to see the bill status with dates which is under process of payment through various stages of processing of bills, the stage at which it is lying, the amount for which it is passed and other details. The BTS system includes history feature also so that a contractor can see the history of the bills submitted by them. Contractor will register to BTS through following link. He may take the assistance of the CRWC officials to ensure his registration on BTS.

Link :www.cwceportal.com/bts .

Contractor already registered, shall be provided with login id and password, on their registered email accounts which can be changed by contractor on 1st login to ensure the safety of their account.

Uploading of Invoices/bills: Contractor will submit his invoice for payment through BTS only

a) In case the invoices/bills are digitally signed, as per Govt. guidelines, the vendor shall not be required to submit the hard copy of invoices/bills. The vendor can directly submit the digitally signed invoice along with the supporting documents by selecting the concerned Region/ Corporate Office & the concerned Division, for which invoice is intended. However, the supporting documents as per the requirement of contract/work order/purchase order etc. to be submitted in hard copy also.

b) In case of ink signed invoices/bills, the vendor shall be required to upload the invoice/bill including supporting documents in BTS and also submit the hard copy of the original Invoice/bill and supporting documents.

c) The dealing assistant/officials of CRWC upon examining the invoice and supporting documents will take action on the invoice as per contract terms which can be returned to contractor If (a) the invoice is wrong/ calculation mistake/ wrong GSTIN etc

(b) If the uploaded invoice by the vendor is not digitally signed and digital signatures cannot be verified online.

6.0 Testing of Materials

6.1 Contractor will be required to establish a field laboratory for new works of Building Construction or Road /Floor up gradation works or in all such composite works containing concrete. Setting of field laboratory for the new works of value more than Rs.2 crore is a mandatory requirement. Contractor shall be responsible for setting up laboratory facilities, equipment's and arranging technical manpower at his cost, as directed by the Engineer-in-charge for conducting site/field test. All the equipments shall be BIS approved makes and will be got checked & calibrated regularly. All equipments of the laboratory shall be kept in good working conditions.

If contractor fails to provide field laboratory for new works within one month of commencement of work, shall attract a penalty of Rs. 25,000 per month, recoverable from the running bills. In all routine tests, which can normally be done in the field laboratory/in situ, testing charges will be borne by the contractor. In case contractor fails to conduct field laboratory test for new works, all required tests shall be carried out in the reputed / approved outside laboratory. So far as conducting required test for upgradation / repairing works, same would be carried out in the reputed/approved outside laboratory. Payment of testing charges of such tests will be borne by the contractor in both the cases.

6.2 Testing and acceptance criteria for cement, steel and any other materials, supplied by contractor should be as per BIS codes/Technical Specification or as decided by Engineer-in-charge as per stipulated testing frequency given in enclosed list (field quality Plan) or CPWD Specifications.

6.3 Sample of material for testing will be supplied free of cost by the contractor, including its transportation to the approved test houses/laboratory, as directed by the Engineer-in-Charge or inspecting officials.

6.4 For outside testing, test of materials and stipulated samples shall be carried out by one of the following laboratories/tests houses - (1) IIT, (2) NIT, (3) National Test Houses, (4) National Council of Cement & Building Material, (5) Govt. Engg. College/National Accreditation Board Approved Lab (NABL), as per decision of the Project-in-charge/Site Engineer. Testing charges shall be borne by the contractor.

6.5 All Routine tests on various materials shall be carried out as per the field quality plan -List of Mandatory Tests (enclosed) at the cost of the contractor. Wherever it is not specified, it will be carried out as per decision of Site Engineer, which will be final and binding on the contractor.

6.6 In addition to the tests required under above clauses thereof, the Engineer or his representative may order tests to be carried out by an independent person appointed by him at such place or in such laboratory, as he may determine in accordance with the appropriate Clauses of relevant Standard Specifications and cost of such tests shall be borne by the contractor.

6.7 Testing record shall be maintained as per standard Testing Performa, enclosed in tender document for proper testing and their record by the contractor.

6.8 In case, test results indicate that the cement, steel, bitumen or any other material brought or arranged by the contractor for in Company in work does not conform to the relevant BIS Codes, the same shall stand rejected and shall be removed from site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.

7.0 **Plant & Machinery Required for the Work**

7.1 It will be responsibility of the Contractor to arrange all plants & machinery, trucks, vibratory, Road roller etc. as required by him for execution of works.

7.2 Contractor will also arrange for getting permission of such plant & machinery, if required from local or other concerned authorities for use as well as for their transportation to site.

7.3 All expenditure incurred in this connection will be borne by the Contractor.

8.0 **Arrangement of Water for Execution of Works**

8.1 Contractor will have to make his own arrangements for obtaining water to be used for execution of the works or CRWC may supply water, if available for execution of work as per provision of Clause 30 of General Conditions of Contract. However, CRWC may allow labourers to use drinking water facility of the Warehouse, if necessary.

8.2 CRWC may permit to contractor to install bore-well at site at his own cost for execution of work. In this case contractor will ensure compliance of statutory requirements of the regulatory authority. After work completion, he shall restore the ground to its original condition after the bore-well is dismantled as per Clause 30 A of General conditions of Contract.

9.0 **Arrangements for Electric Connection, Lighting & Other Purpose**

9.1 If for reasons of urgency to expedite or complete the work within time, work has to be executed at night, contractor shall make his own arrangement for illuminating the site. Nothing extra will be paid for doing works at night.

9.2 Contractor will have to make his own arrangements for arranging electricity, if the same is required for illumination purposes or for running of any plant or machinery and nothing extra will be paid for the same.

9.3 CRWC may allow electric power, if available on actual electric energy consumption by putting separate electric energy meter with due permission of Site Engineer.

10.0 Maintenance after Completion: All works executed under this agreement shall be maintained by the contractor at his own cost during the maintenance period of as mentioned below. This period shall be reckoned from the actual date of completion or during defect liability period as per Clause 17.

- 12 Months in case of all works executed for Building or other infrastructure except CC Floor, metal Roof Sheet
- 36 Months in case of CC Floor, metal roof sheets, Paved/Concrete /Bituminous Road.

11.0 **Miscellaneous**

11.1 Customary standards/local traditions will not be the criteria for the standards. All works shall be up to the CPWD standards and as ordered by Engineer-in-charge and where any doubt may exist, specifications, as given in CPWD's Specifications Vol. I & II should be followed. Should there be any difference in the particular specifications for individual items of work and the description of the item as given in the schedule of quantities, the latter shall prevail. In case of items not covered by the general specifications referred to above or particular specifications attached, reference shall be made to the appropriate B.I.S. Code and decision of the Engineer-in-Charge shall be final and binding on the contractor.

11.2 CRWC may provide space for setting up Construction Plants, T & P, Site office, Laboratory, Storage of material, Labour etc. free of cost, if the surplus land is available and with prior permission from the Engineer-in-charge during construction period of the project.

11.3 No areas outside work site/depot will be made available to the contractor for storage of construction materials, site office construction etc. and if required, contractor will make his own arrangement for the same by personal negotiation with the owners at his own cost.

11.4 Rates for different items of work shall be for all heights and depths, except where otherwise specified.

11.5 Contractor shall quote his rate taking into account the restrictions due to warehouse operation, if any on entry/exist of vehicles and labour to/from the site of work, as laid

down by Central Railside Warehouse COMPANY and other Govt. authorities. If any entry fee/other charges are levied by any authority on entry of the vehicle/material/labour, same shall be paid by the contractor. No claim or compensation on this account shall be entertained from the contractor.

11.6 Contractor must take all precautions to avoid accidents by exhibiting day and night the necessary caution boards, speed limit boards, red flags / red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during execution of work.

11.7 Any damage done by the contractor or his work-men to any existing work during the course of execution of the work, tendered for, shall be made good by him at his own cost.

11.8 Contractor shall maintain in good condition all works executed till the completion of entire work, allotted to the contractor.

11.9 Contactor shall clean the site thoroughly of all rubbish etc. left out of his materials on completion of the work and roughly dress the site around the building line to the satisfaction of the Engineer-in-Charge.

12.0 **Handling of Materials**

12.1 No lead is payable on water for works done and scheduled under any section of DSR or for the work done under any Non-Scheduled Item (NSI) of DSR.

12.2 If food grains / goods stored in Warehouse are lost, stolen or damaged during execution of construction work by the contractor or his labourers, cost of the same @ twice of the prevailing market rate will be recovered from the Contractor's dues and Contractor will have no claim, whatsoever on this account.

12.3 During execution of work, if CRWC materials (cables, pipelines, drains etc.) are damaged, same will be set right by contractor at his cost within a reasonable time, as decided by the Engineer-in-charge. In case contractor fails to rectify the damages caused during construction/under their custody, cost of the damaged material shall be recovered from the contractor @ twice of prevailing market rates from the contractor dues/bills due with CRWC under any contract and contractor will not have any claim whatsoever on this account.

12.4 The contractor shall consult the Engineer-in-Charge in writing regarding collection and stacking of materials required for the work. He should not stack materials at any place other than those approved by the Engineer-in-Charge. No excavated earth or building material shall be stacked on area, where other buildings, roads, services or compound wall are to be constructed.

13.0Adherence to Labour Law and Regulations

The Contractors, who are working in the establishments through Contract Labour and/or employing labour themselves directly, should get themselves registered with and obtain a license from the Assistant Labour Commissioner concerned, as required under Contract Labour (Regulation and Abolition) Act 1971 and produce the same to Engineer-in-charge, in compliance to above and the Conditions of Contract. The copy of application for obtaining labour license may be submitted to Engineer-in-Charge within the period as specified in Schedule 'F' against clause 1 of GCC.

14.0 Employment of Labour from Scarcity Area

If the Government declares a state of scarcity or famine to exist in any village situated within 15 kms of the work, piece worker/contractor shall employ upon such parts of the works as unskilled labour any person found suitable and certified to him by the Engineer-in-charge or by any person to whom the Engineer-in-charge may have delegated in writing, to be in need to relief and shall be bound to pay to such person, the wages not below the minimum, which Government may have fixed in this behalf. Any dispute which

may arise in connection with the implementation of this Clause shall be decided by the CRWC, whose decision shall be final and binding on the piece worker/contractor.

15.0 Provision of Substituted/Extra Items& Quantity variation

Any item of work carried out by 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 accepted schedule ie DSR Civil /DSR E&M (as mentioned in Financial bid) modified by tender percentage and for such items not contained in the latter, as per following procedure:

If the substituted / altered/additional work, required to be executed as per CRWC's requirements, for which there are no established rates in Schedule of Rates; the same shall be payable as per provisions stated hereunder –

(a) As far as possible the rates for such items shall be derived from agreed schedule of Rates ieDelhi schedule of rates (Civil/E&M) as mentioned in financial bid modified by quoted percentage for sub schedule DSR (Civil)/ DSR (E&M) as the case may be.

(b) If direct working of rates from DSR is not possible, the contractor shall be paid on the basis as under:

(i) Material, labor either or both: Reasonable cost of materials plus reasonable cost of labor inclusive of tools, plants, machinery, and GST & Labor Cess as applicable and plus 15% of so derived cost to cover contractor profit, supervision, overheads, establishments, etc.

(ii) The rates so worked out shall be modified by quoted percentage in sub schedule of Market rates Civil /E&M as available.

Engineer-in-Charge's decision regarding reasonable labor cost and material consumption/cost shall be final and binding on contractor.

(d**) Variation in quantities & Vitiation:**

As there are more than one sub schedule in Tender, there is possibility of vitiation of contract due to quantity variation. Therefore, in case of variation in quantities, the vitiation statement will be prepared at the time of approval of deviation statement / Payment and the vitiated amount i.e (the difference in amount to keep L1 remains L1 after variation in quantity) will be recovered from contractor bill and no compensation on ground of quantity variation or recovery of such amount shall be payable.

The rates upon variation in quantity shall be governed by Clause 12.2 (C) of general condition of Contract.

16.0 Completion Drawings

16.1 Completion drawings on as built basis of all the completed works for showing the layout of the area with dimensions, slopes and details of building, reinforcements used, pavement, drain, cable trenches, machine foundations etc. shall be prepared by the contractor at his own cost.

16.2 Contractor will supply three copies of completion drawings alongwith soft copy in CD / Pen-drive with the final bill. In case, contractor does not submit the completion drawing within 30 days of completion of the work or alongwith submission of final bill (whichever is later), he shall be liable to pay a sum, as prescribed in Schedule F against clause 8(a) of GCC and in this respect, decision of the Engineer-in-charge shall be final and binding on the contractor.

17.0 Storage of Inflammable Articles

No inflammable materials, such as petroleum, oil etc. within the meaning of the Indian Petroleum Act and Indian Explosives Act shall be stored at site or adjacent land, until

approval of the CRWC and necessary license under the Act has been obtained by the contractor. All due precautions, as required under the Acts shall be taken by contractor.

18.0 Night Work

Contractor shall plan and deploy his all resources to complete the work within time as per agreed program of completion. If the CRWC is, however, satisfied that the work is not likely to be completed in time except by resorting to night work; by special order, the contractor would be required to carry out the work even at night, without conferring any right on the contractor for claiming for extra payment for introducing night working. The decision of the Site Engineer in this regard will be final and binding on the contractor.

19.0 Notice to Public Bodies

Contractor shall give to the Municipality, Police and other authorities, all notices that may be required by the law and obtain all requisite licenses for temporary obstructions, enclosures and pay all fees, taxes and charges, which may be leviable on account of his own operations in executing the contract. He should make good any damage to adjoining premises, whether public or private and provide & maintain any light etc. required at night and no extra payment will be made on this account.

20.0Plea of Custom

The plea of 'Custom' prevailing will not, on any account, be permitted as an excuse for infringement of any of the conditions of contract or specifications.

21.0Care of Staff

No guarantee will be provided by CRWC for accommodation of the contractor or any of his staff employed on the work. The contractor may, however, be allowed to erect labour camps

for housing the labour at or near the site of work on available CRWC's land. The contractor shall at his own cost make all necessary and adequate arrangements for importation, feeding and preservation of the hygiene of his staff. Contractor shall permit inspection of the Engineer-in-Charge or his assistant or any official of the CRWC at all times for all sanitary arrangements, made by him. If the contractor fails to make adequate medical and sanitary arrangements, these will be provided by the CRWC and cost thereof will be recovered from the contractor.

22.0First Aid

The contractor shall maintain in a readily accessible place First Aid Appliance including an adequate supply of sterilized dressing & sterilized cotton wool. Appliances shall be placed under charge of responsible person who shall be readily available during working hours.

23.0Trespass

The contractor shall, at all times, be responsible for any damages or trespass, committed by his agents and workmen in carrying out the work, unless such trespass is authorized by the Engineer at site.

24.0 Damage from Accidents or Floods or Tides

24.1 The contractor shall take all precautions against damages from accidents, floods or tides. No compensation will be payable by CRWC to the contractor for his tools, plants, materials, machines and other equipment lost or damaged by any cause, whatsoever. The contractor shall be liable to make good the damages to any structure or part of structure, plant or material of every description belonging to the CRWC administration, lost or damaged by any cause during the course of contractor's work.

24.2 The CRWC will not be liable to pay to the contractor any charges for rectification or repairs to any damages, which may have occurred from any cause whatsoever, to any part of the new structures during construction. No claims in this regard will be arbitrable.

24.3 The contractor shall bail out rain water collected during execution of work from the excavated trenches at his own cost. Nothing extra shall be payable on this account.

25.0Use of CRWC Materials Secured with Government Assistance

Where any raw materials for the execution of the contract are procured with the assistance of Govt. either by issue from Govt., stocks or purchases under arrangements made or permit(s) or license(s) issued by the Govt., the contractor shall hold the materials as trustee for the Govt. and use such materials economically and solely for the purpose of contract against which they are issued and not dispose them off without permission of the Govt. and return, if required by the Govt. all surplus or unserviceable materials that may be left by him after completion of the contract or at its termination for any reason whatsoever on his being paid such price as Govt. may fix with due regard to the condition of the materials. Freight charges for the return of the material, according to the direction of the purchaser, shall be borne by the contractor; in the event of contract being cancelled for any default on his part, decision of the Govt. shall be final and conclusive.

26.0 Insurance for Works, Persons and Property

26.1 Insurance for Works

The contractor at the scheduled date of start of work, without limiting his obligations and responsibilities, shall insure the works at his own cost and keep them insured until the virtual completion of the contract against all Acts of God including Fire, Theft, Riots, War, Floods etc. with an Insurance Agency, approved by Insurance Regulatory & Development Authority (IRDA) in the joint names of the Employer and Contractor (name of the former being placed first in the policy) for the minimum thirty percent amount of the originally awarded contract value irrespective of revised / modified contract value later on. Such policy shall cover the property of the CRWC and fees for assessing the claim and in connection with his services generally therein and shall not cover any property of the Contractor or of any sub-contractor.

The Contractor shall deposit the policy and receipt for the premiums with the CRWC within 30 days from the date of signing the contract or commencement of execution of work, whichever is earlier, or unless otherwise instructed by the CRWC. In default of the Contractor insuring as provided above, the CRWC on his behalf may so insure and may deduct the premiums paid from any moneys due or which may become due to the Contractor. The Contractor shall, as soon as any claim under the policy is settled or the works reinstated by the Insurance Office should elect to do so, proceed with all due diligence with the completion of works in the same manner as though the misfortune/ accident had not occurred and in all respects under the same conditions of contract. The Contractor in case of rebuilding or reinstatement after accident, shall be entitled to such extension of time for completion, as the CRWC deems fit.

26.2 Insurance in Respect of Damages to Persons and Property

(i) The Contractor shall be responsible for all injury to persons, animals or things and for all structural & decorative damage to property which may arise from the operation or neglect of himself or of any approved sub-contractors or employees, whether such injuries or damage arise from carelessness, accident or any other cause whatsoever in any way connected with carrying out of this contract. The Clause shall be held to include any damage to buildings, whether immediately adjacent or otherwise and damage to road, streets, footpaths, bridges and works forming the subject of this contract by frost or other inclemency of the weather.

The Contractor shall indemnify the CRWC and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property, as aforesaid and in respect of any claims made in respect of injury or damage under any Acts of Govt. or

otherwise and also in respect of any award of compensation of damage consequent upon such claims.

(ii) The Contractor shall reinstate all damages of every sort so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

(iii) The Contractor shall indemnify the CRWC against all claims which may be made against the CRWC by the member of the public or other third party in respect of works in consequence thereof and shall, at his own expense, arrange to effect and maintain, until the virtual completion of the contract, an Insurance Policy with Insurance Agency approved by IRDA in the joint names of the CRWC and Contractor against such risks and deposit such policy or policies with the CRWC from time to time during the currency of this contract.

The contractor shall similarly indemnify the CRWC against all claims which may be made upon the CRWC whether under the Workman's Compensation Act or any other statuette in force during the currency of this contract or at common law in respect of any employee of the Contractor or any sub-contractor and shall at his own expense affect and maintain with an approved office a policy of insurance in the joint names of the CRWC and the Contractor against such risks and deposit such policy or policies with the CRWC from time to time during the currency of the Contract.

The Contractor shall be responsible for anything which may be excluded from the Insurance policies above referred to and also for all other damages to any property arising out of an incidental to the negligent or defective carrying out of this contract. He shall also indemnify the CRWC in respect of any costs, charges or expenses arising out of any claim re-proceedings and also in respect of any award of or compensation of damages arising there from.

(iv) The Employer shall be at liberty and is empowered to deduct the amount of any damage, compensation costs, charges and expenses arising or accruing from or in respect of any such claim or damage of any sum or sums due to or become due to the Contractor including the Security Deposit.

(v) If the Contractor fails to comply with the terms of these conditions, the Employer may insure the works and may deduct amount of the premiums paid from any money that may be or become payable to the Contractor or may at the option, do not release running payment to Contractor until Contractor shall have complied with terms of this condition.

27.0 Any Other Insurance Required Under Law or Regulations or by CRWC

Contractor shall also carry and maintain any other insurance which he may be required under law or regulation from time to time. He shall also carry and maintain any other insurance which may be required by CRWC.

28.0 Site Office

Contractor shall have to provide temporary site office with requisite furniture & appliances and godown for storing/stacking construction materials at their own cost for which no extra payment will be made.

29.0 PF Compliance

It will be responsibility of the contractor to obtain separate code/identification No. for contractor's deposit of PF dues, if applicable with concerned authority directly. Copy of PF Registration / Code no. alongwith copy of PF paid Challans, shall be submitted alongwith Running Account Bills or Final Bill.

30.0 Recoveries / Withholding of Amount

30.1 In case of any technical deficiencies, lapses on account of non-compliance of PF/ESI, Insurance (WC Policies), Labour License or any other reasons not covered in any Clause of tender documents etc. are noticed by the Engineer-in-charge/CRWC Vigilance Deptt./CTE Organization, then a sum, as recommended or decided by Project in-charge/Site Engineer may be withheld, till rectification/remedy/compliance of the deficiencies.

30.2 Recoveries, if any, on account of uncovered period of insurance (WC Policies), defective work, loss to CRWC or any other liability not fulfilled by contractor etc., shall be affected from the contractor's bill / any other due(s) amount (i.e. Final Bill, Security Deposit & Performance Bank Guarantee etc.).

31.0 Material Obtained from the Dismantlement

The contractors, in the course of their own work, should understand that all materials, e.g. stone and other materials obtained in the work of dismantling and excavation etc. will be considered property of Central Railside Warehouse Company and would be issued to the contractor (if they require the same for use in the work) at the rates approved by the Engineer-in-Charge, as the case may be.

32.0 **A bidder shall be debarred if he has been convicted of an offence or breach the contract as below:**

1. if Bidder has been convicted of an offence
   (a) under the Prevention of Corruption Act, 1988; or
   (b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a contract.
2. If Bidder breaches the Code of Integrity.
3. In the event of any of the documents submitted by Bidder along with their bid is found fabricated/tempered/forged/altered/manipulated/false during the evaluation of bid or later at any stage even after award of work.
4. In case the bidder fails to submit the requisite Performance Guarantee even after the period specified in Clause 1 of Schedule 'F' from the date of issue of Letter of Acceptance (LOA).
5. In case the contract is terminated due to default in performance under the provision of contract.
   NOTE:

- A bidder debarred under sub-section (1) or any successor of the bidder shall not be eligible to participate in future tender of Central Railside Warehouse Company for three years commencing from the date of debarment.
- A bidder debarred under sub-section (2) or any successor of the bidder shall not be eligible to participate in future tender of Central Railside Warehouse Company for two years commencing from the date of debarment.
- A bidder debarred under sub-section (3) or any successor of the bidder shall not be eligible to participate in future tender of Central Railside Warehouse Company for Five years commencing from the date of debarment.
- A bidder debarred under sub-section (4) & (5) or any successor of the bidder shall not be eligible to participate in future tender /procurement process of Central Railside Warehouse Company for two years commencing from the date of debarment.

The bidder under provision of sub section 1 , 2 & 3 shall not be debarred unless such bidder has been given a reasonable opportunity to represent against such debarment

Section-V

CRWC's GENERAL CONDITIONS OF CONTRACT

CENTRAL RAILSIDE WAREHOUSECOMPANY

(A Govt. of India Enterprise)

General Rules & Directions

General Rules & Directions	1. All works proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in Newspapers or posted on website as the case may be. This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of Earnest Money to be deposited with the tender and amount of the Security Deposit and Performance Guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours. 2. In the event of the tender being submitted by a Firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender and it must disclose that the Firm is duly registered under the Indian Partnership Act, 1932. 3. Receipts for payment made on account of work, when executed by a Firm, must also be signed by all the partners, except where contractors are described in their tender as a Firm, in which case the receipts must be signed in the name of the Firm by one of the partners or by some other person having due authority to give effectual receipts for the Firm. 3A. The bidder, who have changed the name of firm/merged/acquired/ purchased any firm whose credential papers are being used/ submitted for qualification of tender, should submit the following documents in this regard : (a) The copy of certificate of In Company of Firm or Registration certificate of Firm. (b) Copy of Memorandum and Articles of Association of Firm. (c) Copy of Board Resolution regarding change of name of Firm/ take over/merger of the Firm. (d) Copy of sale deed/Memorandum of Understanding for Purchase/ sale/merger of Firm alongwith assets and liabilities. (e) Copy of PF Registration and PAN Card. (f) Affidavit regarding change of name of Firm alongwith all assets and liabilities, if any. (g) Affidavit regarding closure of business of old Firm/merged

	Firm. (h) Copy of Certificate of CA/Company Secretary regarding Sale/ Merger/Change of name of Firm. In absence of the complete documentary evidence, such offer shall be summarily rejected.
Applicable for Item Rate Tender only	4. The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads, as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer. If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Tender Evaluation Committee and the lowest contractors those have quoted equal amount of their tenders. In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited. In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractor. Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his tender, shall not be allowed to participate in the retendering process of the work.
Applicable for Percentage Rate Tender only	4A. In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures) the total estimated cost given in Schedule of Quantities at **Schedule-A**, he will be willing to execute the work. The tender submitted shall be treated as invalid if : (i) The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender. (ii) The percentage above/below is not quoted on the total amount of tender or any section/sub head of the tender. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying

	out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. 4B. In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub sections/ sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited. If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Tender Evaluation Committee & the lowest contractors those have quoted equal amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work. 5. The officer inviting tender or his duly authorized assistant, will open tenders in the presence of any intending contractors who may be present at the time. 6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender. 7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgment or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
Applicable for Item Rate Tender only	8. In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures shall be accurately filled in so that there is no discrepancy in the rates. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written in figures, then the rates quoted by the contractor shall be taken as correct. Where the rates quoted by the contractor in figures tally, but the amount is not worked out correctly, the rates quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space blank; it will

	be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. **However, if a tenderer quotes Nil rates against each item in Item Rate Tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.**
Applicable for Percentage Rate Tender only	9. In case of Percentage Rate Tenders, only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures, so that there is no discrepancy.
Applicable for Percentage Rate Tender only	10. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures in such a way that no interpolation is possible. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15P. 11. (i) The Contractor whose tender is accepted, will be required to furnish Performance Guarantee of 5% (Five Percent) of the tendered amount within the period specified in **Schedule 'F'**. This Guarantee shall be in the form of cash (in case Guarantee amount is less than Rs. 10,000) or Deposit at Call Receipt of any Scheduled Bank/ Banker's Cheque of any Scheduled Bank/Demand Draft of any Scheduled Bank/Pay Order of any Scheduled Bank (in case Guarantee amount is less than Rs. 1,00,000) or Government Securities or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. (ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfilment of his contract, an amount equal to 5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned in Schedule 'E'. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed. 12. On acceptance of the tender, name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge, shall be communicated in writing to the Engineer-in-Charge. 13. GST or any other tax applicable in respect of inputs procured by contractor for this contract, shall be payable by the Contractor and CRWC will not entertain any claim whatsoever in respect of same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied, if different from that applicable on the last date of receipt of tender including extension if any. 14. The contractor shall give a list of both gazetted and non-gazetted

CRWC employees related to him.

15. Tender for composite work includes, in addition to building work, all other works such as sanitary, water supply and drainage installations, electrical work, horticulture work, roads, paths etc.

16. The contractor shall submit list of works which are in hand (progress) in the following form :

Name of Work	Name & Particulars of Deptt. where Work Done	Value of Work	Position of Works in Progress	Remarks
1	*2*	*3*	*4*	*5*

CONDITIONS OF CONTRACT

Definitions

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the Central Railside Warehouse Company and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them :

(i) The expression **Works** or **Work** shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.

(ii) The **Site** shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

(iii) The **Contractor** shall mean the individual, firm or Company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or Company or the successors of such firm or Company and the permitted assignees of such individual, firm or Company.

(iv) The **Company/ Corpn. / Department** means the Central Railside Warehouse Company.

(v) The **Engineer-in-Charge** means the Addl. GM (P&E) who shall monitor and be in-charge of the work and who shall sign the contract on behalf of the Central Railside Warehouse Company.

(vi) **Accepting Authority** shall mean the authority mentioned in

	Schedule 'F'. (vii) **Excepted Risk** are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Govt., damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Company of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to faulty design of works. (viii) **Market Rate** shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits. **Provided that no extra overheads and profits shall be payable on the part(s) of work assigned to other agency(s) by the contractor as per terms of contract.** (ix) **Schedule(s)** referred to in these conditions shall mean the relevant Schedule(s) annexed to the tender papers or the Standard Schedule of Rates applicable mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto date of receipt of tender. (x) **Department** means CRWC or any department of Government of India which invites tenders on behalf of Company, as specified in Schedule 'F'. (xi) **District Specifications** means the Specifications followed by the State Government in the area where the work is to be executed. (xii) **Tendered Value or Contract Value** means the value of the entire work, as stipulated in the letter of acceptance. (xiii) **Date of Commencement of Work:** The date of commencement of work shall be date of start as specified in **Schedule 'F'** or the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, as indicated in the tender document. (xiv) **GST** shall mean Goods and Service Tax - Central, State and Inter State
Scope and Performance	3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall, whenever required, include feminine gender and vice versa. 4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract. 5. The contractor shall be furnished, free of cost one certified copy of the contract documents except Standard Specifications, Schedule of Rates and such other printed and published documents, together with all drawings, as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be Carried Out	6. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule-A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting & fixing in position and all other labours necessary in & for the full and entire execution & completion of the work as aforesaid in accordance with good practice and recognized principles.
Sufficiency of Tender	7. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.
Discrepancies and Adjustment of Errors	8. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions. 8.1 In the case of discrepancy between the Schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed – (i) Bill of Quantities (BOQ) (ii) Technical Specifications (iii) Drawings (iv) Special Conditions of Contract (v) General Conditions of Contract (vi) Instructions to Tenderers 8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final & binding on contractor. 8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.
Signing of Contract	9. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of : (i) The Notice Inviting Tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof, together with any correspondence leading thereto.

	(ii) Standard Form, as mentioned in **Schedule 'F'** consisting of : (a) Various Standard Clauses with corrections upto the date stipulated in Schedule 'F' alongwith Annexures thereto (b) Safety Code (c) Model Rules for the protection of health, sanitary arrangements for workers, employed by CRWC or its contractors (d) CPWD's Contractor's Labour Regulations shall *Mutatis Mutandis* apply to the work of CRWC. (e) List of Acts and Omissions for which fines can be imposed (iii) No payment for the work done will be made unless contract is signed by the contractor.

CLAUSES OF CONTRACT

	CLAUSE 1
Performance Guarantee	(i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the contracted amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of Letter Of Acceptance. This period can be further extended by the Engineer-in-Charge upto a maximum period as specified in Schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Engineer-in-Charge. This Guarantee cannot be in the form of Cash but can be deposited vide Demand Draft of any Scheduled Bank/Pay Order of any Scheduled Bank (in case Guarantee amount is less than Rs. 1,00,000) or Government Securities or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto. (ii) The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then Performance Guarantee shall be retained as Security Deposit (to the extant total SD of 5 % is made available to CRWC for the maintenance period/defect liability period). The same shall be returned year wise proportionately. (iii) The Engineer-in-Charge shall make a claim under the Performance Guarantee except for amounts to which the Company is entitled under the contract (not withstanding and/or without prejudice to

	any other provisions in the contract agreement) in the event of : (a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee. (b) Failure by the contractor to pay Company any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge. (iv) In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the Performance Guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Company. (v) On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion Certificate shall be recorded by the Engineer-in-Charge. The Provisional Certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract. This Provisional Completion Certificate shall be recorded by the concerned Engineer-in-charge with the approval of Addl. GM (P&E), if required. After recording of the Provisional Completion Certificate for the work by the competent authority, the 80% of Performance Guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services / any other work after construction of same building and services / other work and Full SD amount is available with CRWC at the time of last RA Bill/Final Bill payment, then 100% of Performance Guarantee shall be returned to the contractor, without any interest after recording the provisional Completion Certificate.
	CLAUSE 1-A
Recovery of Security Deposit (SD)	Total SD under the contract with maintenance or defect liability period as per special condition of contract shall be 5 % of Contract value. The person/persons whose tender(s) may be accepted (hereinafter called the Contractor) shall permit Company at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 10% of the gross amount of each running and final bill till the sum deducted will amount to Security Deposit of 5% of the tendered value of the work. Such deductions will be made and held by Company by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities or Fixed Deposit Receipts. In case a Fixed Deposit Receipt of any Bank is furnished by the contractor to the Company as part of the Security Deposit and the Bank is unable to make payment against the said Fixed Deposit Receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Company to make good the deficit. All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the

	sale of a sufficient part of his Security Deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Company on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or Fixed Deposit Receipt tendered by the State Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of the Engineer-in-Charge, any sum or sums which may have been deducted from, or raised by sale of his Security Deposit or any part thereof. The Security Deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above. The Security Deposit as deducted above can be released against Bank Guarantee issued by a Scheduled Bank, on its accumulations to a minimum of Rs. 5 lacs subject to the condition that amount of such Bank Guarantee, except last one, shall not be less than Rs. 5 lacs. Provided further that the validity of Bank Guarantee including the one given against the Earnest Money shall be in conformity with provisions contained in Clause 17 which shall be extended from time to time depending upon extension of contract granted under provisions of Clause 2 and Clause 5. In case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then Performance Guarantee shall be retained as Security Deposit (to the extant total SD of 5 % is made available to CRWC for the maintenance period/defect liability period). The same shall be returned year wise proportionately. **Note –** 1. Government papers tendered as security will be taken at 5% (five per cent) below its market price or at its face value, whichever is less. The market price of Government paper would be ascertained by the Chief Engineer/Superintending Engineer at the time of collection of interest and the amount of interest to the extent of deficiency in value of the Government paper will be withheld, if necessary. 2. Government Securities will include all forms of Securities mentioned in Rule no. 274 of the G.F. Rules except Fidelity Bond. This will be subject to the observance of the condition mentioned under the Rule against each form of security. 3. Note 1 & 2 above shall be applicable for both Clause 1 and 1A.
	CLAUSE 2
Compensation for Delay	If the contractor fails to maintain the required progress in terms of Clause 5 or to complete the work and clear the site on or before the contract completion or justified extended date of completion as per Clause 5 (excluding any extension under Clause 5.5) as well as any extension granted under Clauses 12 and 15; he shall, without prejudice to any other right or remedy available under the law to the CRWC on account of such breach, pay as compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' may decide on the amount of accepted Tendered Value of the work for every completed day/month (as determined) that the progress remains below

	that specified in Clause 5 or that the work remains incomplete – (i) Compensation for delay of work: With maximum rate @ 1% (one percent) per month of delay to be computed on per day basis. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the accepted Tendered Value of work or of the accepted Tendered Value of the sectional part of work as mentioned in Schedule 'F' for which a separate period of completion is originally given. GST as applicable under law shall be in addition to the above LD amount. (ii) In case no compensation has been decided by the authority in Schedule 'F' during the progress of work, this shall be no waiver of right to levy compensation by the said authority, if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under Clause 12, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under Sub-Clause 5.2, the contractor shall be liable to pay compensation for such delay. Provided that compensation during the progress of work before the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by the Engineer-in-Charge under Clause 3 for delay in performance and claim of compensation under that Clause. In case action under Clause 2 has not been finalized and the work has been determined under Clause 3, the right of action under this Clause shall remain post determination of contract, but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in Schedule 'F', after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Company. In case, the contractor does not achieve a particular milestone mentioned in **Schedule 'F'**, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall

	be withheld. However, no interest, whatsoever, shall be payable on such withheld amount
	Clause 2A
Incentive for Early completion	In case, the contractor completes the work ahead of stipulated date of completion a bonus @1% (one percent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5%(five percent) of the tendered value. Provided that justified time for extra work shall be calculated on pro-rata basis as cost of extra Work X stipulated period/tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the clause 2A shall be applicable only when so provided in Schedule F. Bonus under this clause shall be applicable only if all the works covered under contract included required extra works are completed in all respect without any minor defect/pending /punch points etc and completion report has been submitted by contractor to Chief Engineer, concerned warehouse manager and CRWC Regional Manager digitally within 2 days of completion of work. Bonus under this clause shall not be applicable if extension of contract takes place for any reason attributable to department or contractor or third party whatsoever, and in all such cases no incentive will be paid.
	CLAUSE 3
When Contract can be Determined	**3.1** Subject to other provisions contained in this Clause, the Engineer-in-Charge may, without prejudice to any other rights or remedy against the Contractor in respect of any delay, not following safety norms, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice (**Appendix G- XX & XXI**) in writing absolutely determine the contract in any of the following cases : (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner, shall omit to comply with the requirement of such notice for a period of seven days thereafter. (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge. (iii) If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract, has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment, making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to

	complete the same or does not complete the same within the period specified. (iv) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms & conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge. (v) If the contractor shall offer or give or agree to give to any person in Company service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Company. (vi) If the contractor shall enter into a contract with Company in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge. (vii) If the contractor had secured the contract with Company as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement. (viii) If the contractor being an individual, or if a Firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors. (ix) If the contractor, being a Company, shall pass a resolution or the Court shall make an order that the Company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order. (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days. (xi) If the contractor assigns {excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract}, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge. **3.2** When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the

	Company shall have powers (**Annex-X**): (a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered, Security Deposit payable and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Central Railside Warehouse Company. (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work including any new items needed to complete the work. **3.3** In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. **3.4** And in case, action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value, so certified.
	CLAUSE 3A
	In case, the work cannot be started due to reasons not within the control of the contractor within $1/8^{th}$ of the stipulated time for completion of work or one month whichever is higher, either party may close the contract by giving notice to the other party stating the reasons. In such eventuality, the Performance Guarantee of the contractor shall be refunded within following time limits: (i) If the Tendered value of work is upto Rs. 1 crore : 15 days (ii) If the Tendered value of work is more than Rs. 1 crore and upto Rs. 10 crore : 21 days (iii) If the Tendered value of work exceeds Rs. 10 crore : 30 days ➢ Neither party shall claim any compensation for such eventuality. ➢ This Clause is not applicable for any breach of the contract by either Party.
	CLAUSE 4
Contractor Liable to Pay Compensation even if Action not	In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause 3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be

taken under Clause 3	exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding Clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice). In the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.
	CLAUSE 5
Time and Extension for Delay	The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in Schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, the Performance Guarantee shall be forfeited by the Engineer-in-Charge and shall be absolutely at the disposal of the COMPANY without prejudice to any other right or remedy available in law. **5.1** As soon as possible, but within 7 (seven) working days of award of work and in consideration of – (a) Schedule of handing over of site, as specified in the Schedule 'F' (b) Schedule of issue of designs, as specified in the Schedule 'F' (i) The Contractor shall submit a Time and Progress Chart for each milestone. The Engineer-in-Charge may within 7 (seven) working days thereafter, if required modify and communicate the program approved to the contractor, failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details are required by contractor without causing

	any delay in execution of the work. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. (ii) In case of non-submission of Construction Programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final. (iii) The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract. (iv) The contractor shall submit the Time & Progress Chart and Progress Report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month, failing which a recovery as per Schedule 'F' to be decided by the NIT approving authority, shall be made on per week or part basis in case of delay in submission of the monthly progress report. **5.2** If the work(s) be delayed by : (i) force majeure, or (ii) abnormally bad weather, or (iii) serious loss or damage by fire, or (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or (v) delay on the part of other contractors or tradesmen, engaged by Engineer-in- Charge in executing work, not forming part of the Contract, or (vi) any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control. then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-charge , but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works. The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone(s), if any for events listed in Sub-Clause 5.2. **5.3** In case, the work is hindered by the Department or forany reasons / event, for which the Department is responsible, the authority as indicated in Schedule 'F' shall, if justified, give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law; provided further that for concurrent delays under this Sub-Clause and Sub-Clause 5.2 to the extent the delay is covered under Sub-Clause 5.2, the contractor shall be entitled to only extension of time and no damages.

	5.4 Request for rescheduling of milestones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms, i.e. Form of application by the contractor for seeking rescheduling of milestones or Form of application by the contractor for seeking extension of time (**Appendix-G-XVII**) respectively to the authority, as indicated in Schedule 'F'. Contractor shall indicate in such a request period by which rescheduling of milestone/s or extension of time is desired. With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme which shall include all details of pending drawings and decisions required to complete the contract and also the target dates by which these details should be available without causing any delay in execution of the work. A recovery, as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme. 5.4.1 In any such case, the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the milestones (**Appendix-G-XVIII**). Engineer-in-Charge shall finalize/reschedule a particular milestone before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority, as indicated in Schedule 'F' in writing, within 21 days of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the contractor for extension of time Engineer-in-Charge, after affording opportunity to the contractor, may give, supported with a programme (as specified under Clause 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event. **5.5** In case, the work is delayed by any reasons, in the opinion of the Engineer-in-Charge, by the contractor for reasons beyond the events mentioned in Clause 5.2 or Clause 5.3 or Clause 5.4 and beyond the justified extended date; without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.
	CLAUSE 6
Measurements of Work Done	Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department, so that a complete record is obtained of all the items of works performed under the contract. All such measurements and levels recorded by the contractoror his

	authorized representative from time to time during the progress of the work shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in- Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks. The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional Office records, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The contractor shall submit two spare copies of such computerized MBs for the purpose of reference and record by the various officers of the department. The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered alongwith two spare copies of the "Bill". Thereafter, this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of Measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed. The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the

	work, before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall, within the aforesaid period of seven days, inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof, no payment or allowance shall be made for such work or the materials with which the same was executed. Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is also a term of this contract that checking and/or test checking the measurements of any item of work in the Measurement Book and/or its payment in the interim, on account of final bill, shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.
	CLAUSE 7
Payment on Intermediate Certificate to be Regarded as Advances	No payment shall be made for work, estimated to cost Rs. Two lac or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. Two lac, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Department in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10^{th} working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge or his Authorised Engineer together with the account of the material issued by the department, or dismantled materials, if any. In case of works outside the headquarters

	of the Engineer-in-Charge, the period of ten working days will be extended to fifteen working days. All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in anyway powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract. Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority. The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Assistant Engineer / Executive Engineer to the effect that the work has been completed upto the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) upto lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill to be submitted by the contractor within 10 days of the interim payment. In case of delay in submission of bill by the contractor, a simple interest @ 10% per annum shall be paid to the Company from the date of expiry of prescribed time limit which will be compounded on yearly basis.
Payment in Composite Contracts	In case of composite tenders, running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor component shall be made by the Engineer-in-Charge of the discipline of minor component directly to the main contractor. In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment, then on the written complaint of contractor associated for such minor component, Engineer in charge of minor component shall serve the show cause to the main contractor and if reply of main contractor either not received or found unsatisfactory, he may make the payment directly to the contractor associated for minor component as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him. Such payment made to the associate contractor shall be recovered by Engineer-in-charge of major or minor component from the next R/A/ final bill due to main contractor as the case may be.
	CLAUSE 7A

	No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.
	CLAUSE 8
Completion Certificate and Completion Plans	Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.
	CLAUSE 8A
Completion Plans to be Submitted by the Contractor	The contractor shall submit completion plans for Internal and External Civil, Electrical and Mechanical Services, within thirty days of the completion of the work, provided that the service plans having been issued for execution by the Engineer-in-Charge, unless the contractor, by virtue of any other provision in the contract, is required to prepare such plans. In case, the contractor fails to submit the completion plan, as aforesaid, he shall be liable to pay a sum of 0.1% (zero-point one percent) of accepted Tendered Value or limit prescribed in Schedule 'F', whichever is more as may be fixed by the authority as mentioned in Schedule 'F' and in this respect the decision of that authority shall be final and binding on the contractor.GST as applicable under law shall be in addition to the above amount.

	CLAUSE 9
Payment of Final Bill	The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge, whichever is earlier. Final bill beyond above mentioned period, may be considered by department, in exceptional circumstances on request of contractor. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Assistant Engineer/ Executive Engineer, complete with account of materials issued by the Department and dismantled materials. (i) If the tendered value of work is upto Rs. 1 crore : 2 months (ii) If the tendered value of work is more than Rs. 1 crore and up to Rs. 10 crore : 3 months (iii) If the tendered value of work exceeds Rs. 10 crore : 6 months
	CLAUSE 9A
Payment of Contractor's Bills to Banks	Payments due to the contractor may, if so desired by him, be made to his bank, registered financial, co-operative or thrift societies or recognized financial institutions instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge – (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank; registered financial, co-operative or thrift societies or recognized financial institutions to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by Company or his signature on the bill or other claim preferred against Company before settlement by the Engineer-in-Charge of the account or claim by payment to the bank, registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial institutions shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank, registered financial, co-operative or thrift societies or recognized financial institutions. Nothing herein contained shall operate to create in favour of the bank; registered financial, co-operative or thrift societies or recognized financial institutions any rights or equities vis-a-vis the Company.
	CLAUSE 10A
Materials to be	The contractor shall, at his own expense, provide all materials, required

provided by the Contractor	for the works other than those which are stipulated to be supplied by the Company. The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall, within thirty days of supply of samples or within such further period as he may require, intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received. The Contractor shall at his risk & cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials. The contractor shall, at his risk & cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall, at all times, have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access. The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor. The contractor shall at his own expense, provide a material testing lab. at the site for conducting routine field tests. The lab. shall be equipped at least with the testing equipment, as specified in Schedule 'F'.

	CLAUSE 10B
Secured Advance on Materials	(i) The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials or an amount not exceeding 75% of the material element cost in the tendered rate of the finished item of the work, whichever is lower, which are, in the opinion of the Engineer-in- Charge, non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes, but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this Sub-Clause are incorporated in the work, the amount of such advance shall be recovered / deducted from the next payment made under any of the Clause or Clauses of this contract. Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-Charge provided contractor provides a comprehensive insurance cover for the full cost of such materials. Decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.
	Clause **10B(ii)** - Mobilisation Advance; Clause **10B(iii)** - Interest & Recovery; Clause **10B(iv)**; Clause **10C** - Payment on Account of Increase in Prices/Wages due to Statutory Order(s); Clause **10CA** - Payment due to Variation in Prices of materials after Receipt of Tender and Clause **10CC** - Payment due to Increase/Decrease in Prices/Wages (excluding materials covered under Clause 10CA) after Receipt of Tender for Works are **DELETED**
	CLAUSE 10D
Dismantled Material Govt. Property	The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as COMPANY's property and such materials shall be disposed off to the best advantage of Company according to the instructions in writing issued by the Engineer-in-Charge.
	CLAUSE 11
Work to be Executed in Accordance with Specifications, Drawings, Orders etc.	The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions, as are not included in the standard specifications of Central Public Works Department, specified in Schedule 'F' or in any Bureau of Indian Standard or any other, published standard or code or Schedule of Rates or any other printed publication referred to

	elsewhere in the contract. The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.
	CLAUSE 12
Deviations/ Variations Extent and Pricing	The Engineer-in-Charge shall have power – (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and ~~(ii)~~ to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
12.1	The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows : (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus (ii) 25% of the time calculated in (i) above or such further additional time, as may be considered reasonable by the Engineer-in-Charge
12.2 **Deviation, Extra Items and Pricing**	A. In case of extra item(s) (items that are completely new and are in addition to the items contained in the contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s) submit market rate, claim rates, supported by proper analysis which shall include invoices, vouchers etc. and manufacturer's specifications for the work, failing which the rate approved later by the Engineer-in-charge shall be binding and the Engineer-in-charge shall within a reasonable time limit of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis as defined in **clause 15 of special condition of Contract** and the contractor shall be paid in accordance with the rates so determined.
Deviation, Substituted Items	**B. fer: Clause 15 of Special Condition of Contract**

and Pricing	
Deviation, Deviated Quantities and Pricing	**C. Powers of Modification to Contract:** The Engineer on behalf of the COMPANY 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. (i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of items of the contract would be up to +25% of the quantity originally contracted i.e the Contract rates shall remain firm till the value of contract changes as mentioned in (iv) below. (ii) 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 up to the limit of -100% variation in quantity of items of works i.e there will be no claim or compensation in case the quantity of items of works are reduced or becomes '0' zero. (iii) In case an increase in quantities by more than 25% of the agreement quantities is considered unavoidable, then same shall be executed at following rates - (a) Quantities operated in excess of 125% but upto 140% of the agreement quantities, shall be paid at 98% of the rate awarded for the items in that particular tender; (b) Quantities operated in excess of 140% but upto 150% of the agreement quantities, shall be paid at 96% of the rate awarded for the items in that particular tender; (c) Variation in quantities of 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 the items in that particular tender. (iv) As far as DSR items are concerned, the limit of +25% would apply to the value of DSR schedule as a whole and not on individual DSR items. i.e when there is an excess in total value of all Contract items scheduled in DSR (as mentioned in Schedule F) by 25 % or more, the limits on individual items as mentioned on (iii) a, (b), (c) shall be applicable and contract rates shall be modified accordingly. However, in case of Market rate Items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate) and rates of such items in contract shall be modified irrespective of change in overall value of contract.
12.3	~~The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule 'F' and the Engineer-in-Charge shall, after giving notice to the contractor within one month of occurrence of the excess and after~~

	~~taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.~~**(Not applicable)**
12.4	For the purpose of operation of Schedule 'F', the following works shall be treated as works relating to foundation, unless & otherwise defined in the contract: (i) For Buildings: All works upto 1.2 metres above ground level or upto floor 1 level, whichever is lower (ii) For Abutments, Piers and Well Staining: All works upto 1.2 m above the bed level (iii) For Retaining Walls, Wing Walls, Compound Walls, Chimneys, Overhead Reservoirs/Tanks and other elevated structures: All works upto 1.2 metres above the ground level (iv) For Reservoirs/Tanks (other than overhead reservoirs/tanks): All works upto 1.2 metres above the ground level (v) For Basement: All works upto 1.2 m above ground level or upto floor 1 level, whichever is lower (vi) For Roads: All items of excavation and filling including treatment of sub-base
12.5	Any operation incidental to or necessarily has to be in contemplation of tenderer while quoting tender or necessary for proper execution of the item included in the Schedule of Quantities or in the Schedule of Rates mentioned above, whether or not, specifically indicated in the Description of the Item and the relevant Specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said Schedule of Rates, as the case may be. Nothing extra shall be admissible for such operations.
	CLAUSE 13
Foreclosure of Contract due to Abandonment or Reduction in Scope of Work	If at any time after acceptance of the tender or during the progress of work, the purpose or object for which the work is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope, the Engineer-in-Charge shall give notice in writing to that effect to the contractor stating the decision as well as the cause for such decision and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full, but which he did not derive in consequence of the foreclosure of the whole or part of the works. The contractor shall be paid at contract rates, full amount for works executed at site and in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure : (i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks. (ii) COMPANY shall have the option to take over contractor's materials

	or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for in Company in or incidental to the work) provided, however Company shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by Company, cost of such materials as detailed by Engineer-in-Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor. (iii) Reasonable compensation for transfer of T&P from site to contractor's permanent stores or to his other works, whichever is less. If T&P are not transported to either of the said places, no cost of transportation shall be payable. (iv) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary. The contractor shall, if required by the Engineer-in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence, as may be necessary to enable him to certify the reasonable amount payable under this condition. The reasonable amount of items on (i), (iii) and (iv) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the Company as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Company from the contractor under the terms of the contract. In the event of action being taken under Clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid up o the extended date of completion or stipulated date of completion, if no extension has been granted plus 60 days beyond that. Wherever such a fresh Performance Guarantee is furnished by the contractor, the Engineer-in-Charge may return the previous Performance Guarantee.
	CLAUSE 14
Carrying out Part Work at Risk & Cost of Contractor	A. (i) If the Contractor: (a) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or (b) Commits default in complying with any of the terms & conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge;

	or (c) Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge, (ii) The Engineer-in-Charge without invoking action under Clause 3 may, without prejudice to another right or remedy against the contractor which have either accrued or accrue thereafter to COMPANY, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc. thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk & cost of the contractor. (iii) The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work / part incomplete work of any item(s) taken out of his hands and execute at the risk & cost of the contractor, the liability of contractor on account of loss or damage suffered by Company because of action under this Clause shall not exceed 10% of the tendered value of the work. (iv) In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant & machinery belonging to the contractor. (v) The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor, provided always that action under this Clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor. (vi) Any excess expenditure incurred or to be incurred by COMPANY in completing the part work / part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by COMPANY as aforesaid after allowing such credit shall, without prejudice to another right or remedy available to Company in law or per as agreement, be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days. (vii) If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter, there

	remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract. (viii) In the event of above course being adopted by the Engineer-in-Charge, 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 engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract. B. (i) At the final stage of completion and commissioning of work, in case the contractor's failure is limited to only some of the works costing not more than 2% of the original contract value, and the Contractor request the engineer that such works may be offloaded from him and got executed through another agency and additional cost incurred, if any, should be recovered from his dues; the Engineer on being convinced that the anticipated additional cost for such works will not be substantial and can be recovered from the dues of the contractor and that such offloading will help in completion and commissioning of work, may agree to such offloading without any adverse repercussion on the performance guarantee and security deposit of the Contractor. However, the Engineer will not be under any compulsion to agree to such a request. (ii) Further, before issuing letter of acceptance to another agency for such work, the Contractor shall be informed of the rates at which the work will be got executed and the Contractor should give his consent to do so and certify that he would have no future claim on this account and that the extra expenditure so incurred, if any, by the Engineer in getting the offloaded work done, shall be recovered from subsequent Bills or any other dues of the Contractor. In case the Contractor fails to give such consent within three working days, the Engineer may treat the same as not acceptable to Contractor and proceed accordingly. (iii) In any case, CRWC shall deduct 10% of cost of such work or Rs. one lakh whichever is lower, from the Contractor's dues as administrative charges for the process of finalizing new agency for such work irrespective of whether or not such work is finally offloaded from Contractor or not.
	CLAUSE 15
Suspension of Work	(i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons : (a) on account of any default on the part of the contractor or; (b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or (c) for safety of the works or part thereof. The contractor shall, during such suspension, properly protect and

	secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in- Charge. (ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above : (a) the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and; (b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor, provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days. (iii) If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (i) above, the contractor may, after receipt of such order, serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by Company or where it affects whole of the works, as an abandonment of the works by Company, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by Company, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full, but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.
	CLAUSE 16
Action in case Work not done as per Specifications	All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorized subordinates-in-charge of the work and all the superior officers, officer of the Quality

	Assurance Unit of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent, duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. If it shall appear to the Engineer-in-charge or his authorized subordinates -in-charge of the worker to the Chief Engineer-in-charge of Quality Assurance or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect or unskilful workmanship or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs. 10 Lac and below except roadwork) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under Clause 2 of the contract (for non-completion of the work in time) for this default. In such case, the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract, but may accept such items at reduced rates as the authority specified in Schedule 'F' may consider reasonable during the preparation of on account bills or final bill, if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk & cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.
	CLAUSE 17
Contractor Liable for Damages, Defects during Defect Liability Period	If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working or any building, road, road kerb, fence enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland or cultivated ground contiguous to the premises on which the work or any part is being executed or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within stipulated maintenance period , as specified in Special conditions of Contract. after a certificate final or otherwise of its completion shall have been given by the Engineer in-Charge as aforesaid arising out of defect or improper materials or

	workmanship, the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his Security Deposit or the proceeds of sale thereof or of a sufficient portion thereof. The Security Deposit of the contractor shall not be refunded before the expiry of stipulated maintenance period as per Special condition of Contract,after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of Road, CC Floor and Metal roofing sheets work when executed along with other Building works , if in the opinion of the Engineer-in-Charge, the Security Deposit , calculated proportionately for value of these road/CC floor/Metal roof Sheet works with respect to Gross is sufficient, to meet all liabilities of the contractor under this contract, such amount against Security Deposit will be retained and balance will be refunded after expiry of maintenance period as per Special conditions of Contract or upon the issue of the said certificate of completion or till the final bill has been prepared and passed, whichever is later. In case of Maintenance and Operation works of E&M services, the Security Deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract, whichever is earlier.
	CLAUSE 18
Contractor to Supply Tools & Plants etc.	The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), machinery, tools & plants as specified in Schedule 'F'. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof.
	CLAUSE 18A

Recovery of Compensation paid to Workmen	In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, the COMPANY is obliged to pay compensation to workman employed by the contractor, in execution of the works, COMPANY will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the COMPANY under sub-section (2) of Section 12 of the said Act, the COMPANY 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 the COMPANY to the contractor whether under this contract or otherwise. The COMPANY shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to COMPANY full security for all costs for which the COMPANY might become liable in consequence of contesting such claim.
	CLAUSE 18B
Ensuring Payment and Amenities to Workers, if Contractor Fails	In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, the COMPANY is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the CPWD's Contractor's Labour Regulations or under the Rules framed by Govt. from time to time for the protection of health and sanitary arrangements for workers employed by Central Railside WarehouseCOMPANY's Contractors; the COMPANY 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 COMPANY under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970; COMPANY 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 COMPANY to the contractor whether under this contract or otherwise. COMPANY shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the COMPANY full security for all costs for which COMPANY might become liable in contesting such claim.
	CLAUSE 19
Labour Laws to be Complied by the Contractor	The contractor shall obtain a valid licence under the Contract Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work and continue to have a valid license until the completion of the work. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers

	Welfare Cess Act, 1996. Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.
	CLAUSE 19A
	No labour below the age of fourteen years shall be employed on the work.
	CLAUSE 19B
Payment of Wages	Payment of Wages: (i) The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined in the CPWD's Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable. (ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him. (iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the CPWD's Contractor's Labour Regulations made by Govt. from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wage and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation & Abolition) Act, 1970, and Contract Labour (Regulation & Abolition) Central Rules, 1971, wherever applicable. (iv) (a) The Engineer-in-Charge concerned shall have the right to deduct from the money due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations. (b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one-day rest for 6 days' continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned. In the case of Union Territory of Delhi, however, as the all-inclusive minimum daily wages fixed under Notification of the Delhi Admin.

	no. F.12(162) MWO/DAB/43884-91, dated 31.12.1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise. (v) The contractor shall comply with the provisions of the Payment of Wages Act 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Industrial Disputes Act 1947, Maternity Benefits Act, 1961 and the Contractor's Labour (Regulation & Abolition) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time. (vi) The contractor shall indemnify and keep indemnified COMPANY against payments to be made under and for the observance of the laws aforesaid and the CPWD's Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors. (vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract. (viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise. (ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.
	CLAUSE 19C
Safety Provisions	In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per CPWD's Safety Code (**Appendix-G-XVI**), framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty as decided by the authority mentioned in Schedule 'F'for each default and in addition, the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.
	CLAUSE 19D
Submission of Statements	The contractor shall submit by the 4th and 19th of every month, to the Engineer-in-Charge, a true statement showing in respect of second half of the preceding month and the first half of the current month respectively : (i) the number of labourers employed by him on the work (ii) their working hours (iii) the wages paid to them (iv) the accidents that occurred during the said fortnight showing the

	circumstances under which they happened and the extent of damage and injury caused by them (v) the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them Failing which the contractor shall be liable to pay to COMPANY, a sum as decided by the authority mentioned in Schedule 'F'for each default or materially incorrect statement. Decision of the Engineer-in-Charge shall be final in deducting from any bill due to the contractor, the amount levied as fine and be binding on the contractor.
	CLAUSE 19E
Health and Sanitary Arrangements	In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by the CPWD and its contractors.
	CLAUSE 19F
Maternity Leave and Pay	Leave and Pay during leave shall be regulated as follows – 1. Leave: (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage 2. Pay: (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater. (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage. 3. Conditions for the grant of Maternity Leave : No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave. 4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in **Appendix-G- I & II**, and the same shall be kept at the place of work
	CLAUSE 19G
Default & Breach of Provisions	In the event of the contractor(s) committing a default or breach of any of the provisions of the CPWD's Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the

	workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the COMPANY a sum as decided by the authority mentioned in Schedule 'F' for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to as decided by the authority mentioned in Schedule 'F' per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. Decision of the Engineer-in-Charge shall be final and binding on Parties. Should it appear to the Engineer-in-Charge that the contractor(s) is/are not properly observing and complying with the provisions of the CPWD's Contractor's Labour Regulations & Model Rules and the provisions of the Contract Labour (Regulation & Abolition) Act 1970, and the Contract Labour (R&A) Central Rules 1971, for the protection of health & sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities herein before mentioned at the cost of the contractor(s). The contractor(s) shall erect, make & maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).
	CLAUSE 19H
Logistics for Labours	The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge. (i) (a) The minimum height of each hut at the eaves level shall be 2.1m (7 ft) and the floor area to be provided will be at the rate of 2.7 sqm (30 sqft) for each member of the worker's family staying with the labourer. (b) The contractor(s) shall, in addition, construct suitable cooking places, having a minimum area of 1.80m x 1.50m (6'x5'), adjacent to the hut for each family.

		(c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women. (d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.
	(ii)	(a) All the huts shall have walls of sun-dried or burnt bricks, laid in mud mortar or other suitable local materials, as may be approved by the Engineer-in-Charge. In case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha, but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials, as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight. (b) The contractor(s) shall provide each hut with proper ventilation. (c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes. (d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft) according to the availability of site with the approval of the Engineer-in-Charge. Back-to-back construction will be allowed.
	(iii)	Water Supply - The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing & washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also, at his/ their own cost, make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available and shall pay all fees and charges therefor.
	(iv)	The site selected for the camp shall be high ground, removed from jungle.
	(v)	Disposal of Excreta - The contractor(s) shall make necessary arrangements for the disposals of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incinerations is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee /Authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/Authority. The contractor shall provide one sweeper for every eight seats in case of dry system.
	(vi)	Drainage - The contractor(s) shall provide efficient arrangements

	for draining away sewage water, so as to keep camp neat & tidy. (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers. (viii) Sanitation- The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities
	CLAUSE 19I
Conduct of Contractor Labours	The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. AE will display a list of contractors working in the Colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.
	CLAUSE 19J
Removal of Illegal Occupation	It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody unauthorized during construction and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by Superintending Engineer whose decision shall be final both with regard to the justification & quantum and be binding on contractor. However, the Superintending Engineer, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.
	CLAUSE 19K
Employment of Skilled / Semi-Skilled Workers	The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute / National Institute of Construction Management and Research (NICMAR) / National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/certified by State/Central Govt. Number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. Contractor shall submit number of man-days required in respect of each trade, its scheduling and the list of qualified tradesmen alongwith requisite certificate from recognized Institute to Engineer-in-charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract

	a compensation to be paid by contractor at the rate specified in Schedule 'F' per such tradesman per day. Decision of Engineer-in-Charge, as to whether particular tradesman possesses requisite skill and amount of compensation in case of default, shall be final and binding. Provided always, that the provisions of this Clause shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crore. For work costing more than Rs. 10 crore, and upto Rs. 50 crore, the contractor shall arrange on site training as per National Skill Development COMPANY (NSDC) norms for at least 20% of the unskilled workers engaged in the project in co-ordination with the CPWD Regional Training Institute & National Skill Development COMPANY (NSDC) for certification at the level of skilled/semi-skilled tradesmen. For work costing more than Rs. 50 Crores, the contractor shall arrange on site training as per National Skill Development COMPANY (NSDC) norms for at least 30% of the unskilled worker engaged in the project in coordination with the CPWD Regional Training Institute & National Skill Development COMPANY (NSDC) for certification at the level of skilled/ semi-skilled tradesmen. The cost of such training as stated above shall be borne by the Government. The necessary space and workers shall be provided by the contractor and no claim whatsoever shall be entertained.
	CLAUSE 19L
Contribution of EPF and ESI	The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. The ESI, EPF and other labour compliance will be sole responsibility of Contractor; CRWC will not provide anything over and above rate quoted by contractor. Contractor will provide the proof to CRWC for submission of ESI & EPF to respective authorities alongwith bills and proof of final amount deposited to respective authorities for ESI & EPF alongwith final bill compulsorily. If the contractor fails to do so, CRWC will deduct appropriate amount from contractor's Bill / Security Deposit and pay to the respective authorities.
	CLAUSE 20
Minimum Wages Act to be Complied with	The contractor shall comply with all the provisions of the Minimum Wages Act, 1948 and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed thereunder and other labour laws, affecting contract labour that may be brought into force from time to time.
	CLAUSE 21
Work not to be sublet. Action in case of Insolvency	The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract or attempt so or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employee of The COMPANY in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge, on behalf of the COMPANY, shall have power to adopt the course specified in Clause 3 hereof in the interest of The

	COMPANY and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.
	CLAUSE 22
	All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the COMPANY without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.
	CLAUSE 23
Changes in Firm's Constitution to be Intimated	Where the contractor is a Partnership Firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu Undivided Family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the Partnership Firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.
	CLAUSE 24
Life Cycle Cost	The contractor shall be responsible for safety, quality and soundness of the buildings including structural elements. All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.
	CLAUSE 25
Settlement of Claims, Disputes & Arbitration	**25.1 Claims:** If the Contractor intends to claim any additional payment under any Clause of these Conditions or otherwise, the Contractor shall give notice to the CRWC's representative as soon as possible and in any event within 28 days of the start of the event giving rise to the claim. The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on site or at another location acceptable to the CRWC's representative. Without admitting the CRWC's liability, the CRWC's representative shall, on receipt of such notice, inspect such records and may instruct the Contractor to keep further contemporary records. The Contractor shall permit the CRWC's representative to inspect all such records, and shall (if instructed) submit copies to the CRWC's representative. Within 28 days of such notice, or such other time as may be agreed by the CRWC's representative, Contractor shall send to the CRWC's representative an account, giving detailed particulars of the amount and basis of the claim. Where the event giving rise to the claim has a continuing effect, such account shall be considered as interim. The Contractor shall then, at such intervals as the CRWC's representative may reasonably require, send further interim accounts giving the

	accumulated amount of the claim and any further particulars. Where interim accounts are sent to the CRWC's representative, the Contractor shall send a final account within 28 days of the end of the effects resulting from the event. If the Contractor fails to comply with this Sub-Clause, he shall not be entitled to additional payment.
	25.2 Payment of Claims : The CRWC's representative shall notify his decision on Contractor's claim after due consultation with the CRWC within 60 days. If the particulars supplied are insufficient to substantiate the whole of the claim, the Contractor shall be entitled to payment for such part of the claim as has been substantiated. The Contractor shall be entitled to have included in any Interim Payment Certificate such amount for any claim as the CRWC's representative considers due.
	~~**25.3 Conciliation :**~~ ~~If the CRWC's representative shall fail to notify his decision in Sub-Clause 25.2 within a period of sixty days after being requested or if either the CRWC or the Contractor be dissatisfied with any such decision of the Employer's representative, then the matter in dispute shall be referred to conciliation as herein provided~~.
	~~**25.3.1 Referring of Disputes for Reconciliation :**~~ ~~Within 60 days of receipt of Notice of Dispute, either party shall refer the matter in dispute to Conciliation.~~ ~~Conciliation proceedings shall be initiated within 30 days of one party inviting the other in writing to conciliation. Conciliation shall commence when the other party accepts in writing this invitation. If the invitation is not accepted then conciliation shall not take place. If the party initiating conciliation does not receive a reply within 30 days from the date on which it sent the invitation, it may elect to treat this as a rejection of the invitation to conciliate and inform the other party accordingly.~~ ~~The conciliation shall be undertaken by one Conciliator selected from a panel of Conciliators maintained by the CRWC.~~ ~~The cost of conciliation shall be borne by the respective parties. The cost shall inter-alia include fee of the conciliator as per the rates fixed by the CRWC from time to time.~~ ~~The Conciliator shall assist the parties to reach an amicable settlement in an independent and impartial manner.~~
	~~**25.3.2 Conciliation Procedure :**~~ ~~The CRWC shall maintain a panel of Conciliators with requisite qualifications and professional experience who shall be from serving or retired engineers of Govt. departments, or of Public Sector Undertakings. Out of this panel, a list of three Conciliators shall be sent to the Contractor who shall choose one of them to act as Conciliator and conduct conciliation proceedings in accordance with "The Arbitration and Conciliation Act, 1996" of India.~~ ~~The Party serving notice of dispute on the other party shall also service such notice on the Conciliator chosen as per this Clause. The CRWC at the time of offering the panel of Conciliator(s) to be appointed as~~

	~~Conciliator shall also supply the information with regard to the qualifications of the said Conciliator nominated in the panel alongwith their professional experience, phone numbers and addresses of the Contractor.~~ ~~The CRWC and the Contractor shall in good faith cooperate with the Conciliator and in particular shall endeavour to comply with requests by the Conciliator to submit written materials, provide evidence and attend meetings. Each Party may, on his own initiative or at the invitation of the Conciliator, submit to the Contractor suggestions for the settlement of the dispute.~~ ~~When it appears to the Conciliator that there exist elements of a settlement which may be acceptable to the parties, he shall formulate the terms of a possible settlement and submit them to the parties for their observations. After receiving the observations of the parties, the Conciliator may reformulate the terms of a possible settlement in the light of such observations.~~ ~~If the parties reach agreement on a settlement of the dispute, they may draw up and sign a written settlement agreement. If requested by the parties, the Conciliator may draw up, or assist the parties in drawing up, the settlement agreement.~~ ~~When the parties sign the settlement agreement, it shall be final and binding on the parties and persons claiming under them respectively.~~ ~~The Contractor shall authenticate the settlement agreement and furnish a copy thereof to each of the parties.~~ ~~As far as possible, the Conciliation proceedings should be completed within 60 days of the receipt of notice by the Conciliator.~~ ~~The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.~~
	25.3.3 Termination of Conciliation Proceedings : ~~The Conciliation Proceedings shall be terminated :~~ ~~(a) By the signing of the settlement agreement by the parties on the date of agreement; or~~ ~~(b) By written declaration of the conciliator, after consultation with the parties, to the effect further efforts at re-conciliation are no longer justified on the date of declaration; or~~ ~~(c) By a written declaration of the parties to the conciliator to the effect that the conciliation proceedings are terminated, on the date of declaration; or~~ (d) ~~By a written declaration of a party to the other party and the conciliator, if appointed, to the effect that the conciliation proceedings are terminated, on the date of declaration.~~
	25.4 Dispute Resolution Committee : Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or

	relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof, shall be dealt with as mentioned hereinafter : (a) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge or if the Engineer-in-Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed, such party shall promptly, within 15 days of the arising of the disputes, request the Chief Engineer or where there is no Chief Engineer, the Director who shall refer the disputes to Dispute Redressal Committee (DRC) within 15 days alongwith a list of disputes with amounts claimed if any in respect of each such dispute. The Dispute Redressal Committee (DRC) shall give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from CE. (b) The constitution of Dispute Redressal Committee (DRC) shall be as indicated in Schedule 'F'. Provided that no party shall be represented before the Dispute Redressal Committee by an advocate / legal counsel etc. (c) The DRC will submit its decision to the concerned CE/Director for acceptance. CE/Director, in a time limit of 30 days from receipt of DRC decision, will convey acceptance or otherwise on the said decision.
	25.5 Arbitration : (a) If the Dispute Redressal Committee (DRC) fails to give its decision within the aforesaid period or the CE/Director fails to give his decision in the aforesaid time limit or any party is dissatisfied with the decision of Dispute Redressal Committee (DRC) / CE / Director, then either party may within a period of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC) / CE / Director or on expiry of aforesaid time limits available to DRC / CE / Director, may give notice to the Managing Director, CRWC, New Delhi for appointment of arbitrator on prescribed proforma as per **Appendix-G-XIX** under intimation to the other party. (b) It is a term of contract that each party invoking arbitration must exhaust the aforesaid mechanism of settlement of claims / disputes prior to invoking arbitration. (c) The Managing Director, CRWC, New Delhi shall in such case appoint the sole arbitrator or one of the three arbitrators as the case may be within 30 days of receipt of such a request and refer such disputes to arbitration. Wherever the Arbitral Tribunal consists of three Arbitrators, the contractor shall appoint one arbitrator within 30 days of making request for arbitration or of receipt of request by Engineer-in-charge to Managing Director, CRWC, New Delhi for appointment of arbitrator, as the case may be, and the two appointed arbitrators shall appoint the third arbitrator who shall act

	as the Presiding Arbitrator. (d) In the event of – (i) A party fails to appoint the second Arbitrator, or (ii) The two appointed Arbitrators fail to appoint the Presiding Arbitrator, then the Managing Director, CRWC, New Delhi shall appoint the second or Presiding Arbitrator as the case may be. (e) (i) Disputes or difference shall be referred for adjudication through arbitration by a Tribunal having Sole Arbitrator where claimed amount is Rs. 20 crore or less. Where claimed amount is more than Rs. 20 crore, Tribunal shall consist of three Arbitrators as above. The requirements of the Arbitration and Conciliation Act, 1996 (26 of 1996) and any further statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force, shall be applicable. (ii) It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed, if any, in respect of each such dispute alongwith the notice for appointment of arbitrator and giving reference to the decision of the DRC. (iii) It is also a term of this contract that in case of sole arbitrator, the arbitrator and in case of Tribunal any member of the Arbitration Tribunal shall be a Graduate Engineer with experience in handling public works engineering contracts at a level not lower than Chief Engineer (Joint Secretary level of Govt. of India) retired from Govt. Service or working in any other Govt. Department/Ministry other than COMPANY. This shall be treated as a mandatory qualification to be appointed as arbitrator. (iv) Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast-track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015. (v) Subject to provision in the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015 whereby the counter-claims, if any can be directly filed before the Arbitrator without any requirement of reference by the appointing authority, the Arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases where the total amount of the claims by any party exceeds Rs. 1,00,000, the Arbitrator shall give reasons for the award. (vi) It is also a term of the contract that if any fees are payable to the Arbitrator, these shall be paid as approved by the Managing Director, CRWC, New Delhi or if not available, as per the provisions of the Act. (vii) The place of arbitration shall be as mentioned in Schedule 'F'. In case, there is no mention of place of arbitration, the Arbitrator shall determine the place of arbitration.

	(viii) The venue of the arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any such agreement, then the Arbitral Tribunal shall decide the venue.
	CLAUSE 26
Contractor to Indemnify Govt. against Patent Rights	The contractor shall fully indemnify and keep indemnified the COMPANY against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against the COMPANY in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the COMPANY, if infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.
	CLAUSE 27
Lumpsum Provisions in Tender	When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the Clause.
	CLAUSE 28
Action where no Specifications are Specified	In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case, there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per State / District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.
	CLAUSE 29
Withholding and Lien in Respect of Sum Due from Contractor	(i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the COMPANY 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 Engineer-in-Charge or the COMPANY shall be entitled to withhold the Security Deposit, if any, furnished as the case may be and also have a lien over the same, pending finalisation 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 Engineer-in-Charge or the COMPANY shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge or the COMPANY or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim. It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or COMPANY will be kept withheld or retained as such by the Engineer-in-Charge or COMPANY till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the Arbitration Clause) 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 above 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 Engineer-in-Charge or the COMPANY shall be entitled to withhold and also have a lien to retain towards 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. (ii) The COMPANY shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc. to be made after payment of the final bill and if as a result of such audit and technical examination, any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for the COMPANY to recover the same from him in the manner prescribed in Sub-Clause (i) of this Clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by COMPANY to the contractor, without any interest thereon whatsoever. Provided that the COMPANY shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Superintending Engineer or Executive Engineer on one hand and the contractor on other under any term of the contract permitting payment for work after assessment by the Superintending Engineer or the Executive Engineer.
	CLAUSE 29A

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 Engineer-in-Charge or the COMPANY or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or COMPANY or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the COMPANY or with such other person or persons. It is an agreed term of the contract that the sum of money so withheld or retained under this Clause by the Engineer-in-Charge or the COMPANY will be kept withheld or retained as such by the Engineer-in-Charge or the COMPANY or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the 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.
	CLAUSE 29B
Employment of Coal Mining or Controlled Area Labour Not Permissible	The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only, i.e. deposit imported labour or labour imported by contractors from area, from which import is permitted. Where ceiling price for imported labour has been fixed by State or Regional Labour Committees, not more than that ceiling price shall be paid to the labour by the contractor. The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to the COMPANY a sum calculated at the rate of Rs. 10 per day per labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final & binding upon all parties to this contract. It is declared and agreed between the Parties that the aforesaid stipulation in this Clause is one in which the Public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872. Explanation **:** Controlled Area means the following areas : Districts of Dhanbad, Hazaribagh, Jamtara - a Sub-Division under Santhal Pargana Commissionery, Districts of Bankuara, Birbhum, Burdwan, District of Bilaspur. Any other area which may be declared a Controlled Area by or with the approval of the Central Government.
	CLAUSE 30
Water for Works	(a) The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions :

	(i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge. (ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk & cost of contractor(s), if arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory. (b) Departmental water supply, if available : Water on the request of Contractor and, if available may be supplied to the contractor by the COMPANY, subject to the following conditions : (i) The water charges @ 1% shall be recovered on gross amount of the work done. (ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply. (iii) The COMPANY do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the COMPANY water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.
	CLAUSE 30A
Alternate Water Arrangements	The contractor shall be allowed to construct temporary wells in COMPANY land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
	CLAUSE 31
Hire of Plant & Machinery	The contractor shall arrange at his own expense all tools, plants, machinery and equipment (hereinafter referred to as T&P) required for execution of the work.
	CLAUSE 32
Employment of Technical Staff and Employees	Contractor's Superintendence, Supervision, Technical Staff &Employees : (i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter, as may be necessary for proper fulfilling of the obligations under the contract. The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars alongwith

	certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'. Even of the contractor {or partner(s) in case of firm/Company} is himself / herself an Engineer, it is necessary on the part of the contractor to employ principal technical representative / technical representative(s) as per stipulation in Schedule 'F'. The Engineer-in-Charge shall, within 3 days of receipt of such communication, intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this Clause. Decision of the Tender Accepting Authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-Charge and shall be available at site before start of work. All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s) The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required to the Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in- Charge or his designated representative(s)in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements / checked measurements / test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge of the work in similar manner as aforesaid, shall be provided in event of absence of any of the representative(s) by more than two days. If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this Clause, a recovery (non-refundable) shall be effected from the contractor, as specified in Schedule 'F' and the decision of the Engineer-in-Charge, as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor.

	Further, if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) alongwith every on-account bill / final bill and shall produce evidence if at any time so required by the Engineer-in-Charge. (ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff, as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work. The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.
	CLAUSE 33
Levy/Taxes Payable by Contractor	(i) GST, Building and other Construction Workers Welfare Cess or any other Tax, Levy or Cess in respect of input for or output by this contract shall be payable by the contractor. The COMPANY shall not entertain any claim whatsoever in this respect except as provided under Clause 34. (ii) The contractor shall deposit Royalty and obtain necessary permit for supply of the red bajri, stone, kankar etc. from local authorities. If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the COMPANY and does not any time become payable by the contractor to the State Govt., Local Authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the COMPANY and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.
	CLAUSE 34
Conditions for Reimbursement of Levy/Taxes, if Levied after Receipt of Tenders	(i) All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension, if any. No adjustment, i.e. increase or decrease shall be made for any variation in the rate of GST, Building & Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs. However, effect of variation in rates of GST or Building & Other

	Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side increase or decrease. Provided further that for Building & Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension, if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/cess. Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay, as determined by Authority for extension of time under Clause 5 in Schedule 'F'. (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition, as may be necessary and shall allow inspection of the same by a duly authorized representative of the COMPANY and/or the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time. (iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess or variation or repeal of such tax or levy or cess give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.
	CLAUSE 35
Termination of Contract on Death of Contractor	Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Addl. GM (P&E) on behalf of the COMPANY shall have the option of terminating the contract without levy of compensation to the contractor.
	CLAUSE 36
If relative Working in CRWC then the Contractor not Allowed to Tender	The contractor shall not be permitted to tender for works in the CRWC in which his near relative is posted as Accounts Officer or as an officer in any capacity between the grades of the Chief Engineer and Assistant Engineer (both inclusive), responsible for award and execution of contracts. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Officer in the Central Railside WarehouseCOMPANY or in the Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi. The contractor would also be debarred from tendering in CRWC for five years for any breach of this condition Note: By the term "near relatives" is meant wife, husband, parents & grandparents, children & grandchildren, brothers & sisters, uncles, aunts & cousins and their corresponding in-laws.
	CLAUSE 37
No Gazetted Engineer to Work as Contractor	No engineer of Gazetted rank or other Gazetted officers employed in engineering or administrative duties in Central Railside WarehouseCOMPANY shall work as a contractor or employee of a

within One Year of Retirement	contractor for a period of one year after his retirement from COMPANY service without the previous permission of the COMPANY of in writing. This contract is liable to be cancelled, if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Central Railside WarehouseCOMPANY as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.
	CLAUSE 38
Theoretical Consumption of Material	(i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, theoretical quantity of materials used in the work shall be calculated on the basis and method given hereunder: (a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above-mentioned schedule/statement or cannot be derived from the same, shall be calculated on the basis of standard formula, to be laid down by the Engineer-in-Charge. (b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section-wise and category wise separately. (c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./ M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise. (d) For any other material, as per actual requirements. (ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. For Non-Scheduled items, decision of the Superintending Engineer regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor. The said action under this Clause is without prejudice to the right of the COMPANY to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.
	CLAUSE 39
Compensation During War-like Situations	The work (whether fully constructed or not) and all materials, machines, tools & plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials

	properly brought to the site for inCOMPANY in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed, but not already measured and paid for, the compensation shall be assessed by the Engineer-in-Charge upto Rs. 2,00,000 and by the next higher officer concerned for a higher amount. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract. Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations – (a) unless the contractor had taken all such precautions against air raid, as are deemed necessary by the A.R.P. (Air Rail Precaution) Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion, as is considered reasonable by the Engineer-in-Charge.
	CLAUSE 40
Apprentices Act Provisions to be Complied With	The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Addl. GM (P&E) may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
	CLAUSE 41
Release of Security Deposit after Labour Clearance	Release of Security Deposit of the work shall not be made till the contractor produces a clearance deposit after labour certificate from the Labour Officer. As soon as the work is virtually complete, the contractor shall apply for the Clearance Certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate, if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed

	to have received the clearance certificate and the Security Deposit will be released, if otherwise due.

Section - VI

(MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS)

Model Rules

For the Protection of Health and Sanitary Arrangements for Workers

Employed by Central Railside WarehouseCOMPANY or its Contractors

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of Central Railside WarehouseCOMPANY in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period when the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period when the contract work is in progress.

3. FIRST-AID FACILITIES

(i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, First-Aid Boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.

(ii) The First-Aid Box shall be distinctly marked with a red cross on white background and shall contain the following equipments :

(a) For work-places in which no. of contract labour employed does not exceed 50 –

(1) 6 small sterilised dressings
(2) 3 medium size sterilised dressings
(3) 3 large size sterilised dressings
(4) 3 large sterilised burn dressings
(5) 1 (30 ml) bottle containing a two per cent alcoholic solution of iodine
(6) 1 (30 ml) bottle containing Salvolatile having the dose and mode of administration, indicated on the label
(7) 1 snakebite lancet
(8) 1 (30 gm) bottle of potassium permanganate crystals
(9) 1 pair scissors
(10) 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Govt. of India
(11) 1 bottle containing 100 tablets (each of 5 gm) of aspirin
(12) Ointment for burns
(13) A bottle of suitable surgical antiseptic solution

(b) For work places in which the no. of contract labour exceed 50 –

(1) 12 small sterilised dressings
(2) 6 medium size sterilised dressings
(3) 6 large size sterilised dressings
(4) 6 large size sterilised burn dressings
(5) 6 (15 gm) packets sterilised cotton wool
(6) 1 (60 ml) bottle containing a two per cent alcoholic solution iodine

(7) 1 (60 ml) bottle containing Salvolatile having the dose and mode of administration, indicated on the label
(8) 1 roll of adhesive plaster
(9) 1 snake bite lancet
(10) 1 (30 gm) bottle of potassium permanganate crystals
(11) 1 pair scissors
(12) 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes /Government of India
(13) A bottle containing 100 tablets (each of 5 gm) of aspirin
(14) Ointment for burns
(15) A bottle of suitable surgical antiseptic solution

(iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

(iv) Nothing except the prescribed contents shall be kept in the First-aid box.

(v) The First-Aid Box shall be kept in the charge of a responsible person who shall always be readily available during the working hours of the work place.

(vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.

(vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works; First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.

(viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

(i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water, fit for drinking.

(ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

(iii) Every water supply or storage shall be at a distance of not less than 15 metre from any latrine drain or other source of pollution. Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust & water proof.

(iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection, which shall be done at least once a month.

5. WASHING FACILITIES

(i) In every work place, adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.

(ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.

(iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

(i) Latrines shall be provided in every work place on the following scale, namely :

(a) Where females are employed, there shall be at least one latrine for every 25 females.

(b) Where males are employed, there shall be at least one latrine for every 25 males. Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100 and one for every 50 thereafter.

(ii) Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings.

(iii) Construction of Latrines : The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.

(iv) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men Only" or "For Women Only" as the case may be.

(b) The notice shall also bear the figure of a man or of a woman, as the case may be.

(v) There shall be at least one urinal for male workers upto 50 and one for female workers upto 50 employed at a time, provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient, if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.

(vi) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

(b) Latrines and urinals other than those connected with a flush sewage system, shall comply with the requirements of the Public Health Authorities.

(vii) Water shall be provided by means of tap or otherwise, so as to be conveniently accessible in or near the latrines and urinals.

(viii) Disposal of Excreta : Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).

(ix) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest, separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm (6 sft) per head.

Provided that the Engineer-in-Charge may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation, to be used for the purpose.

8. CRECHES

(i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per Clause 19H (ii) a, b & c.

(ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

(iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.

(iv) The contractor shall provide one Ayaa to look after the children in the Creche when no. of women workers does not exceed 50 and two when the no. exceeds 50.

(v) Use of the rooms earmarked as Creche shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

(i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour, numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.

(ii) The canteen shall be maintained by the contractor in an efficient manner.

(iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.

(iv) The canteen shall be sufficiently lighted at all times when any person has access to it.

(v) The floor shall be made of smooth and impervious materials and inside walls shall be lime washed or colour washed at least once in each year. Provided that the inside walls of the kitchen shall be lime-washed every four months.

(vi) Premises of the canteen shall be maintained in a clean and sanitary condition.

(vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.

(viii) Suitable arrangements shall be made for the collection and disposal of garbage.

(ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.

(x) Floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sqft) per diner to be accommodated as prescribed in Sub-Rule 9.

(xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.

(b) Washing places for women shall be separate and screened to secure privacy.

(xii) Sufficient tables, stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in Sub-Rule 9.

(xiii) (a) 1. There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment, necessary for the efficient running of the canteen.

2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.

(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.

2. A service counter, if provided, shall have top of smooth & impervious material.

3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils &equipments.

(xiv) Food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.

(xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No Profit, No Loss' and shall be conspicuously displayed in the canteen.

(xvi) In arriving at the price of foodstuffs and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely :

(a) Rent of land and building

(b) Depreciation and maintenance charges for the building &equipments provided for the canteen

(c) Cost of purchase, repairs and replacement of equipments including furniture crockery, cutlery and utensils

(d) Water charges and other charges incurred for lighting and ventilation

(e) Interest and amounts spent on the provision and maintenance of equipments provided for the canteen

(xvii) Accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form integral part of the contracts.

12. AMENDMENTS

Government may, from time to time, add to or amend these rules and issue directions, it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

13. COVID– CONSTRUCTION SITES PROTOCOLS

Contractor shall maintain health safety of their employees, labour, workers, vendors deployed by them at the site of work and shall follow all guidelines &protocol issued by State & Central Govt. with respect of COVID. Contractor shall ensure vaccination of workers deployed for the job at construction site. All protocols related to the Covid covering preventive measure, health advisory etc as issued by local administration, Govt. shall be followed without any additional claim or compensation.

Section - VII

(Contractor's Labour Regulations)

CRWC's/CPWD's Contractor's Labour Regulations

THESE REGLATIONS SHALL MUTATIS-MUTANDIS APPLY TO THE WORK OF THE CENTRAL RAILSIDE WAREHOUSECOMPANY

1. SHORT TITLE

These regulations may be called the CPWD / PWD (DA) Contractors' Labour Regulations.

2. DEFINITIONS

(i) **Workman** means any person employed by C.P.W.D. / PWD (DA) or its contractor directly or indirectly through a sub-contractor with or without - knowledge of the Central Public Works Department / PWD (DA) to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied, but does not include any person :

(a) Who is employed mainly in a managerial or administrative capacity; or

(b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature; or

(c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the Principal Employer.

No person below the age of 14 years shall be employed to act as a workman.

(ii) **Fair Wages** means wages whether for time or piece work, fixed and notified under the provisions of the Minimum Wages Act from time to time.

(iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a sub-contractor.

(iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3. (i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

(ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.

(iii) (a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

(b) Where the minimum wages prescribed by the Govt. under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next

preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

(c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall, before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear & legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per **Appendix-G-III**.

5. PAYMENT OF WAGES

(i) The contractor shall fix wage periods in respect of which wages shall be payable.

(ii) No wage period shall exceed one month.

(iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.

(iv) Where the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.

(v) All payment of wages shall be made on a working day at the work premises and during the **working** time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.

(vi) Wages due to every worker shall be paid to him direct by contractor through bank or ECS or online transfer to his Bank account.

(vii) All wages shall be paid through Bank or ECS or online transfer

(viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act, 1956.

(ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgment.

(x) It shall be the duty of the contractor to ensure the disbursement of wages through bank account of labour.

(xi) The contractor shall obtain from the Junior Engineer or any other authorised representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form :

"Certified that the amount shown in Column No. _____ has been paid to the workman concerned **through his/her bank account** on __/__/____ at _____."

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

(i) The wages of a worker shall be paid to him without any deduction of any kind except the following:

(a) Fines

(b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion the period for which he was absent.

(c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.

(d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.

(e) Any other deduction which the Central Government may from time to time allow.

(ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note **:** *An approved list of Acts and Omissions for which fines can be imposed is enclosed at* ***Appendix-G-X****.*

(iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.

(iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.

(v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.

(vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

(i) The contractor shall maintain a **Register of persons employed** on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (**Appendix-G-IV**).

(ii) The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (**Appendix-G-V**).

(iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (**Appendix-G-VI**).

(iv) Register of Accident - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars :

(a) Full particulars of the labourers who met with accident

(b) Rate of Wages

(c) Sex

(d) Age

(e) Nature of accident and cause of accident

(f) Time and date of accident

(g) Date and time when admitted in Hospital
(h) Date of discharge from the Hospital
(i) Period of treatment and result of treatment
(j) Percentage of loss of earning capacity and disability as assessed by Medical Officer
(k) Claim required to be paid under Workmen's Compensation Act
(l) Date of payment of compensation
(m) Amount paid with details of the person to whom the same was paid
(n) Authority by whom the compensation was assessed
(o) Remarks

(v) The contractor shall maintain a Register of Fines in the Form XII of the CL (R&A) Rules 1971 (**Appendix-G- XI**)

(vi) The contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts & Omissions for which fines can be imposed (**Appendix-G- X**)

(vii) The contractor shall maintain a Register of Deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (**Appendix-G-XII**)

(viii) The contractor shall maintain a Register of Advances in Form XXIII of the CL (R&A) Rules 1971 (**Appendix-G-XIII**)

(ix) The contractor shall maintain a Register of Overtime in Form XXIII of the CL (R&A) Rules 1971 (**Appendix-G-XIV**)

8. ATTENDANCE CARD-CUM-WAGE SLIP

(i) The contractor shall issue an Attendance Card-cum-Wage Slip to each workman employed by him in the specimen form at (**Appendix-G-VII**).

(ii) The Card shall be valid for each wage period.

(iii) The contractor shall mark attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.

(iv) The Card shall remain in possession of the worker during the wage period under reference.

(v) The contractor shall complete the Wage Slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.

(vi) The contractor shall obtain signature or thumb impression of the worker on the Wage Slip at the time of disbursement of wages and retain the card with himself.

9. EMPLOYMENT CARD

The contractor shall issue an Employment Card in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (**Appendix-G-VIII**).

10. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever, the contractor shall issue to the workman whose services have been terminated, a Service Certificate in Form XV of the CL (R&A) Central Rules 1971 (**Appendix-G-IX**).

11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and

shall be made available for inspection by the Engineer-in-Charge or Labour Officer or any other officers authorised by the Ministry of Urban Development in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorised by COMPANY on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Executive Engineer concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Executive Engineerafter Addl. GM (P&E) has given his decision on such appeal.

The Executive Engineer shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer or the Addl. GM (P&E), as the case may be.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Addl. GM (P&E) concerned within 30 days from date of decision, forwarding simultaneously a copy of his appeal to the Executive Engineer, but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

(i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by :

  (a) An officer of a registered Trade Union of which he is a member.

  (b) An officer of a federation of Trade Unions to which the Trade Union referred to in Clause (a) is affiliated.

  (c) Where the employer is not a member of any registered Trade Union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.

(ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :

  (a) An officer of an association of employers of which he is a member.

  (b) An officer of a Federation or Associations of Employers to which association referred to in Clause (a) is affiliated.

  (c) Where the employer is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.

(iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf.

17. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application / interpretation or effect of those regulations, the decision of the Superintending Engineer concerned shall be final.

ADDITIONAL PROVISIONS FOR LABOUR

19. 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 or through petty Contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the Contractor directly or through petty Contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the COMPANY 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.

20. 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 employed by him either directly or through petty Contractors or sub-contractors 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 and the Engineer may on failure of the Contractor to repay such money to the COMPANY deduct the same from any moneys due to the Contractor in terms of the contract. The COMPANY shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Govt. of India all moneys paid or payable by the COMPANY 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.

21. Provisions of Contract Labour (Regulation and Abolition) Act, 1970 :

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

21.(2) The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Act.

22. **Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952 :** The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the COMPANY from and against any claims under the aforesaid Act and the Rules.

23. **Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996":**

The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and Rules made thereto by the concerned State Govt., and submit Certificate of Registration issued by Registering Officer of the concerned State Govt. (Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act.

24. **Reporting of Accidents:** The Contractor shall be responsible for the safety of all employees directly or through petty Contractors or sub-contractor 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 Engineers Representative and shall make every arrangement to render all possible assistance.

25. **Provision of Workmen's Compensation Act :** In every case in which by virtue of the provisions of Section 12 Sub-Section (1) of the Workmen's Compensation Act 1923, Contractor is to abide by the provisions of various labour laws in terms of above clause.

26. **COMPANY not to Provide Quarters for Contractors:** No quarters shall normally be provided by the COMPANYfor the accommodation of the Contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the COMPANY'sdiscretion, recoveries shall be made at such rates as may be fixed by the COMPANYfor the full rent of the buildings and equipments therein as well as charges for electric current, water supply and conservancy.

27. **Labour Camps:**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 workmen, directly or through the petty Contractors or sub-contractors and for temporary creche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on COMPANY 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 COMPANY. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.

28. **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.

29. **Preservation of Peace :**The Contractor shall take requisite precautions and use his best endeavours to

(i) Prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty Contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and

(ii) Security of property in the neighbourhood of the works. In the event of the COMPANY requiring the maintenance of a Special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the COMPANY shall be recoverable from the Contractor.

30. Sanitary Arrangements: The Contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the COMPANY 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 COMPANY. Should the Contractor fail to make the adequate sanitary arrangements, these will be provided by the COMPANY and the cost thereof recovered from the Contractor.

31. 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 COMPANY 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 COMPANY and the cost thereof recovered from the Contractor.

32. 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 COMPANY'sMedical Authority in relation to the strength of the Contractor's resident staff and workmen.

APPENDIX – G-I

REGISTER OF MATERNITY BENEFITS [Clause 19F]

Name and Address of the Contractor(s) _____
_____

Name and Location of the Work _____
_____

Name of the Employee	Father's/Husband's Name	Nature of Employment	Period of Actual Appointment	Date on which Notice of Confinement Given
1	*2*	*3*	*4*	*5*

Date on which Maternity Leave Commenced and Ended

Date of Delivery	In case of Delivery		In case of Miscarriage	
	Commenced	Ended	Commenced	Ended
6	*7*	*8*	*9*	*10*

Leave Pay Paid to the Employee

In case of Delivery		In case of Miscarriage		Remarks
Rate of Leave Pay	Amount Paid	Rate of Leave Pay	Amount Paid	
11	*12*	*13*	*14*	*15*

APPENDIX – G-II

SPECIMEN FORM OF THE REGISTER

REGARDING MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR IN CENTRAL RAILSIDE WAREHOUSECOMPANY WORKS

Name and address of the contractor _____

Name and location of the work _____

1. Name of the woman and her husband's name
2. Designation
3. Date of appointment
4. Date with months and years in which she is employed
5. Date of discharge/dismissal, if any
6. Date of production of certificates in respect of pregnancy
7. Date on which the woman informs about the expected delivery
8. Date of delivery/miscarriage/death
9. Date of production of certificate in respect of delivery/miscarriage
10. Date with the amount of maternity/death benefit paid in advance of expected delivery
11. Date with amount of subsequent payment of maternity benefit
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death
13. If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment
14. Signature of the contractor authenticating entries in the register
15. Remarks column for the use of Inspecting Officer

APPENDIX – G-III

Labour Board

- Name of Work _____
- Name of Contractor _____
- Address of Contractor _____
- Name and Address of Corporate Office _____
- Name and Address of CRWC Labour Officer _____
- Name of Labour Enforcement Officer _____
- Address of Labour Enforcement Officer _____

SL	Category	Minimum Wage Fixed	Actual Wage Paid	Number Present	Remarks

- Weekly Holiday _____
- Wage Period _____
- Date of Payment of Wages _____
- Working Hours _____
- Rest Interval _____

APPENDIX – G-IV

FORM XIII [See Rule 75]

Register of Workman Employed by Contractor

Name & Address of Contractor _____

Name & Address of Establishment under which Contract is Carried on _____

Nature & Location of Work _____

Name & Address of Principal Employer _____

SL	Name & Surname of Workman	Age & Sex	Father's/ Husband's Name	Nature of Employment/ Designation	Permanent Home Address of the Workman (Village and Tehsil, Taluk and District)	Local Address	Date of Commencement of Employment	Signature or Thumb Impression of the Workman	Date of Termination of Employment	Reasons for Termination	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*

APPENDIX –G- V

FORM XVI [(See Rule 78 (2) (a)]

MUSTER ROLL

- Name & Address of Contractor _____
- Name & Address of Establishment under which Contract is Carried on _____
- Nature & Location of Work _____
- Name & Address of Principal Employer _____ For the Month/Fortnight _____

SL	Name of Workman	Sex	Father's/Husband's Name	Dates					Remarks
				1	2	3	4	5	
1	*2*	*3*	*4*	*5*					*6*

APPENDIX –G- VI

FORM XVII [See Rule 78 (2) (a)]

REGISTER OF WAGE

- Name & Address of Contractor _____
- Name & Address of Establishment under which Contract is Carried on _____
- Nature & Location of Work _____
- Name & Address of Principal Employer _____ Wage Period : Monthly / Fortnightly _____

SL	Name of Workman	SL in the Register of Workman	Designation / Nature of Work done	No. of Days Worked	Unit of Work Done	Daily Rate of Wages / Piece Rate	Amount of Wages Earned				Total	Deduction, if any (Indicate Nature)	Net Amount Paid	Signature / Thumb Impression of Workman	Initials of Contractor or his Representative
							Basic Wages	Dearness Allowance	Over-time	Other Cash Payments (Indicate Nature)					
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*

APPENDIX – G-VII-A

WAGE CARD

Wage Card No. _____

Name & Address of Contractor _____ Date of issue _____

Name and Location of Work _____ Designation _____

Name of Workman _____ Month / Fortnight _____

Rate of Wages _____

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning																															
Evening																															
Initial																															

Received from _____ the sum of Rs. _____ on account of my wages.

Signature

APPENDIX – G-VII-B

(Reverse)

FORM XIX

[See Rule 78(2) (b)]

WAGES SLIP

Name and Address of Contractor _____

Name and Father's / Husband's Name of Workman _____

Nature and Location of Work _____

For the Week / Fortnight / Month Ending _____

1. No. of Days Worked _____
2. No. of Units Worked in case of Piece Rate Workers _____
3. Rate of Daily Wages/piece Rate _____
4. Amount of Overtime Wages _____
5. Gross Wages Payable _____
6. Deduction, if any _____
7. Net Amount of Wages Paid _____

_____

Initial of the Contractor
or His Representative

APPENDIX –G- VIII

FORM XIV

[See Rule 76]

EMPLOYMENT CARD

Name and Address of Contractor _____

Name and Address of Establishment under which Contract is carried on _____

_____

Name of Work and Location of Work _____

Name and Address of Principal Employer _____

1. Name of the Workman _____
2. SL in the Register of Workman Employed _____
3. Nature of Employment / Designation _____
4. Wage Rate (with particulars of unit in case of piece work) _____
5. Wage Period _____
6. Tenure of Employment _____
7. Remarks _____

_____

Signature of Contractor

APPENDIX – G-IX

FORM XV [See Rule 77]

SERVICE CERTIFICATE

Name & Address of Contractor _____

Nature & Location of Work _____

Name & Address of Workman _____

Age or Date of Birth _____

Identification Mark _____

Father's / Husband's Name _____

Name and Address of Establishment in/under which Contract is carried on _____

Name and Address of Principal Employer _____

SL	Total Period for which Employed		Nature of Work Done	Rates of Wage (with Particulars of Unit in case of Piece Work)	Remarks
	From	To			
1	2	3	4	5	6

Signature

APPENDIX – G-X

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

{In accordance with Rule 7 (v) of CPWD's Contractor's Labour Regulations, to be displayed prominently at the site of Work, both in English and local Language}

1. Wilful insubordination or disobedience, whether alone or in combination with other
2. Theft, fraud or dis-honesty in connection with the contractors beside a business or property of Central Railside WarehouseCOMPANY
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance
5. Drunkenness, fighting, riotous or disorderly or indifferent behaviour
6. Habitual negligence
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual indiscipline
9. Causing damage to work in the progress or to property of the Central Railside WarehouseCOMPANY or of the Contractor
10. Sleeping on duty
11. Malingering or slowing down work
12. Giving of false information regarding name, age, father's name etc.
13. Habitual loss of wage cards, supplied by the employers
14. Unauthorised use of employer's property of manufacturing or making of unauthorised particles at the work place
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the COMPANY and for which the contractors are compelled to undertaken rectifications
16. Making false complaints and/or misleading statements
17. Engaging on trade within the premises of the establishments
18. Any unauthorised divulgence of business affairs of the employees
19. Collection or canvassing for collection of any money within the premises of an establishment unless authorised by the employer
20. Holding meeting inside the premises without previous sanction of the employers

21. Threatening or intimidating any workman or employee during the working hours within the premises

APPENDIX – G-XI

FORM XII

[See Rule 78 (2)(d)]

REGISTER OF FINES

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

SL	Name of Workman	Father's / Husbands Name	Designation / Nature of Employment	Act / Omission for which Fine Imposed	Date of Offence	Whether Workman Showed Cause Against Time	Name of Person in whose Presence Employee's Explanation was Heard	Wage Periods and Wages Payable	Amount of Fine Imposed	Date on which Fine Realised	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*

APPENDIX –G- XII

FORM XX

[See Rule 78 (2)(d)]

REGISTER OF DEDUCTION FOR DAMAGE OR LOSS

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

SL	Name of Workman	Father's /Husband's Name	Designation/ Nature of Employment	Particulars of Damage or Loss	Date of Damage or Loss	Whether Workman showed Cause against Deduction	Name of Person in Whose Presence Employee's Explanation was Heard	Amount of Deduction Imposed	No. of Instalments	Date of Recovery		Remarks
										First Instalment	Last Instalment	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*

APPENDIX –G- XIII

FORM XXII

[See Rule 78 (2)(d)]

REGISTER OF ADVANCE

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

SL	Name of Workman	Father's / Husband's Name	Designation/ Nature of Employment	Wage Period and Wages Payable	Date & Amount of Advance Given	Purpose(s) for which Advance Made	No. of Instalments by Which Advance to be Repaid	Date & Amount of each Instalment Repaid	Date on which Last Instalment was Repaid	Remarks
1	2	3	4	5	6	7	8	9	10	11

APPENDIX – G-XIV

FORM XXIII

[See Rule 78 (2)(e)]

REGISTER OF OVER TIME

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

SL	Name of Workman	Father's/ Husband's Name	Sex	Designation/ Nature of Employment	Date on which Overtime Worked	Total Over Time Worked or Production in Case of Piece Rated	Normal Rate of Wages	Overtime Rate of Wages	Overtime Earnings	Rate on which Overtime ~~Wages~~ Paid	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*

APPENDIX –G- XV

FORM 31

INDENTURE FOR SECURED ADVANCES

(Ref : Para 10.2.20 and 10.2.22 of CPW A Code)

{For use in cases in which the contract is for finished work and the contractor has entered into an agreement for execution of a certain specified quantity of work in a given time}

THIS INDENTURE made the _____ day of _____, 20__ BETWEEN _____ (hereinafter called the Contractor which expression shall where the context so admits or implies, be deemed to include his executors administrators and assigns) of the one part and the WAREHOUSING COMPANY (hereinafter called the COMPANY which expression shall where the context so admits or implies, be deemed to include his successors in office and assigns) of the other part.

WHEREAS by an agreement dated __/__/____ (hereinafter called the said agreement), the Contractor has agreed AND WHEREAS the Contractor has applied to the COMPANY that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works, the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS, the COMPANY has agreed to advance to the Contractor the sum of Rupees _____ on the security of materials, the quantities and other particulars of which are detailed in Accounts of Secured Advances, attached to the Running Account Bill for the said works signed by the Contractor on _____ and the COMPANY has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees _____ on or before the execution of these presents, paid to the Contractor by the COMPANY (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the Contractor doth hereby covenant and agree with the COMPANY and declare as follows :

(1) That the said sum of Rupees _____, so advanced by the COMPANY to the Contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the Contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.

(2) That the materials detailed in the said Account of Secured Advances which have been offered to and accepted by the COMPANY as Security are absolutely the Contractor's own property and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnifies the COMPANY against all claims to any materials in respect of which an advance has been made to him as aforesaid.

(3) That the materials detailed in the said Account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Addl. GM (P&E), Corporate Office (hereinafter called the Addl. GM (P&E)) and in the term of the said agreement.

(4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid, the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Addl. GM (P&E) or any officer authorised by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof, the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Addl. GM (P&E).

(5) That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Addl. GM (P&E) or an officer authorised by him on that behalf.

(6) That the advances shall be repayable in full when or before the Contractor receives payment from the COMPANY of the price payable to him for the said works under the terms & provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the COMPANY will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of advances made under these presents were calculated.

(7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the COMPANY shall immediately on the happening of such default be repayable by the Contractor to the COMPANY together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date or e-payment and with all costs charges, damages & expenses incurred by the COMPANY in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the COMPANY to repay and pay the same respectively to him accordingly.

(8) That the Contractor hereby charges all the said materials with the repayment to the COMPANY of the said sum of Rupees _____ and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith, the COMPANY may at any time thereafter adopt all or any of the following courses as he may deem best :

(a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor he is to pay same to the COMPANY on demand.

(b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the COMPANY under these presents and pay over the surplus (if any) to the Contractor.

(c) Deduct all or any part of the moneys owing out of the Security Deposit or any sum due to the Contractor under the said agreement.

(9) That except in the event of such default on the part of the Contractor as aforesaid, interest on the said advance shall not be payable.

(10) That in the event of any conflict between the provisions of these presents and the said agreement, the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents, the settlement of which has not been herein before expressly provided for the same, shall be finally resolved as per provisions of Clause 25 of the contract.

In witness whereof the said _____ and _____ by the order and under the direction of the COMPANY have hereunto set their respective hands the day and year first above written.

Signed, sealed and delivered by _____, the said Contractor in the presence of –

Signature _____

Witness Name _____

Address _____

_____

Signed by _____ by the order and direction of the COMPANY / Engineer-in-Charge of the COMPANY in the presence of –

Signature _____

Witness Name _____

Address _____

_____

APPENDIX – G-XVI

{Ref. : Clause 19C}

SAFETY CODE

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than ¼ to 1 (¼ horizontal and 1 vertical).

2. Scaffolding of staging more than 3.6 m (12 ft) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm (3 ft) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12 ft) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in Para 2. above.

4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 ft).

5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m (30 ft) in length while the width between side rails in rung ladder shall in no case be less than 29 cm (11½") for ladder upto and including 3 m (10 ft) in length. For longer ladders, this width should be increased at least ¼" for each additional 30 cm (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept.

   Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.

6. (a) Excavation and Trenching – All trenches 1.2 m (4 ft) or more in depth, shall at all times be supplied with at least one ladder for each 30 m (100 ft) in length or fraction thereof. Ladder shall extend from bottom of the trench to at least 90 cm (3 ft) above surface of the ground. Side of the trenches which are 1.5 m (5 ft) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m (5 ft) of the edges of the trench or half of the depth of the trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.

   (b) Safety Measures for Digging Bore Holes –

   (i) If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse

   (ii) During drilling, sign boards should be erected near the site with the address of the drilling contractor and the Engineer in-charge of the work

   (iii) Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50 m around the point of drilling to avoid entry of people

   (iv) After drilling the bore well, a cement platform (0.5 m x 0.5 m x 1.2 m) 0.6 m above ground level and 0.6 m below ground level should be constructed around the well casing

   (v) After completion of the bore well, contractor should cap the bore well properly by welding steel plate, cover the bore well with drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump

   (vi) After bore well is drilled, the entire site should be brought to the ground level.

7. Demolition - Before any demolition work is commenced and also during the progress of the work,

   (i) All roads and open areas adjacent to the work site shall either be closed or suitably protected

   (ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged

   (iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment, as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

   The following safety equipment shall invariably be provided –

   (i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.

   (ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.

   (iii) Those engaged in welding works shall be provided with welder's protective eye shields.

   (iv) Stone Breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

   (v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to :

      (a) Entry for workers into the line shall not be allowed except under supervision of the Site Engineer or any other higher officer.

      (b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.

      (c) Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.

      (d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen Kit.

      (e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.

      (f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public, whenever cleaning works are undertaken during night or day.

      (g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.

      (h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.

      (i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge shall decide the time upto which a worker may be allowed to work continuously inside the manhole.

      (j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.

      (k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non-sparking gas engines also could be used, but they should be placed at least 2 m away from the opening and on the leeward side protected from wind, so that they will not be source of friction on any inflammable gas that might be present.

      (l) Workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.

(m) Workers shall be provided with Gumboots or non-sparking shoes, bump helmets and gloves, non-sparking tools, safety lights, gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.

(n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung, fixed to manhole well.

(o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.

(p) The extents to which these precautions are to be taken, depend on individual situation, but decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case, will be final.

(vi) Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, following precautions should be taken :

(a) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.

(b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.

(c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.

(vii) Workmen executing work on scaffolds or other structures above specified height shall be provided with full body harness and fall arresters.

9. An additional Clause (viii)(i) of CPWD's Safety Code (iv) - the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:

(i) White lead, sulphate of lead or product containing this pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.

(ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of paint in the form of spray.

(iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust, caused by dry rubbing down and scraping.

(iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

(v) Overall, shall be worn by working painters during the whole of working period.

(vi) Suitable arrangement shall be made to prevent clothing put off during working hours, being spoiled by painting materials.

(vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man, appointed by competent authority of Central Railside WarehouseCOMPANY.

(viii) The Central Railside WarehouseCOMPANY may require, when necessary, medical examination of workers.

(ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.

10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during course of the work.

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions :

(i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.

(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from patent defects.

(ii) Every Crane Driver or Hoisting Appliance Operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding winch or give signals to operator.

(iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the condition under which it is applicable, shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

(iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines, the contractors shall notify the safe working load of the machine to Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.

14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the Safety Code shall be named therein by the contractor.

15. To ensure effective enforcement of the rules & regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in-Charge of the department or their representatives.

16. Notwithstanding the above Clauses from (1) to (15), there is nothing in these to exempt the contractor from operations of any other Act or Rule in force in the Republic of India.

APPENDIX – G-XVII

APPLICATION FORM BY CONTRACTOR FOR SEEKING EXTENSION OF TIME

(Refer : Clause 5)

1. Name of Contractor _____
2. Name of Work as given in the Agreement _____
3. Agreement no. _____
4. Estimated Amount put Tender _____
5. Date of Commencement of Work as per Agreement _____
6. Period Allowed for Completion of work as per Agreement _____
7. Date of Completion Stipulated in Agreement _____
8. Period for which Extension of Time, if has been given by Authority in Schedule 'F' previously _____

Extensions	Letter no. & Date	Extension Granted	
		Months	Days
(a) 1st Extension			
(b) 2nd Extension			
(c) 3rd Extension			
(d) 4th Extension			
(e) Total extension previously given			

9. Reasons for which extension have been previously given (copies of the previous applications should be attached) _____
10. Period for which extension applied for _____
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred and the period for which these are likely to last (for causes under Clause 5.2/5.3) _____

Submitted to the Authority indicated in Schedule 'F' with copy to the Engineer-in-Charge and Addl. GM (P&E).

Signature of Contractor
Dated __/__/____

APPENDIX – G-XVIII

Reference : Clause 5
Registered Acknowledgement Due

PROFORMA FOR TIME EXTENSION

No. _____ Dated : _____

To
_____
_____

Sub : (i) _____*(name of work)*
(ii) Acceptance letter no. _____
(iii) Understanding/Agreement no. _____
Ref : _____ *(Quote specific application of Contractor for time extension)* _____

Dear Sir,

1. 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').

2. Expecting that you may be able to complete the work if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____.

3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _____ *(give here the stipulated date for completion with/without any liquidated damage fixed earlier)* will be recovered from you as mentioned in Clause 5 of General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.

4. 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.

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

6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting upto this extension to complete the work by _____ (*here mention the extended date*), further action will be taken in terms of Clause 3 of General Conditions of Contract.

Yours faithfully

For and on behalf of the COMPANY

APPENDIX –G- XIX

Notice for Appointment of Arbitrator

[Refer Clause 25]

To
The Managing Director,
Central Railside WarehouseCOMPANY,
CORPORATE OFFICE,
4/1, Siri Institutional Area,
August Kranti Marg, Hauz Khas,
New Delhi - 110016.

Dear Sir,

In terms of Clause 25 of the Agreement, particulars of which are given below, I/we hereby give notice to you to appoint an Arbitrator for settlement of disputes mentioned below :

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
3. Full address of the applicant
4. Name of the work and contract number in which arbitration sought
5. Name of the Office which entered into contract
6. Contract amount in the work
7. Date of contract
8. Date of initiation of work
9. Stipulated date of completion of work
10. Actual date of completion of work (if completed)
11. Total number of claims made
12. Total amount claimed
13. Date of intimation of final bill (if work is completed)
14. Date of payment of final bill (if work is completed)
15. Amount of final bill (if work is completed)
16. Date of request made to Engineer-in-charge for decision
17. Date of receipt of Engineer-in-charge's decision
18. Date of appeal to you
19. Date of receipt of your decision.

Specimen Signatures of the Applicant
(only the person/authority who signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

1. Statement of Claims with amount of Claims

Yours faithfully

(Signature)

Copy in duplicate to :

1. The Engineer-in-Charge

APPENDIX –G- XX
{Reference Clause 3.1}
Registered Acknowledgement Due

SHOW CAUSE NOTICE

Office of Superintending Engineer / Chief Engineer, _____ / CRWC

(Without Prejudice)

To

M/s _____

_____

Dear Sir,

Sub. - Name of Work : _____

Contract Agreement No. : _____

In spite of repeated instructions to you by the subordinate offices as well as by this office in various letters of even no. _____, dated _____; you have failed to start work / show adequate progress / submit detailed programme / _____ *(strike out whichever is not applicable)* for completing the work.

2. Your attention is invited to this office/Chief Engineer's office letter no. _____, dated ____ in reference to your representation, dated _____ *(strike out, if not applicable).*

3. As you have failed to abide by the instructions issued to commence the work/to show adequate progress of work, you are hereby given __ (_____) days' notice *(minimum 15 days)* in accordance with Clause 3.1 of CRWC's General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 3.2 of the CRWC's General Conditions of Contract, viz. to terminate your Contract and complete the balance work without your participation, will be taken.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the COMPANY

Note : While determining the contract under any of the Sub-Clause (i) to (xi) of Clause 3.1; for causes other than the causes as mentioned above (viz. start work, show adequate progress, submit detailed programme, insolvency etc.), suitable modifications in the letter may be made.

APPENDIX –G- XXI
{Reference Clause 3.2}
Registered Acknowledgement Due

TERMINATION NOTICE

Office of Superintending Engineer / Chief Engineer, _____ / CRWC
(Without Prejudice)

To
M/s _____
_____

Dear Sir(s),

Sub. - Name of Work : _____

Contract Agreement No. : _____

Show Cause Notice under Clause 3.1 of CRWC's General Conditions of Contract was served upon you under this office letter no. _____, dated __/__/20__; but no reply has been given by you so far / your reply vide letter no. _____ received in response has been considered carefully, but not found to the satisfaction of the Engineer-in-Charge *and* you have also taken no action to commence the work / show adequate progress / submit detailed programme / _____ *(strike out whichever is not applicable and the arguments/facts claimed by the contractor be indicated in brief).*

Therefore, under powers delegated under Clause 3.2, I _____ the Engineer-in-Charge for the aforesaid work under the aforesaid agreement, for and on behalf of the President of India, hereby –

(i) Determine/Terminate the contract as aforesaid upon which determination your Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee stand absolutely forfeited to the Govt. and shall be absolutely at the disposal of Govt., and

(ii) Take out such part of the work out of your hand, as remains unexecuted, for giving it to another contractor to complete the work, and you shall have no claim to compensation for any loss sustained by you by reasons of your having purchased or procured any materials or entered into any engagements or made any advances on account of or with a view to the execution of the work or the performance of the contract.

(iii) You are also hereby served with Notice to the effect that the work executed by you will be measured up on __/__/20__ for which you are asked to attend for joint measurement, failing which the work will be measured by the department unilaterally in your absence and result of measurement will be final & will be binding on you.

(iv) You shall not be allowed to participate in the tendering process for the balance work.

This is without prejudice to Govt.'s right to take action under any other Clauses or Sub-Clauses of the agreement and to realize Govt. dues and losses & damages whatsoever under such Clauses or Sub-Clauses.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the COMPANY

Note : While determining the contract under any of the Sub-Clause (i) to (xi) of Clause 3.1; for causes other than the causes as mentioned above (viz. start work, show adequate progress, submit detailed programme, insolvency etc.), suitable modifications in letter may be made.

CHAPTER-III

SECTION –VIII

(TECHNICAL CONDITIONS / SPECIFICATIONS)

TECHNICAL SPECIFICATIONS FOR CIVIL WORKS

GENERAL

SCOPE

These Specifications establish and define the materials and constructional requirements for engineering construction works in brief.

EQUIVALENCY OF STANDARDS AND CODES, MEASUREMENTS & MATERIALS

Wherever reference is made in the contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the contract. In case, no reference is made for any particular work, relevant IS/BIS Codes will be followed.

1.2.1 Providing and operating necessary measuring & testing devices and materials including all consumables are included in the Scope of Work. No separate measurement or payment for testing the work shall be made, but rates quoted for various items shall be deemed to include cost of such tests, which are required to ensure achievement of specified quality.

1.2.2 All materials shall be of standard quality, manufactured by renowned concerns, conforming to Indian Standards and shall have certification work from Bureau of Indian Standards as far as possible, unless otherwise approved by Engineer. The contractor shall get all materials approved by Engineer prior to procurement and use. The contractor shall furnish manufacturer's certificates, for materials supplied by him when asked for. Further to that he shall get materials tested from an approved Test House, if asked for by the Engineer. Cost for all the tests and test certificates shall be borne by the contractor. No separate payment shall be made for the testing. The Engineer shall have the right to determine whether all or any of the materials are suitable. Any materials procured or brought to site and not conforming to specifications and satisfaction of the Engineer shall be rejected and the contractor shall have to remove the same immediately from site at his own expense & without any claim for compensation due to such rejection.

1.2.3 All goods and materials to be incorporated in the works shall be new, unused, of the most recent or current models and incorporate all recent improvements in design & materials, unless provided otherwise in the contract.

1.2.4 Wherever referred to in this tender document, only the latest revision of Specifications, Codes of Practice and other publications of the Indian Standards shall be applicable.

A. <u>EXCAVATION:</u>

1) CLASSIFICATIONOFSOILSFOREARTHWORKINEXCAVATION

The earth work shall be classified under the following categories and measuredseparatelyforeachcategory.

i. **All kinds of soils**: Generally any strata, such as sand, gravel, loam, clay, mud, blackcotton moorum, shingle, river or nallah bed boulders, siding of roads, paths etc. and hardcore,macadamsurfaceofanydescription(waterbound,groutedtarmacetc.),limeconcrete, mud concrete and their mixtures which for excavation yields to application ofpicks,showels,jumper,scarifiers,ripperandothermanualdiggingimplements.

ii. **Ordinary rock**: Generally any rock which can be excavated by splitting with crow bars orpicks and does not require blasting, wedging or similar means for excavation such as limestone, sand stone, hard laterite, hard conglomerate and unreinforced cement concretebelow ground level. If required light blasting may be resorted to for loosening the materialsbutthis willnotinanywayentitlethematerialto beclassified as„Hardrock".

iii. **Hard rock**: Generally any rock or boulder for the excavation of which blasting is requiredsuch as quartzite, granite, basalt, reinforced cement concrete (reinforcement to be cutthroughbutnotseparatedfromconcrete)below groundlevelandthelike.

2) **Engineer-in-Charge** will furnish all necessary drawings showing the areas to be excavated, filled, sequence of priorities etc. Contractor shall follow such drawings strictly.

3) Excavation Category:

a) Excavation in Open area/ Wide Excavation:

- Excavation exceeding 1.5 m in width and 10 sqm on plan and exceeding 30 cm in depth.
- Excavation for basements, water tanks etc.
- Excavation in trenches exceeding 1.5 m in width and 10 sqm on plan

b) Surface Excavation.

- Excavations exceeding 1.5 m in width and 10 sqm. on plan but not exceeding 30 cm. in depth in all types of soils and rocks shall be described as surface excavation

c) Excavation in foundation & Trenches.

- This shall comprise excavation not exceeding 1.5 m in width or 10 sqm on plan and to any depth in trenches (excluding trenches for pipes, cables, conduits etc.)

4) General

Contractor shall provide all tools, plants, instruments, qualified supervisory personnel, labor,materials, and temporary works, consumables, any and everything necessary, whether or notsuchitemsarespecificallystated herein,forcompletionoftheWork.
Contractorshallsetproperlyalllinesandestablishlevelsforvariousworkssuchasearthworkin excavation for levelling, basement, foundations, plinth filling, roads, drains, cable trenches,pipelinesetc.
The area to be excavated / filled shall be cleared of fences, trees, plants, logs, slumps, bush,vegetation, rubbish slush etc. and other objectionable matter.If any roots or stumps of treesare found during excavation, they shall also be removed.The material so removed shall beburnt or disposed off as directed by Engineer.
Where earth fill is intended, the area shall bestripped of all loose/soft patches, top soil containing deleterious matter/materials before fillcommences. Final cleaning shall be done with removal of all rubbish up to the distance of 50.0mallaroundoutsidethe periphery of building.

5) **Relics, Objects of Antiquity, Etc**.

All gold, silver, oil minerals archaeological and other findings of importance, all precious stones, coins, treasures, relics, antiquities and other similar things which may be found in or upon the site shall be the property of Engineer-in-Charge and Contractor shall dully preserve the same to the satisfaction of Engineer-in-Charge and from time to time deliver the same to such person or persons as Engineer-in-Charge may from time to time authorize or appoint to receive the same.

6) Site Clearance:

Before the start of work, the area of the Site shall be cleared of all shrubs, vegetation, grass, bush wood, stumps, saplings etc of girth up to 30cm measured at a height of one metre above ground level. All the building shall be laid out to ensure that the layout plan fits at site. Trees if any live within construction site layout shall be shifted to other safe place as directed by Engineer in charge (at extra cost). After completion of the work, the entire area of the site shall be cleared from all debris, unwanted materials / equipment and level / slope of ground as required at site up to peripheral roads. The debris and unwanted material shall be disposed off away from the site without any extra cost.

7) Site Levels:

After site clearance and before commencement of excavation or filling, the contractor shall take levels in both longitudinal and transverse directions of the building at regular intervals as directed by Engineer in charge at site for the entire layout where the new work is to be executed. A record of these levels shall be signed jointly by Contractor and the Engineer-in-charge. These records shall be submitted to the Engineer-in-charge and shall be used in deciding the NGL, PL, FFL and measurement of earth work.

8) Setting out of works:

The contractor shall set out the works and shall provide & fix all setting out apparatus required and solely be responsible for the true and perfect setting out the same and for correctness of the position, levels, dimensions and alignment of all buildings as per the drawings. The contractor shall take in writing the approval of the Engineer-in-charge for setting out and levels before starting the construction works. These approvals shall be recorded and signed by the Engineer-in-charge and contractor.

A masonry pillar to serve as a bench mark will be erected at a suitable point in the area, which is visible from the largest area. This bench mark shall be constructed and connected with the standard bench mark as approved by the Engineer-in-Charge. Necessary profiles with strings stretched on pegs, bamboos or 'Burjis' shall be made to indicate the correct formation levels before the work is started.

9) **Surface Dressing**:

The surface area to be occupied by the building shall be cleared of all debris, shrubs and plants, grass etc. The roots of trees and saplings shall be removed to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower, and the holes or hollows filled up with the earth, rammed and leveled. All roots and organic material shall be cleared from the filling area inside the building.

10)Important Note:

The works mentioned above viz Site clearance, site levels, setting out and Surface dressing are part of contractor scope and shall be done by Contractor without any extra cost or payment from CRWC.

However, Major works like or large scale/Dense jungle clearance , Surface excavation, Shifting and /or Cutting of Trees (more than 300 mm dia in girth at height of 1 meter above ground) or any major clearance requiring shifting of CRWC stored material, Existing structures and services such as old buildings, culverts, fencing, water supply pipe lines, sewers, power cables, communication cables, drainage pipes etc. within or adjacent to the area etc. , if required to be diverted/removed, shall be diverted/dismantled as per directions of the Engineer-inform site of work, and shall be payable extra as per agreed Bill of quantities and schedule of rates.

11) ExcavationinTrenchesandOverAreas:

I. All excavation operations manually or by mechanical means shall include excavation and 'getting out' the excavated materials.
II. During the excavation the natural drainage of the area shall be maintained. Excavation shall be done from top to bottom. Undermining or undercutting shall not be done.
III. In firm soils, the sides of the trenches shall be kept vertical upto a depth of 2 metres from the bottom. For greater depths, the excavation profiles shall be widened by allowing steps of 50 cms on either side after every 2 metres from the bottom. Alternatively, the excavation can be done so as to give slope of 1:4 (1 horizontal: 4 vertical). Where the soil is soft, loose or slushy, the width of steps shall be suitably increased or sides sloped or the soil shored up as directed by the Engineer-in- Charge. It shall be the responsibility of the contractor to take complete instructions in writing from the Engineer-in-Charge regarding the stepping, sloping or shoring to be done for excavation deeper than 2 metres
IV. The earth work in excavation shall be done as per the required depths, width & length shown in approved Excavation Plan /drawings and in line of site levels and alignments in all sorts of soils as directed by Engineer in charge. Nothing extra, from the dimensions shown in approved excavation plan, shall be payable for excavation done for working space for labor. Only neat line excavation as per drawing shall be payable. Roots

or trees met with during the excavation shall be cut and removed. Excavated earth shall be stacked at least 3 m away from the trenches or as per the Engineer's instructions, so that it may not damage the sides of the excavated trenches. The sides of the excavated trenches shall be in straight line and bottom uniformly levelled watered, consolidated and ready for termite treatment. The maximum lead for stacking the earth shall be 200 m, unless otherwise categorically specified in the item description.

V. Earth work in excavation in any type of soil existing at site for foundations of rafts, columns and walls / half brick walls / from existing ground level shall be as indicated on the drawings. The finish floor level of building shall be as per drawings and shall be approved by the Engineer-in-charge after fixing of same at Site by Contractor. The work shall be executed at site as per the levels approved by the Engineer-in-charge.

VI. Immediately after the excavation of the foundation work, concreting therein and before covering the same the record of the levels as actually executed at site shall be recorded in the measurement books and jointly signed and dated by the Engineer-in-charge & Contractor -

VII. If trenches or foundations are excavated beyond the specified dimensions due to bad workmanship of contractor, the extra excavation shall be filled with selected good earth ensuring adequate compaction duly watered, consolidated and rammed at the cost of contractor.

VIII. Explosives of any form shall not be used for any construction activity. Where hard rock is met with and blasting operations are considered necessary, the contractor shall obtain the approval of the Engineer-in-Charge in writing for resorting to blasting operation. In ordinary rock blasting operations shall not be generally adopted. However, the contractor may resort to blasting with the permission of the Engineer-in-charge, but nothing extra shall be paid for such blasting operations.

IX. From the date when the Contractor starts work under this contract, or from the required contract date, whichever is earlier, the Contractor shall assume all responsibilities for earth and rock banks. Such responsibility shall continue to the date when all work under the contract is completed and approved by Engineer-in-Charge. The contractor shall provide sheeting, shoring and bracing required for the sup- port of earth and rock banks during construction. Sheeting, shoring and bracing shall be maintained in place until immediately before filling or backfilling then shall be removed by stages as the filling or backfilling progresses. Engineer-in-Charge reserves the right to specify shoring or bracing as may be deemed necessary by them.

X. Any settlement or washing away of filled or backfilled areas, and earth and rock banks, that may occur from the action of the elements, or any other cause, prior to acceptance of work, shall be repaired and grades re-established to the required elevations and slopes, at no additional cost.

XI. Excavation where directed by the Engineer-in- Charge shall be securely barricaded and provided with proper caution signs, conspicuously displayed during the day and properly illuminated with red lights and/or written using fluorescent reflective paint as directed by engineer in charge during the night to avoid accident.

XII. The Contractor shall take adequate protective measures to see that the excavation operations do not damage the adjoining structures or dislocate the services. Water supply pipes, sluice valve chambers, sewerage pipes, manholes, drainage pipes and chambers, communication cables, power supply cables etc. met within the course of excavation shall be properly supported and adequately protected, so that these services remain functional. However, if any service is damaged during excavation shall be restored in reasonable time.

XIII. Excavation shall not be carried out below the foundation level of the adjacent buildings until underpinning, shoring etc. is done as per the directions of the Engineer-in-Charge for which payment shall be made separately. Contractor will be responsible if he has not taken precaution for the safety of the people, property or neighbor's property caused by his negligence during the constructional operations or unsafe excavation.

XIV. Any damages done by the contractor to any existing work shall be made good by him at his own cost. Existing drains pipes, culverts, overhead wires, water supply lines and similar services encountered during the course of execution shall be protected against damage by the contractor. The contractor shall not store material or otherwise occupy any part of the site in manner likely to hinder the operations of such services.

XV. To the extent available, selected surplus spoils from excavated materials shall be used as backfill. Fill material shall be free from clods, salts, sulphates, and organic & other foreign material. All clods of earth shall be broken or removed. Where excavated material is mostly rock, the boulders shall be broken into pieces not larger than 150 mm size, mixed with properly graded fine material consisting of moorum or earth to fill up the voids and the mixture used for filling.

XVI. As soon as the work in foundations has been accepted and measured, the spaces around the foundations, structures, pits, trenches etc. shall be cleared of all debris and filled with earth in layers 15 cm to 20 cm, each layer being watered, rammed and properly consolidated before the succeeding one is laid. Each layer shall be consolidated to the satisfaction of Engineer-in-Charge.

XVII. Trench width in case of excavation in trenches for pipes, cables etc.

- Upto one metre depth the authorized width of trench for excavation shall be arrived at by adding 25 cm to the external diameter of pipe (not socket/ collar) cable, conduit etc. Where a pipe is laid on concrete

bed/ cushioning layer, the authorized width shall be the external diameter of pipe (not socket/ collar) plus 25 cm or the width of concrete bed/ cushioning layer whichever is more.

- For depths exceeding one metre, an allowance of 5 cm per metre of depth for each side of the trench shall be added to the authorized width (that is external diameter of pipe plus 25 cm) for excavation. This allowance shall apply to the entire depth of the trench. In firm soils the sides of the trenches shall be kept vertical upto depth of 2 metres from the bottom. For depths greater than 2 metres, the excavation profiles shall be widened by allowing steps of 50 cm on either side after every two metres from bottom.
- Where more than one pipe, cable, conduit etc, are laid, the diameter shall be reckoned as the horizontal distance from outside to outside of the outermost pipes, cable, conduit etc.
- Where the soil is soft, loose or slushy, width of trench shall be suitably increased or side sloped or the soil shored up as directed by the Engineer-in-Charge. It shall be the responsibility of the contractor to take complete instructions in writing from the Engineer-in-Charge regarding increase in the width of trench. Sloping or shoring to be done for excavation in soft, loose or slushy soils.

12) FILLING

I. The excavated stacked earth (other than Black cotton soil or disposable soil as decided by Engineer in charge) shall be filled in trenches, sides of foundations and under floor in layers of 200mm thick and balance shall be disposed off by uniform spreading within the site as directed by the Engineer-in- Charge. The Filling with excavated earth shall be done in regular horizontal layers and all lumps and clods exceeding 8 cm in any direction shall be broken. Each layer shall be watered and consolidated with steel rammer or ½ tonne roller.

II. The Selected earth supplied and used for filling shall be free from all roots, grass, shrubs, rank vegetation, brushwood, tress, sapling and rubbish.Sand , supplied for filling shall be clean and free from dust organic and foreign matter and its grading shall be within the limits of grading zone IV or V as specified in Section 3 'Mortars' of CPWD specifications of work.

III. In case of filling under floor /open area with excavated available or supplied good earth etc., every third and top must layer shall also be consolidated with power roller of minimum 8 tonnes. Wherever depth of filling exceeds 1.5 metre vibratory power roller shall be used to consolidate the filing unless otherwise directed by Engineer-in-charge. The top and sides of filling shall be neatly dressed. The contractor shall make good all subsidence and shrinkage in earth fillings, embankments, traverses etc. during execution and till the completion of work unless otherwise specified.

IV. Filling in trenches for foundations, pipes etc shall be commenced soon after the Concrete/Masonry works in foundations etc, joints of pipes, cables, conduits etc. have been tested and passed. The space around the footing, pedestals, foundation masonry, pipes, cables conduits etc. shall be cleared of all debris, brick bats etc. Where the trenches are excavated in hard/ soft soil, the filling shall be done with earth on the side and top of pipes in layers not exceeding 20 cm in depth. Each layer shall be watered, rammed and consolidated. All clods and lumps of earth exceeding 8 cm in any direction shall be broken or removed before the excavated earth is used for filling. In case of excavation trenches in ordinary/ hard rock, the filling upto a depth of 30cm above the crown of pipe, cable, conduits etc. shall be done with fine material like earth, moorum or pulverized/ decomposed rock according to the availability at site. The remaining filling shall be done with boulders of size not exceeding 15cm mixed with fine material like decomposed rock, moorum or earth as available to fill up the voids, watered, rammed and consolidated in layers not exceeding 30cm. Excavated material containing deleterious material, salt peter earth etc. shall not be used for filling. Ramming shall be done with iron rammers where feasible and with blunt ends of crow bars where rammers cannot be used. Special care shall be taken to ensure that no damage is caused to the pipes, Cables, Conduits etc. laid in the trenches.

13) **Lead**

Lead for deposition/disposal of excavated material, shall be within a lead of 200m unless specifically mentioned in Tender items. The Deposition/disposal shall be asdirected by Engineer-in-Charge.Only leads beyond 200m shall be considered as extralead if not specifically mentioned in tender items

andtheContractorshallbepaid extra.Forthepurposeofmeasurement of lead the area to be excavated or filled or area on which excavatedmaterial is to be deposited/disposed off shall be divided into suitable blocks and foreach of the blocks, the distance between centerlines shall be taken as the lead whichshall be measured, as far as practically possible, by the shortest straight line route onthe planandnot the actual route taken byContractor.Noextracompensation isadmissibleonthegroundsthattheleadincludingthatforborrowedmaterialshadtobetransportedover marshyorkatchaland/route.

B. CONDITIONSFORWATER:

Unless specifically mentioned in Schedule –F, The contractor shall make his own arrangement for providing water for construction anddrinking purpose.Water charges shall not be recovered on account of it.Contractor shallget the water tested from any laboratory approved by the Engineer-in-charge at regularinterval as per the CPWD Specifications. All expenses towards collection of samples,packingtransportationexcepttestingchargesetc.shallbebornebythecontractor.

C. FORM WORK

I. The supply, erection, workmanship, stripping, measurement, and scope of works covered under the rates etc.shallbeingeneralasperCPWDSpecifications unless specifically mentioned in tender document.

II. Rates in tender items shall be valid for all heights for carrying out Centering, and shuttering for all RCC /PCC works, wall finishing works etc wherever required for construction works in Warehouse and no extra cost shall be paid unless specifically mentioned in tender BOQ.

III. Where it is not specifically stated in the description of the item that form work shall be paid for separately, the rate of the RCC item shall be deemed to include the cost of form work.

IV. No deductions from the shuttering due to the openings/ obstructions shall be made if the area of each openings/ obstructions does not exceed 0.4 square metre. Nothing extra shall be paid for forming such openings.

V. Only M.S. Centering/shuttering and scaffolding material unless & otherwise specified shallbe usedtogiveanevenfinishofconcretesurface.However,marine-plyshutteringinaspersiterequirementmaybeusedonspecificrequestfromcontractortobeapprovedbytheEngineer-in-charge.

VI. Centring and shuttering for all concrete and reinforced concrete wherever required shall be in steel and / or plywood to produce a smooth and uniform finish on all exposed surfaces. However, all props, bracings, scaffolding etc., shall be in steel. The entire responsibility of planning, design, erection and safety of formwork shall lie with the Contractor.

VII. Extra for shuttering in curved profile: For shuttering curved in elevation the steel/ply shuttering shall be fabricated to achieve the curved profile as per the architectural drawings and nothing extra shall be payable on this account.

VIII. In order to keep the floor finish as per architectural drawings and to provide requiredthickness of the flooring as per specifications, the level of top surface of RCC shall beaccordingly adjusted at the time of its centering, shuttering and casting for which nothingextrashallbepaidtothe Contractor.

IX. Aspergeneralengineeringpractice,leveloffloorsintoilets/bath,balconies,shallbekept 12to20mmlowerthangeneralfloorasrequired.Shutteringshouldbeadjustedaccordingly.Nothingextraispayableonthisaccount.

X. SteelshutteringasapprovedbytheEngineer-in-chargeonlyshallbeusedbythecontractor. Minimum sizeofshuttering plates shall be 600mm x 900mm except for thecase when closing pieces required to complete the shuttering panels.Dented, broken,cracked, twisted or rusted shuttering plates shall not be allowed to be used on the work.The shuttering plates shall be cleaned properly with electrically driven sanders to removeanycementslurryorcementmortarorrust.Propershutteringoilorde-bondingcompound shall be applied on the surface of the shuttering plates in the requisite quantitybeforeassemblyofsteelreinforcement.

XI. For the execution of centring and shuttering, the contractor shall use propriety „Reebole"chemical mould release agent of FOSROC or equivalent as shuttering oil as approved byEngineer-in-chargeandnothingextrashallbepaidonthisaccount.

D. REINFORCEMENT STEEL.

I. The TMT bars shall conform to IS 1786 pertaining to Fe 415 D or Fe 500 D or Fe grade of steel as specified in Tender Item/ Drawing.

II. In case of Construction in seismic zone III and above, unless specifically mentioned in technical drawings, steel reinforcement of Grade Fe 415 D shall be used. However, high strength deformed steel bars, produced by thermo mechanical treatment process of grade Fe 415, Fe 500 and Fe 550 having elongation more than 14.5. % and conform to other requirements of Fe 415 D, Fe 500 D and Fe 550 D respectively of IS 1786 may also be used for reinforcement.

III. The supply, storage at site, assembly, erection, placement in position into formwork, workmanship including bend, hook, overlap, welding, anchoring, cover, testing, acceptable quality parameters and test results, permissible tolerance, measurement, and scope of rates etc.shallbeingeneralasperCPWDSpecifications unless specifically mentioned in tender document or Construction Drawings.

IV. Reinforcement bars shall be placed in position as shown in the drawings or as directed by the Engineer-in-charge. The bars crossing one another shall be tied together at every intersection with two strands of annealed steel wire 0.9 to 1.6 mm thickness twisted tight to make the skeleton of the steel work rigid so that the reinforcement does not get displaced during deposition of concrete.

V. Tack welding in crossing bars shall also be permitted in lieu of binding with steel wire if approved by Engineer-in-charge.

VI. Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameter, as actually (not more than as specified in the drawings.) used in the work nearest to a centimeter and their weight calculated on the basis of standard weight given in clause 6.2 of IS 1786 . In case actual unit weight of the bars is less than standard unit weight, but within variation, in such cases weight of reinforcement shall be calculated on the basis of actual unit weight. Wastage and unauthorized overlaps shall not be paid for.

VII. Annealed steel wire required for binding or tack welding shall not be measured, its cost being included in the rate of reinforcement.

VIII. The contractor shall provide approved type of support for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings, spacer blocks of required shape and size. Chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. Spacer blocks shall be cast well in advance with approved proprietary pre-packed free flowing mortars (Conbextra as manufactured by M/s Fosroc Chemicals India Ltd., or equivalent as approved by the Engineer-in-charge at his discretion) of high early strength and same colour as surrounding concrete, Pre-cast cement mortar / concrete blocks / blocks of polymer shall not be used as spacer blocks unless specially approved by the Engineer-in-charge, rate of RCC items is inclusive of cost of such cover blocks.

E. RCC WORK

i. All mixed design concrete shall be executed by Concrete Batch Mix Plant of suitable capacity, to be installed by Contractor at site. In special cases RMC shall be allowed by Engineer on written request of the contractor but the RMC should also be from a plant of appropriate capacity. No extra payment shall be allowed on account of Concrete from batch mix plant or RMC.

ii. In case of Nominal Mix concrete also, weight basis batching shall only be allowed.

iii. Mixer having arrangement of weighing water for controlling W.C. ratio should only beused inallPCCandRCCworkswhere thereisno provisionfor ReadyMix Concrete in tender items.

iv. Any cement slurry if added over base surface (or for continuation of concreting) forbond, its cost shall be deemed to have been included in the respective items, unlessotherwise,explicitlystatedandnothingextrashallbepayablenorextracementconsideredinthecementconsumptionon thisaccount.

v. Unless otherwise specified for the item, the maximum water cement ratio for any grade of concrete shall not be more than 0.5.The contractor shall within 15 days of issue of letter for commencement of the

work, submit the mix design for various grades of concrete along with 7days crushing strength reports and within 40 days submit 28 days crushing strength reports, for the samples for the mix. Nothing extra shall be payable on account of admixing any chemical admixture for achieving any characteristic for the concrete. Concreting shall be commenced only after the approval of the mix design by the Engineer-in-Charge.

vi. Wherever required the M.S. inserts shall be provided during the casting of RCC / PCC for which nothing extra shall be payable. As far as possible the contractor shall plan that the concreting is carried out during day shift.

vii. It is important to maintain the water cement ratio constant at its correct value. To this end, determination of moisture contents in both fine and coarse aggregates shall be made as frequently as possible, the frequency for a given job being determined by the Engineer-in-Charge according to weather conditions. The amount of the added water shall be adjusted to compensate for any observed variations in the moisture contents. For the determination of moisture content in the aggregates, IS 2386 (Part 3) may be referred to. To allow for the variation in mass for aggregate due to variations in their moisture content, suitable adjustments in the masses of aggregates shall be made.

viii. The concrete shall be deposited in its final position in a manner to preclude segregation of ingredients. In deep trenches and footings concrete shall be placed through chutes or as directed by the Engineer-in-Charge. In case of columns and walls, the shuttering shall be so adjusted that the vertical drop of concrete is not more than 1.5 metres at a time.

ix. The surface which is to receive plaster or where it is to be joined with brick masonry wall, shall be properly roughened immediately after the shuttering is removed, taking care to remove the laitance completely without disturbing the concrete. The roughening shall be done by hacking. Before the surface is plastered, it shall be cleaned and wetted so as to give bond between concrete and plaster.

x. On the basis of mandatory lab tests, in case of actual average compressive strength being less than specified strength but upto 70% of specified strength, the rate payable shall be in the same proportion as actual average compressive strength bears to specified compressive strength. In case average compressive strength is less than 70% of the specified strength, the work represented by the sample shall be rejected.

xi. However, on the basis of mandatory field tests, where they prevail, the rates of the work represented by samples showing actual compressive strength less than specified strength shall be worked out as per relevant guideline of CPWD Specifications. In addition, Engineer-in-charge may order for additional tests (see Appendix 'B' of chapter 5 of CPWD Specifications) to be carried out at the cost of contractor to ascertain if the portion of structure where in concrete represented by the samples had been used, can be retained on the basis of these tests. Engineer-in-Charge may take further remedial measured as necessary to retain the structure at the risk and cost of the contractor.

xii. If at any stage of the work, during or after placing the concrete in the structure the work is found defective such concrete shall be removed and work be done with fresh concrete and adequate rigid forms at the cost of the contractor. The contractor shall be liable to bear the cost for the cement concrete thus dismantled.

xiii. The construction work shall be done with proper and assured system of curing duly identified areas with dates marked in paint. In hot weather the contractor shall take relevant care to cover the work with wet gunny bags/hessian cloth or use continuous ponding of water on surface so as to keep the surface wet.

xiv. Hard stone aggregate of different sizes shall be crushed or broken from hard stone conforming to CPWD Specifications for work subject to Para below. Where CPWD Specifications for R.C.C. or any item or work are silent, the provisions of the latest Code of BIS for plain and reinforced cement concrete for general building construction I.S. 456-2000 or the concerned I.S. specifications or Code of practice shall apply.

xv. When an R.C.C. slab or a flat slab is projected beyond the wall/beam line, the payment for such projected part of the R.C.C. work shall be made under the corresponding item of R.C.C. slab/flat slab. Payment for centering& shuttering of the projected portion shall also be made under the item of centering& shuttering for the slab/flat slab. Nothing shall be paid for the edge shuttering of the slab/flat slab projection or otherwise. All exposed edges shall be finished as per specifications without extra payment.

F. BRICK WORKS

I. Type of the Bricks to be used in Masonry works in foundation and superstructure i.e Common Burnt Clay Bricks/ Fly Ash Lime Bricks / Clay Fly Ash Bricks/ Tile Brick/ Brick Bats Calcium Silicate Bricks/CC Block/AAC Block etc. shall be strictly as mentioned in Tender Item and Construction drawings.

II. Unless specifically mentioned in Construction Drawing or Tender Item, Bricks used shall have compressive

strength not less than 7.5 MPa. In case bricks of compressive strength 7.5 MPa are not available and the structure is not of load bearing nature, then use of less compressive strength bricks can be relaxed as per CPWD specification, at reduced rate as worked out by the Engineer in-charge.

III. All brick Masonry work shall be done with the available size of F.P.S. Bricks. The measurement of the brick work would be done in the multiples of the half brick. Above three bricks, the brick work would be measured as per the actual thickness.

IV. The 'Modular bricks' shall only be used where use of same is specifically mentioned in the relevant items.

V. The material Specifications, dimensions, permissible tolerance, testing, acceptable quality parameters, test results, workmanship, erection and placement procedures, measurement of works and scope of works covered under rates etc all in general shall be as per CPWD Specifications with up to date correction slips unless specifically mentioned in tender documents.

VI. Top courses of all plinths, parapets, steps and top of walls below floor and roof slabs shall be laid with brick on edge, unless specified otherwise. Brick on edge laid in the top courses at corner of walls shall be properly radiated and keyed into position to form cut (maru) corners. Where bricks cannot be cut to the required shape to form cut (maru) corners, cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) equal to thickness of course shall be provided in lieu of cut bricks.

VII. No deductions or additions shall be done and no extra payment made for the following :
Where minimum area is defined for deduction of an opening, void or both, such areas shall refer only to opening or void within the space measured.

a. Ends of dissimilar materials (that is, joists, beams, lintels, posts, girders, rafters, purlins, trusses, corbels, steps, etc.); up to 0.1 m2 in section;
b. Opening up to 0.1 Sqm in area (see Note);
c. Wall plates, bed plates, and bearing of slabs, chajjas and the like, where thickness does not exceed 10 cm and bearing does not extend over the full thickness of wall;
d. Cement concrete blocks as for hold fasts and holding down bolts;
e. Iron fixtures, such as wall ties, pipes upto 300 mm diameter and hold fasts for doors and windows; and
f. Chases of section not exceeding 50 cm in girth.
g. Bearing portion of drip course, bearing of moulding and cornice.

Note: In calculating area of an opening, any separate lintel or sills shall be included with the size of the opening but end portions of lintel shall be excluded. Extra width of rebated reveals, if any, shall also be excluded.

G. FLOORING

I. Final finished flooring with Marble/Granite/Stone/Ceramic/Vitrified/CC etc shall be done in pattern, layout out, sizes, thickness as shown in Construction drawings and Tender items other wise as directed by Engineer in charge.

II. The supply, material Specifications, dimensions, permissible tolerance, testing, acceptable quality parameters, test results, workmanship, erection and placement procedures, measurement of works and scope of works covered under rates etc all in general shall be as per CPWD Specifications with up to date correction slips unless specifically mentioned in tender documents.

III. Sample of Marble /Granite/Ceramic/Vitrified/CC Tile or any other material to be used in finish flooring shall be got approved by Contractor from Engineer in charge.

IV. Gang saw cut granite floor slabs.

V. Wherever the tender schedule provides for mirror polished granite slab flooring using Gang saw cut granite slabs. The size of such gang saw cut granite slabs shall not be less than 1.5m x 2.4m. The granite block shall be gang saw cut using water cutting process. The polishing of the cut stone slabs should be automatic machine polished to highly even surface without any undulations. Manual polished and kerosene cutting process slabs shall not be accepted and shall be rejected.

VI. Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. sothat the wash water flows towards the direction of floor trap. Any reverse slop if found,these shall be made good by the contractor by ripping open the floor/grading concrete andnothingextrashallbepaidforsuchrectifications. Slope in Office, warehouse floor shall be as indicated in drawings otherwise as directed by Engineer in charge.

VII. Final Finish flooring shall be laid over a well prepared base and sub base flooring of material & specifications as mentioned in tender items and shown in Construction Drawings.

VIII. Sub base floor shall be laid over well prepared sub grade.

H. SUBGRADE

i. Where the pavement / Warehouse Floor is to be laid on surface obtained after cutting the soil, the sub-grade for pavement shall be prepared as per specifications relevant to item in BOQ for achieving not less than 97% of dry density as per IS : 2720 Part VIII at no extra cost or otherwise as per the procedure mentioned hereafter.

- The sub-grade shall be excavated to a depth of 0.5 meter, watered and compacted in layers not exceeding 250mm thickness, dressing to required camber and profile and consolidation with vibratory roller of 80 to 100 KN static weight so as to achieve not less than 97% of dry density as per IS : 2720 Part VIII. However, before relaying and compacting the loosened material the surface below this level shall be suitably consolidated as directed by the Engineer but with a minimum six passes of vibratory roller. If the next 15 cm below this level does not have a relative compaction of 90%, it shall be compacted until not less than 95% dry density is obtained. Rate for work of this nature shall be covered in the item of preparation of sub-grade.

ii. Where the pavement is to be laid on fill and height of proposed fill is less than 0.5 meter, the procedure for sub-grade preparation as mentioned above shall be followed.

iii. Where the pavement is to be laid on fill and the height of proposed fill is more than 0.5 meter, preparation of sub-grade is not required at these locations, however, in such locations original ground level shall be compacted by rolling as directed by the Engineer as much as possible but with a minimum of six passes of vibratory roller of 80 to 100 KN static weight. No separate payment shall be made for this, as same shall covered in item of earth work in excavation and / or filling.

iv. **Control Tests on Borrow Material**

Soil suitable for consolidation under O.M.C. conditions should preferably have the following characteristics:

- Minimum percentage of clay -10%; Liquid limit- 14; Plasticity index-4; Percentage of silt should not exceed-50%; free from Peat, muck and organic soils which are unsuitable.

The Engineer-in-Charge may, however, relax these requirements taking into account availability of materials, cost of transportation and other relevant factors.

I. WBM /WMM

WBM/WMM wherever to be used as sub base/base course in road/warehouse floor etc. shall be laid in proper gradient, compacted thickness as shown in construction drawings. The supply, stacking, procedure for laying in position, testing, acceptance within tolerance limit, measurement and scope of work covered under rates shall be as per the guideline of relevant CPWD specifications for these works.

J. STRUCTURAL STEEL WORKS IN COLUMN-BEAM FRAMES/ROOF TRUSS/MEZZANINE FLOOR

i. The scope of work also includes preparation& submission of shop Drawings/ Fabrication drawings, connection details of joints including all bolted / welded and riveted joints as per design and obtaining approval for all the drawings from Engineer in charge. The agency shall prepare all the required shop drawings needed for correct and accurate erection of Steel Structure work. The design shall be strictly in accordance with the "Design Specifications" and building drawings.

ii. Engineerinchargereservestherighttoreviewany/allornoneofthedrawings,Reviewby Engineer in charge shall not relieve the contractor of his responsibility for correctdrawingandexecutionofthe works.

iii. The Final GFC drawings shall directly adhere to the reviewed comments and generalarrangementandshallincorporateallthecomments/suggestionsgivenbyDepartment/EngineerInchargewithoutanyextracosttothedepartmentandanyimplicationonthetimeschedule forthecompletionofthework.

iv. Ifthereisanydifferenceinopinionorchangestobemadewithregardtodrawings/specificationsaspertherecommendationofEngineerinCharge,TheContractor shallagree to bebound by the samewithoutanyextra cost.

Specificationfor steelworks

i. The work in general shall be carried out as per CPWD specifications and the relevantIndianStandardsalistofwhich arementionedintheparticularspecifications.

ii. The fabrication and erection ofthe steel members shall be as per General SpecificationIS:800andstipulationscontainedin theotherrelevantstandards.

iii. The contractor shall prepare and submit the fabrication drawings, indicating thecomplete details of all members, detail of joints, weld sizes, length of welds, cleats holesetc. The fabrication work shall be commenced only after the fabrications drawings areapproved. A scheme for fabrication and erection of the various members shall also befurnished and got approved. However such approval shall not absolve the contractor forthesafetyof thestructure anditscomponentsduringfabrication, erectionand service.

iv. The contractor shall submit manufacturer's test certificate for all the material procured byhimindicatingclearlytheidentificationmarksetc.TheEngineer-in-chargemaygetsamples of the materials tested for their conformity to the standards. No payments shallbemadeforthe materials,whichareused fortesting.

v. Normally Fabrication shall be carried at site of work but To advance the progress, Contractor may do fabrication works at their shop with approval of Engineer in charge. The fabrication shop of the contractor, shall have all facilities required for carrying out thefabricationwork.

vi. Thematerialshall conformtothefollowingspecifications.
- Structuralsteelrolledsections: IS2062Grade„A"up to20mmthickness,IS2062Grade „B"above20mmthickness.
- Pipesetc. :IS 1161/1233
- Chequeredplates:IS 3502

vii. Steel sections from the main manufacturers such as SAIL, TISCO, RINL or JINDAL onlyshall be permitted to be used. **The steel members shall be in single piece end to endwithout any intermediate joints unless specifically approved by the Engineer-in-charge.** The contractor shall get the name of manufacturer approved before placing theorder. The material should be free from defects. If any defect is noticed at the time ofmanufacturing thesameshould berejected. Re-rolledmaterial shall notbe permitted.

viii. Welding materials shall confirm to IS : 814 & AWS E 6013 for thickness upto 20 mm andMWSE7018 above20mm.

ix. BoltsandnutsshallbeasperIS:1363&IS:1367.WashersshallbeasperIS:2016,IS:5372 andIS :5374.

x. Thebendingofplates andsectionsshallbecarried outonappropriatemachines.

xi. Cutting may be effected by sheering, cropping, sawing or by gas cutting by mechanicallycontrolledtorch.Gascuttingbyhandandelectric arccuttingshallnotbepermitted.

xii. All cutedgesshallbegroundbefore theyarewelded.

xiii. Theaccuracy atcontactsurfacesandtolerances shallbeasperrelevantISstandards.

xiv. Bolt — holes shall be drilled. Enlarging the holes by filling, hand drilling using flame etc.arenot permitted.

xv. The welders qualified as per procedure given in the IS standards shall only be engagedfor doingthe weldingwork.

xvi. Theweldingprocedure as proposedbythecontractorshallbegotapprovedinadvancefromtheEngineer-in-charge.

xvii. The welds shall be subjected to visual examination, mechanical tests on samples, dyepenetrationtests,other non-destructive testslikeradiographic/ultrasonic testsetc.

xviii. Internalsurfacesofboxed/ back-to-backmembersshould betreatedwith primer.

xix. The edges ofchequered plate shall be made smooth and no burrs or jagged ends shallbeleft.

xx. The structural steel required conformingto IS: 2062 shall normally be procured from themainsteelproducers viz.TATA,SAILand RINL (Vizag).Tubes to be supplied by Contractor, confirming to IS 1161, shall normally be of Make TATA, APPOLO.

xxi. In case of difficulties in getting required quantities of materials from the main producers,permission may be given as a special case to procure the materials from the secondaryproducershavingISIregistration by Engineer in charge ifthe contractorsapproach the Engineer-in-charge with the efforts made by them in getting the materialswith fulljustificationdetails.

xxii. Fabricated structural member's viz., columns, beams and purlins along with the baseplatesand cleats etc.shallbeprovidedwith zinc chromate steel primercoatingafter fabrication unless specifically mentioned otherwise in Tender Items and Specifications.

xxiii. The quantity of the steel for structural members for the purpose of payment shall beworked out by adopting the unit weight given in the relevant IS code for tubes, angles. Channels,flats and plates etc. If the actual weight of the member is less than that specified in the codebeyondtheminus tolerancepermissiblethenthematerialsshallbe rejected. Payment on weight basis would be made as per the theoretical or actual weight whichever is less.

xxiv. Weight of cleats, brackets, packing pieces bolts nuts, washer's distance pieces separators diaphragm gussets (taking overall square dimensions) fish plates etc. shall be added to the weight of respective items unless otherwise specified. No deduction shall be made for skew cuts.

K. ADDITIONAL CONDITIONS FOR PRE FAB STRUCTURE IN STEEL:

i. Wherever Tender Items mentioned the Prefab Structures or **Pre-Engineered BuildingSystem (PEB),** The scope of work for **Fabrication, Supply and Erection of Pre-Engineered BuildingSystem (PEB)** is as defined in the following sections under the contract which includesmanufacture, supply and erection of Structural Steel System andallaccessoriesasperdesign, drawings and as per direction ofEngineer-in-Charge.

ii. **Conditionfor Specialized Agencyfor PEBStructure:**
In case the Main contractor is himself not a PEB Manufacturer, He will obtain the approval of Engineer in charge for selection and appointing the PEB Manufacturer/Supplier for this contract. The Engineer-in-Charge or his authorized representative shall visit the factory of PEB manufacturer and will grant the approval for Supply of PEB system based on the experience, availability of CNC machines for fabrication, cutting/welding etc and production capacity of the manufacturer. EIC or his representative will also visit the factory of PEB Manufacturer duringmanufacturing ofPEBcomponentsforqualitychecks.ThePEBcomponentsshall bebroughttositefromfactoryonly afterthesatisfactorytestresultsandquality checksasperthedirectionofEngineerinCharge.

iii. After the completion of work, the contractor shall submit to the Engineer-in-Charge. 3 sets of "AsBuilt"drawings along with CAD copies as specifiedelsewhere.

iv. Thecontractorshallmakeavailableallworksheets/supportingdata/designdetailstoEngineer in Charge assodesired.

v. The contractor shall clarify to Engineer In Charge any queries regarding specifications,rates, etc as and when requested/ required. Rate of analysis for the rates quoted shallalsobefurnishedbytheTendererIfdesired by Engineer In Charge.

vi. **Thefollowingaretheminimumrequirementsoftests onwelds.**
- Visualexamination:100%
- Dye penetrationtest: 30%afterback gougingand afterfinalfinish.
- Mechanicaltest:1testeachonacolumn andbeammembers.
- Radiographytest: 2%ofwelds.

Whereradiographytestisnotpossibleultrasonictestshallbecarriedout.Theacceptance criteria shall be as per IS specifications and as decided by the Engineer-in-charge.

vii. Apart from the IS Codes mentioned above, all other relevant codes such as American standards (AISC,

MBMA, AISI & AWS specifications) related to the specific job under consideration and / or referred to in the above mentioned codes may be followed wherever applicable, if the specifications for the same are not available in the relevant IS codes.

viii. When Contractor scope of works includes supply of Prefab/PEB structural steel system, NO Fabrication at site shall be allowed except erection works and minor steel works like nonstructural steel works.

L. DOOR/WINDOWS/VENTILATOR WORKS

i. The supply of materials viz Rolling Shutters/Mild Steel doors/T sections doors/windows/ Aluminum/UPVC Sections for doors / windows/ ventilators/ partitions, Wooden paneled/ flush doors/ cupboard shutters/ PVC /FRP shutters/ frames/ Pressed steel frames/ all type of fittings/glazing/paneling /decorative polish/veneering/Wire gauge/expanded metal mesh/MS grills/Chqd plate/Handrails etc including their storage at site, procedure of installations, workmanship, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for these works shall be as per relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.

ii. Wood work shall not be painted, oiled or otherwise treated before it has been approvedby theEngineer-in-Charge.

iii. Aluminum Fittings shall be anodized to natural matt finish or dyed anodic coating not less than grade AC 10 of IS 1868. Mild steel Fittings shall be bright finish black stone enameled or copper oxidized (black finish), nickel chromium plated or as specified. Brass Fittings shall be finished bright satin finish or nickel chromium plated or copper oxidised or as specified.

iv. AllfittingsandfixtureS of doors, windows, ventilators shallbegotapprovedfromtheEngineer-in-Charge beforeprocurementwellinadvanceandtheapprovedsamplesshallbekeptatsitetillcompletionofthework.

v. Wooden flush door shutter/ PVC/FRP /Fire rated door shutters, asspecified shall beobtained from factories to beapproved by the Engineer- in-charge. The contractorshall inform well in advance to the Engineer- in-charge the name and address of thefactory where from he intends to get the shutters manufactured. The contractor willplace order for manufacturing of shutters only after written approval of the Engineer- in-charge in this regard is given. The contractor is bound to recommend name(s) of anotherfactory from the approved list in case the factory already proposed by the contractor isnotfoundcompetenttomanufacturequalityshutters.

vi. Shutters samples shall be first submitted and got approved by Engineer in charge Shutters willhowever,beacceptedonlyiftheymeetthespecifiedtests/technical requirements

vii. Rolling Shutters: The shaft of rolling shutters shall be of M.S. Pipe heavy duty 40 mm. nominal bore, 48.3 mm outer dia, thickness 4.05 mm and weight of pipe shall be 4.43 Kg./metre. At least three springs made of H.T. steel grade 2 of I.S. 4454/1,Warehousing Bhavan,967of 27.5 mm. length shall be used in each shutter. The guide channels of minimum 60 mm depth shall be made of 3.15 mm thick M.S. strips Lock rail at bottom shall be of 3.15 mm thickness with M.S. angle 35 mm x 35 mm x 5 mm welded at the bottom and brackets for fixing the M.S. pipe on wall shall be of M.S. plate 3.15 mm thick. Top cover of shutters shall be made out of M.S. Plate 1-25 mm thick sliding bolt for lock rail shall be made of M.S. flats not less than 50 mm x 6 mm size at both ends with inside and outside locking arrangement. Further details if any not covered by general specifications of Delhi CPWD specifications 2009 Volume I and details described above shall be as per IS specifications No.6248 of 1971/revision (latest)

The contractor shall arrange one more spring than the total required number, for testing purpose. The Engineer-in-Charge shall select at random one spring to be sent for test regarding grade of H.T. steel wire used in the springs. No extra payment shall be made for the additional spring arranged.

The rates to the quoted for supplying and fixing rolling shutter should include making necessary chases in masonry and making good the same for fixing of side guide etc.

M. FINISHING

i. Theworkshallbecarriedoutto provide a smooth finish with pleasing appearance in high standards of workmanship and quality of material up to the satisfaction of Engineer in charge.

ii. The supply of materials for finishing works and their storage, procedure of applications, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for these works

shall be as per relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.

iii. For all exposed brick work or tile work double scaffolding independent of the work having two sets of vertical supports shall be provided. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding planks shall be fixed. For all other work in buildings, single scaffolding shall be permitted. In such cases the inner end of the horizontal scaffolding pole shall rest in a hole provided only in the header course for the purpose. Only one header for each pole shall be left out. Such holes for scaffolding shall, however, not be allowed in pillars/columns less than one metre in width or immediately near the skew backs of arches. The holes left in masonry works for scaffolding purposes shall be filled and made good before plastering.

iv. For external and under coat plaster work, the fine aggregate shall conform to grading IV. For finishing coat Plaster work the fine aggregate conforming to grading zone V shall be used unless specified otherwise.

v. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor's expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched.

vi. Wherever scaffolding is necessary for Whitewash /Painting works, it shall be erected on double supports tied together by horizontal pieces, over which scaffolding planks shall be fixed. No ballies, bamboos or planks shall rest on or touch the surface which is being white washed. Where ladders are used, pieces of old gunny bags shall be tied on their tops to avoid
damage or scratches to walls.

vii. For White wash /waterproofing cement paint on new work, three or more coats shall be applied till the surface presents a smooth and uniform finish through which the plaster does not show. The finished dry surface shall not show any signs of cracking and peeling nor shall it come off readily on the hand when rubbed. For old work, after the surface has been **prepared**, a coat of white wash/cement paint shall be applied over the patches and repairs. Then a single coat or two or more coats of white wash/cement paint as stipulated in the description of the item shall be applied over the entire surface. The white washed surface should present a uniform finish through which the plaster patches do not appear.

viii. Distempering: If the wall surface plaster has not dried completely, cement primer shall be applied before distempering the walls. But if distempering is done after the wall surface is dried completely, distemper primer shall be applied. Oil bound distemper is not recommended to be applied, within six months of the completion of wall plaster. However, newly plastered surfaces if required to be distempered before a period of six months shall be given a coat of alkali resistant priming Paint conforming to IS 109 and allowed to dry for at least 48 hours before distempering is commenced.

ix. The color code and make of Painting material on exterior or interior finish shall be first approved by Engineer in charge. Contractor shall submit all possible combinations, physical samples on size 300x300 mm over wall for approval of color without any extra cost.

x. ThePrimer,SyntheticEnamelpaint,distemperetc.,ofasapprovedbytheEngineer-in-chargeandoflowVOC (unless specified otherwise),shallonlybeusedandbroughttothesiteofworkintheoriginalsealedcontainers.

xi. Thematerialbroughttothesiteofworkshallbesufficient for at least 30 days of work.

xii. The material shall be kept under the joint custodyofcontractor and representative of the Engineer-in-charge.The empty containers shallnot be removed from the site till the completion of the work without permission of theEngineer-in-charge.

xiii. Contractor shall submit the copies of invoices of Painting material purchased by them for incorporation in to the contract works.

N. WATER SUPPLY, INSTALLATIONS AND DRAINAGE

i. Thecontractorshallfurnishalllabor,materialandequipment,transportationandincidental necessary for supply, installation, testing and commissioning of the completePlumbing / system as described in the Specifications, Tender Items and as shown on the drawings. Thisalso includes any material, equipment, appliances and incidental work not specificallymentioned herein or notedonthe Drawings/Documents asbeing furnished orinstalled,butwhicharenecessary andcustomarytobeperformedunderthiscontract.

ii. ThePlumbing/Sanitarysystemshallcompriseoffollowing:

   a. SanitaryandwatersupplyFixturesandFittings.
   b. InternalandExternalWaterSupply.
   c. InternalandExternalDrainage
   d. ApprovalfromLocalAuthorities

e. Balancing,testing&commissioning.
f. Testreportsandcompletiondrawings

iii. The contractor shall procure and install all pipes, its fittings, joints/bends/tees /sockets /nipples including shut-off valve etc as specified.

iv. Thecontractorshallensurethatseniorandexperiencedplumbersareassignedexclusivelyforthiswork.Such plumber(s)shouldhavevalidlicensefromthelocalauthorities. The project management shall be done through modern technique. For qualitycontrol & monitoring of workmanship, contractor shall assign at least one engineer whowouldbeexclusivelyresponsibleforensuringstrictqualitycontrol,adherencetospecificationsandensuringtop classworkmanshipfortheinstallation.

v. TheworkshallbeinconformitywiththeBye-laws,RegulationsandStandardsofthelocal authorities concerned. But if these Specifications and drawings call for a higherstandard of materials and / or workmanship than those required by any of the aboveregulations and standards, then these Specifications and drawings shall take precedenceover the said regulations and standards. However, if the drawings and specificationsrequire something which violates the Bye-laws and Regulations, then the Bye-laws andRegulationsshallgovern therequirementofthisinstallation.

vi. The contractor shall obtain all permits/ licenses and pay for any and all fees required forthe inspection, approval and commissioning of their installation.However, all receiptedamountshallbereimbursedonproductionofproofofpayment.

vii. ThePlumbingdrawingsaretobegivenbythecontractorforobtainingapprovalfrom Engineer-in-charge. The Plumbing / Sanitary Drawings given by the Engineer in-Charge or issued with tenders are diagrammatic only and indicate arrangement of varioussystemsand the extent ofwork covered in the contract. These Drawings indicate thepoints of supply and of termination of services and broadly suggest the routes to befollowed. Under no circumstances shall dimensions be scaled from these Drawings. Thecontractorshallfollowthesedrawingsinpreparationofhisshopdrawings,andforsubsequentinstallation work.

viii. Thecontractorshallexamineallarchitectural,structural,plumbing,electricalandotherservicesdrawingsandcheckthea-builtworksbeforestartingthework,reporttothe Engineer In-Charge any discrepancies and obtain clarification. Any changes foundessential to coordinate installation of his work with other services and trades, shall bemadewithpriorapprovaloftheEngineerIn-Chargewithoutadditionalcosttothedepartment.

ix. AlltheshopdrawingsshallbepreparedoncomputerthroughAutoCADSystembasedonArchitecturaldrawingsandsitemeasurements.Contractorshallfurnish,fortheapproval of Engineer-in-charge, the two sets of detailed shop drawings of complete workand materials including layouts / Typicaltoilets drawingsshowing exactlocation ofsupports, flanges, bends,teeconnections,reducers, detailed piping drawings showing exact location and type of supports, valves,fittingsetc;externalinsulationdetailsforpipe insulationetc.

x. Theseshopdrawingsshallcontainallinformationrequiredtocompletethework.Thesedrawingsshallcontaindetailsofconstruction,size,arrangement,operatingclearances, performance characteristics and capacity of all items of equipment, also thedetails of all related items of work by other contractors. Each shop drawing shall containtabulationofallmeasurableitemsofequipment/materials/worksandprogressivecumulative totals from other related drawings to arrive at a variation-in-quantity statementat the completion of all shop drawings.Minimum 3 sets of drawings shall be submittedafter final approval alongwith CD. Whenhemakesanyamendmentsintheabovedrawings,thecontractor shallsupply two fresh sets of drawings with the amendmentsduly incorporated along with check prints, for approval. The contractor shall submit further3setsofshopdrawingstotheEngineerIn-charge fortheexclusive usebytheEngineer In-charge and all other agencies. No material or equipment may be delivered orinstalled at the job site until the contractor has in his possession, the approved shopdrawingfortheparticularmaterial/equipment/installation.

xi. Shop drawings shall be submitted for approval four weeks in advance of planned deliveryand installation of any material to allow the Engineer-in-charge ample time for scrutiny. Noclaims for extension of time shall be entertained because of any delay in the work due tohis failure to produce shop drawings at the right time, in accordance with the approvedprogramme.

xii. Samples of all materials like valves, pipes and fittings etc. shall be submitted to theEngineer In-Charge prior to procurement for approval and retention by Engineer In-Charge and shall be keptintheirsiteofficeforreferenceandverificationtillthecompletionoftheProject. Wherever directed, a mockup or sample installation shall be carried out forapproval

beforeproceedingforfurtherinstallationwithoutanyextracost.

xiii. Approval ofshopdrawings shall not beconsideredas a guarantee of measurements orof building dimensions. Where drawings are approved, said approval does not mean thatthe drawings supersede the contract requirements, nor does it in any way relieve thecontractor of the responsibility or requirement to furnish material and perform work asrequiredbythe contract.

xiv. All materials and equipment shall conform to the relevant Indian Standards and shall be oftheapprovedmakeanddesign.Makesshallbeinconformitywithlistofapprovedmanufacturers.

xv. BalancingofallwatersystemsandalltestsascalledfortheCPWDSpecificationsshallbecarriedoutbythecontractorthroughaspecialistgroup,inaccordancewiththeSpecifications and ASPE / ASHRAE Guidelines and Standards. The installation shall betested and shall be commissioned only after approval by the Engineer-in-charge. All testsshall be carried out in the presence of the representatives of the Engineer-in-charge andnothingextrashallbepayableonthisaccount.

xvi. Thecontractor shall submit"completionplansof services"forwatersupply,internalinstallations and building drainage work within 15 days of the date of completion. Thesedrawings shall be submitted in the form oftwo sets of CD"s and four portfolios (300 x 450mm) each containingcompletesetofdrawingsonapprovedscale indicating theworkas-installed.These drawings shall clearly indicate complete plant/toilet room layouts,piping layouts and sequencing of automatic controls, location of all concealed piping,valves, controls and other services. In case the contractor fails to submit the completionplansasaforesaid,securitydepositshallnotbereleasedandtheseshallbegotpreparedathisriskandcost

xvii. TheCCI/CI/PVCpipeandGIpipeetc.wherevernecessaryshallbefixedtoRCCcolumns,beamsetc.withrawlplugsandnothingextrashallbepaidforthis.

xviii. The variation inconsumptionofmaterial shall begoverned as perCPWD Specificationandclausesofthecontracttotheextentapplicable.

xix. Rates quoted shall be inclusive ofall workand items given in the above mentionedspecifications and Schedule of Quantities and applicable for the work under floors, inshafts or at ceiling level at all heights and depths.All rates are inclusive of cutting holesand chases in RCC and masonry work and making good the same unless specifically mentioned otherwise. Rates are inclusive ofpretestingandonsite testingoftheinstallations,materialsand commissioning

xx. **CleaningandDisinfectionofPipelines**: - On completion of hydraulic tests and before a pipe is disinfected, it shall be proved to befree from obstruction, debris and sediment by scouring or by any other process which theEngineer-in-charge may prescribe.Upon satisfactory completion of testing and cleaning,thepipelinesshallbedisinfectedasorder.Chlorinesolutionshallbeappliedatthe charging point as the pipeline is being filed and dosing shall be continued until the pipelineis full and at least 50 parts of chlorine per million parts of water have been made availableand distributed evenly.If ordinary bleaching powder is used, proportions will 150 gms ofpower to 1000 litre of water.If a proprietary brand is used, the proportion shall be asspecified by the manufacturer.The treated water shall be left in pipeline for a period asdirected but not exceeding 24 hours chlorine residual tests shall be taken at various pointsalong the pipeline. The disinfection process shall be repeated until the sample of watertakenfromthepipelinearedeclaredfitforhumanconsumptionbyarecognizedlaboratory.

xxi. The supply of Input materials and their storage, procedure for laying in position, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for water supply, sanitation, drainage works shall be as per the guideline of relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.

O. CONSTRUCTION & EXPANSION JOINTS

i. ConstructionjointsinPCC,RCCandLightWeightConcreteworksetc.,shallbeprovided only at places as per approved structural drawings. It shall not in any mannerstructurally or functionally affect the structure. If, any additional construction joint isrequired to be provided, it shall be done with approval of the Engineer-in-Charge. Thecentering, shuttering, strutting etc., required for the construction joint shallbeprovidedaspertheCPWDSpecifications.Nothingextrashallbe payableonthisaccount.

TREATMENT TO THE CONSTRUCTION JOINTS AND RECTIFICATION OF DEFECTS.

ii. All care shall be taken to minimize the number ofconstruction joints in the rafts, floors, and walls as well as in the levelling course of PCC at base. Still, wherever theconstruction joints are provided, these shall be slightly opened up and then suitablyfilled with cement mortar 1:3 (1 cement: 3 fine sand) after applying a bond coat ofcementslurry.Thealuminumnipplesshallbefixedinthecavityandcrevices,ifrequired. Then cement slurry of w/c ratio 0.5 shall be pressure grouted through thesenipples as required, which shall then be suitably cut. Nothing extra shall be payable onthisaccount.

iii. All care shall be taken to avoid any honey combed concrete or any cavity. Still, if anyhoneycombedconcreteorcavityinRCC/CCworksisencounteredthesameshallberectified by removing all loose concrete by chiselling. The chipped concrete surfaceshallbecleanedandmadedustfreebyblowingcompressedairandthenwashed clean with water (but without excess water). Then a bond coat of polymer modifiedcement slurry @ 2.2 kg of cement per sq. m. of concrete surface, in two coats, shall beappliedasspecified.Thesecondcoatshallbeappliedimmediatelywithin15-20minutes ofapplication of the first coat. A coat ofpolymer modified cement plaster ofmix1:3(1cement:3finesand)oftherequiredthicknessshallbeappliedasspecified to fill the cavity if the required thickness is less than 20 mm. If the required thickness ismore than 20 mm. the cavity shall be filled by concrete of relevant grade after providingtherequiredcenteringandshuttering.Thesurfaceshallthenbemoistcuredforminimum 7days.Nothingextrashallbe payableonthisaccount.

ExpansionJoint

i. General Seismic / separation joints shall be provided where shown on the drawings.They shall be constructed with in gap between the adjoining parts for the works of thewidthspecifiedinthe drawings.

ii. The contractor shall ensure that no debris is allowed to enter and be lodged in seismicandseparation joints.

iii. Seismicorseparationjointsshallbeprovidedwithapproved50mmthicknessofcompressible filerboard,backer rodand polysulphidesealantcompoundetc.,

iv. Board to be used in expansion joint shall be of best approved quality and shall be gotapproved before use. It shall have minimum density of 95 kg/cum, Non staining withless than 1% water absorption and compression recovery of 93% minimum as per thespecifications.

Methodof Application

v. 50mm thick expansion board having sufficient width directed by Engineer-in-chargeshall be provided in expansion joint before filling and finishing the expansion joint withsealant.

vi. Theexpansionjointshallbecleanedandmadedrycompletely.Allloosematerialsshall also be removed. The joints gap shall be made uniform in width and depth aftercleaning the joints. The backup materials of best quality shall be provided in position inorder to produce the size ofjoint i.e. width and depth. The primer part of I and II shallbe mixed thoroughly together in required proportion as prescribed by manufacturespecification, so that a uniform mixture obtained. The mixed solution shall be applied totwosidesofthejointthatitcovers the sidescomplete.

vii. Disturbed edges of RCC members near expansion joints shall be finished with richmortar without any extra work includes providing required width of expansion board inthejointsand measurementofexpansionboardonlyshallbetaken.

Samplingcriteria

Followingtestcarriedoutat every100 sqmt.

(i) Density
(ii) Waterabsorption
(iii) Compressionrecover

P. CONSTRUCTION SITE LAB:

i. The contractor shall arrange and provide at the site of work all the equipments for fieldtestingasrequiredlike:-
   - balances,sieves,slumpcone,dialgauges,
   - graduatedmeasuringcylinders,steeltapes,vernier callipers, micrometer screw gauges, plumb bobs, spirit levels ,
   - Total station survey equipment, magnifying glass, screw drivers, plastic bagsfor samples, etc.

ii. Allowing establishing the site laboratory by the contractor shall notabsolvethecontractorfromfulfillingthecriteriaofgettingthetestsdoneinanindependent laboratory. The decision of the Engineer-in-Charge of allowing any test inthe site laboratory or any other laboratory shall be final and binding on the contractorand no claim of any kind whatsoever shall be entertained from the contractor on thisaccount.

Q. OTHER IMPORTANT-MISCLLANEOUS

(i) Even if the certain items of work are carried out by the specialized sub-contractors theresponsibility fortheworkshallhoweverrestwiththe main contractor only.

Procurement, Storage and Payment of Cement, Steel, Bitumen etc.

(ii) The contractor shall procure Portland Pozzolana Cement (PPC) as per IS-1489 Part-I in all the works except Cement Concrete Pavement works, wherein Ordinary Portland Cement (OPC) of Grade 43 (IS:269:2015) and/or 53 Grade (IS: IS:269:2015) shall be used. The PPC & OPC to be used shall be of approved make, as specified in the list of Approved Makes (enclosed with Technical Specifications).

(iii) The contractor shall procure steel reinforcement bars conforming to IS 1786:2008 pertaining Fe415D or Fe500D, structural steel conforming to IS-808 and bitumen should conform to IS : 702 and 703 as per the item/drawing from manufacturers of approved make, as specified in the list of Approved Makes (enclosed with Technical Specifications).

(iv) The storage of cement should be done by contractor as per IS:4082-1996 (recommendation on stacking & storage of construction materials at site). Sheds having capacity as decided by Engineer-in-Charge to store the cement shall be provided by contractor for which no extra payment shall be made. All such sheds/store, after completion of work shall be removed by contractor at its cost and site shall be cleared.

(v) Cement & steel reinforcement shall be brought at site in bulk supply of approx. 50 tonnes & 10 tonnes respectively or more or as decided by the Engineer-in-charge. Each bag of cement must weigh 50 kg, subject to variation as per BIS code, bearing manufacturer's name & ISI marking.

(vi) The contractor shall be responsible for the watch & ward, safety of the Cement store/shed, Bitumen & Steel. The contractor shall facilitate inspection of the same by the Engineer-in-charge at any time. Material supplied by the contractor should be in countable position and properly stacked.

(vii) Steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion and nothing extra shall be paid on this account. Bars of different sizes & lengths shall be stored separately to facilitate easy counting & checking.

checking nominal mass, tensile strength, bend test, re-bend test etc. specimen of sufficient length shall be cut from ch size of the bar at random at frequencynot less than that specified below:

Size (dia.) of Bar	For Consignment below 100 T		For Consignment over 100 T
Under 10 mm	One sample for each 25 tonnes or part thereof		One sample for each 40 tonnes or part thereof
10 mm to 16 mm	One sample for each 35 tonnes or part thereof		One sample for each 45 tonnes or part thereof
Over 16 mm	One sample for each 45 tonnes or part thereof		One sample for each 50 tonnes or part thereof

(viii) Proper daily record of cement, steel, paint and bitumen consumption shall be maintained at site by the Contractor. The register shall be duly signed by the Contractor/authorised representative of contractor and the same will be checked by the Site Engineer / Engineer-in-charge from time to time. In case, concrete is being obtained from RMC plant, record of cement of the same shall be kept, based on

the computerized receipt of mix proportion of each lot. Actual issue and consumption of cement & steel on work shall be regulated and proper accounts maintained, as per provision of the Terms and conditions of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in Clause 38 of the General conditions of contract and shall be governed by conditions laid therein.

(ix) Payment for steel reinforcement shall be made on the basis of standard weight of the bars used as per approved drawings. in case weight of bars is more than or less than the standard weight, but within the tolerance limits, as specified in BIS; the payment will be restricted to lesser weight in case of steel having less weight than the specified & standard weight, in case steel having more weight than specified.

(x) Cement, Steel & Bitumen brought to site and remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.

(xi) No claim whatsoever shall be entertained by CRWC on account of delay in non-availability of these materials in the market.

(xii) Cladding of cement and rusting of steel should be avoided to the maximum extent possible. For such cladding of cement and/or rusting of steel, which may render the same unusable, the contractor shall be responsible to make good such quantities, the loss at his own cost.

TECHNICAL CONDITIONS AND SPECIFICATIONS FOR ELECTRICAL WORKS

1. Tender Drawings and Construction Drawings:

1.1 These drawings are meant for Tenderer's guidance only. "Approval for Construction" drawings will be furnished to the contractor during the progress of work to supplement the bid drawings. Construction drawings will be revised and fresh copies issued to the contractor from time to time to incorporate any change to be adopted in the work as per final design to suit any change to be adopted in the work as per final design to suit any condition encountered during the progress of work. Hence, "Approved for Construction" drawings will be furnished progressively during the progress of work, broadly conforming to construction schedule.

1.2 HT/LT main panel, other major equipments, other Distribution Board drawings and cable route shall be submitted by the contractor for approval of CRWC / Consultant before starting fabrication, manufacture.

1.3 Details shown either on the drawings or stated in the Specification shall prevail upon drawings in case of doubts. However, in case of ambiguity, the more stringent shall be applicable.

1.4 **Conformity to IE Act, IE Rules and Standards :**All Electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended up-to-date (date of call of tender unless otherwise specified).

1.5 **Earthing**

Earthing shall be carried out as per IS rules 3043 code of practice for earthing with latest amendments and as per specification and site requirement.

2.0 Guarantee

The tenderer shall guarantee the equipments offered for satisfactory performance for a period of 12 months from the date of commissioning and handing over the installation to the employer against defects arising out of faulty design, material & workmanship. The tenderer should make good all the defects free of costs during the guarantee period and replace or repair the defective equipments/parts fee of cost promptly and satisfactorily.

3.0 Inspection & Testing

The purchase representative shall be free of visit the manufacturers work at all reasonable times to witness and inspect the testing of equipments. It is duty of the tenderer to see all the equipments supplied are tested as per relevant IS/BS specifications. The contractor shall furnish three copies of manufacturer's test certificate for the routine and type test conducted on the equipments offered. If necessary the contractor shall arrange to conduct all the routine tests at the manufacturer's premises in presence of CRWC representative. On receipt of the equipments/materials at site, the tenderer shall offer equipments/materials for inspection of electrical engineer and get approved before installation.

4.0 Pre-Commissioning Tests of Equipment

HT/LT switchgear, Transformer LT cables and DG set shall be subjected to the pre-commissioning tests as per approved Performa by employer. The pre-commissioning test report shall be sent to the Consultant/CRWC for approval for electrical installation/license for release-sanctioned load.

5.0 Approval of Drawings

The drawings for HT Panels and LT Panels, High Mast, DG set and cable layout shall be offered by the tenderer for approval of CRWC and manufacturing/laying of these items can be taken in hand only after approval of the drawings by CRWC. The tenderer shall also supply three copies of approved drawings for LT switchgear and transformers (both the dimensional and schematic) alongwith 3 copies route drawings & earthling positions etc.

6.0 The contractor shall provide all kinds of facilities for inspection of the works by the Engineer of CRWC.

7.0 The electrical work shall conform to CPWD General Specifications for external with up-to-date amendments and for internal electrification works with up-to-date amendments.

7.1 The electrical works other than internal & external electrification like DG Set, Substation, High Mast, Fire Detection & Alarm system, Heating, Ventilation & Air Conditioning System (HVAC) and Lifts & Escalators shall conform to latest CPWD's General Specifications with up-to-date amendments.

8. Liaisoning / Approval Work with Statutory Authorities

It will be responsibility of the contractor to do liaisoning work for obtaining necessary approvals / clearances for electrical load sanction and power supply connection etc. to energizing the terminal, the statutory charges as per the State Electricity Board demand note will be paid by the CRWC.

TECHNICAL REQUIREMENTS

Name of Work: Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway.

A. **(CIVIL WORK):** PEB WAREHOUSE ,BUILDING, ADMIN BUILDING , RAIL LEVEL PLATFORM, ROAD WORK

B. **ELECTRICAL WORK**

(All works to be executed as per CPWD Specification, contract terms and conditions)

SECTION –IX

(WORK REGISTERS & TESTING PROFORMAS)

APPENDIX T-I

SITE ORDERS BOOKS

NAME OF WORK _____

DATE OF COMMENCEMENT / PERIOD FOR COMPLETION _____

SL	REMAKRS OF THE INSPECTING OFFICER OR CONTRACTOR	ACTON TAKEN AND BY WHOM	REMARKS
1	2	3	4

APPENDIX – T-II

HINDRANCE REGISTER

SL	Nature of Hindrance	Items of Work that Could Not be Executed Due to this Hindrance	Date of Start of Hindrance	Date of Removal of Hindrance	Over-Lapping Period if any	Net Hindrance in Days	Sign of AE	Weightage of the Hindrance	Net Effective Days of Hindrance	Sign of EE	Remarks of Reviewing Officer
1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX T-III

MATERIAL AT SITE ACCOUNTS

- Region _____
- Name of Work _____
- Name of Article _____
- Estimate Requirements _____
- Issue Rate _____

SL	Date of Receipt	Received From	Unit	Qty. Received	Progressive Received Qty.	Date of Issue	To Whom Issued	Qty. Issued	Progressive Issued Qty.	Balance	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX T-IV

CEMENT REGISTER

Date of Receipts	Quantity Received	Progressive Recd. Quantity	Date of Issue	Quantity Issued	Items of Work For Which Issued	Quantity Returned at the End of The Day	Total Issue	Progressive Total	Daily Balance at Hand	Contractor's Initial	Site Engineer's Initial	Remarks of AE/EE at Periodical Checks
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX T-V

REGISTER FOR RECORDING LEVELS

SL	Changes	Back Sight	Intermediate Sight	Fore Sight	Height of the Instrument	Reduced Level	Remarks
1	2	3	4	5	6	7	8

APPENDIX T-VI

REGISTER FOR SILT CONTENT OF FINE / COARSE SAND

SL	Date of Test	Source of Material	Height of Silt After Setting (V1)	Height of Sand After Setting (V2)	%age of Silt Content (V1/V2x100)	Acceptability As Per Specification	Sign. of Site Engineer With Date	Sign. of Contractor With Date	Location Where Sand Used	Remarks / Action Taken
1	2	3	4	5	6	7	8	9	10	11

APPENDIX T-VII

REGISTER FOR SLUMP TEST

SL	Date of Testing	Item of Work & Location	Vibrator Used Yes/No	Quantity of Water Added per Bag of Cement (Litre)	Height of Specimen After Removal of Mould (mm)	Slump (mm)	Acceptability of Result or Action Taken	Sign of Site Engineer With Date	Sign. of Contractor With Date	Remarks
1	2	3	4	5	6	7	8	9	10	11

APPENDIX T-VIII

SAMPLE REGISTER

Material & Identification Mark	No. of Samples Collected	Sl. No. of Sample	Place From Where Sample Collected	Qty. of Work/Lot Represented By Each Sample	Test	Field / Lab	Letter No. & Date By Which Sample Sent For Testing	Signature of Official Drawing Sample	Signature of the Contractor	Reference for the Results Received	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX T-IX

REGISTER FOR PARTICLE SIZE DISTRIBUTION FOR COARSE AGGREGATE & FINE AGGREGATE

SL	Date	Weight of Sample (Gram)	Size of Sieves	Weight Retained on Each Sieve	%Age of Weight Retained	Cumulative %Age of Weight Retained	%Age of Weight Passing	Specified %age of Weight Passing	Sign. of Contractor With Date	Sign. of Site Engineer With Date	Remarks / Action Taken
1	2	3	4	5	6	7	8	9	10	11	12

Note : Size of Sieve should be as per CPWD Manual / BIS Specifications

APPENDIX T-X

PHYSICAL WEIGHMENT REGISTER

Tor Steel Bars / Truss Members / Other Misc. Items

SL	Date	Description of Sample	Actual Weight per Unit	Theoretical Weight per Unit	Actual Thickness (Outer Dia.)	Theoretical Thickness (Outer Dia.)	Remarks Accepted / Rejected	Initials of Site Engineer	Contractor Signature
1	2	3	4	5	6	7	8	9	10

APPENDIX T-XI

CUBE TEST

SL	Date of Collection	Grade of Mix	Mark of Specification	7 Days' Test Result				28 Days' Test Result				Required Specified Strength	Approx. Qty. Represented By Specimen	Item of Work from Where the Sample is Collected	Sign. of Site Engineer With Date	Contractor's / Contractor's Rep. Sign. With Date
				Date of Testing	Load in KN	Compressive Strength (KN/mm^2)	Average Compressive Strength (KN/mm^2)	Date of Testing	Load in KN	Compressive Strength (KN/mm^2)	Average Compressive Strength (KN/mm^2)					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

APPENDIX T-XII

Density Test by Core Cutter Method

MDD As Per Lab. Test W5 _____

SL	Location (C.H.) / Area Represented by the Test	Core Cutter Nos.	Weight of Core Cutter + Weight of Soil (gram) (W1)	Weight of Empty Core cutter (gram) (W2)	Weight of Wet Soil (gram) W= W1-W2	Volume of Core Cutter (in CC) V	Bulk Density (gram/cc) W3= W/V	Moisture Content of compaction layers (M)	Dry Density gram/cc W4 = W3/ (1+M)	Degree of compaction W4/W5	Acceptability Limit	Sign. of Site Engineer with Date	Contractor / Contractor's Representative Signature with Name & Date
1	2	3	4	5	6	7	8	9	10	11	12	13	14

APPENDIX T-XIII

TEST FOR THICKNESS AND DENSITY OF THE COMPACTED LAYER

(BY SAND REPLACEMENT METHOD)

For Asphalt Concrete / Bitumen Macadam / CC Pavement

Lab Test Density in gm/CC _____

SL	Date of Test	Qty. Represented by the Test	Location of Holes	Thickness of Layer		Weight of Materials Removed from the Carpet Hole	Initial Weight of Sand taken in Cylinder	Weight of Sand Filling in Cone of Cylinder	Weight of Sand Remaining in Cylinder	Predetermined Bulk Density of Sand	Density = A*d*W-(W1+W2)	Remarks / Acceptability	Sign. of Site Engineer	Contractor / Contractor's Representative Signature with Name & Date	Action Taken
				Individual (mm)	Average (mm)	A gm	W gm	WI gm	W2 gm	d gm/CC	gm/CC				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

APPENDIX T-XIV

DENSITY TEST REGISTER FOR SOIL - BY SAND REPLACEMENT METHOD

Wt. of Standard Sand in gram/cc (W6) = _____

Unit Lab Test MDD in gram/cc (W10) = _____

SL	Date of Test	Qty. Represented by the Test	Location of Holes	Thickness of Layer (mm)		Wt. of Material from the Hole	Moisture Content %age	Initial Weight of Sand Taken in the Cylinder before Filling in Hole in gm	Wt. of Sand after Filling in hole in gm	Wt. of Sand in Hole & Cone (gm)	Wt. of Sand in Cone (gm)	Wt. of Sand in Hole (gm)	Volume of Hole in CC	Bulk Density in gm/CC	Dry Density in gm/CC	Degree of Compaction	Remarks / Acceptability	Sign. of Site Engineer with Date	Contractor's / Contractor's Representative Signature with Name & of Date	Action Taken
				Individual	Average	(W) gm	(Y)	(W1)	(W2)	(W3) = W1-W2	(W4)	W5 = (W3-W4)	(W7) = W5/W6	(W8) = W/W7	(W9) = W8/Y	W9/W10 x 100	W9/W10 x 100			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

APPENDIX T-XV

TEST OF THE BRICK / BRICK TILES FOR COMPRESSIVE STRENGTH

SL	Date of Collection of Sample	Date of Testing	Wt. (in Kg)	No. of Specimen	Size in cm/Area in cm2	Compressive Strength Obtained for Individual Bricks in Kg. per cm2	Average Strength in Kg/cm^2	Specified Compressive Strength in Kg/cm^2	Acceptability	Sign. of Site Engineer with Date	Contractor's / Contractor's Representative Signature with Name & Date	Action Taken / Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX T-XVI

ROAD ROLLER REGISTER

SL	Date	Period		Hours	Description of Item Rolled	Qty. of Area Rolled	Theoretical Qty. / Area to be Rolled	Signature of Site Engineer	Signature of Contractor	Remarks
		From	To							
1	2	3	4	5	6	7	8	9	10	11

APPENDIX T-XVII

REGISTER FOR DISMANTLED MATERIAL

Name of Work _____

Name of Division _____

SL	Date of Receipt	Ref. to No. & Page of MB	Full Particulars of Material giving Size etc. if any	Opening Balance	Qty. Recd.	Total	Ref. to its Disposal Whether by Write off Sale of Transfer to Other Works	Qty. Issued or Disposed off	Closing Balance	Dated Initial of the Site Engineer	Date of Verification of Balance by Whom Verified	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX T-XVIII

REGISTER FOR BULKING OF SAND

SL	Date Of Testing	Particulars of Work Represented by Sample	Qty. of Lot/Qty. of Material	Height of Dry Sand (X)	Height of Sand after Mixing Water (Y)	Bulking of Sand (X/Y-1)x100	Action Taken for Bulkage	Signature of Site Engineer	Signature of Contractor	Remarks
1	2	3	4	5	6	7	8	9	10	11

APPENDIX T-XIX

BILL PROFORMA

{On Letter Head Of Contractor}

Name of Work _____

Date of Start _____

Agreement No. _____

Due Date of Completion _____

Date of Preparation of Bill _____

Details of Service Provider		Details of Service Receiver	
Name	_____	Name	_____
Address	_____	Address	_____
City	_____	City	_____
State	_____	State	_____
State Code	_____	State Code	_____
GSTIN	_____	GSTIN (if Registered)	_____

Invoice Serial No. _____ HSN _____

Date of Invoice _____ Description of Services _____

SL	Item No.	Description of Items	Unit	Qty. as per Agt.	Rate as per Agt.	Qty. as per Pre. Bill	Qty. as per this Bill	Cumulative Qty.	Amt. as per Previous Bill	Amt. as per this Bill	Cumulative Amount
1.											
2.											
3.											
4.											
						Total					
						Grand Total					

		Total Taxable Value	
		Tax	Rate
Total Invoice Value (in figures)		CGST	_____%
Total Invoice Value (in words)		SGST	_____%
		IGST*	_____%
Amount of Tax Subject to reverse Charge : Nil		Total Invoice Amount	

Signature _____

Name of the Signatory _____

Designation / Status _____

SECTION – X

(Field Quality Plan)

(LIST & PROFORMA OF MANDATORY TESTS)

LIST OF MANDATORY TESTS

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
1.	**Cement** (Approved Brand)	Physical & Chemical Properties	IS : 4031	Lab	Initial Test-01 test for each brand of cement. Subsequently, 01 test for 200 MT or part thereof for each brand. Cement should be of approved brand and each lot should be accompanied by manufacturer's test certificates
2.	**Reinforcement Steel** (Approved Brand)	Physical & Chemical Properties	IS :1786	Lab	Initial Test-01 test for each brand and each dia of reinforcement steel , Subsequently - One test for every 25/35/45 MT or part thereof (As specified in Special condition of Contract Para 6.7) Reinforcement Steel should be of approved brand and each lot should be accompanied by manufacturer's test certificates
3.	**Water**	PH Value, Chlorides, Sulphates, Alkalinity Test, Acidity Test, Suspended Matter, Organic Matter and Inorganic Matter	IS:3025	Lab	Initial Test- Source approval at commencement of work and Subsequently- every six months or change of source.
4.	**Coarse Aggregate - Building Works**	Gradation	IS 2386 - I	Field / Lab	Minimum one test for every 50 cum or part thereof.
		Deleterious Material	IS 2386 - II	Field / Lab	
		Specific Gravity	IS 2386 - III	Field / Lab	
		Crushing Value	IS 2386 - IV	Field / Lab	
		Impact Value	IS 2386 - IV	Field / Lab	
		10% Fine Value	IS 2386 - IV	Field / Lab	
5.	**Fine Aggregate - Building Works**	Organic Impurities	Appendix 'A' of Chapter 3, CPWD Specifications	Field	Minimum one test for every 50 cum or part thereof.

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Silt Content	Appendix 'C' of Chapter 3, CPWD Specifications	Field	
		Bulking of Sand	Appendix 'D' of Chapter 3, CPWD Specifications	Field	
		Gradation	Appendix 'B' of Chapter 3, CPWD Specifications	Field / Lab	
6.	**Coarse Aggregate - Road, Pavement Works**	Gradation	IS 2386 - I	Field / Lab	One test for everyday's work
		Flakiness and Elongation Index	IS 2386 - I	Field / Lab	Once for each source of supply and subsequently on monthly basis
		Deleterious Material	IS 2386 - II	Lab	Once for each source of supply and subsequently on monthly basis
		Water Absorption	IS 2386 - III	Lab	Once for each source of supply and subsequently on monthly basis
		Los Angeles Abrasion Value/Aggregate Impact Value	IS 2386 - IV	Lab	Once for each source of supply and subsequently on monthly basis
		Soundness	IS 2386 - V	Lab	Before approving the aggregates and every month subsequently.
		Alkali aggregate reactivity	IS 2386-VII, IS:456	Lab	Before approving the aggregates and every month subsequently.
7.	**Fine Aggregate - Road, Pavement Works**	Gradation	IS 2386 - I	Field / Lab	One test for everyday's work.
		Deleterious material	IS 2386 - II	Lab	Once for each source of supply and subsequently on monthly basis.
		Water Absorption	IS 2386 - III	Lab	Once for each source of supply and subsequently on monthly basis.
		Silt Content	Appendix 'C' of Chapter 3, CPWD Specifications	Field	Once for each source of supply and subsequently on monthly basis.

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
8.	**Slump Test - Building Works**		Appendix 'D' of Chapter 4, CPWD Specifications	Field	Minimum one test for every 20 cum of concrete or part thereof
9.	**Slump Test - Pavement Works**		IS 1199	Field	One test per each dumper load at both Batching Plant Site and Paving Site initially when work starts. Subsequently, sampling may be done from alternate dumper.
10.	**Cube Test**				
(i)	Reinforced Cement Concrete - Building works	7 days and 28 days Compressive Strength	IS 516	Lab	One sample of six cubes for every 50 cum or part thereof
(ii)	Pavement Quality Concrete (PQC) - Pavement Work	Compressive Strength, Flexure Strength	IS 516	Lab	2 cube set samples and 2 beam set samples per 150 cum or part thereof for each day production.
11.	**Earthwork**				
	Control Test on Borrow Pits	Gradation	IS 2720 -IV	Lab	One or two tests per 8000 cum
		Plasticity	IS: 2720-V	Lab	
		Proctor Test	IS 2720- VIII	Lab	
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	
		Deleterious Content		Lab	As and when required by Engineer
		Moisture Content	IS 2720-II	Lab	250 cum
	Embankment under (OMC Conditions)	Field Density	IS 2720-XXVIII		250 cum
		Moisture Content	IS 2720-II		250 cum
12.	**Granular Sub-Base**	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 1000 cum
		Water Absorption	IS 2386-III	Lab	Minimum 1 test per source and additional test as required by Engineer
		Wet Aggregate	IS 5640	Lab	As required by Engineer

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Impact Value test (if WA > 2%)			
		Aggregate Impact Value	IS 2386-IV	Lab	Minimum 1 test per source and additional test after every 2000 cum
		Atterberg's Limit	IS 2720-V	Lab	Minimum 1 test per source and additional test after every 1000 cum
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	Minimum 1 test per source and additional test as required by Engineer
		Moisture Content prior to compaction	IS 2720-II	Field	Minimum 1 test every 400 cum
		Field Density	IS 2720-XXVIII	Field	one test per 2000 Sqm or part thereof
		Deleterious Material	IS 2720-XXVII	Lab	Minimum 1 test per source and additional test as required by Engineer
		CBR	IS 2720-XVI	Lab	Minimum 1 test per source and additional test as required by Engineer
13.	**Water Bound Macadam**	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 500 cum
		Aggregate Value or Aggregate Impact Value	IS 2386-IV or IS5640	Lab	Minimum 1 test per source and additional test after every 500 cum
		Combined Flakiness	IS 2386-I	Lab	Minimum 1 test per source and additional test after every 500 cum
		Los Angles	IS 2386-IV	Lab	Minimum 1 test per source and additional test after every 500 cum or part thereof
14.	**Wet Mix Macadam**	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 500 cum
		Water Absorption	IS 2386-III	Lab	Minimum 1 test per source and additional test as required by Engineer
		Soundness	IS 2386-V	Lab	As required by Engineer

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		(if WA > 2%)			
		Atterberg's Limit of Portion of Aggregate Passing 425 micron Sieve	IS 2720-V	Lab	Minimum 1 test per source and additional test after every 500 cum or part thereof
		Aggregate Impact Value	IS 2386-IV or IS 5640	Lab	Minimum 1 test per source and additional test after every 500 cum
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	Minimum 1 test per source and additional test as required by Engineer
		Combined Flakiness and Elongation Indices	IS 2386-I	Lab	Minimum 1 test per source and additional test after every 500 cum
		Moisture Content	IS 2720-II	Field	Minimum 3 tests per day
		Field Density	IS 2720-XXVIII	Field	One set of three tests per 2000 sqm or part thereof
15.	**Bitumen**	As prescribed in IS 73	As prescribed in IS 73	Lab	As required by the Engineer-in-charge
16.	**Dense Bituminous Macadam / Bituminous Concrete**	Quality of Binder	IS 73	Lab	As required
		Los Angles Abrasion Value / Aggregate Impact Value	IS 2386-IV	Lab	100 cum
		Stripping Value	IS 6241	Lab	100 cum
		Water Absorption	IS 2386-III	Lab	100 cum
		Flakiness Index	IS 2386-I	Lab	One test for 100 cum.
		Sieve Analysis for Filler	IS 2386-I	Lab	One test for each consignment subject to minimum one test per 5 cum
		Mix Grading	IS 2386-I	Lab	One set of test on individual constituent and mixed aggregates from dryer of each 100 tonnes of mixed subject to a minimum of two sets per plant per day
		Stability of Mix	ASTM D-1559	Lab	Three Marshal Specimen per 100 tonnes of mix, subject to

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
					a minimum of two sets being tested per plant per day
		Binder Content		Field	Minimum 2 tests per day
		Thickness, Density of Compacted Layer	Appendix 'B' of CPWD Specification	Field	One test of 3 samples per 500 sqm
17.	**Brickwork / Brick Tiles / Sewer Brick / Burnt Clay Perforated Building Bricks**	Dimension	Appendix A, B, C & D of Chapter 6 of CPWD Specifications	Lab	Minimum one test for every 50000 bricks or part thereof
		Compressive Strength		Lab	
		Water Absorption		Lab	
		Efflorescence		Lab	
18.	**Stone Work**	Water Absorption	IS 1124	Lab	Minimum one test for every 200 sqm / 100 cum or part thereof
		Transverse Strength	IS 1121 - II		
		Resistance to Wear	IS 1706		
		Durability	IS 1126		
19.	**Marble**	Moisture Absorption	IS 1124	Lab	Minimum one test for every 100 sqm or part thereof
		Hardness Test	Mho's Scale		
		Specific Gravity	IS 1122		
20.	**Granite**	Moisture	IS 1124	Lab	Minimum one test for every 100 sqm or part thereof
		Specific Gravity	IS 1122		
21.	**Structural Steel** (other than PEB)	Tensile Strength	IS 1599	Lab	Minimum one test for every 20 tonnes or part thereof per source and also manufacturer's test certificates for each consignment
		Bend Test			
22.	**Steel Tubular Pipes**	Tensile Test	IS 1608	Lab	Minimum one test for every 8 tonne or part thereof per source and also manufacturer's test certificates for each consignment
		Bend Test	IS 2329		
		Flattening Test	IS 2328		
23.	**M-40/50 Grade Cement Concrete Paver Blocks**				
(i)	M-40/50 Grade Pre-Cast	Compressive Strength	As per IS Code 15658	Field / Lab	Minimum one test for every

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
	Concrete Paving Blocks	Water absorption	As per IS Code 15658	Field / Lab	50000 bricks or part thereof
		Dimensions	As per IS Code 15658	Field / Lab	
(ii)	Sand for Bedding Layer	Percentage of Deleterious material	IS 2386	Lab	Minimum one test for every 50 cum or part thereof
		Particle Size Distribution	As per Technical specification	Field / Lab	
		Silt Content	As per Appendix 'C' of Chapter 3 of CPWD Specifications	Field	
		Moisture Content	IS 2720	Field	
(iii)	Sand for Joint Filling	Particle Size Distribution	As per Technical Specification	Field / Lab	Minimum one test for every 50 cum or part thereof.

Note : For items not covered above may be dealt with as per the Technical Specifications in the contract / mandatory tests will be carried out as per CPWD's Specifications.

Quantities of Materials for Areas of Surfacing to be considered For Working out Minimum Period of Road Roller

SL	Material of Surfacing	Quantity / Area
1.	Consolidation of earth subgrade	1860 Sqm
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	170 Cum
3.	Consolidation of brick soling 10 cm to 20 cm thick	230 Cum
4.	Consolidation of wearing coat of stone ballast 7.5 cm to 11.5 cm thick	30 Cum
5.	Consolidation of wearing coat of brick ballast 10 cm thick	60 Cum
6.	Spreading and consolidation of red bajri 6 mm	1860 Sqm
7.	Painting one coat using stone aggregate 12.5 mm nominal size -	930 Sqm
(a)	@ 1.65 m^3 per 100 m^2 and paving bitumen A-90 or S-90 @ 2.25 Kg/m^2 or	
(b)	@ 1.50 m^3 per 100 m^2 and bitumen emulsion or Road tar @ 2.25 Kg/m^2	
8.	Painting two coats using -	
(a)	For first coat, stone aggregate 12.5 mm nominal size :	600 Sqm
(i)	@ 1.50 m^3 per 100 m^2 with paving bitumen A-90 or S-90 @ 2 Kg/m^2 or	
(ii)	@ 1.35 m^3 per 100 m^2 with bitumen emulsion @ 2 Kg/m^2 or	
(iii)	@ 1.25 m^3 per 100 m^2 with road tar @ 2.25 Kg/m^2	
(b)	For 2nd Coat, stone aggregate 10mm nominal size 0.9 Cum per 100 Sqm with -	600 Sqm
(i)	1 Kg of paving bitumen A-90 or S-90 or bitumen emulsion per Sqm or	
(ii)	1.25 Kg of road tar per Sqm	
9.	Re-painting with stone aggregate 10mm nominal size 0.9 Cum per 100 Sqm with -	1670 Sqm
(a)	1 Kg of paving bitumen A-90 or S-90 per Sqm or	
(b)	1.25 Kg of Bitumen emulsion per Sqm	
10.	2 cm premix carpet surfacing using 2.4 m^3 of stone aggregate 10 mm nominal size per 100 m^2 and binder including tack coat, the binder being hot cut back bitumen or bitumen emulsion specified quantities	930 Sqm
11.	2.5 cm. premix carpet surfacing using 3 m^3 of stone aggregate 10 mm nominal size per 100 m^2 and binder including tack coat, the binder being hot cut back Bitumen or bitumen emulsion in specified quantities	930 Sqm
12.	4 cm thick bitumen concrete surfacing using stone aggregate 3.8 Cum (60% 20 mm nominal size and 40% 12.5 mm nominal size) per 100 m^2 and coarse sand 1.9 Cum per 100 m^2 and hot cut back bitumen over a	460 Sqm

SL	Material of Surfacing	Quantity / Area
	tack coat of hot cut back bitumen	
13.	4 cm thick bitumen concrete surfacing using stone aggregate 4.8 Cum (60% 25 mm nominal size and 40% 20 mm nominal size) per 100 m^2 and coarse sand 2.4 Cum per 100 Sqm and hot cut back bitumen over a tack coat of hot cut back bitumen	370 Sqm
14.	6 cm thick bitumen concrete surfacing using stone aggregate 5.8 Cum (60% 40 mm nominal size and 40% 25mm nominal size) per 100 Sqm and coarse sand 2.9 Cum per 100 Sqm and hot cut back bitumen over a tack coat of hot cut back bitumen	280 Sqm
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate 7.3 Cum (60% 50mm nominal size and 40% 40 mm nominal size) per 100 Sqm and coarse sand 3.65 Cum per 100 Sqm and hot cut back bitumen over a tack coat of hot cut back bitumen	230 Sqm
16.	2.5 cm bitumastic sheet using stone aggregate 1.65 Cum (60% 12.5 mm nominal size, 40% 10 mm nominal size) per 100 Sqm and coarse sand 1.65 Cum per 100 Sqm and hot cut back bitumen over a tack coat of hot cut back bitumen	750 Sqm
17.	4 cm bitumastic sheet, using stone aggregate 2.6 Cum (60% 12.5 mm nominal size 40% 10 mm nominal size) per 100 Sqm, coarse sand 2.5 Cum per 100 Sqm and hot cut back bitumen over a tack coat of hot bitumen	560 Sqm
18.	Laying full grouted surface using stone aggregate 40 mm nominal size 6.1 Cum per 100 Sqm with binder, binding with 20 mm to 12.5 mm nominal size stone grit. 1.83 Cum per 100 Sqm and seal coat of binder and stone grit 10 mm nominal size, 1.07 Cum per 100 Sqm, the binder being hot bitumen or tar as specified	460 Sqm
19.	Laying full grouted surface using stone aggregate 50 mm nominal size 9.14 Cum per 100 sqm grouting with binder, with stone grit 20 mm to 12.5 mm nominal size, 1.83 Cum per 100 Sqm and seal coat of binder and stone grit 10mm nominal size, 1.07 Cum/100 Sqm	370 Sqm
20.	4 cm thick premix macadam surfacing using stone aggregate 25 mm nominal size 4.57 Cum per 100 Sqm and hot bitumen binding with stone aggregate 12.5 mm nominal size 1.52 Cum per 100 Sqm and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cum per 100 Sqm	560 Sqm
21.	5 cm thick premix macadam surfacing with stone aggregate 25 mm nominal size, 6.1 Cum per 100 Sqm and hot bitumen binding with stone aggregate 12.5 mm nominal size 1.52 Cum per 100 Sqm and seal coat of hot bitumen and stone aggregate 10mm nominal size 1.07 Cum per 100 Sqm	460 Sqm

Schedule 'A'

Bill of quantities cum price schedules:

General Instructions:

1. Schedule A consists of following sub schedule

(I)	Item of work from	:	Civil DSR-2021
(II)	Item of work from	:	DSR (E& M)- 2018
(III)	Item of work from	:	Market Rates (MR) Civil
(IV)	Item of work from	:	Market Rates (MR) E&M
(V)	Item of work from	:	DSR (Horticulture & Landscaping) DSR-2018

2. Tenderers are required to quote their rate in %age **above/below/at par** for items in each sub schedule.

3. Summary sheet of the rate quoted against each sub schedule is enclosed at the end.

4. Where rate/percentage rate is asked for, tenderer should quote in **figures.** In E- Tender, values in words are not acceptable. Tenderer should note that noncompliance of above, may lead to rejection of their tender.

5. Items and quantities given in the Bill of Quantities are approximate and are just to give an idea of work involved. CRWC reserves the right to delete/operate any other items scheduled in the DSR or non-schedule item (market rates item) without any limit of variation to complete the work. The payment of DSR items/MR items shall be made at the accepted percentage **above/below/at par** of DSR /MR and in terms of relevant clause of **SCC/GCC.**

6. Tenderers are required to quote **their rate in percentage only in the excel sheet designed for quoting rates in the uploaded tender on the tender website**.

7. Tenderer is required to dump/stack all excavated material as per the instruction of Engineer/PMC at site, for use in the work. Contractor is not supposed to take any excavated material out of site without permission of CRWC.

Important Note:

(**TENDERER SHALL NOT QUOTE THE RATE ANY WHERE IN TECHNICAL BID. THE RATES SHALL BE QUOTED IN THE PRICE BID XL SHEET DESIGNED FOR QUOTING RATES IN THE UPLOADED TENDER ON THE TENDER WEBSITE. THE RATES IF ANY MENTION IN TECHNICAL BID SHALL NOT BE CONSIDERED FOR PRICE EVALAUTION AND WILL BE NULL AND VOID TO THIS EFFECT.)**

SCHEDULE OF QUANTITY						
SUB SCHEDULE-I (CIVIL WORK DSR ITEMS)						
S. No.	**DSR Ref-2021**	**Brief Description of Item**	**Unit**	**Qty.**	**Rate (in Rs.)**	**Amount (in Rs.)**
SUB-SCHEDULE-I		**CIVIL DSR 2021 ITEMS**				
		SUB HEAD - EARTH WORK				
1	2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
a)	2.6.1	All kinds of soil	Cum	1076.60	205.45	2,21,187.47
2	2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge.				
a)	2.7.1	Ordinary rock	Cum	511.40	412.95	2,11,182.63
3	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
a)	2.10.1	All kinds of soil				
	2.10.1.1	Pipes, cables etc, not exceeding 80 mm dia.	Metre	420.00	255.55	1,07,331.00
4	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	703.00	253.95	1,78,526.85
5	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	51.00	2161.20	1,10,221.20
6	2.34	Supplying chemical emulsion in sealed containers including delivery as specified.				

a)	2.34.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	Litre	359.00	200.90	72,123.10
	4.0.	**SUBHEAD- PLAIN CEMENT CONCRETE WORKS.**				
7	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level.				
a)	4.1.2	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	Cum	124.73	7783.65	970854.66
b)	4.1.5	1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	3897.00	6833.40	2,66,29759.80
c)	4.1.8	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	88.73	6326.05	5,61,310.42
d)	4.1.10	1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size)	Cum	0.00	6050.65	-
8	4.3	Centering and shuttering including strutting, propping etc. and removal of form work for:				
a)	4.3.1	Foundations, footings, bases for columns	Sqm	593.00	307.95	1,82,614.35
		SUBHEAD- CC BLOCK MASONARY				
9	6.32	Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :				
a)	6.32.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	239.00	8190.90	19,57,625.10
		SUBHEAD- DAMP-PROOF COURSE				
10	4.10	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size derived from natural resources)	Sqm	71.00	370.85	26,330.35
11	4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Per bag of cement of 50 kg.	18.00	57.15	1,028.70
12	4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	61.00	113.85	6,944.85

13	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement:3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	Sqm	62.00	681.65	42,262.30
		SUB HEAD- REINFORCED CEMENT CONCRETE WORKS.				
14	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 6mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.				
a)	5.18.2	40 mm thick	Sqm	14.20	1430.30	20,310.26
15	5.33	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 1.10 times of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
a)	5.33.1	All works upto plinth level				
	5.33.1.2	Concrete of M30 grade with minimum cement content of 350 kg /cum	Cum	373.56	8825.35	32,96,797.75

b)	5.33.2	All works above plinth level upto floor V level				
	5.33.2.2	Concrete of M30 grade with minimum cement content of 350 kg /cum	Cum	150.00	10477.75	15,71,662.50
16	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	Quintal	231.00	688.45	1,59,031.95
17	5.9	Centring and shuttering including strutting, propping etc.and removal of form for :				
a)	5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	Sqm	963.00	307.95	2,96,555.85
b)	5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	Sqm	1321.66	669.55	8,84,917.45
c)	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	Sqm	434.00	766.55	3,32,682.70
d)	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	768.00	608.35	4,67,212.80
e)	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	Sqm	763.00	804.25	6,13,642.75
f)	5.9.7	Stairs, (excluding landings) except spiral-staircases	Sqm	67.00	657.75	44,069.25
18	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
a)	5.22.6	Thermo-Mechanically Treated bars of Grade FE-500D or more	kg	28857.00	89.65	25,87,030.05
19	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
a)	5.22A.6	Thermo-Mechanically Treated bars of Grade FE-500D or more	kg	14966.00	89.65	13,41,701.90
		SUBHEAD- MARBLE & GRANITE WORK				
20	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
	8.2.2	Granite stone slab of colour black, cherry/ Ruby red.				
a)	8.2.2.1	Area of slab upto 0.50 sqm	Sqm	57.00	4679.35	2,66,722.95

b)	8.2.2.2	Area of slab over 0.50 sqm	Sqm	220.00	4425.35	9,73,577.00
21	8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
a)	8.3.2	Granite work	Metre	258.00	418.85	1,08,063.30
22	8.7	Providing and fixing cramps of required size & shape in RCC/ CC / Brick masonry backing with cement mortar 1:2 (1 cement :2 coarse sand), including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately).				
a)	8.7.1	Gunmetal cramps	Kg	25.00	639.05	15,976.25
23	8.8	Providing and fixing expansion hold fasteners on C.C. /R.C.C./Brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete.				
	8.8.1	Wedge expansion type				
	8.8.1.2	Fastener with threaded dia 10 mm	Each	20.00	33.80	676.00
24	8.10	Providing and fixing 75 mm high, 50 mm deep and 18 mm thick stone slab table rubbed, edges rounded and polished, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.				
a)	8.10.2	Granite Stone of approved shade	Sqm	12.00	3542.85	42,514.20
		SUBHEAD- CLADDING WORK				
25	8.31	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), 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.	Sqm	250.00	1063.45	2,65,862.50

		SUBHEAD- WOOD WORK				
26	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
a)	9.1.2	Sal wood	Cum	1.10	106720.85	1,17,392.94
27	9.20	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
a)	9.20.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	34.00	3086.10	1,04,927.40
28	9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	33.00	401.40	13,246.20
29	9.57	Providing and fixing ISI marked IS : 1341 oxidised M.S. pressed butt hinges with necessary screws etc. complete. (copper oxidized as per IS: 1378)				
a)	9.57.1	125x65x2.12 mm	Each	42.00	47.05	1,976.10
b)	9.57.2	100x58x1.90 mm	Each	27.00	40.60	1,096.20
30	9.63	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete : (copper oxidized as per IS: 1378)				
a)	9.63.1	250x10 mm	Each	18.00	74.65	1,343.70
b)	9.63.3	150x10 mm	Each	13.00	53.05	689.65
31	9.65	Providing and fixing ISi marked oxidised M.S. door latches conforming to IS:5930 with screws etc. complete : (copper oxidized as per IS: 1378)				
a)	9.65.1	300x20x6 mm	Each	11.00	82.40	906.40
32	9.66	Providing and fixing ISI marked oxidised M.S. handles conforming to 'IS:4992 with necessary screws etc. complete : (copper oxidized as per IS: 1378)				
a)	9.66.1	125 mm	Each	28.00	35.20	985.60
b)	9.66.2	100 mm	Each	18.00	28.25	508.50
33	9.82	Providing and fixing bright finished brass hanging type floor door stopper 'with necessary screws, etc. complete.	Each	14.00	109.60	1,534.40

34	9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with 'necessary accessories and screws etc. complete.	Each	10.00	1025.65	10,256.50
35	9.122	Providing and fixing to existing door frames.				
a)	9.122.1	30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames.	Sqm	14.00	3496.75	48,954.50
36	9.125	Providing and fixing PVC rigid foam sheet 1 mm thick on existing door shutters (bathroom and W.C. doors) using synthetic rubber based adhesive.	Sqm	9.20	1293.05	11,896.06
		SUBHEAD- STEEL WORK				
37	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
a)	9.48.1	Fixed to steel windows by welding	kg	2954.00	181.00	5,34,674.00
38	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	38286.00	111.95	42,86,117.70
39	10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required				

		thickness for rolling shutters.				
a)	10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	135.00	3008.80	4,06,188.00
40	10.7	Providing and fixing ball bearing for rolling shutters.	Each	68.00	424.20	28,845.60
41	10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters				
a)	10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	sqm	112.00	1108.70	1,24,174.40
42	10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in-charge, (area of grill to be measured).	sqm	12.00	668.95	8,027.40
43	10.17	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete.	Each	25.00	185.95	4,648.75
44	10.18	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp of internal dia 140mm, 73mm height, top lid of 1.5mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3mm dia. round headed screws, one lock at the corners. Clamp shall be made of 12mm dia M.S. bar bent to shape as per standard drawing.	Each	25.00	185.20	4,630.00
45	10.19	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	kg	395.00	88.50	34,957.50
46	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
a)	10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	1975.00	102.25	2,01,943.75
b)	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	688.00	142.30	97,902.40

47	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	218.00	612.25	1,33,470.50
		SUBHEAD:- Flooring				
48	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
a)	11.26.1	25 mm thick	Sqm	134.00	1706.60	2,28,684.40
49	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	23.00	2038.55	46,886.65
50	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	Sqm	52.00	1107.05	57,566.60
		SUBHEAD:- ROOFING				
51	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				

a)	12.21.1	In 75x75 mm deep chase	Meter	50.00	260.20	13,010.00
52	12.41	Providing and fixing on wall face unplasticised 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.				
a)	12.41.2	110 mm diameter	meter	217.00	319.75	69,385.75
53	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised 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.				
a)	12.42.5	Bend 87.5°				
	12.42.5.2	110 mm bend	Each	25.00	132.00	3,300.00
b)	12.42.6	Shoe (Plain)				
	12.42.6.2	110 mm Shoe	Each	25.00	115.95	2,898.75
54	26.23	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal powder coated T-Grid of hot dipped galvanised iron section of 0.40 mm thick on Silhouette profile,rotary stiched double webbed white with 6mm reveal profile (white/black),comprising of main-T runners of size 15x42mm of length 3000 mm, cross - T of size 15x42 mm of length 1200 mm and secondary intermediate crossT of size 15x42 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle				

		of size 22x19x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.				
a)	26.23.1	With 15 mm thick integral densified micro edge light weight calcium silicate false ceiling tiles	Sqm	9.00	2055.65	18,500.85
	13.0.	**SUBHEAD- FINISHING**				
55	13.1	12 mm cement plaster of mix :				
a)	13.1.1	1:4 (1 cement: 4 fine sand)	Sqm	1435.00	294.85	4,23,109.75
56	13.2	15 mm cement plaster on the rough side of single or half brick wall of mix :				
a)	13.2.1	1:4 (1 cement: 4 fine sand)	Sqm	1536.00	339.70	5,21,779.20
57	13.16	6 mm cement plaster of mix :				
a)	13.16.1	1:3 (1 cement : 3 fine sand)	Sqm	98.00	253.05	24,798.90
58	13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	Per Bag of 50 Kg cement used in the mix	27.00	60.55	1,634.85
59	13.41	Distempering with oil bound distemper of approved brand and manufacture to give and even shade.				
	13.41.1	New work (two or more coats) over and including water thinnable priming coat with cement primer	Sqm	1394.00	162.55	2,26,594.70
60	13.44	Finishing walls with water proofing cement paint of required shade :				
a)	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	139.00	97.60	13,566.40
61	13.46	Finishing walls with Acrylic Smooth exterior paint of required shade :				
a)	13.46.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	Sqm	1536.00	166.85	2,56,281.60
62	13.48	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
a)	13.48.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	Sqm	2620.00	140.05	3,66,931.00

63	13.76	Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in- Charge.	Metre	718.00	88.70	63,686.60
64	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	1662.00	123.85	2,05,838.70
		SUBHEAD- PAVEMENT & ROAD WORK				
65	16.79	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub-base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	Cum	2644.00	2803.65	74,12,850.60
		SUB HEAD - FENCING				
66	16.70	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.				
a)	16.70.2	Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	Sqm.	1113.00	901.65	10,03,536.45
		SUB HEAD - SANITARY INSTALLATION				
67	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, 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 :				
a)	17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	Each	5.00	5781.35	28,906.75
68	17.2	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 :				
a)	17.2.1	W.C. pan with ISI marked white solid plastic seat and lid	Each	4.00	5540.55	22,162.20
69	17.4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
a)	17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	7.00	8115.55	56,808.85
70	17.7	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 :				
a)	17.7.4	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap.	Each	9.00	1679.60	15,116.40
71	17.10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
a)	17.10.1	Kitchen sink with drain board				
	17.10.1.1	510x1040 mm bowl depth 250 mm	Each	5.00	6008.45	30,042.25

72	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete :				
a)	17.28.2	Flexible pipe				
i)	17.28.2.1	32 mm dia	Each	11.00	104.35	1,147.85
73	17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
a)	17.32.2	Rectangular shape 453x357mm	Each	10.00	1158.95	11,589.50
74	17.35	Providing and fixing soil, waste and vent pipes :				
a)	17.35.1	100 mm dia				
	17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	metre	80.00	1018.05	81,444.00
b)	17.35.2	75 mm diameter				
	17.35.2.1	Sand cast iron S&S pipe as per IS: 1729	metre	70.00	931.55	65,208.50
75	17.37	Providing and fixing M.S. holder-bat clamps of approved design to 'Sand Cast iron/cast iron (spun) pipe embedded in and including 'cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 'coarse sand : 4 graded stone aggregate 20 mm nominal size),				
a)	17.37.1	For 100 mm dia pipe	Each	80.00	308.45	24,676.00
b)	17.37.2	For 75 mm dia pipe	Each	70.00	304.45	21,311.50
76	17.38	Providing and fixing bend of required degree with access door, insertion 'rubber washer 3 mm thick, bolts and nuts complete.				
a)	17.38.1	100 mm dia				
	17.38.1.1	Sand cast iron S&S as per IS - 1729	Each	9.00	530.70	4,776.30
b)	17.38.2	75 mm dia				
	17.38.2.1	Sand cast iron S&S as per IS - 1729	Each	9.00	440.00	3,960.00
77	17.43	Providing and fixing single equal plain junction of required degree 'with access door, insertion rubber washer 3 mm thick, bolts and 'nuts complete.				
a)	17.43.1	100x100x100 mm				
	17.43.1.1	Sand cast iron S&S as per IS - 1729	Each	9.00	671.20	6,040.80
b)	17.43.2	75x75x75 mm				
	17.43.2.1	Sand cast iron S&S as per IS - 1729	Each	9.00	573.80	5,164.20
78	17.60	Providing and fixing trap of 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 :				
a)	17.60.1	100mm inlet and 100mm outlet				

i)	17.60.1.1	Sand Cast Iron S&S as per IS : 3989	Each	20.00	1604.10	32,082.00
79	17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.				
a)	17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	Each	10.00	325.10	3,251.00
		SUBHEAD- WATER SUPPLY				
80	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall				
a)	18.10.1	15 mm dia nominal bore	Metre	100.00	304.15	30,415.00
b)	18.10.2	20 mm dia nominal bore	Metre	90.00	373.35	33,601.50
81	18.11	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
a)	18.11.1	15 mm dia nominal bore	Metre	80.00	485.20	38,816.00
b)	18.11.2	20 mm dia nominal bore	Metre	50.00	541.10	27,055.00
82	18.12	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.				
		External work				
a)	18.12.3	25 mm dia. nominal bore	Metre	120.00	417.95	50,154.00
b)	18.12.4	32 mm dia. nominal bore	Metre	150.00	457.70	68,655.00
c)	18.12.6	50 mm dia nominal bore	Metre	190.00	654.20	1,24,298.00
d)	18.12.8	80 mm dia nominal bore	Metre	220.00	919.10	2,02,202.00
83	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a)	18.17.1	25 mm nominal bore	Each	11.00	532.35	5,855.85
b)	18.17.1A	20 mm nominal bore	Each	12.00	461.75	5,541.00
c)	18.17.4	50 mm nominal bore	Each	9.00	878.25	7,904.25
d)	18.17.6	80 mm nominal bore	Each	6.00	2227.60	13,365.60
84	18.44	Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and primeing the tube well	Metre	100.00	499.80	49,980.00
85	18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Per Litre	4000.00	9.70	38,800.00

86	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
a)	18.49.1	15 mm nominal bore	Each	24.00	434.20	10,420.80
87	18.51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
a)	18.51.1	15 mm nominal bore	Each	6.00	708.40	4,250.40
88	18.52	Providing and fixing C.P. brass Stop cock (concealed) of standard design and of approved make conforming to IS 8931				
a)	18.52.1	15 mm nominal bore	Each	32.00	594.75	19,032.00
89	18.56	Providing and fixing PTMT pillar cock of approved quality and colour .				
a)	18.56.1	15 mm nominal bore, 107 mm long, weighing not less than 110 gms	Each	11.00	180.80	1,988.80
90	18.84	Providing & fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.				
a)	18.84.1	15 mm nominal bore	Each	6.00	8050.50	48,303.00
		SUB-HEAD- DRAINAGE.				
91	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
a)	19.1.2	150 mm diameter	Metre	400.00	591.40	2,36,560.00
92	19.2	Providing and laying cement concrete 1:5:10 (1cement : 5coarse sand : 10graded stone aggregate 40 mm nominal size)alround S.W. pipes including bed concrete as per standard design:				
a)	19.2.2	150 mm diameter S.W. pipe	Metre	400.00	1095.15	4,38,060.00
93	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 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 :				
a)	19.4.3	180x150 mm size P type				
i)	19.4.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	9.00	2534.00	22,806.00
94	19.6	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 :				
a)	19.6.4	300 mm dia. R.C.C. pipe	Meter	360.00	902.05	3,24,738.00
95	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm 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 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
	19.7.1	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) :				
i)	19.7.1.1	With F.P.S. bricks with class designation 7.5	Each	7.00	11687.10	81,809.70
96	19.8	Extra for depth for manholes				
	19.8.1	Size 90x80 cm				
a)	19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	9.00	8127.45	73,147.05
97	19.15	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :				
a)	19.15.1	With 20x20 mm square bar	Each	20.00	461.35	9,227.00
98	19.18	Supplying and fixing C.I. cover without frame for manholes :				
a)	19.18.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg.	Each	8.00	1341.35	10,730.80
99	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality				
	19.19.1	L D- 2.5				
	19.19.1.1	Rectangular shape 600x450 mm internal dimensions	Each	4.00	1255.25	5,021.00

100	19.30	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:				
	19.30.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :				
	19.30.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	8.00	8613.20	68,905.60
101	19.31	Extra for depth beyond 45 cm of brick masonry chamber :				
	19.31.3	For 600x850 mm size				
	19.31.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	3.60	7177.15	25,837.74
102	19.30	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), 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 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:				

	19.30.1	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :				
	19.30.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10.00	6431.30	64,313.00
103	19.31	Extra for depth beyond 45 cm of brick masonry chamber :				
	19.31.1	For 455x610 mm size				
	19.31.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	6.00	5640.75	33,844.50
104	19.32	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.				
a)	19.32.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	1.00	28029.15	28,029.15
		SUBHEAD- ALUMINIUM WORK				
105	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
a)	21.1.1	For fixed portion				

	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	9.00	466.30	4,196.70
b)	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
	21.1.2.2	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	334.00	564.80	1,88,643.20
106	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
a)	21.3.2	With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm)	Sqm	98.00	1325.55	1,29,903.90
		SUBHEAD- WATERPROOFING				
107	22.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :				
		Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.				
		IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.				
		IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.				
		IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	Sqm	48.00	774.25	37,164.00
108	22.4	Providing and placing in position suitable PVC water stops conforming to IS: 12200 for construction/ expansion joints between two RCC members and fixed to the				

		reinforcement with biding wire before pouring concrete etc. complete.				
a)	22.4.1	Serrated with central bulb (225 mm wide, 8 - 11 mm thick)	Metre	63.00	285.60	17,992.80
109	22.7	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by ngineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. e) The hole terrace so finished shall be flooded with water for a minimum period of two eeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge :				

a)	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Sqm	249.00	1522.95	3,79,214.55
		SUBHEAD:- RAIN WATER HARVESTING				
110	23.1	Boring/ drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS:2800 (Part-I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire and running charges of all equipments, tools, plant and machineries required for the job, all complete as per direction of Engineer - in - charge, up to 90 meter depth below ground level.				
a)	23.1.1	All type of Soil				
	23.1.1.1	300 mm dia	Meter	100.00	592.05	59,205.00
111	23.2	Boring/ drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS:2800 (Part-I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire and running charges of all equipments, tools, plant and machineries required for the job, all complete as per direction of Engineer - in - charge, beyond 90 meter and up to 150 meter depth below ground level.				
a)	23.2.1	All type of Soil				
	23.2.1.1	300 mm dia	Meter	120.00	690.70	82,884.00
112	23.8	Gravel packing in tube well construction in accordance with IS: 4097, including providing Gravel fine/ medium/ Coarse, in required grading and sizes as per actual requirement, all complete as per actual direction of Engineer - in - charge.	Cum	2.00	1479.25	2,958.50
113	23.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plane ended casing pipes of required dia, conforing to IS: 4720, of reputed and approved make, including painted with out side surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire and labour charges, fitting and accessories, all complte, for all depths, as per direction of Engineer - In - Charge.				

a)	23.10.2	150 mm nominal size dia having minimum wall thickness 5.00 mm.	Meter	100.00	1675.80	1,67,580.00
114	23.11	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/ 3.2 mm) mild steel threaded and socketed/ plane bevel ended pipes (Type A) of required dia, conforing to IS: 8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with out side surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including required hire and labour charges, fitting and accessories, all complte, for all depths, as per direction of Engineer - In - Charge.				
a)	23.11.2	150 mm nominal size dia	Meter	100.00	1790.00	1,79,000.00
115	23.12	Development of tube well in accordance with IS : 2800 (part 1) and IS : 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time, till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	Hour	40.00	916.80	36,672.00
116	23.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing / casing pipe, removable as per requirement, all complete for bore well of :				
a)	23.13.3	200 mm dia	Each	1.00	280.95	280.95
117	23.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tube well as per IS: 2800 (Part-I), including necessary bolts and nuts of required size complete.				
a)	23.14.3	200 mm clamp	Each	1.00	1827.00	1,827.00
118	23.15	Providing and fixing bail plug/ bottom plug of required dia to the bottom of pipe assembly of tube well as per IS: 2800 (Part-I).				

a)	23.15.3	200 mm dia	Each	2.00	308.55	617.10
					Total (Rs.)	**6,56,15,941.63**
(Rupees: Six crore fifty six lakh fifteen thousand nine hundred forty one and paisa sixty three only)						

Addl. GM (P&E)

Note: Warehouse (50 m x 20 m) considered in this work is of Pre- Engineered Building (PEB) structure. Payment of PEB structure will be considered in steel chapter of DSR Schedule. Bidder may quote the rate in this tender accordingly.

SCHEDULE OF QUANTITY						
SUB SCHEDULE-II (ELECTRICAL WORK DSR 2018 ITEMS)						
DSR Item no.		**Description**	**Unit**	**Qty.**	**Rate**	**Amount**
SUB- SCHEDULE-II		ELECTRICAL DSR 2018 ITEMS				
S.No.	**Section 1**	**Wiring**				
1	1.10	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 medium class PVC 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.				
	1.10.3	Group C	Nos.	80.00	990.00	79200.00
2	1.12	Wiring for light/power plug with 2 x 4 sq.mm FRLS PVC insulated copper conductor single core cable in surface/recessed medium class PVC conduit along with 1 no. 4 sq.mm FRLS PVC insulated copper conductor single core cable for loop earthing as required .	Mtr	275.00	200.00	55000.00
3	1.13	Wiring for light/ power plug with 4x4 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 2 nos 4 wq.mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Mtr	130.00	308.00	40040.00
4	1.14	Wiring for circuit /submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface /reccessed medium class PVC conduit as required .				
	1.14.1	2 x 1.5 sq.mm + 1 x 1.5 Sq.mm Earth wire	Mtr	650.00	146.00	94900.00
	1.14.2	2 x 2.5 sq.mm + 1 x 2.5 Sq.mm Earth wire	Mtr	450.00	167.00	75150.00
	1.14.3	2 x 4 sq.mm + 1 x 4 Sq.mm Earth wire	Mtr	200.00	200.00	40000.00
	1.14.4	2 x 6 Sq. mm + 1 x 6 Sq. mm Earth Wire	Mtr	300.00	249.00	74700.00
	1.14.10	4 x 10 Sq. mm + 2 x 10 Sq. mm Earth Wire	Mtr	120.00	543.00	65160.00
5	1.17	Supplying and drawing following sizes of FRLS PVC insulated copper conductor conductor, single core cable in the existing surface/recessed steel/PVC conduit as required.				
	1.17.3	3 x 1.5 Sq. mm	Mtr	506.00	54.00	27324.00
	1.17.12	3 x 2.5 Sq. mm	Mtr	850.00	75.00	63750.00

6	1.18	Supplying and drawing following pair, 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
	1.18.2	2 Pair	Mtr	250.00	20.00	5000.00
	1.18.3	4 Pair	Mtr	100.00	29.00	2900.00
7	1.20	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.				
	1.20.2	25 mm	Mtr	1000.00	165.00	165000.00
	1.20.3	32 mm	Mtr	150.00	203.00	30450.00
	1.20.4	40 mm	Mtr	150.00	292.00	43800.00
8	1.21	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.				
	1.21.1	20 mm	Mtr	450.00	84.00	37800.00
	1.21.2	25 mm	Mtr	800.00	90.00	72000.00
	1.21.3	32 mm	Mtr	250.00	92.00	23000.00
9	1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	1.24.1	5/6 amps switch	Each	110.00	85.00	9350.00
	1.24.3	15/16 amps switch	Each	67.00	132.00	8844.00
	1.24.4	3 pin 5/6 amp socket outlet	Each	110.00	111.00	12210.00
	1.24.5	6 pin 15/16 amp socket outlet	Each	62.00	175.00	10850.00
	1.24.6	Telephone Socket Outlet	Each	45.00	119.00	5355.00
	1.24.8	Bell Push Switch	Each	4.00	126.00	504.00
10	1.25	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	41.00	342.00	14022.00
11	1.26	Supplying and fixing modular blanking plate on the existing modular plate and switch box excluding modular plate as required.	Each	80.00	32.00	2560.00
12	1.27	Supplying and Fixing following size/modules, GI box along with modular base & cover Plate for Modular switches in recess etc. as required.				
	1.27.1	1 or 2 Module (75 mm x75mm)	Each	52.00	243.00	12636.00
	1.27.2	3 Module (100 mm x 75 mm)	Each	30.00	267.00	8010.00
	1.27.3	4 Module (125 mm x 75 mm)	Each	45.00	287.00	12915.00
	1.27.4	6 Module (200 mm x 75 mm)	Each	40.00	333.00	13320.00
	1.27.5	8 Module (125 mm x 125 mm)	Each	105.00	383.00	40215.00

13	1.31	Supplying and Fixing suitable size G.I. box with modular Plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps, modular socket outlet and 5/6 amps modular switch, connections etc. as required (For Light plugs to be used in Non residential buildings).	Each	105.00	401.00	42105.00
14	1.32	Supplying and Fixing suitable size G.I. box with modular Plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps. Modular socket outlet and 15/16 amps modular switch, connections etc. as required.	Each	170.00	495.00	84150.00
15	1.33	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/wooden block including connections etc. as required.	Each	90.00	65.00	5850.00
16	1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 Volts, complete as required.	Each	10.00	92.00	920.00
17	1.41	Installation, **testing and commissioning of pre-wired, fluoroscent fitting/** compact fluoroscent fitting of all types, complete with all accessories and tubes etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	250.00	168.00	42000.00
18	1.45	Installation, **testing and commissioning of ceiling fan,** including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable including providing and fixing phenolic laminated sheet cover on the fanbox etc. as required.	Each	41.00	203.00	8323.00
19	1.47	Supplying and fixing extra down rod of 10 cm length G.I. pipe, 15 mm dia, heavy gauge including painting etc. as required (Note : more than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored.)	Each	41.00	33.00	1353.00
20	1.50	Installation of exhaust fan in the existing opening, including making good the damage, connections, testing, commissioning etc. as required.				
	1.50.1	Upto 450 mm sweep	Each	20.00	363.00	7260.00
21	1.51	Extra for fixing the louvers/shutters complete with frame for a exhaust fan of all sizes.	Each	20.00	168.00	3360.00
22	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN cable in the existing surface/ recessed, steel/ PVC conduit as required.				
	1.53.1	1 run of cable	Metre	400.00	49.00	19600.00
	1.53.2	2 run of cable	Metre	400.00	82.00	32800.00
	Section-2	**Distribution Boards**				

23	2.3	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)				
	2.3.1	6 way , Double door	Each	10.00	1661	16610.00
	2.3.2	8 way , Double door	Each	10.00	1760	17600.00
24	2.4	Supplying and Fixing folowing 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).				
	2.4.1	4way (4+12), Double door	Each	4.00	3068.00	12272.00
	2.4.2	6 way (6 + 18), Double door	Each	15.00	3693.00	55395.00
	2.4.3	8 way (8 + 24), Double door	Each	11.00	4601.00	50611.00
25	2.5	Supplying and fixing of following ways surface/ recess mounting, **vertical type**, 415 V, **TPN MCB distribution board** of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
	2.5.1	4 way (4 + 12), Double door	Each	4.00	5651.00	22604.00
	2.5.2	8 way (4 + 24), Double door	Each	4.00	7744.00	30976.00
26	2.10	Supplying and fixing 5 amps to 32 Amps rating 240/415 Volts, 'C' Curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing & commisioning etc. as required.				
	2.10.1	Single Pole	Each	155.00	199.00	30845.00
	2.10.4	Triple Pole	Each	110.00	826.00	90860.00
27	2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	45.00	8.00	360.00
28	2.14	Supplying and fixing following rating, **double pole, (single phase & neutral), 240 V, Residual Current Circuit Breaker (RCCB)** having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing & commissioning etc. as required.				
	2.14.2	40 amps	Each	20.00	2095.00	41900.00
	2.14.3	63 amps	Each	10.00	2640.00	26400.00

29	2.15	Supplying and fixing following rating, **four pole (three phase & neutral), 415 volts, Residual Current Circuit Breaker (RCCB)** having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing & commissioning etc. as required.				
	2.15.2	40 amps	Each	28.00	2626.00	73528.00
	2.15.3	63 amps	Each	26.00	2777.00	72202.00
30	2.18	Supplying and fixing 20 amps, 240 volts, **SPN industrial type**, socket outlet, with 2 pole and earth , metal enclosed plug top along with 20 amps "C' curve , SP, MCB, in sheet steel enclosure on surface or in recess, with chained metal cover for the socket	No.	50.00	1232.00	61600.00
31	2.2	Supplying and fixing following raing and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connection etc. as required.				
	2.2.1	100 Amp, 16 KA, TP MCCB.	No.	8.00	3726.00	29808.00
	2.2.2	125 Amp, 16 KA, TP MCCB.	No.	8.00	4145.00	33160.00
32	2.21	Providing and fixing MV danger notice plate of 200mm x 150mm made of mild steel, atleast 2mm thick and vitreous enamelled white on both sides and with inscripointion single red colour on front side as required.	No.	20.00	226.00	4520.00
	Section-3	**Cable Trays -**				
33	4.1	Supplying and installing following size of perforated painted with powder coating **M.S.cable trays** with perforation not more than 17.5% in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts and nuts, painting suspenders etc. as required.				
	4.1.1	100 mm width x 50 mm depth x 1.6 mm thickness	Meter	140.00	476.00	66640.00
	4.1.2	150 mm width x 50 mm depth x 1.6 mm thickness	Metre	215.00	531.00	114165.00
	4.1.4	300 mm width x 50 mm depth x 1.6 mm thickness	Metre	140.00	621.00	86940.00
34	4.2	Supplying and installing following size of perforated painted with powder coating M.S.cable trays **bends** with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts and nuts, painting suspenders etc. as required.				
	4.2.1	100 mm width x 50 mm depth x 1.6 mm thickness	No.	56.00	808.00	45248.00
	4.2.2	150 mm width x 50 mm depth x 1.6 mm thickness	No.	131.00	947.00	124057.00
	4.2.4	300 mm width x 50 mm depth x 1.6 mm thickness	No.	40.00	1340.00	53600.00

35	4.3	Supplying and installing following size of perforated painted with powder coating M.S.cable trays **Tee** with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts and nuts, painting suspenders etc. as required.				
	4.3.1	100 mm width x 50 mm depth x 1.6 mm thickness	No.	56.00	909.00	50904.00
	4.3.2	150 mm width x 50 mm depth x 1.6 mm thickness	No.	131.00	1072.00	140432.00
	4.3.4	300 mm width x 50 mm depth x 1.6 mm thickness	No.	40.00	1549.00	61960.00
	Section-4	**EARTHING**				
36	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.	Set	10.00	6216	62160.00
37	5.11	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.	Meters	150.00	483	72450.00
38	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meters	175.00	206	36050.00
39	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.	Set	5.00	5308	26540.00
40	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 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.	Set	2.00	11794	23588.00
41	5.7	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Meters	450.00	44	19800.00
42	5.8	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Meters	100.00	853	85300.00

43	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.	Meters	25.00	188	4700.00
44	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Meters	100.00	1009	100900.00
	Section-5	**LT Cable laying**				
45	7.1	Laying of One number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size **direct in ground** including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
	7.1.1	Upto 35 sq.mm	Metre	700.00	323.00	226100.00
	7.1.2	Above 35 sq mm and Upto 95 sq.mm	Metre	500.00	338.00	169000.00
	7.1.3	Above 95 sq mm and Upto 185 sq.mm	Metre	150.00	352.00	52800.00
	7.1.4	Above 185 sq mm and Upto 400 sq.mm	Metre	150.00	396.00	59400.00
46	7.5	Laying of One number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size in the existing **RCC/HUME / META**L pipe as required.				
	7.5.1	up to 35 sq mm	Metre	1700.00	31.00	52700.00
	7.5.2	Above 35 sq mm and Upto 95 sq.mm	Metre	600.00	47.00	28200.00
	7.5.3	Above 95 sq mm and Upto 185 sq.mm	Metre	300.00	64.00	19200.00
	7.5.4	Above 185 sq mm and Upto 400 sq.mm	Metre	300.00	112.00	33600.00
47	7.6	Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size in the existing **Masonary open duct** as required.				
	7.6.1	up to 35 sq mm	Metre	300.00	23.00	6900.00
	7.6.2	Above 35 sq mm and Upto 95 sq.mm	Metre	300.00	38.00	11400.00
	7.6.3	Above 95 sq mm and Upto 185 sq.mm	Metre	150.00	52.00	7800.00
	7.6.4	Above 185 sq mm and Upto 400 sq.mm	Metre	150.00	96.00	14400.00
48	7.8	Laying and fixing of One number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size on **cable tray** as required.				
	7.8.1	up to 35 sq mm	Metre	950.00	33.00	31350.00
	7.8.2	Above 35 sq mm and Upto 95 sq.mm(clamped with 25x3mm MS flat clamp)	Metre	100.00	74.00	7400.00
	7.8.3	Above 95 sq mm and Upto 185 sq.mm(clamped with 25/40x3mm MS flat clamp)	Metre	100.00	93.00	9300.00
	7.8.4	Above 185 sq mm and Upto 400 sq.mm(clamped with 40x3mm MS flat clamp)	Metre	75.00	150.00	11250.00

	Section-6	**HT Cable Laying**				
49	8.1	Laying of One number PVC insulated and PVC sheathed /XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
	8.1.2	Above 120 sq. mm and upto 400 sq. mm	Metre	300.00	482.00	144600.00
	8.3	Laying of One number PVC insulated and PVC sheathed /XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
	8.3.2	Above 120 sq. mm and upto 400 sq. mm	Metre	400.00	112.00	44800.00
	8.4	Laying of One number PVC insulated and PVC sheathed /XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.				
	8.4.2	Above 120 sq. mm and upto 400 sq. mm	Metre	200.00	96.00	19200.00
	Section-7	**Cable end Terminations & Jointing**				
50	9.1	Supplying and making end termination with brass compression gland and alluminium lugs for following size of PVC insulated and PVC sheathed/ XLPE aluminium conductor cable of 1.1 KV grade as required.				
	9.1.20	3.5 X 25 Sq. mm (28 mm)	No.	20.00	250.00	5000.00
	9.1.22	3.5 X 50 Sq. mm (35 mm)	No.	20.00	329.00	6580.00
	9.1.25	3.5 X 120 Sq. mm (45 mm)	No.	20.00	489.00	9780.00
	9.1.27	3.5 X 185 Sq. mm (57 mm)	No.	22.00	702.00	15444.00
	9.1.29	3.5 X 240 Sq. mm (62 mm)	No.	14.00	809.00	11326.00
	9.1.30	3.5 X 300 Sq. mm (70 mm)	No.	10.00	936.00	9360.00
	9.1.31	3.5 X 400 Sq. mm (82 mm)	No.	8.00	1209.00	9672.00
	9.1.33	4 X 16 Sq. mm (28 mm)	No.	45.00	250.00	11250.00
51	10.4	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :				
	10.4.2	120 sq.mm	Each	6.00	8947.00	53682.00
52	10.5	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :				
	10.5.2	120 sq.mm	Each	2.00	15001.00	30002.00
	10.6	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :				

	10.6.2	120 sq.mm	Each	4.00	18085.00	72340.00
	Section-8	**Miscellenous Civil Items**				
53	14.13	Providing, laying and fixing following dia **G.I.pipe (medium class)** in ground complete with G.I.fittings including trenching (75 cm deep) and refilling etc as required.				
	14.13.1	50 mm dia	Meter	150.00	536.00	80400.00
	14.13.3	100 mm dia	Meter	100.00	1113.00	111300.00
	14.14	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, joining with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.				
	14.14.1	100 mm dia	Meter	100.00	525.00	52500.00
	14.14.2	150 mm dia	Meter	250.00	598.00	149500.00
	14.14.4	300 mm dia	Meter	100.00	854.00	85400.00
			Total DSR item= Rs.			**49,03,307.00**
(Rupees: Forty nine lakh three thousand three hundred seven only)						

Addl. GM (P&E)

SCHEDULE OF QUANTITY						
SUB SCHEDULE-III (CIVIL WORK MARKET RATE ITEMS)						
S. No.	**Item No.**	**Brief Description of Item**	**Unit**	**Qty.**	**Rate (in Rs.)**	**Amount (in Rs.)**
SUB SCHEDULE-III		CIVIL MARKET RATE ITEMS				
1	N/S-1	Providing and Laying hand packed rubble soling 300 mm thick or in required thickness as directed by Engineer-in-charge, interstice with Sand, stone chips, watering, tamping and consolidating with all leads and lift, royalties, taxes etc. (compacted thickness shall be measured for payment)	Cum	168.00	573.53	96,353.04
2	N/S-2	Cutting of groove 6 x 20mm size in the finished floor and filling with Shalitex compaund complete.	Rmt	531.00	88.89	47,200.59
3	N/S-3	Supply & lowering of 15000 litre capacity at 150 m head suitable for 3 phase 50 Hz electric supply KSB make submercible bore hole pump complete with adequate matching yield capacity.	Each	1.00	39114.82	39,114.82
4	N/S-4	Operating panel with overload cut off, voltage corrector etc. as per maker recommendation.	Each	1.00	18295.64	18,295.64
5	N/S-5	Supply & fixing of submersible cable including cable jointing kit for the pump corresponding to 15 HP pump, 150 m head and relavent equipment.	Metre	150.00	126.18	18,927.00
6	N/S-6	Supply & fixing of power cable armored 2 x 6 mm size with earthing system.	Metre	30.00	268.12	8,043.60
7	N/S-7	Provision of earth electrode with required connection.	Job	1.00	7886.06	7,886.06

8	N/S-8	Manufacturing/ Providing and laying precast inter locking cement concrete paver blocks of grade M-50 and size 200mm X 100mm X 100 mm including providing and laying 50 to 80mm (avg 65 mm) thick layer of bedding sand, joint filling with fine sand, compacting with plate compactor and final compaction with vibratory roller etc. as per specification. The item includes all cost of paver blocks i.e., cost of ingredients of paver blocks such as sand, aggregate, cement of high strength OPC cement as per IS 8112-2013, cost of bedding as well as sand filled in joints. The rate shall also include all lead, lifts, materials, machine tools, plants, labour, equipment & testing etc. complete in all respects as directed by Enineer - in - Charge **Note: 60% payment shall be released on supply of blocks duly tested, stacked at site as per direction of Engineer-in-charge subject to submission of indemnity bond and comprehensive Insurance by the contractor**	Sqm	18751.50	1380.60	2,58,88,320.90
9	N/S-9	Providing and spreading non-metallic floor hardener minimum @ 4.5kg/sqm in floor concrete (as per manufactures specifications and approved by Engineer-in-charge). Nothing extra shall be payable if manufacturer specifies extra quantity.	Sqm	1122.50	80.90	90,810.25
10	N/S-10	Providing and fixing channels for preparing panels of required size and then dewatering of the concrete with vaccum dewatering machine finishing with mechanical trowel with trimix matching (thickness of flooring 75 to 150 mm, along with cutting groove joints at appropriate spacing as per direction of engineer in charge (concrete and steel to be paid separately as per relevent item)	Sqm	84.19	610.00	51355.90
11	N/S-11	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 10km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	Cum	1006.00	388.00	3,90,328.00

12	N/S-12	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL antitermite treatment (excluding the cost of chemical emulsion) : Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300mm including excavation channel along the wall & rodding etc. complete With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	Metre	265.00	32.30	8,559.50
13	N/S-13	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL antitermite treatment (excluding the cost of chemical emulsion) : Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.:With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	Metre	248.00	44.70	11,085.60
14	N/S-14	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL antitermite treatment (excluding the cost of chemical emulsion) :Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	Sqm	1146.00	256.15	2,93,547.90
15	N/S-15	Providing and fixing colour coated galvalume profile sheets **(Make-TATA/JSW**) with the depth of 30 mm and pitch of corrugation 200 mm (Colour and shape of profile as approved by the Engineer-in-charge), **0.60 mm(TCT**) total coated thickness(tolerance as per relevant IS code), material yield strength 550 MPa, galvalume **AZ-150 GSM** (both side inclusive) with regular modified polyester paint and coating of 20-25 micron RMP on exposed surface including primer and 7-10 micron epoxy coating on unexposed surface including primer. The sheet should be supplied in single length as shown in drawing or as desired by engineer in charge and shall be fixed using stainless steel Hex cap headed self drilling/ tapping	Sqm	1872.00	830.70	15,55,070.40

		stainless steel screws M6, 50 mm long with 3 mm thick EPDM seal and Stainless steel stitching screw of size 19X2.5 mm excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. All screw should be sealed with silicon sealant.				
16	N/S-16	Providing and fixing colour coated galvalume sheets roofing accessories **(Make- TATA/JSW**), **0.60 mm total coated thickness (TCT)**, material yield strength 550 MPa, galvalume **AZ-150 GSM** (both side inclusive) with regular modified polester paint and coating of 20-25 micron rmp on expose surface including primer and 7-10 micron epoxy coating on unexposed surface including primer using stainless steel self drilling/ tapping screws of size 6x50 mm with 3 mm thick EPDM seal and Stainless steel plain washer complete : Matching Profile ridge (500 - 600mm).	Rmt	51.00	610.20	31,120.20
17	N/S-17	Providing and fixing colour coated galvalume sheets roofing accessories **(Make-TATA/ JSW), 0.60 mm total coated thickness (TCT)**, material yield strength 550 MPa, galvalume **AZ-150 GSM** (both side inclusive) with regular modified polester paint and coating of 20-25 micron rmp on expose surface including primer and 7-10 micron epoxy coating on unexposed surface including primer using stainless steel self drilling/ tapping screws of size 6x50 mm with EPDM seal and Stainless steel plain washer complete : Flashing/ Apron (Upto 600mm).	Rmt	340.00	545.30	1,85,402.00
18	N/S-18	Providing and fixing colour coated galvalume sheets roofing accessories (Make-TATA/ JSW), 0.60 mm total coated thickness (TCT), material yield strength 550 MPa, galvalume AZ-150 GSM (both side inclusive) with regular modified polester paint and coating of 20-25 micron rmp on expose surface including primer and 7-10 micron epoxy coating on unexposed surface including primer using stainless steel self drilling/ tapping	Rmt	152.00	1425.11	2,16,616.72

		screws of size 6x50 mm with EPDM seal and Stainless steel plain washer complete : Gutter (size 350x450 mm).				
19	N/S-19	Supply & Fixing of 2mm thick Polycarbonate sheet, having length, width and profile in accordance with those of adjoining main cladding sheets shall be fixed using stainless steel Hex cap headed self-drilling/ tapping stainless steel screws M6, 50 mm long with 3 mm thick EPDM seal and Stainless steel stitching screw of size 19X2.5 mm excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. All screw should be sealed with silicon sealant.	Sqm	52.00	1533.86	79,760.72
			Total (Rs.)			**2,90,37,798.84**
(Rupees: Two Crore ninety lakh thirty seven thousand seven hundred ninety eight and paisa eighty four only)						

Addl. GM (P&E)

SCHEDULE OF QUANTITY					
SUB SCHEDULE-IV (ELECTRICAL WORK MARKET RATE ITEMS)					
Item No.	**Description**	**Unit**	**Qty.**	**Rate**	**Amount**
SUB SCHEDULE-IV	ELECTRICAL MARKET RATE ITEMS				
NS-1	11 KV, HT VCB, 630 Amp, FOUR WAY Panel-Indoor Type.				
	Supply, Installation,Testing and Commissioning of indoor type floor mounted metal clad IP 4X 11 KV, expandable type VCB panel totally enclosed and fully interlocked, horizontal draw-out, horizontal isolation type breaker as per IS : 13118 as amended up to date and additional specification having capacities as mentioned below, single break, trip free mechanism, motorised charged and auto closing breaker suitable for use on 11 KV, 3 PHASE, 50 Hz, AC supply with short circuit fault level of 350 MVA, complete with self contained fully interlocked rack in and rack out mechanism air insulated but encapsulated Aluminum alloy bus bars of suitable fault level GI earth bar breaker featured with mechanical ON/OFF indicator with hand trip device, spring release coil, shunt trip coil, control voltage of 24 DC, TNC, LED type indicating lamps for phase and trip condition and auxiliary switch of 6 NC + 6 NO and equipped with following switch gears and accessories. BOQ to be read in conjuction with the Technical specification.	Set	1.00	12,66,194.68	1266194.68
	The panel should be suitable for connection for up to 3x 300 sq mm XLPE 11 KV cable(cable tray from bottom) end terminations with heat shrinkable jointing materials etc as required. (The cost of end terminations is not Included in this item).				
	Power pack (one working and one standby) with 220 V,AC input and 24 V,DC continuous output suitable for indicating lights and closing/ tripping / indication of 3 Nos HT panel boards with 2 Nos, 12 volts each maintenance free batteries of suitable AH each, charginng unit,capacitor bank, for emergency delivering to trip system complete with suitable capacity of Ammeter and Voltmeter i/e connections				

	with 2.5 sq mm FRLS insulated copper conductor cable etc including DCDB consisting of 8 Nos 32 Amp DC MCB,s for DC supply distribution to panel as required.				
	Incoming - 1 No. 630 AMP. VCB with followings-				
	1 set (3 Nos) 11KV / /110 / volts drawout type PT class 0.5 accutacy and 100 VA burden, with 1 No Voltmeter (0-15 KV), analogue type selector switch for Voltmeter and protection fuses/MCB for HT metering.				
	3 nos dual core dual ratio CTs of ratio 100/50/5A of 15 VA burden and accuracy class -0.5 for metering and class 5p 10 for protection.				
	1 No- (0-100 A) Ammeter , analog type with selector switches.				
	Master trip relay.				
	Trip circuit supervision relay.				
	Microprocessor based numerical relay with IDMT setting for O/L, E/F and S/C protection.				
	Restricted earth fault relay.				
	Over and Under Voltage relay.				
	Timer and TNC switch.				
	Out goings-3 Nos-630 A, VCB with followings in each breaker.				
	1 set (3 Nos) 11KV / /110 / volts drawout type PT class 0.5 accutacy and 100 VA burden, with 1 No Voltmeter (0-15 KV), analogue type selector switch for Voltmeter and protection fuses/MCB for HT metering.				
	2 nos dual core dual ratio CTs of ratio 100/50/5A of 15 VA burden and accuracy class -0.5 for metering and class 5p 10 for protection on each phase				
	2 No- (0-100 A) Ammeter , analog type with selector switches for Ammeters.				
	Microprocessor based numerical relay with IDMT setting for O/L, E/F and S/C protection.				
	Master trip relay.				
	Trip circuit supervision relay.				

NS-2	250 KVA, 11KV/ 433V Oil Filled Transformer: Design, manufacture, testing at works, supply, installation, testing and commissioning at site of 250 KVA, 11 KV/433V, 3 phase, 50 Hz, delta/star connected, indoor type transformers, oil immersed ONAN cooled, complete with all fittings such as oil conservator, silica gel breather, thermometer, explosion vent, OFF LOAD tap changer for +5% & -5% tappings in step of 2.5 % bidirectional roller, cable end box on HV side suitable of 3C x185 sq. mm. XLPE cable of 11 KV grade and 2 nos. 3.5 core 300 sq mm XLPE cable on LV side complete with all accessaries, diagram & rating plate, oil temperature indicator (OTI), winding temperature indicator (WTI), MOLG indicator and buccholtz relay with wiring upto marshalling box, lifting lugs, first filling of oil, weather proof HT cable box, bushings disconnecting chamber minimum 8 mm thick non magnetic gland plate etc. complete as per specification including 10% extra oil in non returnable drum for topping up as required. The transformer shall be subject to all the tests specified in the specifications and all test certificates shall be produced. Transformer shall conforming to IS: 1180 (Level- II Version) with upto date amendment, complete with all accessories as required. BOQ to be read in conjuction with the Technical specification.	Nos.	2.00	5,17,029.50	1034059.00
NS-3	Main LT Panel	each	1.00	11,37,464.89	1137464.89
	Design, manufacture, supply, installation, testing and commissioing of following totally type tested (TTA) LT panels as per IEC 61439-1&2, suitable for 415 Volts, 3-phase, 4-wire, 50 Hz AC supply system complete in all respect as per approved BOM, GAD & SLD. The panel shall be bolted construction dead front, front operated, dust, vermin proof, extensible, bottom/top cable entry, compartment-alised made of CRCA sheet steel of thickness 1.6 mm for non-load bearing and 2.00 mm for load bearing members and 3 mm for gland plate. the finishing complete with 7 tank process for powder coating in approved shade, fabrication shall be done in transportatable sections, earth bar at the rear with 2 nos. earth stud, solid connections from main bus bar to switch gears with required size of bus bars and				

	control wirng as per approved BOM. PVC insulated copper conductor cable, cable alley, cable gland plates etc. BOQ to be read in conjuction with the Technical specification.				
	I/C-400A 02 Nos. FP Motorised MCCB 50KA - TR-1 and TR-2 FP MCCB 50kA Microprocessor Based O/L,S/C & E/F Release complete in all respects WITH .i) 1 Nos. 0-500 Volts, 96 sq.mm voltmeter with protection 6A MCB and selector switch. ii) 1 Nos. 400 Amps, 96 sq.mm ammeter with 400/5A CT's and selector switch. iii) 1 Set R Y B ,and ON/OFF/TRIP indicating lamps with protection 6A MCB ROH 1 set of 630 Amps, 415 volts, 3 phase, 4P Colour coded aluminium bus bar, after taking all derating factors. 400/5A,10VA, CLASS-1, CT on Y Phase for APFCR.				
	I/C-400A 01 Nos. DG SET FP Motorised MCCB 50KA - TR-1 FP MCCB 50kA Microprocessor Based O/L,S/C & E/F Release complete in all respects WITH .i) 1 Nos. 0-500 Volts, 96 sq.mm voltmeter with protection 6A MCB and selector switch. ii) 1 Nos. 400 Amps, 96 sq.mm ammeter with 400/5A CT's and selector switch. iii) 1 Set R Y B , ON/OFF/TRIP indicating lamps with protection 6A MCB ROH 1 set of 630 Amps, 415 volts, 3 phase, 4P Colour coded aluminium bus bar, after taking all derating factors.400/5A,10VA, CLASS-1, CT on Y Phase for APFCR.				
	1 no. Bus coupler T/F 400A, 4 pole electrically operated (motorised) fully draw out type air circuit breaker with ON/OFF/TRIP indicating lamps & auxiliary contacts required for necessary interlocking of breakers, iii) 0-400A digital ammeter with selector switch and 400/5A, 10VA, CLASS 1, CT - 1 Set etc as required.				
	4 NOS - O/G -250 amps FP MCCB 36 KA WITH MICROPROCESSOR RELEASE				
	3 NOS - O/G -250 amps FP MCCB 36 KA WITH MICROPROCESSOR RELEASE				
	4 NOS - O/G -125 amps FP MCCB 25 KA WITH THERMAL RELEASE				
	10 NOS - O/G -63 amps FP MCCB 25 KA WITH THERMAL RELEASE				
	2 NOS - O/G -32 amps FP MCCB				

	25 KA WITH THERMALRELEASE				
NS 4	CAPACITOR BANKS AND AUTOMATIC CONTROL PANELS	Set	2.00	2,33,929.46	467858.92
	Supply, installation, testing and commissioning of cubicle type, free floor mounted front operated panel with following capacitor units in formation including cost of tier formation, interconnections upto panel, connection to earthing system complete as specified for following rating capacitor unit suitable for operation on automatic control and shall form part of automatic control in cubicle form made out of 14 gauge CRCA stove enamelled sheet steel complete with 50 x 6 mm aluminium earth tape from end to end of the panel for following capacities of Capacitor Panels :85 KVAR CAPACITOR PANEL comprising of following: A) Incoming200 amps TPN MCCB 50 KA with following accessoriesi) 0-500 volts, digital voltmeter with selector switch and shall be protected by 2 amps MCB's.- 1 Setii) 0-200 amps digital ammeter with selector switch and 200/5 amps 10 VA,CL 1 CTs - 1 Set.iii) Phase indicating light with toggle switches and shall be protected by 2 amps MCB's. 3 Setsiv) Automatic microprocessor based digital type power factor compensating relay (including power factor meter) in 8 steps for automatic cut off or add on capacitor units to keep the power factor at 0.95 with variation of loads. All associated auxiliary contactors/relays to be provided. Visual alarms, to display shortfall of P.T., automatic lockout of faulty Step, over temperature protrections. Auto manual selection and indications - 1 SetB) Bus Bars :250 amps capacity, TPN tinned electrolytice copper bus bars as per application duty requirement at highest temperature not exceeding 30 dgree C temperature rise with heat shrinkable insulation sleeves - 1SetC) Outgoings :Outgoing feeders consisting of following with required accessories.				

	i) 25 KVAR CAPACITOR FEEDER with indicating lamps and necessary accesories 3 Nos ii) 10 KVAR CAPACITOR FEEDER with indicating lamps and necessary accesories 1 Nos ii) 25 KVAR, 415V, Harmatic sealed heavy mixed di-electric type capacitors units in well ventilated enclosure complete as per application duty and as required in bank form - 3 Nos iii) 10 KVAR 415 V Haimatic sealed heavy mixed di-electric type capacitors units in well ventilated enclosure complete as per application duty and as required in bank form - 1 Nos NOTE: a) All MCCB's shall be of 50 KA breaking capacity. b) Capacitor automatic selection control panel (85 KVAR) as described above. c) All above switchgears used for Capacitor Panel shall be suitable for Capacitor Application duty requirement. The capacitor shall be suitable rated in series with harmocnic block reactor to offer a requisite rating. The capacitor so chosen shall be able to supress the 3rd harmonic generated in the system. BOQ to be read in conjuction with the Technical specification.				
NS-5	VTPN DB- Design, manufacture, supply, installation, testing and commissioing of following totally type tested LT panels as per IEC 61439-1&2, suitable for 415 Volts, 3-phase, 4-wire, 50 Hz AC supply system complete in all respect as per approved BOM, GAD & SLD. The panel shall be bolted construction dead front, front operated, dust, vermin proof, extensible, bottom/top cable entry, compartment-alised made of CRCA sheet steel of thickness 1.6 mm for non-load bearing and 2.00 mm for load bearing members and 3 mm for gland plate. the finishing complete with 7 tank process for powder coating in approved shade, fabrication shall be done in transportatable sections, earth bar at the rear with 2 nos. earth stud, solid connections from main bus bar to switch gears with required size of bus bars and control wirng as per approved BOM. PVC insulated copper conductor cable, cable alley, cable gland plates etc. BOQ to be read in conjuction with the Technical specification.	each	2.00	2,13,142.77	426285.54

	1 SET OF - Incoming - 125 AMP TPN MCCB 36 KA with built in micro processor based release unit for short circuit, over current protection with isolable neutral complete in all respects WITH .i) 1 Nos. 0-500 Volts, 96 sq.mm voltmeter with protection 6A MCB and selector switch. ii) 1 Nos.250 Amps, 96 sq.mm ammeter with 125 /5A 10 VA CT's and selector switch. iii) 1 Set R Y B , ON/OFF/TRIP indicating lamps with protection 6A MCB etc as required.				
	1 set of 200 Amps, 415 volts, 3 phase, 4 P Cu. bus bar, after taking all derating factors.				
	8 SETS OF - O/G -63amps TPN MCCB 25 KA WITH THERMAL RELEASE and indication lamp etc as required.				
NS-6	MDB Godown Design, manufacture, supply, installation, testing and commissioing of following LT panels suitable for 415 Volts, 3-phase, 4-wire, 50 Hz AC supply system complete in all respect as per approved BOM, GAD & SLD. The panel shall be bolted construction dead front, front operated, dust, vermin proof, extensible, bottom/top cable entry, compartment-alised made of CRCA sheet steel of thickness 1.6 mm for non- load bearing and 2.00 mm for load bearing members and 3 mm for gland plate. the finishing complete with 7 tank process for powder coating in approved shade, fabrication shall be done in transportatable sections, earth bar at the rear with 2 nos. earth stud, solid connections from main bus bar to switch gears with required size of bus bars and control wirng as per approved BOM. PVC insulated copper conductor cable, cable alley, cable gland plates etc. BOQ to be read in conjuction with the Technical specification.	Each	2.00	1,74,840.38	349680.76
A	INCOMER				
i)	1No.125 A FP MCCB(36 KA)				
B	Metering & Indication				
	1 set of R,Y,B phase indicating lamps				
	1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB				
	1 No. (0-125A) Ammeter with ASS with 3 nos. 40/5A CT's				
C	BUS-BAR				
	1 Set of 160A TPN Aluminium Bus Bar with colour coded PVC Sleeves				
D	OUTGOINGS				

i)	12 no 63A TPN MCCB 30mA,25 Ka				
NS-7	Out Door Feeder Pillar- SITC of Outdoor Feeder Pillar (IP65), suitable for 415V, 3 phase, 4 wire, 50 Hz AC supply system fabricated in compartmentalized (preferably) design from CRCA sheet steelof 2mm thick for framework and covers, 3 mm thick for gland plates, i/c cleaning and finishing with 7 tank process for powder coating in approved shade, having 100A capacity TPN Al Alloy busbars of high conductivity & DMC/SMC Bus bar supports, supplied with suitable pedestal (MS Angle Iron Frame of MS channel base for grouting in RCC and proper gland at the bottom) with 2 nos earth studs. Feeder Pillars shouls be provided with terminal bloks for incoming and outgoing cables. From MCCB to terminal block wiring will be done with FRLS copper conductor. Incoming/Outgoing UG cable will be terminated in terminal block. Incoming- 63A, FP MCCB, TPN, 25KA, O/C, S/C & E/F protection with suitable electrical & mechanical interlock conforming to IS-1397-2:1993 as amended up to date.-1 No. Metering- Digital Voltmeter & Ammeter with selector switch, CT of suitable rating. Outgoing- 16A, TPN MCB, TM release, 10KA, O/C & S/C protection-4 Nos.	Nos.	2.00	63,520.76	127041.52
NS-8	Supply Installation testing & commissioning of galvanised street light poles suitable for mounting 1 no street light fitting, with foundation bolts etc. on existing concrete foundation. The height of octagonal pole shall be 8 meter from ground level with 70 mm top dia, 130 mm base dia and base plate with following bracket (1.5m long). Foundation bolts suitable brackets for fixing luminaries and junction box etc. as per direction of engineer-in-charge.				
NS-8.1	Single Arm Bracket	Nos.	10.00	8,082.72	80827.20
NS-8.2	Double Arm Bracket	Nos.	10.00	8,653.25	86532.50
NS-8.3	Additional cost for single arm bracket for mounting lights light fittings	Nos.	10.00	393.08	3930.80

NS 9	HT Cables: Supply, testing and commissioning of 11 KV (Un Earthed) XLPE Aluminum conductor armoured cable conforming to IS:7098 of following size 3 core 150 sqmm	Meter	500.00	870.95	435475.00
NS 10	LT Cables: Supplying, testing & commissioning for following size of XLPE insulated and PVC Sheathed armoured Aluminum conductor cable of 1.1KV grade as required.				
NS 10.1	3.5 core 400 Sq.mm	Meter	400.00	1,087.60	435040.00
NS 10.2	3.5 core 300 Sq.mm	Meter	500.00	851.35	425675.00
NS 10.3	3.5 core 240 Sq.mm	Meter	600.00	694.66	416796.00
NS 10.4	3.5 core 185 Sq.mm	Meter	400.00	551.90	220760.00
NS 10.5	3.5 core 120 Sq.mm	Meter	400.00	370.92	148368.00
NS 10.6	3.5 core 50 Sq.mm	Meter	350.00	190.18	66563.00
NS 10.7	3.5 core 25 Sq.mm	Meter	1800.00	117.81	212058.00
NS 10.8	4 core 16 Sq.mm	Meter	1200.00	93.43	112116.00
NS 11	Supply of Surface/ wall mounted 10W max. batten type LED Light Fixture, 240 v, THD ≤ 20, CCT 6500K, CRI ≥ 80, System lumen 950lm. (Equivalent to Havells Model- LHEXBQP7IN1W009/ Surya Model- SLE BT 10W/Philips/Bajaj)	No.	30.00	647.03	19410.90
NS 12	Supply of Surface mounted 18/20 W LED Batten. (Wipro Cat. No. LL20-221-XXX-60-NE) or equivalent approved make.	No.	50.00	475.45	23772.50

NS 13	Supply, Installation, Testing & Commissioning of Surface mounted-max. 26 Watt LED light fixtures having min. total fixture lumens of 2600 lm, CCT of 5700 K, LED source efficay of ≥ 140 Lumens /Watt, LED of approved make (CREE, NICHIA, PHILIPS, OSRAM), and LM80 complied LED and as per LM79 standard, , IP 20 protection , LED Driver, shall be 2 kV Surge protected CCCV with voltage range of 150-270 VAC. Fixture shall be white powder coated housing with full HEAT diffuser of PMMA.	Nos	10.00	2,705.44	27054.40
NS 14	Supply of recess mounted LED Downlighter Max. 27 W having min. 2700 system lumens with approved Make of LM80 complied LED and as per LM79 standard in 5700k CCT. LED Driver, shall be 2 kV Surge protected CCCV driver with voltage range of 150-270 VAC. Downlighter housing shall be die-cast aluminium only with white powder coating.(Wipro Cat. No. CRDL11R033HP57) or equivalent approved make.	No.	10.00	1,693.68	16936.80
NS 15	Supply of recess mounted LED 600x600 mm fixtures Max. 36 W having min. 3000 system lumens with approved Make and LM80 complied LED and as per LM79 standard, in 6500k CCT LED Driver, shall be 2 kV Surge protected CCCV with voltage range of 150-270 VAC. Fixture shall be white powder coated housing with full HEAT diffuser of PMMA.(Wipro Cat. No. CRCO23R036HP65) or equivalent approved make.	No	15.00	2,745.34	41180.10
NS 16	Supply of wall / surface mounted 50 W LED flood light luminary with lumen efficacy of LED ≥ 140 lm/W with view angle of 120°, CCT 5700K, CRI ≥70, TDH ≤10, System lumen 5300lm, IP 65, power factor ≥0.95, pressure die cast Alumunum housing, integral driver (Equivalent to Havells model JETA COMPECT OF L50W LED757LTG/ Surya model SLE FL 50W IP65/ Philips/ Bajaj)	No.	100.00	6,321.02	632102.00
NS 17	Supply, installation, testing and commissioning of 90 W LED Street Light fitting for poles (minimum lumen-6900 lm, CRI>80), type - Wipro LR10-911-XXX-57-XX or equivalent approved make.	No	100.00	6,085.80	608580.00

NS 18	Supply of max 100W LED High bay with COB with LED of approved make, Dyecast Alumunum housing, integral driver and all necessary similar to Wipro Cat no LH09-112-060-50-G1 or equivalent approved make.	No	70.00	11,126.21	778834.70
	Safety Equipments			-	0.00
NS 19	First Aid Box	Each	1.00	618.12	618.12
NS 20	Shock treatment charts (in English, Hindi) with Frame	Each	2.00	428.18	856.36
NS 21	Rubber Mats, 1/2' thick, 900mm width and 2000mm long	Each	6.00	1,188.90	7133.40
NS 22	11KV Tested Shock proof hand gloves	Each	2.00	475.45	950.90
NS 23	Fire buckets with stand (set of 2 buckets)	Each	4.00	1,426.36	5705.44
NS 24	Providing and fixing Carbon dioxide fire extinguishers consisting of welded M.S cylindrical body, squeeze lever discharge valve fitted with internal discharge tube, 30 cm long high pressure discharge hose, discharge nozzle, suspension bracket, conforming to IS: 934 finished externally with red enamel paint and fixed to wall with brackets with rawl plug/dash fasteners complete with internal charge. (CCOE Nagpur Approved Cylinders) Capacity 4.5 Kg. ISI Marked IS: 2878	Each	20.00	3,347.57	66951.40
NS 25	Providing and fixing Dry ABC Powder extinguishers bearing IS: 2171 marking, fixing to wall including brackets ettc. As required at site. 5 Kg Capacity.	Each	20.00	1,264.64	25292.80
NS 26	Providing and fixing mechanical Foam type fire extinguisher 9 lit. capacity type ISI marked with all accessiories complete etc. as required.	Each	15.00	1,186.73	17800.95
NS 27	Supplying, installation ,testing & commissioning of 240V, 1 phase Ceiling Fans of approved make complete with suitable length down rod as required. 1200 mm sweep	No.	30.00	1,236.18	37085.40
NS 28	Supply and fixing of haxagonal fan box with haxagonal sides of approx. 80mm in length fabricated from 14 SWG MS sheet incorporating with 10 mm dia MS round bar duly bent for supporting fan hanger pinted with red oxide and screwing arrangement with wiring cnduit laid in the RCC roof before concreting alongwith supply of all materials labour T&P etc. for proper completion of work.	No	30.00	66.72	2001.60

NS 29	Supplying & Installation of Wall mounted Fan 16" (make: Usha/Crompton/Remi/Polar)	No.	15.00	1,540.35	23105.25
NS 30	Supplying of 240V, 1 phase Exhaust fans suitable for 220 / 240 volts, 50 Hz AC of 900 rpm complete with shutter etc. as required.				
NS 30.1	300 mm Sweep	No.	25.00	1,008.18	25204.50
NS 31	Supply of Heavy duty Exhaust fan, single phase 220/240V, 50Hz, 450mm Sweep & 900 RPM, Rated power is 145 W, Aero-dynamically contoured blades, totally enclosed, highly efficient heavy duty motor with pressure die cast aluminium rotor mounted on two ball bearings, rigid frame with rubber mountings for silent operation. (Equivalent to Havells TURBOFORCE make/ Bajaj/ Crompton)	No.	25.00	3,669.18	91729.50
NS 32	Supply , Erection . Testing and Commissioning of Exhaust fan 600 mm sweep , Heavy Duty single phase with accessories (Louver shutter etc) confirming to IS 3212 complete with mounting frame and louvers including suitable size of hole for fixing of exhaust fan connection complete as required.	No	10.00	4,141.01	41410.10
NS 33	Supply & laying of following size GI sheet Floor Raceways with cover for laying of power, data, telephone wire/cables. The raceways shall be clamped with aluminum /GI patti and screwed to the floor.				
NS 33.1	150 x 50 x 15 x 1.6mm thick	Meter	70.00	347.27	24308.90
NS 33.2	200 x 50 x 15 x 1.6mm thick	Meter	50.00	429.12	21456.00
NS 34	Supply & fixing of following size Junction Boxes with cover GI Floor Junction Box with cover to be screwed to the floor comers of junction box. The junction box shall be screwed fitted to the floor.				
NS 34.1	250 x 250 x 50 x 1.6mm thick	Each	70.00	266.37	18645.90
	Telephone and LAN				

NS-35	Supplying and fixing RJ-45, modular type computer socket outlet alongwith modular plates and hot dip galvanised box in recessed/surface steel conduit etc. as required. (for computer nodes).	No.	20.00	380.37	7607.40
NS-36	Supplying and drawing 20 pairs 0.6 sq mm FRLS PVC insulated copper conductor unarmoured telephone cable in the existing/ recessed steel/PVC conduit as required.	Meter	75.00	60.10	4507.50
NS-37	Supply and fixing of 20 pairs Telephone Tag Box (Crone connecter type) duly housed in a MS enclosure etc. as required.	No.	6.00	950.91	5705.46
NS-38	Supply and installation of Telephone instrument set with wiring and connection complete as per specification approved make.	No.	8.00	618.36	4946.88
	Air conditioning				
NS-39	Supplying, installing, testing & commissioning of Split AC (1.5TR) 5-Star rating Air-conditioners of 1.5 TR of LG or equivalent make with all necessary accessaries for complete installation including copper piping, stand for outdoor unit wiring drain piping from indoor unit to outdoor unit upto 12 feet length etc. at site.	No	3.00	30,087.43	90262.29
NS-40	Supplying, installing, testing & commissioning of extra copper piping and drain piping, in case of distance between indoor and outdoor units is more than 12 feet.	Meter	50.00	779.64	38982.00
NS-41	125 KVA DG Set: Design, manufacture, testing at works, supply, installation, testing and Commissioning of Silent type 125 KVA Diesel Generating Set at 0.8 PF, 415 Volts, 50 cycles per second, 1500 rpm, 3 phase, 0.85 load factor including sound proof acoustic and weather proof enclosure, residential type silencer (as per CPCB norms) fabricated out of CRCA sheet of 14 / 16 SWG thickness with min. 7 tank pretreated before powder coating with ventillation system complete in all respects comprising of the following.	Set	1.00	8,24,662.05	8,24,662.05
	Diesel Engine -				

	Diesel Engine suitable for driving alternator of above rating, compression ignition, 4 stroke cycle, Radiator cooled, turbo charged, battery starting, 1500 RPM, suitable for above output of alternator at 40°C, 50% RH & at 1000 M MSL and confirming to BS 5514, BS 649, IS 10000, capable of taking 10% overloading for one hour after 12 hrs of continuous loading, complete with all the accessories i.e. tachometer with hour meter, flexible coupling with guard, crank case of steel, crank shaft, conncting rods, governing system (Electronic type for 250 KVA & above and mechanical type for upto 200 KVA), dynamically balanced flywheel, air intake manifold, Air cleaner, anti vibration pads, starter motor, including all other accessories required to complete the system. The DG set shall be complying CPCB norms -II				
	Instrument Panel - Engine mounted Instrument Panel fitted with and having digital display for followings :				
(i)	Start stop switch with key				
(ii)	Water temperature indication				
(iii)	Lubrication oil pressure indication.				
(iv)	Lubrication oil temperature indication.				
(v)	Battery charging indication				
(vi)	RPM indication				
(vii)	Over speed indication				
(viii)	Low Lube oil trip indication				
(ix)	Engine hours indication				
	Alternator -				
	Synchronous Alternator of above capacity at 0.8 PF, 3 phase, 415 volts, 50 cycles, 4 wire, 1500 RPM, suitable for operation at 40 deg C, 50% RH & at 1000 meter above MSL, capable of taking 10% overlioading for one hour after 12 hrs of continuous loading, brushless, self excited, The main exciter shall receive power from a permanent magnet generator (PMG) through separate auxiliary windings on stator via Automatic Voltage regulator (AVR), self regulated through AVR, continuous duty confirming to IS 4722, BS 2613 suitable for tropical conditions, class H insulation, including terminal box suitable for cable termination as required.				

	Base Frame - Both the engine and alternator shall be mounted on suitable base frame made of MS channel which shall be installed on cement concrete foundation and vibration isolating arrangement as per recommendations of manufacturer.				
	Inbuilt Fuel tank of standard capacity complete with inlet and outlet connections, oil indication gauge, drain plug, air breather, fuel transfer system for automatic fuel refilling system with pump, piping, valves, level indicators etc. complete.				
	Exhaust System - Exhaust manifold with silencer complete with Fire Retardant PU Foam insulation of two layers of 50mm thickness of density 32 Kg/CuM with minimum thickness of 75 mm on all sides, with chicken mesh wrapping and 26 SWG aluminium sheet cladding complete as required.				
	Exhaust Piping - Exhaust gas piping system of required length of Class `B' MS pipe as per IS : 1239, with welded joints, cut to required lengths with necessary bends, fittings, expansion joints of suitable diameter including providing suitable hot dip galvanized supporting / clamping arrangements at suitable intervals, anti vibration mounting, with Fire Retardant PU Foam insulation of two layers of 50mm thickness of density 32 Kg/CuM with minimum thickness of 75 mm on all sides of exhaust pipe, with chicken mesh wrapping and 26 SWG aluminium sheet cladding complete as required. (Stack height should be in accordance with emission regulations, which will go upto the top terrace of sub station building)				
	Starting system - 12 / 24 Volt (12 Volt for upto 200 KVA and 24 Volts for 250 KVA & above) DC starting system comprising of starter motors : voltage regulator and arrangement for initial excitation complete with 12/24 Volts suitable nos. lead acid type batteries of suitable AH				
	Ventillation System - Arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air into the atmosphere as per standard specifications.				
	Control Panel -				

	Fabricating, Installing, Testing & Commissiong of automatic mains failure control including auto by-pass suitable for silent type DG set complete with relays, timers set of CTs for metering & proyection and energy analyser to indicate currents, phase and line voltages, frequency, power factor, KWH , KVARH & provision for overload, short circuit, restricted earth fault, under frequency, control cabling from AMF panel to diesel engine and elsewhere if required, all complete and inter locking including the following:				
	EDO cradle type 3 position ACB with electronic release for O/C & E/F and shunt trip.				
	Auto/Manual/Test/Off selector switch				
	D G Start / stop push button, emergency stop push button				
	2 Nos. over voltage relay , 2 Nos. reverse power relay and 2 Nos. under voltage relay.				
	3 sets of current transformers 15P10 accuracy for protection and 15VA class-I for metering				
	Energy analyser unit to indicate current voltage frequency power factor and KWH				
	Indicating lamps for Mains ON/OFF, DG supply ON/OFF, DG running, DG fails to start.				
	Fuse for instruments				
	Battery charger, complete with transformer/ rectifier, D.C. voltmeter and ammeter, selector switch for trickle, off and boost and current adjustment.				
	Main supply failure monitor				
	Supply failure timer				
	Restoration timer				
	Control unit with three impulse automatic engine start/stop and failure to start lockout.				
	Impulse counter with locking and reset facility.				
	ON/OFF/Control circuit switch with indicator				
	Audio/Vedio annunciation for				
	(i) High water temperature				
	(ii) Low lubricating oil pressure				
	(iii) Engine over speed				
	(iv) Engine fails to start				
	(v) Full load/ maximum load warning				

NS-42	Approval / Liasioning work with statutory Authorities. Charges for Liasioning with state electricity board for getting approval, clearances for load sanction / load augmentation & obtaining connection etc. complete for energizing the installation with state electricity board power as required. The charges shall broadly include but not limited to the following. Load application, load sanction/ load augmention,drawing/scheme approval by CEIG/ any statutory bodies, inspection and approval of installation by CEIG/ any other statutory body,demand notice & estimate, service connection order, permanent connection & energization	LS	1.00	29,883.15	29883.15
NS 44	Supply, erection, testing and commissioning of Automatic Control panel [ATS] with one set contactors's kit for all three types, as per specifications shown below.	Set	1.00	2,58,850.60	258850.60
	Motor Control Panel wall mounted type, made-up from 16 SWG CRCA sheet steel totally enclosed, dust and vermin proof, water resistant duly painted with 2 coats of primer red oxide and two coats of finish gray enamel paint. (This includes degreasing and phosphating process both in and outside). The pump control panel board shall be for three phase, four wire, 50 Hz. AC supply and shall consist the following:-				
	1- MCCB- 100 Amps, 3 pole, 25 KA braking capacity of Schneider,indoasian, Siemens or L&Tmakes only. -1 No.				
	2-ATS starter of suitable up to 50 HP capacity for pump motor conforming to IS : 8554 or latest complete with over-load and under voltage releases. (The contactors of capacities 95A, 70A & 40A shall be used.). Contractors and relays shall be of L&T/ Siemens/ Indoasian make only. If the contractors used of L&T make, than only MN series shall be used.). 1 set.				
	3-Single relay Unit providing protection against overload, unbalance, reverse and single phasing, dry run of make GELCO "PUMPPRO".or equivalent of Minilec. -1 No				
	4- LED Indication lamp for 3 phase with rewireable fuses.(make Essen / Vaishno)-1 No.				
	5-LED type Indication lamps for water 'YES' or 'NO'-1 set				

	6-LED type Indication lamps for 'START' and 'RUN' position of pump motor-1 set				
	7-Toggle switches of Kaycee/Jainson make for water level guard and SPP- 1-No.				
	8--3 phase, 4 wire of suitable capacity energy meter (Electronic type) make HAVELLS/L&T, 1-No.				
	9- Digital type Ampere meter and Volt meter of Rishabh/ HPL/ IMP/Meco/AE/Indo Tech make- 1 set				
	10-Counter to indicate hours for which pump has run of L&T(GIC)/Kaycee.1-No.				
	11-Power factor improvement capacitor 12 KVAR capacity with automatic discharging devices, make SIEMENS/YESHA / NGEF / KHATAU JHANKAR / ASIAN- 1-No.				
	12-Earthing terminals with nuts and bolts. 2 No				
	13-Bilingual Caution boards.-1 No				
	14-Lugs including crimping as per site condition.-LS				
	15-Internal wiring with required size of PVC cable having copper conductor of ISI marked.- LS				
	16-Timer switch of Hager model EH 111 or equivalent of L&T/SIEMENS/ Schneider/ Indoasian make only- 1 No.				
				Total Rs.=	**1,15,36,519.45**
(Rupees: One crore fifteen lakh thirty six thousand five hundred nineteen and paisa forty five only)					

Addl. GM (P&E)

SCHEDULE OF QUANTITY						
SUB SCHEDULE-V (HORTICULTURE & LANDSCAPING WORK DSR ITEMS)						
DSR Ref-2018		**Brief Description of Item**	**Unit**	**Qty.**	**Rate (in Rs.)**	**Amount (in Rs.)**
SUB-SCHEDULE-V		**HORTICULTURE & LANDSCAPING DSR 2018 ITEMS**				
S. No.		**SUBHEAD- HORTICULTURE & LANDSCAPING**				
1	2.1	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	Cum	60.00	68.70	4122.00
2	2.2	Supplying and stacking of good earth at site including royalty and carriage up to 5 km (earth measured in stacks will be reduced by 20% for payment).	Cum	42.00	469.50	19719.00
3	2.3	Supplying and stacking sludge at site including royalty and carriage up to 5 km (sludge measured in stacks will be reduced by 8% for payment).	Cum	18.00	276.90	4984.20
4	2.4	Supplying and stacking at site dump manure from approved source, including carriage up to 5 km (manure measured in stacks will be reduced by 8% for payment) :				
a)	2.4.1	Screened through sieve of I.S. designation 20 mm	Cum	5.00	229.95	1149.75
b)	2.4.2	Screened through sieve of I.S. designation 16 mm	Cum	6.00	262.05	1572.30
c)	2.4.3	Screened through sieve of I.S. designation 4.75 mm	Cum	7.00	287.75	2014.25
5	2.5	Rough dressing the trenched ground including breaking clods.	Sqm	100.00	1.30	130.00
6	2.7	Fine dressing of the ground	Sqm	100.00	3.25	325.00
7	2.8	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately).	Cum	60.00	46.15	2769.00
8	2.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge.	Cum	60.00	32.10	1926.00

9	2.10	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately).				
a)	2.10.2	With grass Turf	Sqm	100.00	11.70	1170.00
		Total (Rs.)				**39,881.50**
(Rupees: Thirty nine thousand eight hundred eighty one and paisa fifty only)						

Addl. GM (P&E)

Price bid format

	Schedule A
Name of Work:	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway
NIT Number	CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022
Sub Schedule (I)	Civil works items from DSR Civil 2021

S/N	Description of Work	Amount (Rs.)	% Quote by Bidder (In Fig)		Amount Quoted (Rs.)	
			Above/ Below/ At Par	% Fig	In Figures	In words
1	Sub Schedule -I: All Items of Civil works based on DSR Civil 2021	6,56,15,941.63				
	Total of sub-Schedule (I)	6,56,15,941.63				

Note: Warehouse (50 m x 20 m) considered in this work is of Pre- Engineered Building (PEB) structure. Payment of PEB structure will be considered in steel chapter of DSR Schedule. Bidder may quote the rate in this tender accordingly.

Schedule A	
Name of Work:	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway
NIT Number	CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022
Sub Schedule (II)	E&M works items from DSR E&M 2018

S/N	Description of Work	Amount (Rs.)	% Quote by Bidder (In Fig)		Amount Quoted (Rs.)	
			Above/ Below/ At Par	% Fig	In Figures	In words
1	Sub Schedule -II: All Items of E&M works based on DSR E&M 2018	49,03,307.00				
	Total of sub-Schedule (II)	49,03,307.00				

Schedule A	
Name of Work:	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway
NIT Number	CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022
Sub Schedule (III)	Civil works items based on Market rates (MR)

S/N	Description of Work	Amount (Rs.)	% Quote by Bidder (In Fig)		Amount Quoted (Rs.)	
			Above/ Below/ At Par	% Fig	In Figures	In words
1	Sub Schedule -III: All Items of civil works based on Market Rates (MR)	2,90,37,798.84				
	Total of sub-Schedule (III)	2,90,37,798.84				

Schedule A	
Name of Work:	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway
NIT Number	CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022
Sub Schedule (IV)	E&M works items based on Market rates (MR)

S/N	Description of Work	Amount (Rs.)	% Quote by Bidder (In Fig)		Amount Quoted (Rs.)	
			Above/ Below/ At Par	% Fig	In Figures	In words
1	2	3	4	5	6	7
1	Sub Schedule -IV: All Items of E&M works based on Market Rates (MR)	1,15,36,519.45				
	Total of sub-Schedule (IV)	1,15,36,519.45				

Schedule A	
Name of Work:	Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway
NIT Number	CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022
Sub Schedule (V)	HORICULTURE & LANDSCAPING (DSR - 2018 ITEMS

S/ N	Description of Work	Amount (Rs.)	% Quote by Bidder (In Fig)		Amount Quoted (Rs.)	
			Above/ Below/ At Par	% Fig	In Figures	In words
1	2	3	4	5	6	7
1	Sub Schedule -V: All Items of HORICULTURE & LANDSCAPING (DSR - 2018 ITEMS	**39,881.50**				
	Total of sub-Schedule (V)	**39,881.50**				

CENTRAL RAILSIDE WAREHOUSE COMPANY

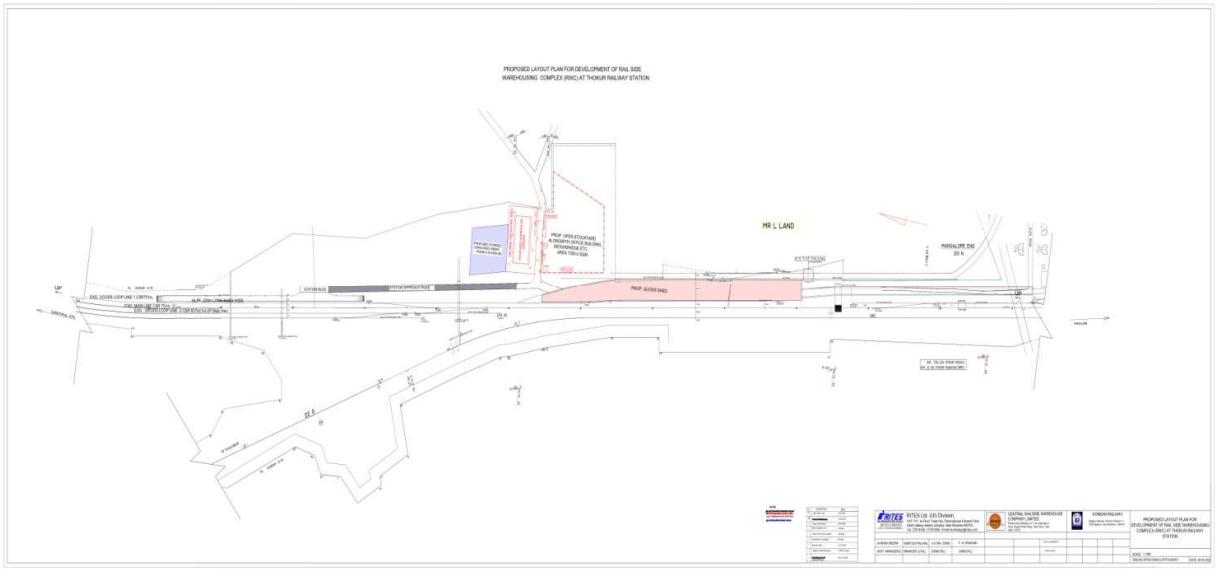
(A Govt. of India Enterprise)

SUMMARY SHEET

Name of Tenderer		
(address)		
Name of Work: Construction of Admin Building, misc. building and warehouse for CRWCL at Thokur Railway Station of Konkan Railway		
NIT Number: CRWC/V- NIT, RWC-Thokur /22-23/849 Dated: 08.08.2022		
Description of Sub schedule	***Items of works***	***Quoted Amount (Rs.)***
Total of Sub schedule (I)	All Items of Civil works based on DSR Civil 2021	
Total of Sub schedule (II)	All Items of E&M works based on DSR E&M 2018	
Total of Sub schedule (III)	All Items of Civil works based on Market rates (MR)	
Total of Sub schedule (IV)	All Items of E&M works based on Market rates (MR)	
Total of Sub schedule (V)	All Items of HORICULTURE & LANDSCAPING on (DSR - 2018 ITEMS	
Total of all Sub Schedules (I) + (II) +(III)+ (IV)+(V)		

(Tenderer)

LAYOUT PLAN (For Tendering)


PROPOSED LAYOUT PLAN FOR DEVELOPMENT OF RAIL SIDE
WAREHOUSING COMPLEX (RSWC) AT THOKUR RAILWAY STATION
MR L LAND
MANGALORE END
30 N
PROP. GOODS SHED
PROP. OPEN STOCKYARD
ALONGWITH STUDY BUILDING
MECHANISED
AREA 7000.0 SQM
EXG. GOODS LOOP LINE
EXG. GOODS SHED
EXG. SIDING
EXG. STATION BUILDING
EXG. BOOKING OFFICE
EXG. PLATFORM
EXG. WATER TANK
EXG. SIGNAL
EXG. TRACK
EXG. ROAD
EXG. BOUNDARY
PROP. ROAD
PROP. BOUNDARY
PROP. DRAIN
PROP. CULVERT
PROP. RETAINING WALL
PROP. FENCING
PROP. GATE
PROP. SIGNAL
PROP. TRACK