

## INVITING FOR e-TENDER

**NAME OF WORK: Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

## INDEX

| S. No. | DESCRIPTION                                                                                                  | PAGES   |
|--------|--------------------------------------------------------------------------------------------------------------|---------|
| 1.     | Index                                                                                                        | 1       |
| 2.     | Information and Instructions for bidders for e-tendering forming part of bid document                        | 2 – 5   |
| 3.     | Receipt of Deposition of Original EMD (Form-A)                                                               | 6       |
| 4.     | Detail of Agency (Form – B)                                                                                  | 7       |
| 5.     | Format For Undertaking For Site Inspection (Form – ‘C’)                                                      | 8       |
| 6.     | Notice Inviting Tender (Form CPWD- 6) for e-tendering                                                        | 9 – 16  |
| 7.     | Form of Bank Guarantee For Earnest Money Deposit/Performance Guarantee Security Deposit/Mobilization Advance | 17 – 18 |
| 8.     | Composite Percentage Rate Bid & Contract for Works (form CPWD – 7)                                           | 19 – 21 |
| 9.     | Proforma of Schedule (Civil Component)                                                                       | 22 – 27 |
| 10.    | Special Conditions                                                                                           | 28 – 35 |
| 11.    | Particular Specifications                                                                                    | 36 – 46 |
| 12.    | List of Approved make for Civil Works                                                                        | 47 – 53 |
| 13.    | Schedule of Quantity (Civil)                                                                                 | 54 – 59 |

Certified that this NIT contains 1 to 59 pages.

**Executive Engineer  
CD-XIV, CPWD,  
R.K.Puram, New Delhi**

**INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING  
PART OF BID DOCUMENT**

The Executive Engineer, Construction Division-XIV, CPWD, East Block-4, Level-2, R.K. Puram, New Delhi-110066 (Tel No. 26162087/26181713, Email: [deleecd14.cpwd@nic.in](mailto:deleecd14.cpwd@nic.in)) invites on behalf of the President of India invites online **percentage rate bid** from approved and eligible B&R category contractor of CPWD for the following work:

| Sl.No. | NIT No.                  | Name of work & Location                                                                          | Estimated Cost put to tender | Earnest Money | Period of Completion | Last date & time of submission of bid, other documents as specified in the press notice | Time & date of opening of bid |
|--------|--------------------------|--------------------------------------------------------------------------------------------------|------------------------------|---------------|----------------------|-----------------------------------------------------------------------------------------|-------------------------------|
| 1      | 2                        | 3                                                                                                | 4                            | 5             | 6                    | 7                                                                                       | 8                             |
| 1      | 12/EE/CD-XIV/NIT/2026-27 | <b>Construction of car parking shed and development of surrounding parking area at PHC Ujwa.</b> | Rs. 45,47,503/-              | Rs. 90,950/-  | 04 Months            | Up to 3:00 PM<br>on<br>10.09.2026                                                       | 3:30 PM<br>on<br>10.09.2026   |

**Note: The contractor shall quote his percentage rates including GST and any other applicable taxes, levy or Cess etc. and nothing extra shall be reimbursed on this account. This provision will supersede all the provisions in GCC and elsewhere in the tender document in regard to Levy/Taxes payable by contractor.**

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <http://etender.cpwd.gov.in> or [www.cpwd.gov.in](http://www.cpwd.gov.in) , free of cost.

4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer CPWD with in the period of bid submission and uploading the mandatory scanned documents such as **Insurance Surety Bonds, Account Payee Demand draft or Bankers Cheque or Fixed Deposit Receipts or/and Bank Guarantee (for balance amount as prescribed)** from any of **the commercial** Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt of deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD and other documents as specified.
5. Those contractors who are not registered or have not uploaded their profile on the website mentioned above, are required to get registered/ update their profile beforehand. The necessary training material including the videos with step to step process are available on download section of <http://etender.cpwd.gov.in>.
6. The intending bidder must have valid class-III digital signature certificate with encryption key (combo type) to perform any operations/transactions on the e-tendering portal/website and the bidder should download and install the eMsigner on their system as per instructions available on download section of <http://etender.cpwd.gov.in>.
7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. Contractor can upload documents in the form of **JPG** format and **PDF** format.
9. It is mandatory to upload scanned copies of all the documents stipulated in the bid documents. If the documents stipulated in the bid documents are not uploaded, then bid will become invalid and shall summarily be rejected.
10. Contractor must ensure to quote rate in the prescribed column(s). The column(s) meant for quoting rate in figures appears in **yellow** colour and the moment rate is entered, it turns sky blue.  
  
In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).  
  
However, If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
11. The department reserves the right to reject any or all bids without assigning any reason thereof and may restrict the list of qualified bidders to any number deemed suitable by it, if too many bids are received satisfying the minimum laid down criteria.
12. After submission of the bid, the bidder can re-submit revised bid any number of times but before last date and time of submission of bid as notified. While submitting the revised bid, bidder can revise the quoted rates of one or more items any number of times but before last date and time of submission of bid as notified.

13. This work is to be carried out in existing campus. The contractor must ensure that there will be no problem to the client of existing campus for running their activities.
14. The tenderer should also read the General Conditions of Contract 2023 for Maintenance Works corrected upto previous day of the last date of submission of the tender.
15. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
16. The contractor shall have to execute guarantee bonds in respect of water supply and sanitary installation works, water proofing and bituminous works.
17. GST and all other taxes/levies on materials as applicable shall be paid by the contractor himself. The contractor shall quote his rates considering all such taxes.
18. All test registers and material at site register shall be maintained by the contractor which will be reviewed by the officers of CPWD at regular intervals. The material shall be tested as per frequency given in CPWD specifications/Relevant IS Code for the respective items.
19. Recording the hindrance on the part of contractor in the hindrance register is mandatory which shall be reviewed in Division office at each running account bill. The net delay shall be worked out after taking into cognizance of hindrances on part of department and contractor both.
20. In e-tendering, the intending bidder does not sign any document physically and entire bid document is submitted through digital signature.
21. Intending bidders may upload and submit milestones on the basis of their resources and methodology at the time of tendering as indicated in the table under clause 5 of "Schedule-F" otherwise it will be assumed that the bidder is agreeable to milestones mentioned in table.
22. **The agency shall follow the standard operating procedures and guidelines scrupulously at the construction site to contain the outbreak of COVID-19. It is the sole responsibility of the agency to adhere to the SoPs issued by CPWD and other orders & Guidelines issued by Various Governments (Govt. of India and/or state Govt. and/or Dist. Administration or Local Govt. The quoted rates shall inclusive of all such required measures and materials like Soaps, Detergents, Sanitizers, Disinfectants, Masks, Gloves and other personal protection equipment's to contain COVID-19 and nothing extra shall be paid.**
23. **In case any Extra item is to be paid for which Analysis of rate is prepared by the department on the basis of all basic rates of item and labour and their respective coefficients which are available in DAR/DSR (which have been incorporated in NIT), then the item so prepared shall be treated as DSR item only and the rate for such extra item shall be paid as per the said Schedule rate enhanced or reduced by the applicable cost index and multiplied by (Contract amount divided by estimated cost put to tender). All other extra items shall be paid as per procedure mentioned in OM No. DG/CON/Maintenance 2023/07 dated 05.03.2024 issued by CPWD Directorate.**

**List of Documents to be scanned and uploaded within the period of bid submission:**

**For CPWD enlisted contractor**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Enlistment order of Contractor in appropriate class of composite category of CPWD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2. | <b>Insurance Surety Bonds, Account Payee Demand draft or Bankers Cheque or Fixed Deposit Receipts or/and Bank Guarantee (for balance amount as prescribed)</b> from any of <b>the commercial</b> Bank against EMD                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3. | Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer (including NIT issuing EE/AE), CPWD. <b>(Form –A)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4. | <p>GST Registration Certificate, if already obtained by the bidder. If the bidder has not obtained GST registration, as applicable, then he shall scan and upload following undertaking along with bid document:</p> <p align="center">“If work is awarded to me, I/We shall obtain GST registration, as applicable, within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the works executed and/or for any action taken by CPWD or GST Department in this regard”.</p> |
| 5. | Detail of Agency – <b>(Form –B)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6. | Undertaking for site inspection <b>(Form – C)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7. | Copy of PAN card.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 8. | Certificate of compulsory ERP (Enterprise Resource Planning) training issued through LMS of ERP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**FORMAT FOR DEPOSITING EARNEST MONEY**  
**Receipt of Depositing of Original EMD**

(Receipt No..... Dated.....)

1. Name of Work : **Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**
2. NIT No. : **12/EE/CD-XIV/NIT/2026-27**
3. Estimated Cost : **Rs. 45,47,503/-**
4. Amount of Earnest Money Deposit : **Rs. 90,950/- (in favour of Executive Engineer Delhi Aviation Division)**
5. Last date of submission of bid : **Upto 10.09.2026 at 03:00 PM**

1. Name of Contractor : .....
2. Form of EMD : .....
3. Amount of Earnest Money Deposit : .....
4. Date of submission of EMD : .....

Signature, Name and Designation  
of EMD receiving officer (EE / AE(P) / AAO)  
along with Office stamp

# to be filled by EMD receiving EE/DDH

|                         |                                                                                    |          |  |
|-------------------------|------------------------------------------------------------------------------------|----------|--|
| <b>FORM –B</b>          |                                                                                    |          |  |
| <b>DETAIL OF AGENCY</b> |                                                                                    |          |  |
| <b>1.</b>               | <b>Name of the agency</b>                                                          | <b>:</b> |  |
| <b>2.</b>               | <b>Correspondence Address</b>                                                      | <b>:</b> |  |
| <b>3.</b>               | <b>Name of the authorized person for contact</b>                                   | <b>:</b> |  |
| <b>4.</b>               | <b>Official contact number on which contractor is available for the department</b> | <b>:</b> |  |
| <b>5.</b>               | <b>Official e-mail for correspondence</b>                                          | <b>:</b> |  |

**Form – ‘C’****FORMAT FOR UNDERTAKING FOR SITE INSPECTION****To,**

The Executive Engineer  
CD-XIV, CPWD,  
R.K. Puram, New Delhi.

**I/we hereby give an undertaking for the given work as follows:****NIT No. : - 12/EE/CD-XIV/NIT/2026-27****Name of work: Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

I/we have inspected and examined the site and its surroundings and is / are satisfied before submitting our bid as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation, I/we may require and in general shall myself / ourselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect our bid. I/we shall be deemed to have full knowledge of the site whether I/we inspect it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. I/we shall be responsible for arranging and maintaining at our own cost all materials, tools & 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 a bid by me/us implicate(s) that I/we have read this notice and all other contract documents and has made myself / ourself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to us by the Government and local conditions and other factors having a bearing on the execution of the work.

Place :

Date :

Yours faithfully

(Signatures of Bidder(s))

### CPWD-6 FOR e-Tendering

1. The Executive Engineer, Construction Division-XIV, CPWD, East Block-4, Level-2, R.K. Puram, New Delhi-110066 (Tel No. 26162087/26181713, Email: deleecd14.cpwd@nic.in) invites on behalf of the President of India invites online **percentage rate bid** from approved and eligible contractor of CPWD for the following work:

**Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on either of the two dates i.e. the original date of submission of bids or extended date of submission of bids.

- 1.1 The work is estimated to cost **Rs. 45,47,503/-**. This estimate, however, is given merely as a rough guide.
- 1.2 Approved CPWD enlisted contractors in appropriate class shall be eligible for bid.
- 2 Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on web site <http://etender.cpwd.gov.in> or [www.cpwd.gov.in](http://www.cpwd.gov.in) Bidder shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
- 3 The time allowed for carrying out the work will be **04 Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.
- 4 (i) The site for the work will be made available.

Accordingly, intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil, the form and nature of the site, the means of access to the site, the 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 bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra claims/payments consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & 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 bid 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 local conditions and other factors having a bearing on the execution of the work.

- 5 The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <http://etender.cpwd.gov.in> or [www.cpwd.gov.in](http://www.cpwd.gov.in) free of cost.
- 6 After submission of the bid the contractor can resubmit revised bid any number of times but before last time and date of submission of tender as notified.
- 7 While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times. (He need not re-enter rate of all the items) but before last time and date of submission of tender as notified.

8 **Earnest Money Deposit/Bid Security:-**

Earnest Money in the form of Insurance Surety, Bonds, Demand Draft, Fixed Deposit Receipt , Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (**drawn in favour of Executive Engineer, DAD, CPWD, R.K. Puram, New Delhi**) shall be scanned and uploaded to the eTendering website within the period of bid submission.

- 9 The original EMD shall be deposited either in the office of Executive Engineer inviting bids or Division office of any Executive Engineer, CPWD within period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (**Form-A**) uploaded by the tender inviting AE/EE in the NIT.)

This receipt shall also be uploaded to the e- tendering website by the intending bidder up to the specified bid submission date and time.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any Commercial Bank having validity for Six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/Three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

- 10 Copy of Enlistment order and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission. (If applicable)

However, certified copies of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose documents scanned and uploaded are found in order.

- 11 The bid submitted shall be opened at 3:30 P.M. on 10.09.2026.
  - 12 The bid submitted shall become invalid if:
    - (i) The bidder is found ineligible.
    - (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
    - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest tenderer in the office of tender opening authority.
    - (iv) If a bidder quotes nil rates against each item in the item rate tender or does not quote any percentage above/below on the total amount of the tender or any section/Sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as the lowest tenderer.
  - 13 The contractor whose bid is accepted, will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule 'E' and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee of any Commercial Bank 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 Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.**
- 14 The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registration or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW welfare board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any, engaged by the by the contractor for the said work and programme Chart (Time and Progress) within the period specified in schedule 'F'.

- 15 The description of the work is as follows:

**Name of work: Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the 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. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & 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 a bid by a bidder 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 plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 16 The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
- 17 Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
- 18 The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the bidder shall be bound to perform the same at the rate quoted.
- 19 The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior 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 gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
- 20 No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.

- 21 (i) The bids for the works shall remain open for acceptance for a period of **Thirty (30) days** from the date of opening of bids. If any tenderer withdraws his tender or makes any modification in the terms and conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall, without prejudice to any other right or remedy be at the liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work issued or not.
- (ii) If any tenderer withdraws his tender or makes any modification in the terms and conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall, without prejudice to any other right or remedy be at the liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work issued or not.
- (iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.
- 22 This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
- (a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
- (b) Standard C.P.W.D. Form 7 amended & corrected upto **previous day of the last date of submission of the tender.**
- 23 **For Composite Bids:**
- 23.1 The Executive Engineer, Construction Division – XIV, CPWD, in charge of the major component will call bids for the composite work. The bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the combined bid.
- 23.2 The bid document will include following three components:
- Part A:-** CPWD-6, CPWD-7 including schedule A to F for the major component of the work, Standard CPWD General Conditions of Contract 2020 for Maintenance Works as amended / modified upto last date of submission of tender.
- Part B:-** General / specific conditions, specifications and schedule of quantities applicable to major component of the work.

**Part C:-** Schedule A to F for minor component of the work. (Competent authority under clause 2 and clause 5 shall be same authority as mentioned in schedule A to F for major components). General/specific conditions, specifications and schedule of quantities applicable to minor component(s) of the work.

- 23.3 The bidders must associate himself, with agencies as per NIT conditions.
- 23.4 The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.
- 23.5 After acceptance of the bid by competent authority, the Executive Engineer in charge of major component of the work shall issue letter of award on behalf of the President of India. After the work is awarded, the main contractor will have to enter into one agreement with Executive Engineer in charge of major component and has also to sign two or more copies of agreement depending upon number of EE/DDH in charge of minor components. One such signed set of agreement shall be handed over to EE/DDH in charge of minor component. Executive Engineer of major component will operate part A and part B of the agreement. EE/ DDH in charge of minor component(s) shall operate Part C along with Part A of the agreement.
- 23.6 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
- 23.7 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.
- 23.8 The main contractor has to associate agency(s) for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of minor component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of minor component(s).
- 23.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s). The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
- 23.10 The main contractor has to enter into MoU with agency(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to EE/DDH in charge of each relevant component as well as to Executive Engineer in charge of major component. In case of change of associate contractor, the main agency has to enter into MoU/Agreement with the new contractor associated by him.

- 23.11 Running payment for the major component shall be made by Executive Engineer of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor.
- 23.11A The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.
- 23.11B Final bill of whole work shall be finalized and paid by the Executive Engineer of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the Executive Engineer of major component for including in the final bill for composite contract.
24. 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.
25. 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.
26. In the case of discrepancy between the Schedule of Quantities, the Specifications and/ or the Drawings, the following is order of preference:-
- (i) Description of Schedule of Quantities.
  - (ii) Scope of Work
  - (iii) Particular Specification and Special Condition, if any.
  - (iv) Drawings.
  - (v) CPWD Specifications.
  - (vi) Indian Standard Specifications of B.I.S.
27. The Intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to uploading profile/uploading tender can be resolved through the concerned Executive Engineer/Assistant Engineer (Tel No. 26162087/26181713, Email: [deleecd14.cpwd@nic.in](mailto:deleecd14.cpwd@nic.in)) or ERP help line no. 18001803286 or e-mail id [cpwd.support@techmahindra.com](mailto:cpwd.support@techmahindra.com). The e-tendering bidders are also advised not to wait to raise any issue till the last date of submission of bid in their own interest.
28. **In case any Extra item is to be paid for which Analysis of rate is prepared by the department on the basis of all basic rates of item and labour and their respective coefficients which are available in DAR/DSR (which have been incorporated in NIT), then the item so prepared shall be treated as DSR item only and the rate for such extra**

item shall be paid as per the said Schedule rate enhanced or reduced by the applicable cost index and multiplied by (Contract amount divided by estimated cost put to tender). All other extra items shall be paid as per procedure mentioned in OM No. DG/CON/Maintenance 2023/07 dated 05.03.2024 issued by CPWD Directorate.

29. **Price Preference to SC/ST individual contractor for item rate/percentage rate tender:**

Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under:-

- i. For work(s) upto and equal to an estimated cost of Rs. 2.70 lakh a price preference upto 5% (with reference to the lowest valid tender) may be allowed in favor of individual SC/ST enlisted/non enlisted contractor. No earnest money is required in such case(s).
- ii. For work(s) beyond an estimated cost of Rs. 2.7 lakh and upto and equal to estimated cost of Rs. 6.20 lakh, the price preference upto 5% (with reference to the lowest valid tender) may allowed in favour of individual enlisted SC/ST contractor. However, earnest money at a reduced rate  $\frac{1}{2}$  % may be accepted in such cases.
- iii. The price preference upto 5% (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST contractor only. The above concession shall be allowed only a verification of the individual contractor's claim of belonging to SC/ST community.

Executive Engineer  
Construction Division-XIV  
CPWD, R.K. Puram, New Delhi

**On Non- Judicial Stamp Paper of Minimum Rs. 100**
**(Guarantee offered by Bank to CPWD in connection with the execution of contracts)  
FORM OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT/PERFORMANCE  
GUARANTEE SECURITY DEPOSIT/MOBILIZATION ADVANCE**

1. Whereas, the Executive Engineer ..... (name of division) ....., CPWD on behalf of the President of India (hereinafter called “The Government”) has invited bids under .....(NIT number).....dated..... for .....name of work).....The Government has further agreed to accept irrevocable Bank Guarantee for Rs. .... (Rupees ..... only) valid upto ..... (date)\* ..... as Earnest Money Deposit from .....(name and address of contractor) .....(hereinafter called “the contractor”) for compliance of his obligations in accordance with the terms and conditions of the said NIT.

**OR\*\***

Whereas the Executive Engineer ..... (name of division) ....., CPWD on behalf of the President of India (hereinafter called “The Government”) has entered into an agreement bearing number ..... with .....(name and address of the contractor) .....(hereinafter called “the Contractor”) for execution of work.... ..... (name of work) ..... The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. .... (Rupees ..... only) valid upto ..... (date).....as Performance Guarantee/Security Deposit/Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, ..... (indicate the name of the Bank) ..... (herein after referred to as “the Bank”), hereby undertake to pay to the Government an amount not exceeding Rs..... (Rupees..... only) on demand by the Government within 10 days of the demand.
3. We, ..... (indicate the name of the Bank) ....., do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. 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).
4. We, ..... (indicate the name of the Bank) ....., further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.
5. We, ..... (indicate the name of the Bank) ....., further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not

be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We, ..... (indicate the name of the Bank) ....., further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a Principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We, ..... (indicate the name of the Bank) ....., undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to ..... unless extended on demand by the Government. Not with standing anything mentioned above, our liability against this guarantee is restricted to Rs. .... (Rupees ..... only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

DATE .....

Witnesses:

1. Signature .....

Authorized Signatory

Name and Address

Name

Designation

Staff Code No.

Bank Seal

2. Signature .....

Name and Address

\*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

\*\*In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/ security deposit/mobilization advance, as the case may be.

GOVERNMENT OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT

|        |         |              |        |
|--------|---------|--------------|--------|
| STATE  | Delhi   | CIRCLE       | DC-V   |
| BRANCH | B & R   | DIVISION     | CD-XIV |
| REGION | ADG- RD | SUB-DIVISION | II     |

Composite Percentage Rate Bid & Contract for Works

(A) Tender for the work of:-

**Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

- (i) To be submitted online by 3:00 PM on 10.09.2026 to Executive Engineer, Construction Division- XIV, CPWD, East Block-4, Level-2, R.K. Puram, New Delhi.
- (ii) To be opened online in presence of tenderers who may be present at 3:30 PM on 10.09.2026 in the office of Executive Engineer, Construction Division- XIV, CPWD, East Block-4, Level-2, R.K. Puram, New Delhi.

T E N D E R

I/We have read and examined the notice inviting tender, schedule A, B, C, D, E & F. Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for **thirty (30) days** from the due date of its opening and not to make any modifications in its terms & conditions.

I/we have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.

A copy of Earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety bonds, account payee demand draft, fixed deposit receipt, Banker's cheque or bank guarantee (as prescribed) issued by a commercial bank, is scanned and uploaded (strike out as the case may be).

If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form (General Conditions of Contract for Maintenance CPWD works – 2023). Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

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 CPWD 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 Performance Guarantee.

I/We hereby declare that I/We shall treat the 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 prejudicial to the safety of the State.

**Dated: .....\*\*.....**

**Signature of Contractor \*\***

**Witness: \*\***

**Address: \*\***

**Postal Address \*\***

**Occupation: \*\***

**ACCEPTANCE**

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs. ....  
 (Rupees.....)

The letters referred to below shall form part of this contract Agreement:-

- (a)
- (b)
- (c)

For & on behalf of the President of India.

Signature.....

Dated:

Designation.....

## PROFORMA OF SCHEDULES (CIVIL COMPONENT)

### SCHEDULE 'A'

Schedule of quantities, from **Page no. 54 – 59**

### SCHEDULE 'D'

Extra schedule for specific requirements / documents for the work, if any.

### SCHEDULE 'E'

Reference to General Conditions of contract:-

General Conditions of Contract – 2023 for maintenance work with correction slips up to **previous day of the last date of submission of the tender.**

Name of work:

**Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

Estimated cost of work:-

**Rs. 45,47,503/-**

(i) Earnest money:-

**Rs. 90,950/-**

(ii) Performance Guarantee:-

- (a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher)  
AND  
(b) Additional PG as per GCC OM No. DG/CON/ Maintenance 2023/18 dated 27.02.2026 along with amendments issued up to **previous day of the last date of submission of the tender** from the office of DG, CPWD.

(iii) Security deposit :-

2.5% of tendered value

### SCHEDULE 'F'

General Rules & Directions: -

Officer inviting tender:

Executive Engineer, CD-XIV,  
CPWD, New Delhi.

Definitions:

2 (vi) Engineer-in-Charge

Executive Engineer, CD-XIV,  
CPWD, New Delhi.

- 2 (viii) Accepting Authority Executive Engineer, CD-XIV, CPWD, New Delhi.
- 2 (x) Percentage on cost of materials and labour to cover all overheads and profits. 15%
- 2 (x)(b) Standard schedule of Rates DSR-2023 along with DAR-2023 with correction slips up to previous day of the last date of submission of the tender.
- 2 (xi) Department C.P.W.D.
- 9 (ii) Standard CPWD contract form (GCC 2023, CPWD Form 7/8 as modified & corrected upto) CPWD General Conditions of Contract for Maintenance works – 2023, form 7 amended & corrected upto **previous day of the last date of submission of the tender.**

Clause 1

- (i) Time allowed for submission of Performance Guarantee, programme chart (Time and progress )and applicable labour licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying there of from the date of issue of letter of acceptance 7 days
- (ii) Maximum allowable extension with late fee @0.1% per day of performance guarantee beyond the period {provided in(i)} above 3 days

Clause 2

Authority for fixing compensation under clause 2.

Superintending Engineer, DC-V, CPWD, New Delhi.

Clause 2A

Whether Clause 2A shall be applicable

Not Applicable

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start 10 days

MILE STONE (S) AS PER TABLE GIVEN BELOW  
Table of Milestone (s)

| Sl. No. | Description of Milestone (Physical) | Time allowed in days/Months (from date of start) | Amount to be with-held in case of non achievement of milestone |
|---------|-------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
| 1.      | 1/2 <sup>th</sup> Value of the work | 2.50 months                                      | 2.50% of tender amount                                         |
| 2.      | 100% Value of the work              | 5.00 months                                      | 2.50% of tender amount                                         |

Time allowed for execution of work

04 Months.

Authority to decide:

- |                                                                                    |                                                 |
|------------------------------------------------------------------------------------|-------------------------------------------------|
| i. Authority to convey the decision of shifting of milestone and extension of time | Executive Engineer, CD-XIV, CPWD, New Delhi.    |
| ii. Authority to decide rescheduling of milestone and extension of time            | Superintending Engineer, DC-V, CPWD, New Delhi. |
| iii. Shifting of date of start in case of delay in handing over of site            | Superintending Engineer, DC-V, CPWD, New Delhi. |

PERFORMA OF SCHEDULES Clause 5 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                | Full Site is available |                                                                               |
| Part B | Portion with encumbrances                    |                        |                                                                               |
| Part C | Portions dependent on work of other agencies |                        |                                                                               |

Clause 5

Applicable Clause 5/ Clause 5A

Applicable Clause 5

Clause 6

Computerized measurement book (CMB)/  
Electronic Measurement Book (EMB):  
Mode of Measurement:

Electronic Measurement Book (EMB)

Clause 7

Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.

Rs. 10.00 Lacs or as mutually agreed by both parties

Clause 7 A

Whether Clause 7A shall be applicable

No

Clause 8A

Authority to decide compensation on account if contractor fails to submit completion plans

Superintending Engineer Delhi Circle-V or successor thereof

## Clause 10A

List of testing equipment to be provided by the contractor      As per site Requirement  
at site lab.

## Clause 10 – B(ii)

Whether clause 10-B(ii) shall be applicable      No

## Clause 10C –

Not Applicable

Component of labour expressed as percent of value of work:

## Clause 10CC

Not applicable

Schedule of component of other Materials, Labour  
etc. for price escalation.

Component of Civil (except materials covered Xm.....%  
under clause 10CA)/Electrical construction  
Value of work. –

Component of labour – Y.....%  
Expressed as percent of total value of work.

**Note :** Xm .....% should be equal to (100) – (material covered under clause 10CA i.e. Cement, Steel, POL and other material specified in clause 10CA + Component of Labour)

## Clause 11

Specifications to be followed for execution of work      CPWD specifications 2019 with upto  
**previous day of the last date of  
submission of the tender.**

## Clause 12

Authority to decide deviation upto 1.5 times of      Superintending Engineer, Delhi Circle-V  
tendered amount      or successor thereof

**The completion cost shall, in no case,  
exceed 1.5 times the contract amount.**

**(The completion cost includes gross  
amount of work done, amount of extra  
items and deviations and escalation  
amount admissible as per agreement  
etc.)**

| Type of work                                                                   | Maintenance Work |
|--------------------------------------------------------------------------------|------------------|
| 12.2 (C)                                                                       |                  |
| Deviation Limit beyond which clauses 12.2 (c) shall<br>apply for building work |                  |
| 12.4                                                                           |                  |

|                                                                                                                       |                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| (i) Deviation Limit beyond which clauses 12.2 (except items mentioned in earth work subhead in DSR and related items) | As per GCC 2023 for maintenance work and amended & modified upto <b>previous day of the last date of submission of the tender</b> |
| (ii) Deviation Limit for items mentioned in earth work subhead of DSR and related items                               |                                                                                                                                   |
| Clause 16<br>Competent Authority for deciding reduced rates.                                                          | Superintending Engineer, DC-V, CPWD, R.K. Puram, New Delhi.                                                                       |

## Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site.

As per Site Requirement

## Clause 19C

Executive Engineer, CD-XIV, CPWD, New Delhi.

## Clause 19D

Executive Engineer, CD-XIV, CPWD, New Delhi.

## Clause 19G

Executive Engineer, CD-XIV, CPWD, New Delhi.

## Clause 19K

Executive Engineer, CD-XIV, CPWD, New Delhi.

## CLAUSE 25

- |    |                                 |                           |
|----|---------------------------------|---------------------------|
| 1. | Conciliator                     | ADG (RD), CPWD, New Delhi |
| 2. | Arbitrator Appointing Authority | SE, DC-V, CPWD, New Delhi |
| 3. | Place of Arbitration            | New Delhi                 |

|                                                             |                                     |                            |                                                        |                                                                                                                |                                    |
|-------------------------------------------------------------|-------------------------------------|----------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------|
| Clause 32:                                                  |                                     |                            |                                                        |                                                                                                                |                                    |
| Requirement of Technical Representative(s) & recovery Rate: |                                     |                            |                                                        |                                                                                                                |                                    |
| Requirement of Technical Staff                              |                                     | Minimum experience (Years) | Designation of technical staff                         | Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause-32 |                                    |
| Qualification                                               | Number (of Major + Minor Component) |                            |                                                        |                                                                                                                |                                    |
|                                                             |                                     |                            |                                                        | Figures                                                                                                        | Words                              |
| Graduate Engineer or Diploma Engineer                       | 1                                   | 2 or 5 respectively        | Project Manager cum planning /quality/billing Engineer | Rs. 15,000/- per month per person                                                                              | Rupees Fifteen Thousand per month. |

Assistant Engineer retired from Government services who are holding Diploma will be treated at par with Graduate Engineer.

Diploma holder with minimum 10 year 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 holder 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-2023 printed by CPWD with correction slips up to **previous day of the last date of submission of the tender.**
- (ii) Variations permissible on theoretical quantities:
  - a) Cement
    - For works with estimated cost put to tender not more than Rs. 25 lakhs. 3% plus/minus
    - For works with estimated cost put to tender more than Rs. 25 lakhs) 2% plus/minus
  - 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% plus/minus
  - d) All other materials. Nil

### SPECIAL CONDITIONS

1. The work shall be carried out as per CPWD specifications - 2019 Vol. I to II including upto date correction slips, relevant IS codes and as per directions of Engineer-in-Charge.
2. The works shall be carried out in accordance with the Architectural drawings and structural drawings, to be issued from time to time by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available thereof is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage executing by the commencement of work on the basis of any erroneous and or incomplete information.
3. The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their bids. The site is available for work. The contractor shall carry out survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and Structural drawings in consultation with the Engineer-in-Charge and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge.
4. Submission of bid implies that contractor has read this notice and all other contract documents and has made himself aware of the scope, specifications, design & drawings of the work to be done and local conditions and other factors having a bearing on the execution of the work. **If required, design & drawings of this work can be inspected by bidders on any working days, in the office of EE inviting bids, between official working hours only.**
5. The labour huts will not be permitted to be erected within the premises of site and necessary arrangement of this account have to be made by the agency at his own cost and no extra cost on this account will be paid.
6. The premises of site is a restricted area and movement of labour to and from the site is to be made as per required conditions if any laid down by the Client Department and no extra cost or delay on this account will be accounted for. However, CPWD will coordinate with the Client Department to make possible easy way of entry and exit of labour from the premises.
7. No Entry/exit/roads other than specified by the Client Department for purpose of construction activities will be allowed to be used for construction activity purposes or movement of trucks/lorries/load-carriers and nothing extra/delay whatsoever will be accounted for on this part.
8. The work is to be executed in the premises which are under high security restrictions of client department. Stringent restrictions are imposed by the security authorities on the working and movement of labour, materials etc. The contractor shall be bound to follow all such restrictions.

The contractor will have to submit names of the persons & workmen whom he proposed to engage at least two days in advance along with police verification so that entry permits are issued by the security authorities. If he fails to observe this condition, the entry of labourers will not be possible. No claim of damages due to loss of man hours will be admissible.

9. In the event of any restrictions being imposed by the Security agency, CPWD, Traffic or any other authority having jurisdiction in the area on the working or movement of labour/material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.
10. The engineers who are employed by the contractor as per provisions of the agreement shall be present at the site on all working days during execution of work and shall carry mobile telephone(s) to enable the Engineer-in-Charge to have easy and quick communication. Nothing extra shall be paid to the contractor on this account and his quoted rates for various items under this contract shall be inclusive of this obligation.
11. Staff employed by the contractor shall be well behaved, polite & courteous. In case of any complaint against staff such staff shall be replaced by the contractor on demand from Engineer-in-Charge.
12. The contractor shall make all safety arrangement required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise shall remain with the contractor. The department shall not be responsible for any mishap, injury, accident or death of the contractor's staff. No claim in this regard shall be entertained/accepted by the department.
13. The contractor shall take all precautions to avoid accidents by, exhibiting caution boards day and night, speed limit boards, red flags, red light and providing necessary barriers and other measures required from time to time. The contractor shall be responsible for all damages and accidents due to negligence on his part.
14. The contractor shall have to carry out the work according to approved programme duly approved by the competent authority. The contractor shall have to adhere to this programme failing which he shall be wholly responsible for any inconveniences caused to the occupants.
15. No claim for idle establishment, labour, machinery & equipment, tools & plants and the like, for any reason whatsoever, shall be admissible during the execution of work as well as after its completion.
16. No work shall be carried out without the approval of the representative of the Engineer-in-Charge. Any work carried out without the approval of the representative of the Engineer-in-Charge at the site of work shall be rejected and will not be measured and paid for.
17. Before the execution of work, materials shall be brought in adequate quantity to be sufficient at least for 50% of the total requirement of the whole work and deposited with the Department. Remaining 50% of the materials shall be brought and deposited with the department after the completion of 1/3<sup>rd</sup> of work.

18. The Paints & other similar materials shall be issued by the Junior Engineer/ Assistant Engineer to the contractors after breaking the seal of the containers/ packing and quantity to be issued shall be as per the daily requirement at the site. After days use, balance quantity of paints etc., if any left, will be returned by the contractor to the Department. After use, the empty container shall have to be returned to the Department. The empty container shall be preserved by JE of In-charge and will not be disposed of till the finalization of the work.
19. Nothing extra shall be paid to the contractor for excess consumption of material.
20. The contractor shall quote their rates inclusive of all taxes, cartage, royalties etc. complete.
21. Unless otherwise specified in the schedule of quantities, the rate of all items of the work shall be considered as inclusive of pumping out or bailing out water, if required, for which no extra payment will be made .This will include water encountered from any source such as rains, floods, sub-soil water table being high or due to any other cause whatsoever.
22. Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centering/shuttering, if required to be done for heights greater than 3.5 m shall however be admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.
23. All sub-standard material shall be rejected and shall have to be removed from the site immediately and department will not be responsible for the safe custody of the same.
24. Samples for particular items of work shall be prepared, where so specifically desired by Engineer-in- charge, for prior approval of the Engineer-in-charge, before taking up the same on mass scale and nothing shall be payable on this account.
25. Sample of building materials, fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge before use in the work. The quality of samples brought by the contractor shall be judged by standards laid down in the CPWD Specifications or the relevant BIS code. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work. The list of approved makes of material is given for guidance.
26. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/material. Wherever BIS marked materials are brought to the site of work, the contractor shall, if required, by the Engineer-in-Charge, furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material / procured by the contractor for incorporation in the work satisfies the provisions of specifications / BIS codes relevant to the material and / or the work done.

27. If ISI marked products are available, the contractor shall use only ISI marked products. In other cases, the materials shall conform to CPWD specifications. In case a materials/product is neither covered by ISI nor by CPWD specification, the work shall be carried out as per sound engineering practice, in such case, the decisions of the Engineer-in-charge shall be final & binding. In such cases Engineer-in-charge shall satisfy himself about the quality of such materials and give his approval in writing. Only articles classified as first quality by the manufacturers shall be used, unless otherwise specified. All materials not bearing ISI mark shall be tested as per relevant ISI specifications. The Engineer-in-charge may relax the condition regarding testing if the quantity of the materials required for the work is small. In all cases of use of ISI marked materials, proper proof of procurement of materials from authentic manufacturers shall be provided by the contractor to the entire satisfaction of Engineer-in-charge. The contractor shall be fully responsible for the safe custody of materials brought by him / issued to him even though the materials may be under double lock and key system.
28. The contractor and/ or his authorized agent should see the site order book every day and get the compliance noted by the Junior Engineer/ Assistant Engineer/ Engineer-in-Charge.
29. All the malba or rubbish obtained from dismantling or otherwise during the execution of the work shall be brought down through the stair case and Lifts shall not be used for this purpose and shall not be thrown to the ground directly from first floor or second floor etc. or malba/ rubbish generated due to any operation from the building and there upon whatsoever shall be disposed of on daily basis by the contractor to the specified common disposal point. After the collection of full truck load of the said malba/rubbish (approx. 4.5 cubic metres), the same shall be disposed of on same day by the contractor to the to "C & D waste management" site near Jahangir Puri Safai Karamchari quarters at Burari plant or Municipal dumping ground at Lal Kuan, Okhla Industrial Area, New Delhi or any other location decided by Engineer-in-Charge, failing which the same shall be got removed by the Engineer-in-charge and the cost so incurred on the removal of the same shall be recovered from the contractor's bill.
30. Nothing extra will be payable for the work of malba removal over and above the provisions already existing in the agreement.
31. No temporary huts/structures will be constructed by the contractor at the site of work or any Government land. Such structures, if any, found at the site or Govt. land will be demolished and removed without any notice.
32. All doors, windows, floors, furniture, electrical fittings, and other articles shall be free from dust, splashes, and damages. Sufficient covering for the day work shall be shown to the representative of the Engineer-in-charge before the contractor is allowed to proceed with the work. Splashes and droppings from the white washings, colour washings, distempering, painting etc. on walls, floors, doors and windows, glass panes, down take pipes, furniture, shall be removed by the contractor at his own cost and surface cleaned simultaneously after the completion of the day work in individual room or quarter or premises where the work is done without waiting for the actual completion of all the other items of work in contract. In case, the contractor fails to comply with the requirement of this clause, the Engineer-in-Charge shall have the right to get this work done at the risk and cost of the contractor either departmentally or through another agency.

33. Any damage to the building structure, fittings or any other articles etc. done by the contractor or his workman during the execution of the work shall be made good by the contractor at his own cost and nothing extra will be paid on this account. However, if contractor fails to attend the same, the same will be made good by the Engineer-in-Charge at the risk & cost of the contractor.
34. Defective work, sub-standard work or work not done according to the specifications, shall be liable for summary rejection and shall not be measured and paid for. This shall be without prejudice to taking any other action against the contractor in accordance with the terms and conditions of the contract.
35. The contractor shall clear the site properly after the completion of the work.
36. It shall be responsibility of the contractor to arrange for the security and safety measures for the labour etc.
37. 1% (One percent) water charges shall be recovered from the gross amount of bill, if the Govt. water is used.
38. The contractor shall make his own arrangements for obtaining electric connection (if required) and make necessary payments directly to the department concerned.
39. In case any work is rejected, the cost of the material will be recovered from the contractor for the items for which material is supplied by the department. Material consumed in rejected work will be worked out on the basis of approved CPWD Co-efficient.
40. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of building.
41. This is an occupied campus. The work is to be carried out in such a manner so that the occupants are not inconvenienced.
42. If the work is carried out in more than one shift or during night, no claim on this account shall be entertained. The contractor has to take permission from the police & local authorities etc. if required for work during night hours. No claim / hindrance on this account shall be considered if work is not allowed during night time.
43. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time.
44. The contractor shall give due notices to Municipality, Police and/ or other authorities that may be required under the law/ rules under force and obtain all requisite licenses for temporary obstructions/ enclosures and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable on this account.
45. Other agencies may also be simultaneously executing some other work entrusted to them by the Engineer-in-charge and the contractor shall offer necessary co-operation wherever required to these agencies so as not to interfere with or hinder the progress or completion of the work being

performed by other contractor (s). He shall as far as possible arrange his work and shall place and dispose of the materials being used or removed, so as not to interfere with the operations of other contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-charge.

46. All the materials, fixtures, fittings etc. shall be of the best quality and shall be of approved make and manufacture (wherever specified) as defined in the item of work or defined anywhere in this document otherwise shall be of ISI mark as mentioned in the CPWD specifications duly approved by the Engineer-In-Charge.
47. Any damage to work resulting from weathering conditions, defacing or from any other cause such as negligent act on the part of contractor, until the work is taken over by the Department after completion of work, shall be made good by the contractor at his own cost.
48. The work of water supply, internal sanitary installations and the drainage work etc. may require to be carried out as per local Municipal Corporation or such local body-Bylaws and the contractor in such cases shall produce necessary completion certificate from such authorities after completion of the work.
49. The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.
50. The contractor shall submit shop drawings of staging and shuttering arrangement, aluminum work, and other works as desired by Engineer In Charge for his approval before execution. The contractor shall also submit bar bending schedule for approval of Engineer –in – charge before execution.
51. In the event of prolongation of agreement due to delay or reduction in the scope of work, no claim on a/c of reduction in the scope of work, loss of business, loss of profit consequently, overheads and any type of interest etc. will be entertained.

## 52. Testing of Materials

- 52.1 **Samples of various materials required for testing shall be provided free of charges by the contractor. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.**
- 52.2 The contractor shall produce all the materials in advance so that there is sufficient time for testing and approving of the materials and clearance before use in work.
- 52.3 Water shall be arranged by the contractor at his own cost and shall be tested as per frequency mentioned in the CPWD specifications.

### **53. Maintenance of Register of Tests**

- 53.1 All the registers of tests to be carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to CPWD field staff.
- 53.2 All samples of materials including cement concrete cubes shall be taken jointly with contractor by JE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all samples of materials including cement concrete cubes shall be taken by AE jointly with contractor. All the necessary assistance shall be provided by the contractor and he shall be fully responsible for safe custody of samples to be tested at site/ outside laboratory.
- 53.3 All the tests in field laboratory at construction site shall be carried out by the Engineering staff deployed by the contractor and shall be 100% witnessed by JE and 50% of tests shall be witnessed by AE –in-Charge. At least 10% of the tests are to be witnessed by the Executive Engineer.
- 53.4 All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/EE/SE.
- 53.5 Contractor shall be responsible for safe custody of all the test registers.
- 53.6 Mandatory tests statement shall accompany the alternate Running Account Bill and Final Bill.
- 53.7 All the site Registers including MAS, Cement and Steel Registers which shall be issued to the contractor by Engineer-in-Charge shall be maintained by Contractor at site and shall be open for inspection by the Department.

### **54. Special Conditions Regarding Air Pollution From Construction And Demolition Activity**

#### **Directives are as under:**

1. The contractor shall not store / dump construction material or debris on metalled road.
2. The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic / inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
3. The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot / area using CGI sheets or plastic and / or other similar material to ensure that no construction material dust fly outside the plot area.
4. The contractor shall ensure that all the trucks or vehicle of any kind which are used for construction purposes / or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air / contaminate air.

5. The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
6. The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
7. The contractor shall ensure that C&D waste is transported to the C&D Waste site only and due record shall be maintained by the contractor.
8. The contractor shall compulsory use of wet jet in grinding and stone cutting.
9. The contractor shall comply all the relevance NGT/Ministry of Environment and Forest norms related to air pollution from construction and demolition activities.
10. The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
11. The contractor shall ensure that all DG sets comply emission norms notified by MoEF.
12. The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
13. The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
14. Contractor shall follow all the directions under Section 12 of Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2021 issued vide letter no. A-110016/12/2020/CAQM-C&D/459 dated 11.06.2021 and all subsequent direction (if applicable).

## PARTICULAR SPECIFICATIONS

### 1.0 GENERAL

- 1.1 The work in general shall be executed as per the description of the item, particular specification attached, CPWD specifications 2019 Vol-I & II and to the satisfaction of Engineer-in-charge.
- 1.2 The contractor must provide the soft copy of measurement (i.e. soft copy CMB) to the department as demanded by Engineer-in-charge.

### 2.0 CEMENT

- 2.1 The contractor shall procure 43 grade ordinary Portland Cement (OPC) conforming to IS: 8112 / Portland Pozzolona Cement (PPC) conforming to IS: 1489 (Part-1) as required in the work from reputed manufacturers such as ACC, Ultratech, Vikram, Ambuja, Jaypee Cement, Birla Cement & JK Cement or from any other reputed cement manufacturer having a production capacity not less than one million tonnes per annum as approved by ADG for that sub region.

The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.

The Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS Codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS Codes, the same shall stand rejected, and it shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

- 2.2 Cement shall be bought at site in lots consumable within next 03 months, as per site requirement.

The cement godown of the required capacity shall be constructed by the contractor at site of work for which no extra payment shall be made.

- 2.3 Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-Charge or his authorised representative and the keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
- 2.4 The cement shall be got tested by Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. **Samples of cement required for testing shall be provided free of charges by the contractor. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.**
- 2.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per procedure

prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment needs to be made.

- 2.6 The cement brought to the site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge
- 2.7 The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt such notice the Engineer-in-Charge shall get it removed at the cost of the contractor.

### **3.0 STEEL IN RCC WORKS:-**

- 3.1 The CPWD/Contractor shall procure IS marked TMT bars of various grades from the steel manufacturer such as **SAIL, TATA, STEEL LTD., RINL, JINDAL STEEL & POWER LTD AND JSW Steel Ltd.** or their authorized dealers having valid BIS license for IS:1786:2008 (Amendment -1 November 2012)
- 3.2 The steel manufacturers or their authorized dealers (as per following selection criteria) having valid BIS license for IS:1786:2008 (Amendment -1 November 2012)

#### **The procured steel should have following qualities:-**

- i) Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
  - ii) Consumption of steel should be accurate as per design.
  - iii) Steel should have no brittleness problem in finished product.
  - iv) Steel should carry the quality of corrosion and earthquake resistance.
  - v) Quality steel with achievement of proper level of sulphur and phosphorus as per IS: 1786:2008.
- 3.3 Competent authority shall approve the steel manufacturers.
  - 3.4 The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work.
  - 3.5 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.
  - 3.6 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tons or more, or as decided by the Engineer-in-Charge.
  - 3.7 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

- 3.8 For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

| Size of Bar             | For Consignment below 100 tonnes              | For Consignment above 100 tonnes              |
|-------------------------|-----------------------------------------------|-----------------------------------------------|
| Under 10 mm dia bars    | one sample for each 25 tonnes or part thereof | one sample for each 40 tonnes or part thereof |
| 10 mm to 16 mm dia bars | one sample for each 35 tonnes or part thereof | one sample for each 45 tonnes or part thereof |
| Over 16 mm dia bars     | one sample for each 45 tonnes or part thereof | one sample for each 50 tonnes or part thereof |

- 3.9 **Samples of reinforcement bars required for testing shall be provided free of charges by the contractor. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.**
- 3.10 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.
- 3.11 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.
- 3.12 In case the contractor bring surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
- 3.13 Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
- 3.14 The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications for works 2019, Vol.-I will be considered for conversion of length of various sizes of M.S. Bars, Tor Steel Bars and T.M.T. bars into Standard Weight.
- 3.15 Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight.
- 3.16 (a) If the Derived Actual Weight is less than the Standard Weight then the Derived Actual Weight shall be taken for payment.

- (b) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight shall be taken for payment. In such case nothing extra shall be paid for the difference between the Derived Actual Weight and the standard Weight.

#### **4.0 STRUCTURAL STEEL (Tee, Angle, Channel, Structural Tubes and plates & R.S. Joist)**

- 4.1 The contractor shall procure Structural steel (Tee, Angle, Channel, Structural Tubes and plates & R.S. joist) from primary producers (SAIL, Tata Steel Ltd, RINL, Jindal Steel & Power Ltd. and JSW steel Ltd.).

In case of non availability of structural steel from primary producers the NIT approving authority may permit use of structural steel procured from steel producers having valid BIS license confirming to IS -2062-2006.

- 4.2 Samples shall be taken and got tested by the Engineer-in-charge confirming to relevant BIS code. In case the test results indicate that the structural steel arranged by the contractor does not conform to the specification, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time or written orders from the Engineer-in-charge to do so.
- 4.3 The structural steel shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account.
- 4.4 **Samples of structural steel required for testing shall be provided free of charges by the contractor. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.**
- 4.5 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
- 4.6 If the actual weight of structural steel to be used in the work differs from standard weight, the following procedure shall be followed for arriving at the quantity for payment.
- 4.6.1 If the actual weight is more than standard weight only standard weight shall be considered for payment.
- 4.6.2 If the actual weight is less than standard weight but within the permissible vitiation, only actual weight shall be considered for payment.

#### **5.0 WATER PROOFING WORK**

- 5.1 The work shall be got executed as per CPWD Specifications and as per the manufacturer's specification through specialized agency as approved by the Engineer-in-Charge. In case the main contractor meets the required eligibility criteria as laid down by the department for specialized work, he is also allowed to execute the same after due verification etc. The contractor shall furnish the following particulars immediately after the issue of letter of acceptance by the Department.
- The name of the specialized firm.
  - The trade names of the product, which would be used.
  - List of works where the treatment has been used.
  - Quantity of chlorides and sulphides used in the product.

- 5.2 The specialized agency shall be approved by the competent authority.

### 5.3 **Conditions for specialized agency:**

The specialized agency/contractor must have executed three similar works each of value not less than 40% of the estimated amount of specialized item or two similar works each of value not less than 60% of the estimated amount of specialized item or one similar work of value not less than 80% of the estimated amount of specialized item in last 7 (seven) years ending last day of month previous to the one in which the tenders are invited. The value of executed similar works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7 % per annum; calculated from the date of completion to last day of previous month to the one in which tenders are invited.

- 5.4 It shall be the responsible of main contractor to sort out any dispute/ litigation with the Specialized Agency without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute/ litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies/ sub-contractor(s). No claim of hindrance in the work shall be entertained from the contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agency.

## 6.0 **READY MIX CONCRETE (RMC) FROM RMC PRODUCER**

- 6.1 The work shall be executed as the CPWD Specification 2019 Volume – I & Volume – II and as per the direction of Engineer-in-charge.
- 6.2 Contractor shall be allowed to arrange Ready Mix Concrete (RMC) from reputed RMC producing plants as given in the list of preferred make. Due to site constrain, Batch Mix Concrete shall not be allowed.
- 6.3 The contractor shall, within a period of 15 days of award of the work, submit text of MOU proposed to be entered between purchaser (the contractor) and supplier (RMC) producer) to the Engineer-in-Charge for his approval. The contractor shall draw the MOU with approved RMC producer and submit to the Engineer-in-Charge within a week of such approval. The contractor will not be allowed to use ready mix concrete without completion of above stated formalities.
- 6.4 Notwithstanding the approval granted by the Engineer-in-Charge in aforesaid manner or provisions in CPWD specifications 2019, the contractor shall be fully responsible for quality of concrete including input control, transportation and placement etc.
- 6.5 For all purpose the contractor shall carry out fully, the responsibilities of the placement contractor and the manufacturer of concrete.
- 6.6 The Engineer-in-Charge will reserve right to inspect at any stage and reject the concrete if he is not satisfied about quality of product at the user's end.
- 6.7 The Engineer-in-Charge reserves the right to exercise control over the:-
- 6.7.1 Ingredients water and admixtures purchased stored and to be used in the concrete including conducting of tests for checking quality of materials recording of test result and declaring the materials fit or unfit for use in production of mix.
  - 6.7.2 Calibration check of the RMC plant.
  - 6.7.3 Weight and quantity check on the ingredients, water and admixture added for batch mixing.

- 6.7.4 Time of mixing of concrete.
- 6.7.5 Testing of fresh concrete, recording of results and declaring the mix fit or unfit for use. This will include continuous control on the workability during production and taking corrective action, if required.
- 6.7.6 For exercising such control, the Engineer-in-Charge shall periodically depute his authorized representative at the RMC plant. It shall be responsibility of the contractor to ensure that all necessary equipment, manpower & facilities are made available to the Engineer-in-Charge and/or his authorized representative at RMC plant.
- 6.8 The contractor should therefore draw MOU/agreement with RMC producer very carefully keeping in view all terms and conditions/specifications forming part of this document.
- 6.9 All required relevant records of RMC shall be made available to the Engineer-in-Charge or his authorized representative. The Engineer-in-Charge shall as required, specify guidelines & additional procedures for quality control & other parameters in respect of materials, production & transportation of concrete mix which shall be binding on the contractor & the RMC plant. Only concrete as approved in design mix by the Engineer-in-Charge shall be produced in RMC plant and transported to the site.
- 6.10 QUALITY CONTROL OF READY MIXED CONCRET

It shall be the responsibility of the contractor to ensure that RMC producer provides all necessary testing equipment's and takes all necessary measures to ensure quality control of ready mixed concrete. In general the required measures shall be:-

#### 6.10.1 Control of purchased material quality

RMC producer shall ensure that all the materials purchased and used in the production of concrete conform to the stipulation of the relevant agreed standards and the requirements of the concrete mix design and quality control procedures. This shall be accomplished by visual checks, sampling and testing, certification from material supplier and information/date from materials supplier. Necessary equipment for the testing of all materials shall be provided and maintained in calibrated condition at the plant by the RMC producer.

#### 6.10.2 Control of material storage

Adequate and effective storage arrangement shall be provided by RMC producer at RMC plant for reliable transfer and feed systems, drainage of aggregate, prevention of freezing or excessive solar heating of aggregate, prevention from contamination etc.

#### 6.10.3 Record of mix design and mix design modification

RMC producer shall ensure that record of mix design and mix design modification is readily available in his computer at RMC plant for inspection of Engineer-in-Charge or his authorized representative at any time. Any modification in mix design shall be done only after the approval of the Engineer-in-Charge.

#### 6.10.4 Transfer and weighing equipment

RMC producer shall ensure that a documented calibration procedure is in place. Proper calibration records shall be made available indicating date of next calibration due & corrective action taken. RMC producer shall ensure additional calibration checks whenever required by the Engineer-in-Charge in writing to contractor. RMC producer shall also maintain a daily production record including details of customers to whom RMC was supplied including details of mixes supplied. Record shall also be maintained of materials used for each day's production including water and admixtures.

The accuracy of measuring equipment shall be within + 2% of quantity of cement & + 3% of quantity of aggregate, admixture and water being measured.

#### 6.10.5 Maintenance of Plant, Truck Mixers and Pumps:

Plant, Truck Mixers and Pumps should be well maintained so as to not hamper any operation of production, transportation and placement of concrete.

#### 6.10.6 Production of concrete at RMC producing plant

6.10.6.1 Weighing (correct reading of batch date and accurate weighing):- For each load, written, printed or graphical records shall be made of the weights of the materials batched, the estimate slumps, the total amount of water added to the load, the delivery ticket numbers for that load and the time of loading the concrete into the truck.

6.10.6.2 Visual observation of concrete during production and delivery or during sampling and testing of fresh concrete (assessment of uniformity cohesion, workability, adjustment to water content:- The workability of the concrete shall be controlled on a continuous basis during production. The batch mix found unfit shall not be loaded into the truck for transportation. Necessary corrective action shall be taken in the production of mixes required for further batches.

6.10.6.3 Adequate testing equipment's at the plant including equipment for measuring surface moisture content of aggregates shall be provided by the RMC producer.

6.10.6.4 Making corresponding adjustments at the plant automatically or manually to batched quantities to allow for observed measured or reported changes in materials or concrete qualities.

6.10.6.5 Sampling of concrete, testing, monitoring of results.

6.10.6.6 Diagnosis and correction of faults identified from observation/complaints.

6.10.6.7 Control of designed and the prescribed mixes: a quality control system shall be operated to control the strength of designed mixes to the required levels. The system shall include continuous analysis of results from cube tests.

6.10.7 Ready mix concrete shall be arranged in quantity as required at site of work. The ready mix concrete shall be supplied as per the pre-agreed schedule approved by Engineer-in-Charge. Noting extra shall be payable on this account.

- 6.10.8 The Engineer-in-Charge reserves the right to approve RMC producing plants not mentioned in the list of preferred make RMC plants if they fulfil all the necessary conditions.
- 6.10.9 In case of rejection of concrete as governed by the para “Standard of Acceptance” as above, the work for which samples have failed shall be redone at the cost of the contractor. However, the Engineer-in-Charge may order for additional tests (like cutting cores, ultrasonic pulse velocity, and rebound hammer test etc.) to be carried out at the cost of contractor to ascertain, if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer-in-Charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test result and reduced rates shall be regulated in accordance with para 5.4.10.5 D (D-3) of CPWD specifications.
- 6.11 Laying of RMC concrete- All ready mixed designed concrete shall be laid with the help of concrete pump/ boom placer of adequate capacity.
- 6.12 TRANSPORTATION, PLACING AND COMPACTION OF CONCRETE
- 6.12.1.1 Mixed concrete from the RMC shall be transported to the point of placement by transit mixers and placed in position through concrete pumps and/or steel closed bottom buckets capable of carrying minimum 0.6 cum concrete is proposed to be transported by transit mixer, the mixing speed shall not be less than 4 rev/min. of the drum nor greater than a speed resulting in a peripheral velocity of the drum 70 m/minutes at its largest diameter. The agitating speed for the agitator shall be not less than 2 rev/min nor more than 6 rev/min of the drum. The numbers of revolution for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev/min and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirement shall conform to IS: 5892.
- 6.12.1.2 In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.
- 6.12.1.3 At all stages, special precaution shall be taken that surrounding temperature during concreting shall not exceed 30 degree centigrade. Except where otherwise agreed to by the Engineer-in-Charge, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450mm. unless agreed to by the Engineer-in-charge; concrete shall not be dropped into place from a height exceeding 1.5m. In order to avoid such situations chutes, termite pipe or closed bottom buckets shall be used. These shall be kept clean and used in such a way as to avoid segregation. Slope of the chute shall be so adjusted that concrete flows without the use of excessive quantity of water. The delivery end of chute shall be as close as possible to the point of deposit; the chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside

the formwork. The concrete shall be compacted by using immersion type vibrators. When the concrete is being continuously deposited to a uniform depth along a member, vibrator shall not be operated within one meter of free end of the advancing concrete. Every effort shall be made to keep the surface of the previously placed layer of concrete alive so that the succeeding layer can be amalgamated with it by the vibration process.

- 6.12.1.4 In case the concrete in underlying layer has hardened to such an extent that it cannot be penetrated by the vibrator but is still fresh (that is, just after initial set), un-imposed bond shall be achieved between the top and underlying layer by first scarifying the lower layer before the new concrete is placed by systematically and thoroughly vibrating the new concrete. The points of insertion of vibrator in the concrete shall be so spaced that the range of action overlap to some extent and the freshly filled concrete is sufficiently consolidated at all locations. The spacing between the dipping positions of vibrator shall be maintained uniformly throughout the surface of concrete so that concrete is uniformly vibrated. The vibrating head shall be regularly and uniformly inserted in the concrete so that it penetrates of its own accord and shall be withdrawn slowly whilst running so as to allow redistribution of concrete in its way and allow the concrete to flow back into the hole behind the vibratory.
- 6.12.1.5 The vibrator head shall be kept in one position till the concrete within its influence is completely consolidated. Vibration shall be continued until the coarse aggregate particles have blended into the surface but have disappeared. The contractor shall keep at least one additional vibrator in serviceable condition to be used in the event of breakdowns and maintenance problems.
- 6.12.1.6 The vibrator head shall not be brought more than 200mm near to the formwork as this may cause formation of water stagnations. The formwork shall be strong and great care shall be exercised in its assembly. It shall be designed to take up increased pressure of concrete and pressure variations caused in the neighborhood of vibrating head, which may result in excessive local stress on the formwork. The joints of the formwork shall be made and maintained tight and close enough to prevent the squeezing out slurry or sucking in of air during vibration. The formwork to receive concrete shall be cleaned and made free from standing water, dust, etc. The contractor shall keep provision for screed and shutter vibrators at site.

## **GUARANTEE FOR WATER PROOFING TREATMENT**

All water-proofing work shall be carried out through approved specialist agency as per method of working approved by the Engineer-in-charge. However, the Contractors shall be solely responsible for waterproofing treatment until the expiry of the above guarantee period. However, the main contractor shall also be eligible to carry out himself any or all of the above specialized works without associating any specialized agency provided, the main agency fulfils the prescribed eligibility criteria respectively for the above specialized work(s).

Ten years guarantee in prescribed proforma attached shall be given by the contractor for the water proofing treatment. Towards that 10% (ten percent) of the cost of these items of water proofing under this sub head shall be retained as guarantee to watch the performance of

the work executed. However, half of this amount (withheld) would be released after five years from the date of completion of the work, if the performance of the waterproofing works is satisfactory. The remaining withheld amount shall be released after completion of ten years from the date of completion of work, if the performance of the waterproofing work is satisfactory. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days of issuing of notice by the Engineer-in-Charge and, if not attended to, the same shall be got done through other agency at the risk and cost of the contractor and recovery shall be effected from the amount retained towards guarantee. In any case, the contractor and the specialist agency, during the guarantee period, shall inspect and examine the treatment once in every year and make good any defect observed and confirm the same in writing. The security deposit can be released in full, if bank guarantee of equivalent amount, valid for the duration of guarantee period, is produced and deposited with the Department.

**GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER  
COMPLETION OF WORK IN RESPECT OF WATER PROOFING WORKS.**

This agreement made this \_\_\_\_\_ day \_\_\_\_\_ of two thousand and \_\_\_\_\_ between, (Name of the contractor, hereinafter call Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part).

Whereas this agreement is supplementary to a contract (hereinafter called the Contract) dated \_\_\_\_\_ and made between the GUARANTOR of the one part and the GOVERNMENT of the other part, whereby the Contractor inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

And whereas the Guarantor agreed to give a guarantee to the effect that the said structures will remain water / leak proof for ten years from the date of completion of the total project.

Now the Guarantor hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date completion of work.

Provided that the Guarantor will not be responsible for leakage caused by earthquakes or structural defects or misuse of roof or alterations and for such purpose

- a) Misuse of roof shall mean by operation, which will damage roofing treatment, like chopping of firewood and things of the same nature, which might cause damage to the roof.
- b) Alteration shall mean construction of an additional storey or a part of roof or construction adjoining to existing roof, where by roofing treatment is removed in parts.
- c) The decision of the Engineer-in-Charge with regard to cause of leakage/seepage shall be final.

During this period of guarantee, the Guarantor shall make good all defects and in case of any defects being found, render the building water proof at his own cost, to the satisfaction of the Engineer-in- Charge and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by Department through some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the necessary rectification or commits breach there under then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost expense or otherwise which may be incurred by him by reasons of any default on the part of GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Government, the decision of the Engineer-in-Charge will be final and binding on the parties.

In witness where of these presents has been executed by the Obligator \_\_\_\_\_ and by \_\_\_\_\_ and for and on behalf of the PRESIDENT OF INDIA on the day month and year first above written.

**Signed, sealed and delivered by (OBLIGOR) in the presence of:**

1.

2.

**Signed for and on behalf of THE PRESIDENT OF INDIA BY \_\_\_\_\_ in the presence of:**

1.

2.

**LIST OF PREFERRED MAKES**

| <b>S.No</b> | <b>Materials</b>                                                                        | <b>Approved make</b>                                                                                                                                                                                       |
|-------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.</b>   | Cement (PPC, OPC)                                                                       | ACC, Birla, Ultratech, J.P, Binani, Vikram, Ambuja, Jaypee cement, Bangur and J.K. Cement                                                                                                                  |
| <b>2.</b>   | White Cement                                                                            | J.K. White, Birla White                                                                                                                                                                                    |
| <b>3.</b>   | Reinforcement Steel                                                                     | Sail, Tata Steel Ltd., Rinl and Jindal Steel & Power Ltd., JSW                                                                                                                                             |
| <b>4.</b>   | Admixtures / construction chemical/ curing compound / plasticizers / super plasticizers | Pidilite Industries Ltd., FOSROC Chemicals (India) Pvt. Ltd., CICO Technologies Ltd., Sika India Pvt. Ltd., BASF India Ltd., Ferrous Crete, Ardex Endura (India) Pvt. Ltd., Penetron, Chryso (Saint Gobin) |
| <b>5.</b>   | Galvanised, Galvalume, Profile Sheet                                                    | Tata, JSW, Kamdhenu                                                                                                                                                                                        |
| <b>6.</b>   | Structural Steel Sections                                                               | Apollo, Prakash, Bhushan, Sail, Tata Steel, Rinl, Jindal and Rana Capital                                                                                                                                  |
| <b>8.</b>   | Injection Grouting                                                                      | Pidilite, SIKA, FOSROC, CHOCKSEY/DURA BUILD                                                                                                                                                                |
| <b>9.</b>   | Water Proofing Compound                                                                 | Impermo(By Snowcem), Fosroc, , Cico, Laticrete, Pidilite, Choksy, Penetron, Chryso (Saint Gobin)                                                                                                           |
| <b>10.</b>  | AAC Block                                                                               | Shree, JK, Magicrete, Modicrete, Finecrete, Ultratech, R.S Green,                                                                                                                                          |
| <b>11.</b>  | Galvanising                                                                             | Jenco/ Steel Lite, Karamtara Engineering pvt.ltd                                                                                                                                                           |
| <b>12.</b>  | Stainless Steel                                                                         | Jindal Steel, 'N' Style/D-line, Fabrinox, Salem Steel                                                                                                                                                      |
| <b>13.</b>  | Ceramic Tiles                                                                           | Kajaria,H&R Johnson, Nitco, Orientbell, Somany, RAK, Oasis, Varmora, Hindware                                                                                                                              |
| <b>14.</b>  | Vitrified Tiles                                                                         | Kajaria,H&R Johnson, Nitco, Orientbell, Somany, RAK, Oasis, Varmora, Hindware                                                                                                                              |
| <b>15.</b>  | Unglazed Vitrified Heavy Duty Tiles                                                     | Johnson (Endura), Somany (Dura Stone), Kajaria, Oasis, Varmora                                                                                                                                             |
| <b>16.</b>  | Terrazo Tiles                                                                           | Nitco, Unistone, K.K                                                                                                                                                                                       |
| <b>17.</b>  | Chequerred Tiles                                                                        | Nitco, Unistone, K.K                                                                                                                                                                                       |
| <b>18.</b>  | Clay Tiles on Roof                                                                      | KENZAI, JOHNSON                                                                                                                                                                                            |
| <b>19.</b>  | Polymer Modified Cementitious Grout                                                     | BalEndura, Webber, MykLaticrete, Chryso (Saint Gobin)                                                                                                                                                      |
| <b>20.</b>  | Hardenders                                                                              | Ironite, Ferok, Hardonate, Fosroc                                                                                                                                                                          |
| <b>21.</b>  | Flush Doors (decorative/Non-Decorative)                                                 | Jayna, Green, Duro, Merino, Century, jain Doors Pvt. Ltd., Orion Doors,, Archiply, Bhutan Tuff, Kitply                                                                                                     |
| <b>22.</b>  | Wooden Door frames and shutters                                                         | Goyla, Jayna, Kutty                                                                                                                                                                                        |
| <b>23.</b>  | UPVC Windows/ Doors/ Ventilators                                                        | Rehau, Veka, Duroplast, Saint Gobin, kommerling                                                                                                                                                            |

| S.No | Materials                                                               | Approved make                                                           |
|------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 24.  | Natural Wood Veneers, Plywood, Block Board                              | Sonear, Green Ply, Century, Truwood, Mayur, Archid, Bhutan Tuff, Kitply |
| 25.  | Anti Static High Pressure Laminate                                      | Formica, Decolam, Merino, Greenlam, Archiply                            |
| 26.  | Stainless Steel Railing                                                 | Kich, Dorma, Geze, D Line, Konzept                                      |
| 27.  | Polysulphide Sealant                                                    | Fosroc, Pidilite, Tuffseal, Sikka                                       |
| 28.  | Dash Fasteners                                                          | Hilti, Fischer, Bosch, Cannon, Axel                                     |
| 29.  | Aluminium Extrusions                                                    | Hindalco, Nalco, Jindal                                                 |
| 30.  | Anodised Aluminium Hardware (Heavy Type)                                | Hardima, Everite, Sigma (ISI marked), Earl Bihari, Dorma                |
| 31.  | Hinges & Brassware                                                      | Shalimar, Indo-Brass, AmarbhoyDossaji, Earl Bihar, Magnum               |
| 32.  | SS autoclose Hinges                                                     | Hettich, Earl-Bihari                                                    |
| 33.  | Friction Stay Hinges                                                    | Earl Bihari, Hettich                                                    |
| 34.  | Aluminium Hinges                                                        | Classic, Argent, Crown                                                  |
| 35.  | Door Fittings                                                           | Hafele, Dorma, Hardwyn, Godrej, Dorset                                  |
| 36.  | Steel nuts, Bolts and Screws                                            | Kundan, Puja, Atul, Wurth                                               |
| 37.  | EDPM Gasket                                                             | Hanu/Anand                                                              |
| 38.  | All Types Of Glass                                                      | ASAHI, Modiguard, Saint Gobbin                                          |
| 39.  | Spider Fittings                                                         | Dorma, Sevax, Hettich                                                   |
| 40.  | Epoxy Primer And Paints                                                 | ICI, Nerolac, Asian Paints, Kansai                                      |
| 41.  | Gypsum Board                                                            | St. Gobain, USG Knauf, Credence                                         |
| 42.  | G.I. Fittings (Malleable Cast iron)                                     | Zoloto, Unik, Ics                                                       |
| 43.  | CPVC Pipes & Fittings                                                   | Astral, Ashirvad, Prince                                                |
| 44.  | PVC Pipes & Fittings                                                    | Supreme, Finolex, AKG, SFMC                                             |
| 45.  | Stainless Steel Pipes & Fittings                                        | Jindal arc, Viega, J-Press, Geberit                                     |
| 46.  | Access Floor System Along With Panels, Stringers, Pedestal              | Kingspan (Hewetson), Donn of USG Knauf Lindner, Huili                   |
| 47.  | Laminated Wooden Floor                                                  | Action, Tesa, Pergo                                                     |
| 48.  | All hardware and fittings for all types of glazing, doors, windows etc. | Dorma, Hafele, Gezei, Kich, Godrej, Ozone                               |
| 49.  | Stud Anchors                                                            | Hilti, Fischer, Bosch, canon, Wurth                                     |
| 50.  | Anchor Fasteners                                                        | Hilti, Fischer, Bosch, canon, Wurth                                     |
| 51.  | Clamp System For Dry Stone Cladding                                     | Hilti, Fischer, Bosch, canon, Wurth                                     |
| 52.  | Locks/Latch                                                             | Godrej, Harrison, Plaza, Dorma, Yale, Dorset                            |
| 53.  | MDF/HDMR Board                                                          | Green Penelmax, marino, Veer, Century, Archiply,                        |
| 54.  | Adhesives                                                               | Pidilitel, Dunlop, Vamorganic, Chocksey/Dura Build                      |

| S.No | Materials                                                            | Approved make                                                                                 |
|------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 55.  | Tile Adhesive                                                        | CICO, Pidilite, MYKLaticrete, Ferrouscrete, Fosroc, Choksey, Home Pride, Chryso (Saint Gobin) |
| 56.  | Lacquered Glass, Mirror                                              | Glaverbel, Modiguard                                                                          |
| 57.  | Weather Silicon Sealant                                              | Wacker, Dow Corning, Mccoy, Soudal                                                            |
| 58.  | Backer Rod                                                           | Supreme Ind ltd., Systrans Polymers                                                           |
| 59.  | EPDM Gasket                                                          | Hanu, Anand                                                                                   |
| 60.  | Frame System For Internal Partition                                  | Saint GobainGyproc, Borol, AMS                                                                |
| 61.  | Epoxy Mortar                                                         | Fosroc, Sikka, Cico, Laticrete,                                                               |
| 62.  | Metal Decking Sheet For Ceiling                                      | Cril, Rajinder Alloys Limited, Pennar Industries Limited                                      |
| 63.  | Fire Retardant Paints                                                | Asian Paints, Berger Paints, Shalimar                                                         |
| 64.  | PU Foam                                                              | MM Foam, Shiela Foam                                                                          |
| 65.  | Indian/European WC, Wash Basin, Urinal & other Sanitary Installation | Jaquar, Parryware, Hindware, Cera, Hindustan                                                  |
| 66.  | Fire Clay Sink & Drain Board                                         | Parryware, Hindware, Cera                                                                     |
| 67.  | RCC Pipes                                                            | Pragati, Lakshmi, Sood&Sood, Jain & Co Usha                                                   |
| 68.  | UPVC Pipes & Fittings                                                | Supreme, Prince, Astral, Finolex                                                              |
| 69.  | Cementous Grout                                                      | Xypex, Fosroc, Krytone                                                                        |
| 70.  | Crystalline Cementious Waterproofing Compound, Swellable Bar         | Xypex, Penetron, Kryton                                                                       |
| 71.  | Stainless Steel Sinks                                                | Neelkanth, Nirali, Jayna                                                                      |
| 72.  | Spun Cast Iron Pipes & Fittings (IS:3989) i/c Hubless                | Jayaswal, Neco, RIF, BIC, Hepco, RPMF                                                         |
| 73.  | C.I. Pipes & Fittings                                                | NECO, RIF, HIF, Kapilansh, RPMF                                                               |
| 74.  | LA (CI) Pipe                                                         | Electro Steel, Kesoram                                                                        |
| 75.  | G.I. Pipe                                                            | TATA, JINDAL (Hissar), Prakash Surya                                                          |
| 76.  | M.S Pipes                                                            | Kirloskar, Electro Steel                                                                      |
| 77.  | G.I Fittings                                                         | UNIK, ICS                                                                                     |
| 78.  | G.I. Pipe Jointing Material                                          | Loctite 55, Dr.Fixit                                                                          |
| 79.  | SS Hinged Grating                                                    | Gmgr, Neer, Chilly                                                                            |
| 80.  | Stoneware Pipes And Gully Traps                                      | Perfect, Anand, Parry                                                                         |
| 81.  | Gunmetal Valves (Full Way Valve) Class-I                             | Zoloto, SANT, Leader                                                                          |
| 82.  | CI Double Flanged Sluice Valve                                       | Kirloskar, IVS,Burn, Deepak Valves                                                            |

| S.No | Materials                                                            | Approved make                                                                                                                 |
|------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 83.  | CI Double Flanged Non Return Sluice Valve                            | Kirloskar, Deepak Valves                                                                                                      |
| 84.  | CI Manhole Frame, Covers and Grating                                 | NECO, RIF, SKF, rpmf                                                                                                          |
| 85.  | Sanitary Accessories                                                 | Jaquar, Kohler, Grohe, Roca                                                                                                   |
| 86.  | Sanitary Fittings                                                    | Jaquar, Kohler, Grohe, Roca                                                                                                   |
| 87.  | Stainless Steel Door Handles, Locks and Fittings                     | Dorma, Hafele, Geze, Godrej, Dorset                                                                                           |
| 88.  | Floor Springs, Door Closers,                                         | Dorma, Hafele, Hardwyn, Godrej, Ozone, Kich, Dorset                                                                           |
| 89.  | Panic Exit Device                                                    | Ingerrissoll, Hardwyn, Everest                                                                                                |
| 90.  | Calcium Silicate Board                                               | Hilux, , Armstong, Knauff, Ramco, Gyptech                                                                                     |
| 91.  | Calcium Silicate False Ceiling i/c frame work                        | Aerolite, Armstrong , promat, Ultralight                                                                                      |
| 92.  | Metal False Ceiling                                                  | Durlum, Armstrong, Dexune, Credence, Hi-steel, Aerolite, USG Knauf, metaworth, Gyptech, Diamond, Hunter Douglas               |
| 93.  | GRG False Ceiling                                                    | Diamond, Armstrong, VANS, METROCK                                                                                             |
| 94.  | Mineral Fibre False Ceiling                                          | Armstrong or equivalent as per ISI code, USG , Knauf, Gyptech                                                                 |
| 95.  | Aluminium Extruded Profile                                           | Hindalco, Jindal, Indalco                                                                                                     |
| 96.  | Moisture Resistant Boards                                            | St. Gobain Gyproc, Boral                                                                                                      |
| 97.  | Floor Traps                                                          | Jayna, Chilly, Nirali                                                                                                         |
| 98.  | Grass Pavers                                                         | Ovilite, Victoria, Virendra Textiles                                                                                          |
| 99.  | APP Waterproofing Membrane                                           | Bitumat Co. Ltd., STP, Dermabit Technow, NICOL/Torchtar, Chryso (Saint Gobin), Makphalt                                       |
| 100. | Toilet Cubicles                                                      | Merino, Greenlam, Trespa                                                                                                      |
| 101. | Modular Kitchen Cabinets                                             | Johnson, Home Solutions, Retail (India Ltd.), SpaceWood, Lotus Kitchen Solutions, Hafele, Gilma, Hacker, Sleek, Venetacucine. |
| 102. | Synthetic Enamel Paint, Primer, Distemper, Exterior Decorative Paint | Asian, Berger, Berger, Nerolac, ICI, British                                                                                  |
| 103. | Texture Paint                                                        | Spectrum, Asian, Heritage, Berger, Akzonobel, Acro Paint (only 20 lit/kg packed allowed)                                      |
| 104. | Smooth Exterior Paint                                                | Asian (Apex), Berger (Weather Coat), Nerolac, ICI India Ltd.                                                                  |
| 105. | Premium Exterior Paint with Silicon Additive                         | Asian (Apes-Ultima), Berger (All Guard), Nerolac, ICI India Ltd.                                                              |
| 106. | Textured Exterior Paint                                              | Ultratech texture paint, Spectrum, Heritage, Asian , Dulux ( Akzonobel)                                                       |

| S.No | Materials                                                                            | Approved make                                                                                                                                   |
|------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 107. | Wall Putty                                                                           | Birla White, J.K White, Home Pride                                                                                                              |
| 108. | Tile Adhesive/Stone Adhesive/AAC Block Adhesive/Polymer modified cementitious Grouts | Ferrous Crete, BalllEndura, Pidilite, MYK LatiCrete, FOSROC, Home Pride                                                                         |
| 109. | Looking Mirror                                                                       | Jolly, Atul, Saint Gobain, Modiguard                                                                                                            |
| 110. | Floor Hardners                                                                       | Piditop 333 By Pidilite, Fosroc, Sikka, Firmae, Ironite, Ferrok, Haronate                                                                       |
| 111. | RCC Pipes                                                                            | Pragati, Lakshmi, Sood&Sood, Jain & Co., Usha                                                                                                   |
| 112. | DI Pipes                                                                             | Electro Steel, Jindal Saw, Tata Metals                                                                                                          |
| 113. | SS Wire Mesh                                                                         | Sterling Enterprises, Trimurty Welded Mesh                                                                                                      |
| 114. | Expansion Joint                                                                      | Construction Specialities, Hercules, Bizzar, Chryso (Saint Gobin)                                                                               |
| 115. | Building Signage                                                                     | Hindustan Signage Pvt.Ltd., Pr Graphics, Motivatte Solution, Galaxy Signage, Signsutra                                                          |
| 116. | Plaster of Paris                                                                     | Shree Ram, Adhar Shree, Sakarni, Decotouch                                                                                                      |
| 117. | Gypsum Plaster                                                                       | Ferrouscrete, Gyproc, Ultratech                                                                                                                 |
| 118. | Ready Mix Plaster                                                                    | Ferrouscrete, Ultratech, Saintgobin, Shri Ram Ready Mix Concrete Pvt. Ltd.                                                                      |
| 119. | False Ceiling Grid System                                                            | Gyproc, Grid System/Rk, Gridline, Gyptech                                                                                                       |
| 120. | Modular Kitchen Hardware And Accessories                                             | Hettich, Hafele, Gilma, Hacker, Sleek, Venetacucine                                                                                             |
| 121. | Commercial Ply/Board                                                                 | Duro, Century, Green ply, Bhutan Tuff, Archiply                                                                                                 |
| 122. | Aluminium Composite Panels                                                           | Alucobond, Aludecor, Renobond, Alpulic                                                                                                          |
| 123. | List of RMC Producer                                                                 | Ultratech, Ready Mix India Pvt. Ltd., ACC, Lafarge, V.K. Ready Mix Concrete, NDCON, Shri Ram Ready Mix Concrete Pvt. Ltd., Chryso (Saint Gobin) |
| 124. | PVC/Synthetic Water Tank (Multi layer)                                               | Sintex, Polycon, Uniplast                                                                                                                       |
| 125. | Bitumen Emulsion                                                                     | IOCL, BPCL, HPCL.                                                                                                                               |
| 126. | Bitumen VG-30, VG-40, VG-10                                                          | IOCL, BPCL, HPCL.                                                                                                                               |
| 127. | Cationic Polymer Modified Bitumen Emulsion (for Micro-Surfacing)                     | Hindustan Colas (HPCL), Tiki Tar, A.R. Thermosets                                                                                               |
| 128. | Thermoplastic Paints                                                                 | Asian Paints, Berger, Reliance Thermoplast, S.N. Industries,                                                                                    |
| 129. | Kerb stone                                                                           | CC S&S, KK, CICO, NITCO, Terraforma, Sushma, Dalal & Unistone. (only engraved mould stamped to be allowed)                                      |
| 130. | C.C Paver Blocks                                                                     | Nitco, Tuftek, K.k, Hindustan Tles, Dalal, Surendera (Only engraved mould stamped to be allowed)                                                |

| S.No | Materials                                               | Approved make                                                                           |
|------|---------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 131. | CRMB-55, CRMB-60                                        | IOCL, BPCL, HPCL                                                                        |
| 132. | Plastic W.C Seat Cover                                  | Commander, Diplomant, Somany, Hindware                                                  |
| 133. | PVC Flushing cistern                                    | Commander, Hindware( Slim line), Hindustan, Somany                                      |
| 134. | Locks/Latch                                             | Godrej, Hardwyn                                                                         |
| 135. | CP Brass fittings                                       | Jaquar (Continental Series), Kohler, Grohe, Player, Prima (ISI)                         |
| 136. | Ball value                                              | Zoloto, Argo, IBP                                                                       |
| 137. | Butterfly Valve                                         | Audco                                                                                   |
| 138. | PTMT                                                    | Prayag, Polytuf, Prince                                                                 |
| 139. | POP                                                     | J K Laxmi, Sriram, Trimurti,sakarni                                                     |
| 140. | M.S. Door fittings                                      | Ashish, Oxford, Gerg, Adarsh                                                            |
| 141. | Aluminium door fittings                                 | Everest, Argent, Doorwyn                                                                |
| 142. | Synthetic Enamel Paint, Distemper and primer            | Berger, Asian Paint, Nerolac, ICI                                                       |
| 143. | Water Proofing Cement Paint                             | Snowcem, Berger, ICI India Ltd, Asian Paint                                             |
| 144. | Fire Resistant door                                     | Godrej, Navair, Bhawani Fire, Pacific, ASES Security.                                   |
| 145. | Fire Resistant Glass                                    | Saint Gobin, Schott, Pyro Guard, Hero Fire                                              |
|      | FRP chajja and doors/door frame                         | Jayna, Fibreway, Ashoo, Jain Doors Pvt. Ltd., FRP Bhatt                                 |
| 146. | PVC & WPC sheet, door shutters, windows & Frames        | Rajshri, jain doors, Fiberways                                                          |
| 147. | Precast GRC/GFRP tiles/Jaali                            | Unistone, Dalal, Ultratech                                                              |
| 148. | FRP Jali                                                | Unistone, Dalal, Fibreways                                                              |
| 149. | Accoustic Foldable moveable partition                   | Hafele, Dorma, Azazo                                                                    |
| 150. | Hermitically sealed performance glass & Toughened Glass | Saint Gobin, Asahi, Pilington, Viracon (Processed by them or their approved processors) |
| 151. | SMC/GRP Panel Tank                                      | Sintex, Devi Polymer, Sovisy, Amitex                                                    |
| 152. | Gypsum Board Partition                                  | USG Boral, Knauf, Saint Gobin Gyproc India Ltd., Armstrong World Industries Pvt. Ltd.   |
| 153. | Accoustic Ceiling & Wall Panelling                      | Armstrong, Hunter Dugllers, Gyptech, Anakon                                             |
| 154. | Bamboo Door, frame, wall cladding, false ceiling        | Epitome, Floor India, Ecogreen flooring                                                 |

**NOTE:-**

1. Items/Materials not covered in the above list, the 1<sup>st</sup> quality material is to be used as per the Nomenclature of items or 1<sup>st</sup> quality materials of the reputed Make/Brand required to be used for execution of either agreement item or any Extra Item as per approval and direction of Engineer-in-Charge after approval of NIT approving authority.

| S.No | Materials | Approved make                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |           | <p>2. Equivalent makes shall be considered only on non-availability of approved specified makes. In general no change in brand will be entertained; however, the executing agency / vendor having similar experience will be / can be considered in case of non-availability of any material with certification from manufacturer, from the above list with cost adjustment (if any).</p> <p>3. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications, as well as full details of the works executed by the specialized agency, as specified.</p> <p>4. Wherever applicable, the Engineer-in-charge may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction.</p> <p>5. Unless otherwise specified, the brand / make of the material as specified in the particular specifications and in the list of approved materials attached in the tender, shall be used in the work.</p> <p>In case of non-availability of the brand specified in the contract, the Contractor shall be allowed to use alternate equivalent brand of the material subject to submission of documentary evidence of non - availability of the specified brand. The necessary cost adjustments on account of above change shall be made for the material.</p> |

**SCHEDULE OF QUANTITY**

**NAME OF WORK: Construction of car parking shed and development of surrounding parking area at PHC Ujwa.**

| S. No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Quantity | Unit  | Rate   | Amount   |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------|----------|
| 1      | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, for all lift, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.                                                                                                            |          |       |        |          |
|        | All kinds of soil.                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 68.00    | cum   | 260.30 | 17700.00 |
| 2      | Excavating trenches by mechanical / manual means of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, for all depth, 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 : |          |       |        |          |
|        | All kinds of soil                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |       |        |          |
|        | Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia                                                                                                                                                                                                                                                                                                                                                                                                  | 50.00    | metre | 352.15 | 17608.00 |
| 3      | 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 and for all lift.                                                                                                                                                                                                                                  | 68.00    | cum   | 196.00 | 13328.00 |
| 4      | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :                                                                                                                                                                                                                                                                                                                    |          |       |        |          |

|   |                                                                                                                                                                                          |         |     |         |           |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|---------|-----------|
|   | 1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)                                     | 11.00   | cum | 8340.85 | 91749.00  |
| 5 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :                                       |         |     |         |           |
|   | 1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)                                    | 79.00   | cum | 6518.60 | 514969.00 |
| 6 | Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : |         |     |         |           |
|   | 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)                                  | 25.00   | cum | 9045.75 | 226144.00 |
| 7 | Centering and shuttering including strutting, propping etc. and removal of form for                                                                                                      |         |     |         |           |
|   | Foundations, footings, bases of columns, etc. for mass concrete                                                                                                                          | 107.00  | sqm | 392.15  | 41960.00  |
| 8 | Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.                                           |         |     |         |           |
|   | Thermo-Mechanically Treated bars of grade Fe-500D or more.                                                                                                                               | 2040.00 | kg  | 107.85  | 220014.00 |
| 9 | Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:                                                                      |         |     |         |           |
|   | Cement mortar 1:4 (1 cement : 4 coarse sand)                                                                                                                                             | 33.00   | cum | 7370.65 | 243231.00 |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |     |         |            |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|---------|------------|
| 10 | 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 of edges to give high gloss finish etc. complete at all levels. |         |     |         |            |
|    | Granite stone slab of all colour and texture except black, Cherry/Ruby red                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |     |         |            |
|    | Area of slab over 0.50 sqm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 30.00   | sqm | 3848.70 | 115461.00  |
| 11 | Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.                                                                                                                                                                                                                                                                                                                        | 100.00  | kg  | 117.35  | 11735.00   |
| 12 | Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.                                                                                                                                                                                                                                                |         |     |         |            |
|    | Hot finished welded type tubes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6000.00 | kg  | 194.40  | 1166400.00 |
| 13 | Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.                                                                                                                                                                                                                                                                                                                                                                                                                             | 132.00  | kg  | 97.20   | 12830.00   |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |     |        |           |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|--------|-----------|
| 14 | Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. | 595.00 | sqm | 738.65 | 439497.00 |
| 15 | Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 70.00  | cum | 263.95 | 18477.00  |
| 16 | Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 490.00 | sqm | 218.90 | 107261.00 |
| 17 | Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |     |        |           |

Addition: NIL  
Overwriting: NIL

Correction: NIL  
Deletion: NIL

AE(P)

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|                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|---------|------------|
|                                                                                                                                                                              | grease and other foreign material etc. and lining out complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         |            |
|                                                                                                                                                                              | New work (Two or more coats)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 300.00 | sqm   | 188.20  | 56460.00   |
| 18                                                                                                                                                                           | Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge. |        |       |         |            |
|                                                                                                                                                                              | 80 mm thick C.C. paver block of M-35 grade with approved colour design and pattern.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 490.00 | sqm   | 1091.50 | 534835.00  |
| 19                                                                                                                                                                           | Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |       |         |            |
|                                                                                                                                                                              | 150 mm dia. R.C.C. pipe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50.00  | metre | 556.45  | 27823.00   |
| 20                                                                                                                                                                           | Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |       |         |            |
|                                                                                                                                                                              | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12.00  | each  | 5957.90 | 71495.00   |
| TOTAL                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         | 3948977.00 |
| Modified Estimated Cost after using Correction factor on DSR 2023 on account of GST @ 0.973 (as per Office Memorandum File No. 158/SE (TAS)/GST/2024/02-E Dated 08.08.2024.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         | 3842355.00 |
| Total                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         | 3842355.00 |
| Add cost Index @ (-0.09)%                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       |         | -3458.00   |

Addition: NIL  
Overwriting: NIL

Correction: NIL  
Deletion: NIL

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|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |     |         |            |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|---------|------------|
| Total (A)   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |     |         | 3838897.00 |
| 21          | Providing and fixing machine cut, mirror/eggshell polished, Granite stone work for wall lining (veneer work) including dado in required design and pattern including all curvilinear portions etc., wherever required stone of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge. |        |     |         |            |
|             | Granite stone slab of all colour and texture except black, Cherry/Ruby red or equivalent as per approved by Engineer-in-Charge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 101.00 | sqm | 7015.90 | 708606.00  |
| Total (B)   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |     |         | 708606.00  |
| Total (A+B) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |     |         | 4547503.00 |

**Executive Engineer,  
Construction Division-XIV,  
CPWD, New Delhi**