



BHARAT SANCHAR NIGAM LIMITED
(A Government of India Enterprise)
(CIVILWING)

TENDER DOCUMENT

e-Tender

**Name of work: "Civil Works at RAN sites under Phase IX.2
4G Project in Warangal OA."**

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Executive Engineer (Civil),
BSNL Civil Division-WGL,
Telangana.

Notice Inviting e-Tender

The Executive Engineer (Civil), BSNL CIVIL DIVISION- **WARANGAL, Telangana**, on behalf of Bharat Sanchar Nigam Limited invites, **item rate e-tender** for the work of **“Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA.”**.

NIT No : **52 /NIT/CETSCZ/HYD/2024 DATE: 28.09.2024**

Estimated Cost: **Rs 13,91,227/-**

Earnest Money: **Rs 27,900/-**

Tender Cost/Cost of bid **Rs 590/-**

Period of Completion: **3 Months**

Last Time and Date
of Submission of on-line bid: **18:00 hours on 05.10.2024.**

Last Time and Date
of Submission of
Physical EMD & Cost of Tender: **15:00 hours on 07.10.2024.**

The bid forms and other details
can be obtained from the website **www.etenders.gov.in**

Executive Engineer (Civil)



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

B.S.N.L.W-6

NOTICE INVITING e- TENDER

NIT No: 52/NIT/CECTSCZ/HYD/2024-25 DATE: 28.09.2024

1.0 Item rate e-tenders are invited on behalf of **BHARAT SANCHAR NIGAM LIMITED (A Government of India Enterprise)** from approved and eligible contractors of D.O.T/ BSNL and Non BSNL contractors, registered with Public Works Organizations like CPWD, **Telangana** State PWD(B&R), DOP, MES & Railways **only** for the work of

Name of work	Estimated cost	E.M.D	Period of completion
“Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA.”	Rs 13,91,227/-	Rs 27,900/-	3(Three) Months

Provided they produce proof of their valid **enlistment, GST registration** with the appropriate authorities. The enlistment of the contractors should be valid on the last date of submission of bid. In case last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1.1.1 Criteria of eligibility for Non-BSNL registered contractors of Public Works Organizations like CPWD, State PWD, DOP, MES & Railways only are as follows.

1.1.1.1 The applicant should have completed works as per details below during the last seven years ending last day of the month previous to the one in which the tenders are invited.

a) **Three similar completed works each costing not less than the amount equal to Rs 5,56,500/-.**

or

b) **Two similar completed works each costing not less than the amount equal to Rs 6,95,700/-.**

or

c) **One similar completed works each costing not less than the amount equal to Rs 11,13,000/-.**

Similar work means “**Construction/ Repair works of GBT / RTT Towers / Roof top poles/ BTS shelters (or) Construction/ Repair works/Renovation works of buildings**”. The value of executed works shall be brought to current costing level by enhancing the actual value of executed work at simple rate of 7% per annum calculated from the date of completion to last date of submission of bid for tenders and shall be rounded off to the nearest hundred rupees. **The similar work can be part of the composite building work. Above works should have been carried out for Central/State Government/ Central or State Public Sector Undertakings.**

The experience certificate given by an officer not below the rank of Executive Engineer shall indicate clearly the nature of the work and the satisfactory completion of the similar work along with value of work done and date of completion and shall be issued by authorized signatory/ authority.

Agreement shall be drawn with the successful Tenderer on prescribed Form No. BSNL-W7/8, which is available as a BSNL Publication/ on BSNL Web site www.telangana.bsnl.co.in

Tenderer shall quote his rates as per various terms and conditions contained in the General conditions of contract for Civil works 2006 (as amended upto date) (Available on web site mentioned above duly superseded by additional conditions / specifications attached with tenders document which shall form part of this document).

- 2.0 The time allowed for carrying out the work will be **3 (Three) months** from the **7th day** after the date of issue of letter of acceptance of work, or from the first day of handing over of the site **or from the next date of issue of PO in ERP**, whichever is later, in accordance with phasing, if any, indicated in the Tender Document.
- 3.0 The Site is available with BSNL (OR) The site for the work shall be made available as specified below:
- 4.0 The bid document (**Tender documents**) 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 by the contractor whose tender may be accepted and other necessary documents along with Standard General Conditions of Contract Form can be seen on website www.etenders.gov.in / www.telangana.bsnl.co.in .
- 5.0 The intending bidder has to fill all the Bank transaction details such as Banker's name, Demand Draft/Fixed Deposit Receipt /Pay Order/ Banker's Cheque/Bank Guarantee number, amount and date and **UTR number (if paid on line) while submitting online bid** for the following.
- (i) Tender Cost/Cost of Bid (Non refundable)** – in the form of Demand draft amounting to **Rs. 590/-** drawn in favour of **AO (Cash) O/o the GMTD, BSNL XXXXXX**. Receipt of deposition of **Tender cost** may be obtained from Executive Engineer (civil), HYDERABAD or his authorized subordinate Executive. **Tender cost can also be paid through on line payment** to the account of the **Accounts Officer**, Account Details are as below:
- Name of Account : AO Cash BSNL Warangal Collection Account**
- Account no 59090200001344**
- Name of Bank & Branch BANK OF BARODA, HANAMKONDA, WARANGAL**
- IFSC code : BARBOHANAMK (Note:Fifth character is ZERO)**
- (ii) EMD** –amounting to **Rs 27,900/- (Rupees Twenty Seven Thousand Nine Hundred only)**. **Earnest Money** can be paid in the form of Demand Draft / Pay order / Banker's cheque/ Deposit at Call receipt / Fixed deposit receipts of a scheduled bank issued in favour of **AO (Cash) O/o the PGM, BSNL Warangal BA** along with Bank Guarantee (**for balance amount as prescribed**) of any Scheduled Bank wherever applicable. When amount of earnest money is more than Rs. 5 lakhs, part of the earnest money is acceptable in the form of Bank Guarantee also. In such case, minimum 50% of earnest money (but not less than Rs. 5 lakh) or Rs. 25 lakh, whichever is less, will have to

be deposited in the shape prescribed above. For balance amount of earnest money, bank guarantee will also be acceptable.

Receipt of deposition of **Original EMD** may be obtained from Executive Engineer (civil), HYDERABAD or his authorized subordinate Executive. **EMD can also be paid through on line payment** to the account of the **Accounts Officer**, Account Details are as below:

Name of Account : AO Cash BSNL Warangal Collection Account
Account no : 59090200001344

Name of Bank&Branch : BANK OF BARODA, HANAMKONDA, WARANGAL
IFSC code : BARBOHANAMK (Note:Fifth character is ZERO)

6.0 Copy of Enlistment Order and certificate of work experience and other documents as specified in the tender document and **Cost of Tender& EMD** shall be scanned and uploaded to the e-Tendering website within the period of bid submission. After submission of the bid online, the contractor can re-submit revised bid any number of times but before last time and date of submission of online bid as notified.

7.0 The last date of submission of bid through online is **upto 18:00 hours on 05.10.2024**

7.1 The date of submission of Physical/Original **EMD** and **Cost of Tender** (after submission of online bid) (**if not paid online**) will be upto 15:00 hrs on **07.10.2024**
(To be submitted to Executive Engineer (civil), BSNL civil division-Warangal, BSNL KTB Exchange, Hanamkonda-506001)

7.2 The date of opening of technical bid will be at **15:30 hrs on the 07.10.2024**
(Technical bid will be opened by the Nodal officer (Tenders) at office of Executive Engineer (civil), Civil division-I, 7th floor, BSNL Bhavan, Adarshnagar, Hyderabad)

7.3 The date of opening of financial bid will be updated in the web portal after evaluation of technical bids received.
(Financial bid/Price bid will be opened by the Nodal officer (Tenders) at office of Executive Engineer (civil), Civil division-I, 7th floor, BSNL Bhavan, Adarshnagar, Hyderabad)

8.0 Online financial bid submitted by intending bidders shall be opened only of those bidders, whose Earnest Money Deposit and Tender cost/Cost of Bid and other eligibility credentials are found in order.

8.1 The bid submitted shall become invalid and cost of bid shall not be refunded 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 bidder** in the office of **Executive Engineer(civil), Civil division –Warangal, Telangana.**

8.2 In case the eligibility credentials are not found in order at any stage i.e. before award of work or during execution of the work or after completion of the work, the contractor will be debarred from tendering in BSNL for three years including any other action under the contract or existing law.

9.0 The description of the work is as follows : **“Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA. “**

10. Copies of other drawings and documents pertaining to the work will be open for inspection by the tenderers at the office of the **EE(civil)-Warangal** . Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders 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 tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials tools & plants, water, electricity, access facilities for workers and on all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the BSNL and local conditions and other factors having a bearing on the execution of the work.
11. The competent authority on behalf of Bharat Sanchar Nigam Limited does not bind himself to accept the lowest or any other tender, and reserves to himself the authority to reject any or all of the tenders received without assignment of a reason. Tenders, in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected.
12. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
13. The competent authority on behalf of the Bharat Sanchar Nigam Limited reserves with himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
14. The company or firm or any other person shall not be permitted to tender for works in BSNL Civil Zone in which his near relative (s) (directly recruited or on deputation in BSNL) is/are posted in any capacity either non-executive or executive employee. Near relative (s) for this purpose is/are defined as:
- (i) Member of Hindu Undivided family (UHF).
 - (ii) They are Husband and Wife.
 - (iii) The one is related to other in the manner as father, mother, son(s) & Son's wife (daughter-in-law), Daughter(s), Daughter's husband (son-in-law), brother(s), brother's wife, sister(s), sister's husband (brother-in-law).

The contractor 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 relative to any executive employee/ gazetted officer in the BSNL or Department of Telecom or in the Ministry of Communications.

All the intending tenderers will have to give a certificate that none of his/her such near relative (s) as defined above is/are working in the concerned BSNL Civil Zone where he is going to apply for tender/work. **The format of the certificate is given in page [No. 14](#) and should be signed by the tenderer.**

The certificate in case of Proprietorship Firm shall be given by the proprietor; for Partnership Firm certificate shall be given by all partners and in case of Limited Company, by all Directors of the company. However, Government of India/Financial Institutions

nominees and independent non-official part-time Directors appointed by Govt. of India or the Governor of the State are excluded from the purview of submission of this certificate while submitting tenders by Limited Companies.

Any breach of these conditions by the Company or Firm or any other person, the tender/work will be cancelled and Earnest Money/ Security Deposit will be forfeited at any stage, whenever it is so noticed. BSNL will not pay any damages to the company or Firm or the concerned person but damages arising on account of such cancellation to be borne by the contractor. The Company or Firm or the person will also be debarred for further participation in the tender in the concerned BSNL Civil Zone. Further, any breach of this condition by the tenderer would also render him liable to be removed from the approved list of contractors or BSNL. If, however, the contractor is registered in any other Department he shall also be debarred from tendering in BSNL for any breach of this condition.

15. No Engineer of Gazetted rank or other Gazetted Officer employed in engineering or administrative duties in an Engineering Department of the Government of India/State Government or PSU's is allowed to work as a contractor for a period of one year after his retirement from Govt. service, without previous permission of the Govt. of India or BSNL 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 Govt. of India / State Government or PSU's as aforesaid before submission of the tender or engagement in the contractor's service.
16. The tender for the work shall remain open for acceptance for a period of **75 days** from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance /intent, whichever is earlier, or, makes any modifications in the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid.
17. In case of works having estimated cost below **Rs. 15,00,000/-**, the successful tenderer shall be required to execute an agreement with the Engineer-in-charge in the performa annexed to the tender document, within 15 days of the issue of letter of award by the BSNL. In the event of failure on the part of the successful tenderer to sign the agreement, the earnest money will be forfeited and tender cancelled. In case of works of estimated to cost Rs.15,00,000/- and above, the successful tenderer shall, upon issue of letter of acceptance of Tender, shall be required to furnish. Performance Guarantee @ 5% of the tendered value in the form of irrevocable Bank Guarantee of requisite amount to the Engineer-in-charge in the Performa annexed to the tender document, within 15 days of the issue of letter of acceptance of Tender by the BSNL. In the event of failure on the part of the successful tenderer to furnish the Bank Guarantee within **15 days**, the earnest money will be forfeited and tender cancelled.
18. This Notice Inviting Tender (BSNL W-6) shall form a part of the Contract Document in accordance with clause 1 of the contract, the letter of acceptance shall be issued first in favour of the successful Tenderer/ Contractor. After submission of the performance guarantee (**wherever applicable**), the letter of award shall be issued. The contract shall be deemed to have come into effect on issue of letter of acceptance of the tender. On issue of letter of award and after issue of **PO in ERP**, the successful Tenderer/Contractor shall, within **30** days from such date, formally sign the agreement consisting of
 - a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender, and, as issued at the time

- of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- b) Standard BSNL W-7/8 as on website www.telangana.bsnl.co.in
- c) Agreement signed on non-judicial stamp paper as per Performa annexed to the tender document.
19. Payment to the contractors shall be made through e-payment system like ECS & EFT as detailed below: -
- (a) In cities/areas where ECS/EFT facility is provided by Banks, the tenderer must have Account in such ECS/EFT facility providing Banks and that Bank A/c No shall be quoted in the tender by the tenderer.
- (b) The cost of ECS/EFT will be borne by BSNL in all cases where the payment to contractor is made in a local Branch i.e. tenderer is having bank account in the same place from where the payment is made by BSNL unit.
- (c) In case payment is made to outside branch i.e. tenderer is having bank account not in the same place from where the payment is made by BSNL unit, the crediting cost will have to be borne by the tenderer only. The payments to contractors will compulsorily be made through ECS/EFT in respect of the contract.
20. First running account bill shall be paid only after
- (a) **signing of the Agreement/Contract by both the parties, and**
- (b) **Progress chart has been prepared as required under Clause 5 and approved by the competent authority.**
21. General conditions of contract for works in BHARAT SANCHAR NIGAM LIMITED are available on website www.telangana.bsnl.co.in as well as in the Divisional/ Sub divisional Office.
22. For e-Tendering of this tender, The agency intending to participate in tendering process shall have to register in the e-Procurement system maintained by NIC i.e Central Public Procurement Portal. For details kindly visit website www.etenders.gov.in or www.telangana.bsnl.co.in

For& on behalf of the BSNL
Executive Engineer (civil)

IMPORTANT INSTRUCTIONS TO ALL BIDDERS FOR e-TENDERING

The **Executive Engineer (Civil), BSNL Civil Division-Warangal, Telangana** on behalf of **BHARAT SANCHAR NIGAM LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)**, invites **online Item rate e- Tenders** from approved and eligible contractors of D.O.T/ BSNL and Non BSNL contractors, registered with Public Works Organizations like CPWD, **Telangana** State PWD(B&R), DOP, MES & Railways **only** for the following work.

1	2	3	4	5	6	7	8	10	11
Sl. No.	NIT No.	Name of work & location	Estimated cost put to tender Rupees	Earnest money Rupees	Period of completion	Last date & Time of submission of online bid	Last date and time for submission of Physical EMD& Tender cost	Time & date of opening of Technical Bid	Time & date of opening of Financial Bid
1	No: 52/NIT/CECTSCZ/HYD/2024-25 DATE: 28.09.2024	Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA	Rs. 13,91,227/-	Rs. 27,900/-	3 months	05.10.2024 upto 18.00 hours	Upto 15.00 hours on 07.10.2024	15:30 hours on 07.10.2024	Will be updated in the web portal after evaluation of Technical bids received.

1. The intending bidder must read the terms and conditions of BSNL W-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required. Please go through the directives carefully. Any lapse / departure may lead to

- a) Rejection of your tender and / or
- b) Forfeiture of your earnest money / and or
- c) Cancellation of your registration and / or
- d) Debarring you from future tenders

2. The **Standard Form (The General Conditions of Contract for Civil Works 2006) (amended upto date)** shall form part of the agreement, to be drawn and signed by the both parties, after acceptance of tender. The Standard Form shall be available in downloadable manner from website <http://www.civil.bsnl.co.in> / www.telangana.bsnl.co.in
3. Information and instructions for bidders posted on website www.etenders.gov.in shall form part of bid document. If not registered, the intending bidders should get themselves registered in the e-Procurement system maintained by NIC i.e Central Public Procurement Portal.
4. 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 www.etenders.gov.in / www.telangana.bsnl.co.in
5. The bid can only be submitted after uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker's Cheque or Deposit at call Receipt or Fixed deposit receipts **or online paid acknowledgment receipt (autogenerated) having UTR number etc** towards cost of bid document and EMD in of **"AO (Cash) O/o the PGM, BSNL Warangal BA" payable at Warangal and Other Credential documents as specified**. However, self-certified copy of all the scanned and uploaded documents as specified in etender notice shall have to be submitted by the **lowest bidder** within a week physically in the office of **Executive Engineer(civil), Civil division-Warangal, Telangana after opening of tender and after calling by the EE(civil)** .
6. Those contractors who are not registered on the website mentioned above, are required to get registered beforehand.
7. The intending bidder must have valid **Class-III** digital signature to submit the bid
8. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
9. Contractor can upload documents in the form of **JPG format and PDF format**.
10. Contractors shall quote rates for each item. If any cell is **left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO)**.
11. Conditional tender shall be rejected.
12. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criteria.

13. The tenderer should read carefully & understand the Additional Conditions, Additional Specifications and Particular Specifications, Schedule of Quantity, drawings etc attached with the tender document available in the **O/o EE(Civil)-Warangal** before actually quoting rates for the work.
14. Quoted rates shall deem to include cost of all materials, labour, operations, goods and service taxes and any other contingent item described in items, specifications etc. For Goods and service tax please refer conditions in schedule-F.
15. The rate shall also deem to include cost of any other material, labour, operations etc. without which the work would not be satisfactorily complete even though such material, labour, operation would not have been specifically mentioned in specifications etc.
16. The schedule of items, estimated cost etc in this contract are based on **CPWD DSR 2023** and Local Market.

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

- a) Demand draft/Pay order or Banker's Cheque/Deposit at Call Receipt/FDR of any Scheduled Bank or **any acknowledgement receipt (auto generated) having UTR number etc if paid online against Earnest Money Deposit.**
- b) Demand draft/Pay order or Banker's Cheque of any Scheduled Bank or **any acknowledgement receipt (auto generated) having UTR number etc if paid online towards cost of Bid document.**
- c) Valid Enlistment order of the contractor (As per applicability).
- d) Certificates of Work Experience (As per applicability).
- e) Undertaking of no near relative as stipulated under Clause 13 of NIT
- f) Valid GST registration.
- g) Declaration for online BID
- h) Power of attorney if applicable.

1. DECLARATIONS TO BE GIVEN BY THE TENDERERS

a) I /We have gone through BSNL W-8 amended upto date correction slip, available on website www.telangana.bsnl.co.in / and I/We agree with the terms and conditions of it and understood that it will form part of the agreement.

b) I/we _____ S/O Sri _____ Resident of _____ hereby certify that none of my relative (s) as defined in para 14 of BSNL W-6 is/are employed in **Telangana Telecom Circle**. In case at any stage, it is found that the information given by me is false/incorrect, BSNL shall have the absolute right to take any action as deemed fit without any prior intimation to me.

c) I/we _____ S/O Sri _____ Resident of _____ hereby declare that, if I/we do not submit the physical bid document/Technical bid consecutively three times after submission of online bid. It shall be treated as breach of condition and action shall be taken to withdraw my/our enlistment. / debar me /us from tendering in BSNL for six months.

NOTE:- (To be certified by all the partners in case of partnership firms, by all the directors in case of companies).

Date:

Signature of Tenderer

Other partners

2. _____ s/o _____ signature:

3. _____ s/o _____ signature:

4. _____ s/o _____ signature:



BHARAT SANCHAR NIGAM LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

GENERAL RULES AND DIRECTIONS

1. All work proposed for execution by contracts will be notified in a form of invitation to tender duly signed by the officer inviting tender will be displayed on the notice board/ **pasted in public places or by publication in News papers as the case may be** and shall also be on the BSNL website www.telangana.bsnl.co.in/ www.etenders.gov.in. This form will state the work to be carried out, as well as the date for receipt of application, the date of submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from the bills. Copies of the specifications, designs and drawings and any other documents, required in connection with the work signed for the purpose of identification by the officer inviting tender, shall also be open for inspection at the office of **Executive Engineer (civil)** during office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each Partner thereof or by the partner(s) as specified in the partnership deed or by the person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1932.
3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partner(s) or by the partner(s) as specified in the Partnership Deed by the person holding a power of attorney authorizing him to give effectual receipts for the firm.

4. The **Nodal officer (Tender)** will open tenders in the presence of any intending contractors who may be present at the time. In the event of a tender being rejected, the earnest money shall thereupon be returned to the contractor, remitting the same, without any interest.
5. The officer inviting tenders i.e **Executive Engineer (civil)** and opening tenders i.e **Nodal officer (Tender)** shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
6. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement of payment, to the officer inviting tender and the contractors shall be responsible for seeing that he procures a receipt **signed by the Executive Engineer© for original EMD instrument and original Tender cost instrument.**
7. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender document, drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.
8. In the event of no rate has been quoted for any item(s) then the rate for such item(s) will be considered as zero and work will be required to be executed accordingly. It will be presumed that the contractor has included the cost of this/ these item(s) in other item(s).
9. In case of any tender where unit rate of any item / items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.
10. The contractor whose tender is accepted, for amount exceeding Rs. **15.00 Lakhs** (Rupees Fifteen Lakhs), will be required to furnish an **irrevocable PERFORMANCE GUARANTEE** mentioned elsewhere in the Contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within 15 days of issue of letter of Acceptance of Tender. This guarantee shall be in the form of Fixed Deposit receipts or Guarantee Bonds of a Scheduled Bank or State Bank of India.

The contractor shall permit BSNL at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. Such deductions will be made and held by BSNL by way of Security Deposit unless he/they has / have deposited the amount of Security at the rate mentioned above in form of Demand draft / Baker's Cheque / Deposit at call receipt of a Scheduled Bank or State Bank of India in accordance with the form annexed hereto.

In case of works with estimated cost put to tender is up-to and including Rs. 15.00 Lakhs (Rupees Fifteen lakhs) **the total security deposit deducted shall be 10% (Ten percent)** instead of 5% (Five percent) of the tendered value of the work. Security Deposit shall be recovered @ 10% of gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit of 10% of the tendered value of the work.

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

12. The contractor 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 relative to any executive employee / Gazetted officer in the BSNL or Department of Telecom or in the Ministry of Communications.

13. The tender for the work shall not be witnessed by a contractor or a contractor who himself / themselves has/have tendered or who may and has /have tendered for the same work. Failure to observe this condition would render, the tender of the contractors, tendering, as well as witnessing the tender, liable to summary rejection.

14. The tender for composite work includes in addition to building work all other works such as sanitary and water supply installations, drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor of appropriate class, must associate himself with agencies of appropriate class, which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.

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

Name of work	Name and particulars of division where work is being executed	Value of work	Position of work in progress	Remarks
1	2	3	4	5

16. The contractor shall comply with the provision of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer(C), may in his discretion, without prejudice to any other right or remedy, available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the said Act.



BSNL W – 7/8 (Abridged form)

Connecting India

BHARAT SANCHAR NIGAM LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

STATE – Telangana	CIVIL ZONE -BSNL Civil Zone, Telangana
ZONE- Telangana	DIVISION – BSNL Civil Division, -Warangal, Telangana
	SUB-DIVISION- BSNL Civil Sub-Division, Warangal

Item Rate Tender & Contract for Works

e-Tender for the work of “**Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA.**”.

T E N D E R

I/We have read and examined notice inviting tender, schedule, A, B, C, D, E & F, specifications applicable, Drawings & Design, 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 Bharat Sanchar Nigam Limited 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 the contract and with such materials as are provided for, by and in respect in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **75** days from the due date of submission thereof and not to make any modifications in its terms and conditions. If I/We withdraw my/our tender before the said period or issue of letter of acceptance/intent, whichever is earlier, or, makes any modifications in the terms and conditions of the tender which are not acceptable to the B.S.N.L., then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as afore said.

A sum of **Rs 27,900/- (Rupees Twenty Seven Thousands Nine Hundred only)** has been deposited in prescribed manner as Earnest money. If I/We fail to commence the work specified I/We agree that the said Bharat Sanchar Nigam Limited shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by competent authority on behalf of the Bharat Sanchar Nigam Limited towards Security Deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule ‘F’ and those in excess of

that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

I/We agree that, in case of works of **estimated cost** exceeding **Rs. 15, 00,000/-** to deposit an amount equal to 5% of tendered value of the work as performance guarantee in the form of bond of any scheduled Bank of India in accordance with the proforma prescribed or in the form of fixed deposit receipt etc., within 15 days of the issue of letter of acceptance of tender by the BSNL. I/We am/are aware that in the event of failure on my/our part to furnish the Bank Guarantee within 15 days, the earnest money will be forfeited and tender cancelled.

I/We hereby intimate that for receiving payments I/We have an account in _____ Bank with account No. _____ where the ECS / Eft facility of e-payment is available.

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 authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

I/We agree that should I/We fail to commence the work specified in the above memorandum, an amount equal to the amount of the earnest money mentioned in the form of invitation of tender shall be absolutely forfeited to the Bharat Sanchar Nigam Limited and the same may at the option of the competent authority on behalf of the Bharat Sanchar Nigam Limited be recovered without prejudice to any right or remedy available in law out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.

The information in respect of works in hand is as per proforma enclosed.
"I/We agree that this contract is subject to jurisdiction of Court at Warangal only".

Dated.....

Witness:

Address:

(_____)

Signature of Contractor

Occupation:

Postal Address:-



ACCEPTANCE

The above tender (as modified by you (Contractor) and as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Bharat Sanchar Nigam Limited for a sum of Rs. _____ Rupees _____)

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

(a)

(b)

For & on behalf of the Bharat Sanchar Nigam Limited.

SCHEDULE "F"

Reference to General Conditions of Contract

Name of Work	"Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA."
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Estimated cost of Work	Rs 13,91,227/- (Rupees Thirteen lakhs Ninety One Thousands Two hundred and Twenty Seven only)
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Earnest Money	Rs 27,900/- (Rupees Twenty Seven Thousands Nine Hundred only)
Security deposit	Amount
10 % of the tendered value for works with estimated cost put to tender up to Rs. 15 Lakhs (5 % of the tendered value in the form of Bank Guarantee from Scheduled Bank in respect of works with estimated cost put to tender exceeding Rs. 15 Lakhs)	Rs. _____ (Rupees _____ _____ only)
Performance Guarantee	Amount
5 % of the tendered value in the form of Bank Guarantee from Scheduled Bank in respect of works with estimated cost put to tender exceeding Rs. 15 Lakhs)	Rs. _____ (Rupees _____ _____ only)

GENERAL RULES AND DIRECTIONS

Officers inviting tender Executive Engineer (Civil), **BSNL Civil Division-Warangal, Telangana**

Definitions

See below

2(i) Engineer-in charge

Executive Engineer (Civil), Warangal

2(ii) Accepting Authority

Superintending Engineer (civil)/Joint Chief Engineer (civil)/Additional Chief Engineer (civil), Hyderabad

2(iii) Percentage on cost of materials and labour to cover all overheads and profit

10 %

2(iv) Standard Schedule of Rates

DSR 2023/ Local Market Rates

2(v) Standard BSNL Contract Form BSNL W- 8 with upto date correction Slips

Clause 2 Authority for fixing compensation
under Clause 2

Superintending Engineer (civil)/Joint Chief Engineer (civil)/Additional Chief Engineer (civil)

Clause 2 A Whether Clause 2 A shall be applicable

No

Clause 3A Whether Clause 3 A shall be applicable

No

Clause 5

i) Time allowed for execution of work

3 (Three) Months

ii) Authority to give fair and reasonable Extension of time of work

Final: Superintending Engineer (civil)/Joint Chief Engineer (civil)/Additional Chief Engineer (civil),

Provisional: Executive Engineer (Civil)

Clause 6A Weather clause 6 A is applicable

Yes

Clause 7 Gross value of work to be done together with net payment /adjustment of advance for materials collected, if any since the last such payment for being eligible to to interim payment.

Rs 3 Lakhs

Clause 10 Reinforcement steel to be used in the work shall have to be procured as below

Sl. No.	Material	Approved Producer / Product
1	CTD bars Manufactured by (producers)	SAIL, RINL,TATA, Vizag steel,
2	TMT bars Manufactured by (producers)	SAIL, RINL,TATA, Vizag steel,

Clause 10 CA (Adjustment for
Cement & Reinforcement & Galvanized Steel) **NO**

Clause 10D (Increase in wages) **NO**
Clause 11 Specification to be followed for execution of work. **CPWD Specification 2019** with upto date correction slips

Clause 12

12.2 & 12.3 Deviation limit for value of any item of any individual trade **50%**

Clause 16 Competent authority for deciding reduced rates **Superintending Engineer/
Joint Chief Engineer/Additional Chief Engineer**

Clause 36 (i) Minimum qualification and experience of Principal Technical Representative for civil works with estimated cost put to tender more than Rs.500 Lakhs but less than Rs.1000 Lakhs.

Sl No	Minimum qualification of Technical Representative	Discipline	Designation	Minimum experience (Years)	Number	Rate of recovery
1	NOT APPLICABLE					
Rate of recovery inc case of non compliance of Clause 36(i) be stipulated at above rates						

Clause 37(i)	
Extent of GST Tax payable by contractor for Building and Construction works	Goods and Service Tax at Prevailing rate of 18% of Value of work shall be payable by the contractor. Any variation in the rate of GST after last date for submission of bid shall be payable to or recoverable from the contractor.
The following recoveries from the contractor shall be made from the payment certificate at the rate specified below	
i) Construction Workers Welfare Cess payable to state Government / Union Territory	1% of value of work
ii) Income Tax	At Applicable rate

Clause 42 (i) (a) Schedule / statement for determining theoretical Quantities of cement on the basis of **Delhi Schedule of Rates 2023** with upto date correction slip

Variation permissible on theoretical quantities

- a) Cement for works with estimated costs put to tender
- i) not more than Rs. 5 lakhs **3 % minus**
 - ii) More than 5 Lakhs **2% minus**
- b) Steel reinforcement and structural steel sections for **2% minus**
each diameter, section and category

Star prices to be considered for escalation & recoveries

Sl No	Material	Unit	Star Price (in Rupees)
1	Cement(OPC)	Metric Ton	Rs.5433/- (Rupees Six thousand three hundred sixty seven)
2	Reinforcement Steel conforming to BIS 1786 (Fe 500 Grade)	Metric Ton	Rs. 35892/- (Rupees Forty eight thousand two hundred forty)

The rate for recovery under clause 42 shall be same as the Star Price

SPECIAL CONDITIONS OF CONTRACT

1. The completed work may be inspected for approval by the “Acceptance Testing Unit of the Telecom Circle / Client”. It shall be the responsibility of the contractor to offer the completed work for inspection and approval of the A/T in co-ordination with and as per the directions of the Engineer-in-charge and nothing extra shall be payable on this account. The agency shall be responsible for getting the clearance from the AT wing of the department at specific stages as may be fixed by the Engineer-in-charge. Necessary co-ordination with the AT wing will be arranged by the Engineer-in-charge or his authorized sub-ordinates. If the completed work is not found satisfactory as per the prescribed specifications, corrective measures ordered by the Engineer-in-charge shall be carried out immediately by the contractor without any additional expenditure liability to the BSNL
2. The contractor shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building materials shall be stacked on areas where other buildings, roads, services of compound walls are to be constructed.
3. The structural drawings as required for the work may be issued in stages taking into consideration the approved program as well as the actual progress.
4. Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying / burying in the work of pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies, conduits for electrical wiring / cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.
5. The contractor 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 others.
6. The rates quoted shall include all taxes, GST, CWWC, royalty charges that are applicable from time to time as per statutory rules of State / Central Government.
7. All cement bags and all other similar perishable items shall be stored by the contractor in a separate go-down which shall be exclusively constructed by the contractor for this purpose at his own cost as per general guidelines given in the “Typical Sketch for Cement Godown” under clause 3.2.1.4 of the Specifications. The dimensions given in the said sketch are only indicative and the contractor shall be bound to construct the storage godown of sufficient size so as to properly store the appropriate quantity of cement required for consumption for not less than ONE MONTH. Such go-down shall have weather proof roof and walls. The go- down shall be provided with a single door with arrangement for locking it simultaneously with two locks. The contractor shall be fully responsible for the safe custody of all the materials even if the materials are kept and stored under double lock system. The account of daily receipts and issues of the cement bags shall be maintained in the said register which shall be signed daily by the contractor or by his authorized agent in token of correctness of the entries.

- 8 The contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
- 9 The contractor shall be responsible for the watch and ward / guard of the work, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the work is physically handed over to the department. No extra payment shall be made on this account.
- 10 The work is to be carried out in the client's premises, where free movement of contractor's vehicle and labour may be restricted. The contractor has to follow the security requirement of client for the campus area viz. entry passes for the labour and vehicle, security checks at entry / exit gates, restriction on movement of vehicles, restricted timings of working etc. BSNL however shall assist the contractor in obtaining such passes for movement of vehicle and labour. No claim whatsoever shall be entertained on account of delay in entry of vehicles and labour in the campus area including restrictions in working hours, if there is any.
- 11 The work in general should be carried out following the necessary guide lines/ norms of CPCB (Central Pollution Control Board) and rules of local administration /municipalities / Police authorities. No extra payment shall be made on this account.
- 12 Samples including brand / quality of materials and fittings to be used in the work shall be got approved from the Engineer – in- Charge , well in advance of actual execution.
- 13 Cement : The contractor shall procure 43 grade (Conforming to IS: 8112) Ordinary Portland Cement, as required in the work, from reputed manufactures of cement, having a production-capacity of one million tonnes per annum or more, such as A.C.C. L&T, Ultratech, Chettinad, Ambuja, Zuari, Coromandal, Ramco and Cement Corporation of India etc. as approved by Ministry of Industry, Government of India and holding license to use ISI certification mark for their product whose name shall be got approved from Engineer-in- Charge. Supply of cement shall be taken in 50 kg bags bearing manufacture'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 the relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and 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.
- 14 Unless otherwise specified in the schedule of quantities the rates for all items of the work below ground level shall be considered as inclusive of cost of pumping out or bailing out of 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 or due to any other cause whatsoever.
- 15 GST, Building and the construction workers Welfare Cess or any other tax or Cess in respect of this contract shall be payable by the contractor and BSNL shall not entertain any claim whatsoever in this respect.

16. The order or preference in case of any discrepancy as indicated in condition No.8.1 under "Conditions of Contract" given in the General Conditions of Contract for BSNL-2006 form may be read as the following:

- a. Nomenclature of items as per schedule of quantities.
- b. Particular specifications, special and additional conditions etc., as stipulated in tender document.
- c. Contract clauses of Standard BSNL Contract form 2006 as corrected and modified up to last date of receipt of tenders.
- d. CPWD Specifications.
- e. Architectural Drawings.
- f. Indian Standard Specifications.
- g. Sound Engineering Practice.
- h. Manufacture Specifications.
- i. Decision of Engineer-in-Charge shall be final and binding.

A references made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian Standard applicable to the work at site.

17 The Contractor shall be bound to follow the instructions and restrictions imposed by the client department Administration / Police authorities / local authorities on the working and /or movement of labour, materials etc. and or due to less/ restricted working hours or any detours in movement of vehicles. Nothing extra shall be payable on this account.

18 The Contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards such as day and night boards, speed limit boards and flags, red lights and providing barriers, etc. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of work. Nothing extra shall be payable on this account.

19 All material shall only be brought at site as per programme finalized with the respective Engineer-In-Charge. Any pre-delivery of the material, not required for immediate consumption shall not be accepted and thus not paid for.

20 Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the "CPWD Specifications" (Refer Schedule F) and as per instructions of Engineer-in-Charge. Wherever CPWD Specifications are silent, the latest IS Codes/ Specifications shall be followed and the rates should be all inclusive.

21 Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. In case temporary supporting /shifting of such services is required to facilitate the work, the same shall be done by the contractor at no extra cost.

22 The Contractor shall make his own arrangements for electricity required for the execution of the work. Necessary payment shall be made by the Contractor directly to the department concerned. In case the statutory authority fails to sanction the electric connection or delays the sanction of electric connection, the Contractor shall make his own arrangements by providing diesel generators of adequate capacity at his own cost. No delay on this account shall be accepted. Nothing extra shall be paid on this account.

23 The Contractor shall make his own arrangement for backup power at his own cost. No interruption of work shall be accepted due to power failure. Nothing extra shall be paid on this account.

24 No walls or terraces shall be cut for making any opening after water proofing has been done without written approval of Engineer-in-Charge. When permitted cutting of water proofing work shall be done very carefully so that other portion of water proofing is not damaged. On completion of work at such place the water proofing work shall be made good and ensured that the opening / cutting is made fully water proof as per contract specifications/ directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

25 No structural member shall be chased or cut without the written permission of the Engineer- in-Charge.

26 All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested before covering.

27 The contractor, his agents / representative, workman etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.

28 The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, compound wall, services etc are to be constructed.

29 The contractor shall provide at his own cost suitable weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipments shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

30 Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to byelaws and municipal body / corporation where CPWD Specifications are not applicable. The contractor should get the materials (fixtures/fittings) tested by the Municipal Body / Corporation authorities wherever required at his own cost.

31 The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work.

32 In case the existing services are to be shifted permanently, then before dismantling the existing services, alternate/diversion of service lines has to be laid by the contractor so that there is no interruption in use of existing services. The contractor has to plan the alternate suitable route for diversion/shifting of service lines and get the same approved from the Engineer-in-Charge before starting shifting of services. Nothing extra shall be paid except the payment of dismantling and laying of new service lines as per conditions of contract.

33 For construction works which are likely to generate malba / rubbish to the tune of more than a tempo / truck load, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the notified /specified dumping ground and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.

34 In case of surplus excavated earth available at site, if the department wants to dump whole or part of surplus earth at a place as directed by the Department, the contractor shall dump it at the place so directed and the carriage for lead beyond 50 metre shall be paid as per Clause 12 of the agreement, otherwise the contractor shall dispose it off with the permission of Engineer-in-charge at the places of his choice and no carriage shall be paid for such disposal.

35 Surplus excavated earth which is beyond the requirement of the B.S.N.L shall have to be disposed of the contractor at his own cost beyond the municipal limits or at places identified by the local bodies or as directed by the Engineer-in-Charge after obtaining written permission of the Engineer-in-Charge and no payment will be made by the Department for such disposal of this surplus excavated earth.

36 In accordance with requirements of the pollution control board :

a. The contractor shall ensure that, the vehicles for bringing construction material to the site shall be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours / at such hours as are permitted by the local authorities. Nothing extra shall be payable on this account.

b. The contractor shall ensure that, ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Nothing extra shall be payable on this account.

c. The contractor shall ensure that, adequate measures to reduce air and noise pollution during construction have been adopted as per CPCB norms on noise limits. Nothing extra shall be payable on this account

d. The contractor shall ensure the safety equipments like boots, helmets, safety belts, gloves etc. must be provided for the workers and best and safe engineering practices must be adopted. Nothing extra shall be payable on this account.

e. The contractor shall ensure, the stipulations under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006 shall be ensured. Nothing extra shall be payable on this account

37. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water. Nothing extra shall be payable on this account.

38. If, any levy / fine is imposed by the regulatory authorities / inspecting authorities on account of violation of the above specified norms, the same shall be recovered from the contractor.

39. No Payment shall be made to the contractor for any damage caused during the execution of work because of cause(s) not covered under Clause 43 of the Contract. The damage to work will be made good by the contractor at his own cost, and no claim on this account shall be entertained.
40. Some restrictions may be imposed by the security staff etc. on the working and/ or movement of labour, materials etc. and the contractor shall be bound to follow all such restrictions/ instructions and nothing extra shall be payable on this account.
41. The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charges which he may be liable and nothing extra shall be payable on this account. The work shall be carried out without infringing on any of the local Municipal Bye-Laws.
42. The contractor shall given a performance test of the entire installations as per standard specifications before the work is finally accepted and nothing extra what so ever shall be payable to the contractor for the tests.
43. The contractor shall engage licensed plumber for sanitary, water supply, drainage work and also get all the materials and system (including the materials supplied if any, by the department) tested by the Municipal Authority, Whenever required, at his own cost including testing fees, transport etc. according to Municipal by Laws. The contractor shall produce necessary certificate from the Municipal Authorities after completion of work. Nothing extra will be paid on this account. The Contractor shall execute the guarantee for removal of defects after completion in respect of water supply and sanitary installation.
44. The contractor will work in close liaison, during the works, with other contractors of water supply, sanitary, drainage arrangements, electrical installation and any other works and adjust his work plan accordingly.
45. Communication and commuting: In order to maintain instant and effective communication at all times, the contractor shall provide one set of communication system to the site so as to receive and pass on the instructions to and from the staff of department/ contractor irrespective their place and location. The rates quoted by the contractor shall be deemed to be inclusive of this cost. No additional payment shall be made to the contractor for providing these facilities.
46. Transportation and office Infrastructure:- In order to complete the work within the schedule time if the contractor shall be required to do the work in more than one shift and accepted by the department, the contractor will provide vehicular facilities to the BSNL site staff to reach the site and their residences at his own cost for their services required beyond the normal office hours. In case the contractor fails to provide the facilities, Engineer-in-charge shall be at liberty to make the arrangement themselves and deduct the respective cost from the contractor's bill.
47. The intending bidders are advised to visit the site to acquaint themselves of the site conditions before quoting for the work
48. All statutory deductions such as contribution to State Construction Workers Welfare Fund and deductions towards income tax and work contract tax etc at the prevailing rates will be recovered from the bills of the contractors and remitted directly to the concerned authorities.
49. None of the contractor's representatives/ workers will be permitted to stay in the working place beyond the normal working hours. In case where the work has to be carried out beyond normal working hours prior permission shall be obtained in writing from the competent authority.

50. All tools and plants required for the work will have to be arranged by the contractor and shall readily be available at the site of work.

51. The contractor shall carry out at free of cost any damage caused to any structure/ property of BSNL on account of the subject construction.

52. The bidder must comply with the Provisions of EPF & Misc. Provisions Act, 1952 and Employees Provident Fund Scheme 1952, in respect of labourers / employees engaged by the bidder for carrying out works. Non compliance of above provision will be treated as breach of contract .

53. The architectural and structural drawings shall be made available in phased manner as per requirement of the same as per approved programme of completion submitted by the contractor after award of work.

54. The intending bidders shall remain aware that this NIT and the conditions contained therein (except for the schedule of quantities) are very brief and indicative in nature as to the fuller terms and conditions including all corrections/ amendments / specific formats etc. of the "GENERAL CONDITIONS OF CONTRACT" as available with the Executive Engineer, which can be had for reference on request, and (or) as available in downloadable form at website www.telangana.bsnl.co.in / www.civil.bsnl.co.in Should there be any difference between the Specific conditions mentioned above and conditions mentioned elsewhere in the General Conditions of Contract, the former shall prevail

PROTECTION OF LIFE, PROPERTY AND EXISTING FACILITIES

1. The contractor is fully responsible for taking all possible safety precaution during preparation for and actual performance of the works, and for keeping the construction site in reasonable safe condition. The contractor shall protect all life and property from damage of losses resulting from his construction operations and shall minimize the disturbance and inconvenience to the public
2. Copy of Insurance policy for workers, from any of the Nationalized Insurance companies, covering all the workers and Supervisory staff employed/ to be employed, during the course of execution, is to be submitted before commencement of work.
3. In this connections, the attention of the contractors are drawn to the safety measures and precautions including code of conduct while safety carrying out the work and also detailed Engineering Instructions enumerated in this tender document.
4. Necessary safety belts, helmets, harnesses and other necessary safety equipments are to be adequately provided to all the labourers.
5. The contractor shall be solely liable for all expenses for and in respect of repairs and / or damage occasioned by injury of or damage to such underground and over ground structures or other properties and undertake to indemnify and keep indemnified the BSNL from and against all actions, cause of actions, damages, claims and demands whatsoever either in law or in equity and all losses and damages and costs (inclusive between attorney and clients), charges and expenses in condition therewith and / or incidental thereto.
6. The current market value of any commodities lost as a result of any damage to the aforesaid existing facilities shall be paid by the contractor together with such additional sums necessary to liquidate the personal or property damages resulting there from.

Executive Engineer (Civil)

CONDITIONS FOR CEMENT AND STEEL

1.0. CONDITIONS FOR CEMENT

1.1 Issue of Cement

Cement shall be kept under double lock system in godown at site, fixed with single door. Key of one lock shall remain with the representative of the Engineer -in-charge at the site of work and the other with the contractor or his authorized agent. Day to Day receipt and issue of account of cement shall be maintained by the junior incharge in the cement register (As per format given below) and signed by the contractor or his authorized representative. However the responsibility of safe custody of material shall rest with the contractor.

CEMENT REGISTER

Date of receipt	Particulars of Receipt			Particulars of Issues				Daily balance in hand	Contractor's initials	JE's initials	Remark SDE/AEE/EE's at periodical check
	Quantity received indent no. & date	Progressive total	Date of issue	Qty. issued	Item of work for which issued	Qty. returned at the end of the day	Total issued				
1	2	3	4	5	6	7	8	9	10	11	

- 1.2. The size of the cement godown indicated in the contract form is only for guidance. The actual size of the godown shall be constructed by the contractor at his own cost, as per the requirements of work.
- 1.3. The contractor shall maintain safe custody of materials brought to the site. The contractor shall also employ necessary watch and ward establishment for the work and other purposes as required at his own cost.
- 1.4. For Cement and Steel and other materials, as prescribed, the quantities brought at site shall be entered in the respective material at site accounts and shall be treated as issued for maintenance of daily consumption.
- 1.5. The procurement of Cement and Reinforcement Steel, and, their issue and consumption shall be governed as per conditions laid down hereunder.
- 1.6. The contractor shall procure 43 grade (conforming to IS : 8112) Ordinary Portland Cement, as required in the work, from reputed manufactures of cement, having a production-capacity of one million tonnes per annum or more, such as ACC, L&T, Vikram, Dalmia, Ultratech, Shree Cement, and cement Corporation of India, as approved by Ministry of Industry, Government of India and holding license to use ISI certification mark for their product whose name shall be got approved from Engineer-in-charge. Supply of cement shall be taken in 50kg. bags bearing manufactures 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

test results indicates that the cement arranged by contractor does not conform to the relevant BIS codes, the same shall stand rejected and 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.

- 1.7. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-charge.
- 1.8. The cement godown of the capacity to store about 2000 bags of cement or as decided by the Engineer-in-Charge shall be constructed by the contractor at site of work for which no extra payment shall be made. 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 authorized representative and the key of the other lock shall remain with the contractor. The contractor shall facilitate the inspection of cement godown by the Engineer-in-charge at any time.
- 1.9. The contractor shall supply free of charge the cement required for testing.
- 1.10. The cost of tests shall be borne by the contractor/deptt. in the manner indicated below:-
 - i) By the contractor, if the results show that the cement does not conform to the relevant BIS codes.
 - i) By the Department, if the results show that the cement conforms to the relevant BIS code.

1.0 CONDITIONS FOR STEEL

- 1.1 The contractor shall procure steel reinforcement bars conforming to relevant BIS codes from **Primary producers** as approved by the Ministry of Steel.
- 1.2 The steel reinforcement shall be brought to the site in quantity of lots as approved by the Engineer-in-charge.
- 1.3 The steel reinforcement shall be stored by the contractor at site of the work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes, diameters and lengths shall be stores separately to facilitate easy counting and checking.
- 2.4 For steel procured from main producers, for checking nominal mass, tensile strength, bend test, etc. specimen of sufficient length shall be cut from each diameter of the bar at random at frequency not less than that specified below.

Size diameter of Bar	For consignment below 100 Tones	For consignment of over 100 tonnes
Under 10mm dia	One sample for each of 25 tones or part thereof	One sample for each 40 tones or part thereof
10mm to 16mm dia	One sample for each of 35 tones or part thereof	One sample for each of 45 tones or part thereof
Over 16mm dia	One sample for each of 45 tones or part thereof	One sample for each of 50 tones or part thereof

- 2.5. The contractor shall supply free of charge the steel bars required for testing. The cost of tests shall be borne by the contractor/department in the manner indicated below:-
 - i) By contractor, if the results show that the steel does not conform to relevant BIS codes.
 - ii) By the Department, if the results show that the steel conforms to relevant BIS codes.
- 2.6. Coefficient of weight i.e. the weight per unit length of the steel procured by the contractor shall be ascertained at site before using it and certified by the Engineer-in-Charge. In case weight per unit length is beyond the rolling margin as laid down in the BIS: 1786, the steel will be rejected and shall

be removed from the site of work within; a weeks' time from written order from the Engineer-in-Charge to do so. In case weight per unit length is more than the standard coefficient of weight for the diameter, but is within the rolling margin, then the payment shall be made as per the standard weight per unit length, and, where the weight per unit length is lesser than the standard coefficient of weight for the diameter, but is within the rolling margin, the payment shall be restricted with respect to the actual weight per unit length of the diameter.

- 2.7. The standard sectional weights referred to in standard table under para 5.3.3., page 75 of the revised CPWD Specifications 2009 or Cement Mortar, Cement Concrete and RCC works, are to be considered for conversion of length of various sizes of Steel Reinforcement bars into weight and are reproduced below for ready reference.

SIZE (mm)	WEIGHT (Kg/M)	SIZE (mm)	WEIGHT (Kg/M)
6	0.222	20	2.470
8	0.395	22	2.980
10	0.617	25	3.850
12	0.888	28	4.830
16	1.580	32	6.310
18	2.000	36	7.990

- 2.8. The actual issue and consumption of steel and Cement on the work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein.
- 2.9. Steel and Cement brought to site and remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.
- 2.10. Cement used in Ready Mix Concrete shall be evaluated based on the certification by the in-charge of the RMC Plant in accordance with design approved by the Engineer-in-Charge.

Executive Engineer(C)
BSNL Civil Division-Warangal
Telangana

SCHEDULE – D**ADDITIONAL CONDITIONS****(i) GOODS and SERVICE TAX**

The quoted rate shall be inclusive of GST.

(ii) CONSTRUCTION WORKERS WELFARE CESS

Cess under building and other construction worker's welfare cess "Act 1996" and building and other construction workers Cess rules notwithstanding anything contained in this contract, cess at the rate stipulated under Clause 3(1) of the Building and other construction worker's welfare Cess Act 1996, shall be recovered from the gross amount of the bill / bills payable under this contract.

(iii) OTHER CONDITIONS

- i) Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc., for laying/burying in the work of pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc., as may be required for other agencies, conduits for electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.
- ii) All safety precautions are to be taken by the agency for the working labour and inspecting officers by taking appropriate actions. (Insurance, safety helmets, safety belts, glues etc.)
- iii) The contractor shall take instructions from Engineer-in-Charge for stacking of materials in any place. No excavated earth or building material shall be stacked on areas where other buildings, roads, services of compound walls are to be constructed.
- iv) Nothing extra will be paid to the contractor for storing the excavated earth beyond 50 meter lead and bringing back excavated earth to the site for refilling under plinth and in raising the formation level as per the architectural drawing and disposing the surplus available excavated earth. The agency has to make own arrangement for storage and conveyance of the excavated earth. Neither anything extra shall be paid for the disposal of surplus excavated earth beyond 50 m lead nor will anything extra be charged from the agency for giving him possession of the surplus earth. Agency will be at his liberty to take away the surplus earth and dispose it as per his own requirement and convenience.

- v) Nothing extra will be paid separately on account of labour charges and wastages of materials for making any projections or depressions in ACP cladding as required as per architectural drawing.
- vi) Nothing extra will be paid for storing the construction materials like Steel, Cement, Coarse aggregate, fine aggregate etc at any location other than the site of work if required.
- vii) Nothing extra will be paid for providing safety barricade all around the compound construction upto appropriate height with synthetic / jute material to arrest the dust, loose materials and debris falling from the construction site to safeguard the trespassers from injury. The decision of Engineer-in-charge in the matter will be final and binding.
- viii) The Contractor shall provide necessary barricading all around the structure with GI Sheet to arrest all the loose materials spreading during construction to safeguard the trespassers from any injury.
- ix) No hindrance will be given on account of rains during the agreement period, as the work is to start during the period of monsoon.
- x) All materials that are tested for use in the work shall be procured well in advance so that enough time is available for testing and approval of these materials by the Engineer-in-Charge.

(iv) MATERIAL MAKES

The tenderer has to provide items specified as under for corresponding item of work and no other equivalent item shall generally be accepted. However, the Engineer-in-Charge reserves right to accept any other equivalent item for the work on satisfaction that the stipulated item is not available in the local market or for any other reason.

PARTICULAR CONDITIONS FOR TOWER WORKS

- 1.0 The work of erection of tower also includes fabrication, supply and erection / assembly of box type cable feeder rack, platforms, wave guide rack, wave guide rack support (Optional) and painting of all steel members and fixtures. It also includes handing over of tower to the concerned DOT Administrator (User) after acceptance testing.
- 2.0 The contractor shall procure all structural steel members i.e. Angles, tees, Plates, nuts & bolts etc. conforming to relevant I.S. Codes from main producers as approved by the Ministry of Steel namely SAIL, TISCO, ISCO and RINL. All MS angles, Tees and Plates shall be of grade 'A' as per IS: 2062-1999 and IS: 8500-1991. Structural steel section not available from main producers can be procured from secondary producers approved by Engineer in charge subject to production of proof of manufacture of structural steel members from virgin billets produced from main steel producers before starting fabrication work. Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in the relevant I.S. Codes. In case the test results indicate that the steel arranged by the contractor does not conform to I.S. Codes, the same shall stand rejected and shall be removed from the site of work within three days from date of receipt of written order of the Engineer-in-charge to do so. The proof of manufacturer of structural steel members from virgin billets purchased from main steel producers is to be furnished by him before tower member / templates are cut.
- 2.1 Nuts and bolts of grade 5.6 as per IS:6639-1972, IS:12427-2001, IS:1363 (Part I)-1992 IS:1364-2002, IS: 1367-2002 (Part 8) and plain washers as per IS: 6610-1972 & spring washers of type 'B' as per IS: 3063-1994 shall be used.

Manufacturer's identity marking and item marking shall be provided on each section by punching and painting for enabling easy assembling and traceability. A plate indicating the name of the tower, specification's no., tower serial no., manufacturer's identity, year of manufacture and the maximum load capacity of the tower shall be supplied by the manufacturer for display at the bottom of the tower.

The steel structural members shall be stored by the contractor at site of work in such a way so as to prevent distortion and corrosion and nothing extra shall be paid on this account. Members of different sections and sizes shall be stored separately to facilitate easy checking.

For testing of steel members in accordance with IS 2062, specimen of sufficient length shall be cut from sectional member of steel as per requirement of relevant IS Codes and the contractor shall supply the steel members required for testing, free of charge.

The cost of tests shall be borne by the contractor/BSNL in the manner indicated below :-

- (i) By the contractor, if the results show that the steel does not conform to the relevant I.S.Codes.
- (ii) By B.S.N.L., if the results show that the steel conforms to the relevant I.S. Codes.

3.0 All structural steel members including nuts, bolts, gusset plates etc. shall be hot dip galvanized (Minimum 90 microns thick) as per IS : 4759-1996 (Reaffirmed 2001) and IS:1367-2002. The standard zinc used for galvanizing shall conform to IS : 13229-1991 or IS:209-1992.

The communication towers should conform to the latest revisions of all the relevant standards of BIS including :-

- (a) IS 2062 - 1999 - Specifications for structural grade steel.
- (b) IS 4759 – 1996 & IS 1367-2002 - Specifications for hot dip galvanization.
- (c) IS 800 - 1984 - Code of practice for general construction in steel.
- (d) IS 802 - Code of practice for use of structural steel in overhead transmission lines.
- (e) IS 6639, IS : 1363, IS 12427, IS 1364 - For nuts and bolts.& IS : 1367 Part 8
- (f) IS 13229 - 1991 - Standard for Zinc for galvanizing.
- (g) IS 6610 - 1972 - For plain washers and spring washers IS 3063 - 1994 respectively.
- (h) IS 12843 - 1989 - For tolerance in Erection of steel structures.
- (i) IS 7205 - 1974 - Safety code for Erection of structural steel work.
- (j) IS 875 -1987 (Part-III) - Code of practice for design loads (Wind load)

5.0 The contractor shall arrange at his own expense all tools, plants and equipments for execution of the works. No tents, tools, pumps for dewatering or any type of machinery / equipment will be supplied by the department for carrying out any portion of work. The contract shall be in position to deploy all required machinery / tools / equipments within the time schedule specified in the individual work orders. No accommodation shall be provided by the department either for storage of materials or for his staff. He shall make his own arrangement.

6.0 The intending bidders should inspect the site of work fully before tendering and acquaint / satisfy themselves as to the conditions in regard to accessibility of site, nature and extent of ground, working conditions including stacking of materials, installation of T&P, conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of work. The tentative list of sites in annexure –P. These sites are tentative and can be changed at any time. No claim of whatsoever will be entertained .

7.0 Erection of the tower and painting shall be done through specialized agencies only and all safety precautions shall be taken in accordance with safety code for erection of structural steel work (IS : 7205)

- 8.0** Agency executing the supply and erection of towers should take all precautions to see that no damage occurs to the adjoining structures while executing the work. Also, all the workers on the execution site should be adequately insured along with third party insurance for any unforeseen injury to passerby or occupants of adjoining buildings. Agency shall be solely responsible for any mishap on these accounts.

Foundation bolts shall be embedded and cast monolithic with concrete as per approved drawings and in consultation with the civil contractor, doing the foundation work which means that supplier will have to depute his representative to site at the time of concreting of stems to verify correctness of fixing of anchor bolts.

Templates & anchor bolts are to be supplied by manufacturer to individual site within 07 (seven) days from the date of receipt of intimation. Nothing extra shall be paid in this account.

Manufacturer shall also initiate action for fabrication of tower after receipt of intimation to supply anchor bolts so that erection work commences after completion of tower foundation.

- 10.0** Wherever no mention has been made in the specifications, the work shall be carried out as per relevant BIS standards or as per the directions of the Engineer-in-charge given in writing based on sound engineering practice and local usage & that shall be final and binding on the contractor.
- 11.0** The agency has to confirm after erection of tower that the tilt, twist and rotation of the tower are within specified limits. The agency also has to check the verticality of the tower after erection. The verticality of tower shall be within the limit of (+ / -) 25mm as given in IS:12843 : 1989, Table iii(b) (i.e. the bottom of the line joining to the centre of the top of the tower and the centre of the base of the tower shall be within this limit. This may be checked in the field after the erection of tower at site.

The site of work may be changed by the Engineer-in-charge due to exigencies of the service within / adjoining revenue districts for which nothing extra shall be payable except the approved contract rates. Tower fabrication is to be done strictly as per written orders of Engineer-in-Charge. Supply and tower erection will be as per time schedule given by Engineer-in-Charge and strictly adhered by the intending tenderers.

Connection between verticals legs and bracings shall be done to each other at site by Gusset / splices plates with nuts, bolts and washers as per design.

Rack for running feeder cables from the rear of Antenna to the base of the Tower shall be provided. Suitable support to be provided for all the feeder cable runner at 600 mm each, width of each rack shall be 300 mm.

A ladder shall be provided externally right through from the ground level up to 40M. Hoops and runners shall be provided to ensure the safety of the person climbing on the Tower. Antenna mounting pipe conforming to IS:1161-1998 of

2500 mm long, 1141.30 mm outer dia. And 3.65 mm wall thickness shall be used.

The ground based tower shall take 9 CDMA / GSM service delivery antenna, 3 sets of microwave back haul antenna of 1.2M dia. to cater for 3 USPs and additional antenna to be provided for proposed broad band service in future.

The mounting structure for antenna shall be of steel work and shall be such as to allow a nominal azimuth adjustment of (+ / -) 5 degree and an elevation adjustment of (+ / -) 5 degree

.The design of antenna supporting cage and platform shall be in accordance with the specification given in Annexure –III.

13.0 STRAIGHTENING

All materials shall be straightened and or flattened by pressure unless required for a shape of curvilinear form before fabrication and shall be free from twists. Straightening shall not damage the material. The parts when assembled adjacent surfaces shall be in close contact. Hammering shall not be permitted for straightening. Sharp kinks or bends shall be rejected.

14.0 CUTTING

Cutting may be affected by shearing, flame cutting or sawing. The surface so cut shall

b

be clean, smooth, square and free from any distortion.

15.0 BENDING AND WELDING

- (i) Mild steel angle sections up to 75x75mm (up to 6mm thick) may be bent cold up to and including bend angle of 10 degree, angles above 75x75mm (thickness up to 6mm) and up to and including 100x100mm (thickness up to 8mm) may also be bent

cold up to the bend angle of 5 degree. All other angle sections not covered above shall be bent hot.

- (ii) Butt-welding, if used, in members shall be carried out either by submerged arc or shielded arc welding.
- (iii) Welding shall be free from cracks, discontinuity in welding, under-size, over-size or under cutting. It should be cleaned off slag and other deposit.
- (iv) Welds shall be adequately tested using radiography or other well-known methods of non-destructive testing. Welding shall be carried out as per IS: 9595-1996. Welding connection of base plate are as per IS 800 : 1984.

16.0 HOLES

- (i) Holes for bolts shall be drilled using jigs provided with hardened steel bushes and shall not be punched or formed by flame cuttings process. All drill burns shall be completely removed. Drilling of holes shall be done before galvanizing.
- (ii) Holes on both sides of the bend line in a bent member shall be drilled after bending. The relative position of these holes shall be checked using proper templates.
- (iii) Holes shall be circular and of a diameter 1.5 mm more than the dia. of the bolt.
- (iv) Holes shall be drilled at right angles to the surface of the plates or angles, unless otherwise specified.
- (v) The accuracy of location of hole shall be such that for any group when assembled they shall admit the bolt at right angles to the plane of the connection.
- (vi) Spacing of bolts and edge distances shall be in accordance with IS 800-1984.
- (vii) Butting ends of main leg members shall be cut with saw. Flame cutting or shearing shall not be permitted.

17.0 MARKING

Identification marks allotted to each member shall be distinctly stamped with marking dyes of 16mm size before galvanizing.

18.0 TOLERANCES

Fabrication tolerance shall not exceed those specified in IS 7215-1974 as applicable to group "B" structure.

GALVANIZING

Hot dip galvanizing protects steel from corrosion by providing a thick, tough metallic zinc coating, which completely covers the steel surface and seals it from the corrosive action of its environment. The galvanized coating provides outstanding abrasion resistance. Where there is damage or minor discontinuity in the coating of zinc, protection of the steel is maintained by the cathodic action of the surrounding galvanized coating. Metallic zinc is strongly resistant to the corrosive action of normal

environments and hot dip galvanized coatings therefore provide long-term protection for steel.

Zinc for galvanizing should conform to IS 13229-1991.

All members and fasteners of Tower structures are to be hot dip galvanized. Galvanizing of members of the tower shall conform to IS 4759 and 2629. Bolts and other fasteners shall be galvanized in accordance with IS 1367 (part 13). The total mass of galvanizing coating shall not be less than 610gm/sqm (i.e.85 micron) thickness.

PAINTING

Painting of galvanized steel towers is required to give additional protection and to give 'Day warning' as per additional protection and civil aviation specifications. Painting shall be done by specialized agencies only and all safety precautions shall be taken in accordance with the safety code for erection of steel tower.

COASTAL AREA

All steel galvanized sections like L angles, flats, tubular sections, bolts and nuts etc. shall be given a coat of ETCH primer. Zinc Chromate primer shall be applied over ETCH primer. Synthetic enamel paint of two or more coat thickness shall be applied over the above.

NON COASTAL AREA:

In the non-coastal area Zinc Chromate may be applied instead of zinc phosphate painting shall be done in accordance with IS 1477 Part I & II. Priming coat of zincChromate/phosphate shall conform to IS 104.

CLEANING

Dust, grease and rust on galvanized tower members namely angles, tees, plates railing, ladders, racks etc. shall be removed by wire brushing and cleaned with a piece of cloth.

APPLICATION OF ETCH PRIMER

After cleaning the tower members a first coat of an etch primer has to be applied to the tower structure members. The etch primer consists of polyvinyl butyl phosphoric acid catalyst and zinc chromate base and are supplied separately. They should be mixed before use in specified ratio of four parts base to one part catalyst or as specified by the manufacturer. The primer is to be applied uniformly to get a very thin and almost invisible coat and every part of the tower structure should be treated with this primer. Subsequent painting of the zinc chromate primer should be commenced within two hours of application of the primer. The etch primer once mixed should be used up immediately.

APPLICATION OF PAINT

After 48 hours of application of primer, the first coat of the paint should be applied carefully, well brushed into the surface, corners, crevices etc. should be uniform and even. The second coat of paint should be applied 48 hours after the application of the first coat. Care should be taken to see that the painting is not carried out at the hottest time of the day and air pockets should be avoided.

SPECIAL REMARKS

- (i) The painting shall be done carefully so that all corners and crevices of the mast receive the paint and no base surface is left exposed anywhere. Special care is to be taken in applying paint at the place where galvanized coating has got removed.
- (ii) No driers such as Litharge or Turpentine are to be used. The practice of mixing kerosene oil with paint is strictly forbidden.
- (iii) The primer and the paints used should be got approved prior to their use.
- (iv) The painting shall conform to civil aviation guideline.

PAINTS

Paints shall be synthetic enamel of the best quality and anticorrosive and withstand exposures to outside conditions. They should be of standard quality equivalent to synthetic enamel paint of Shalimar or Berger paints or Asian paints.

ORANGE AND WHITE BANDS (DAY MARKINGS)

To conform to Civil Aviation regulations the towers shall be painted in alternate bands of international orange and international white, terminating with orange at top and the bottom, Height of each band should be not exceed 6 metres and should not be less than 0.5 mt. The correct shade for the international orange corresponds to ISI shade 592 as given in the Indian Standard Institution Publication-colours for ready mixed paint, IS: 1755, IS: 2732- 1964.

RECTIFICATION / REPAIRS TO DAMAGED PARTS

Damaged components of the steel work should be rectified as per directions of the Engineer-in-charge minor damages to the galvanizing shall be made good by cleaning the damaged portion free of all rust and applying a zinc rich paste to the same thickness as the original coat of galvanizing.

Members of components, which are dented, bent or twisted in transit or by handling during erection shall not be used on work but shall be replaced as directed by the Engineer-in- Charge.

ERECTION

- (i) It shall be ensured that structural components with correct markings as indicated in drawings are used in correct position.
- (ii) At the base connections the foundation bolts shall be located correctly using templates and grouted ensuring that all templates are in one horizontal plane. After erection of the first panel, its verticality shall be checked and corrected if necessary.
- (iii) Further erection work shall proceed panel by panel, bolts and nuts shall be finally tightened up to the torque specified using torque wrenches. Verticality of the tower shall be checked after complete erection of each panel. Each panel shall be completed in all respects and shall have the approval of the Engineer-in-charge before proceeding to the next panel.
- (iv) If a panel is to be left incomplete, it shall be ensured if necessary by erection of temporary bracings that all the members erected form a stable configuration, sufficient to withstand dead and wind loads.
- (v) The joint shall be made by drawing the light members into position with barrel drifts. Drifts may be used on the heavier members only to secure them in correct position. No member shall be force fitted. Any error in steel work, which prevents the assembly and fitting up to the parts by the proper use of drifts, shall be investigated immediately. If any defect or deficiency in the member comes to notice, the same shall be rectified as per directions of the Engineer-in-Charge.
- (vi) Packing plates shall be provided at the joints as shown on approved drawings in order to make up the change in the thickness of the parts jointed. No other packing plates shall be used.
- (vii) Hot dip galvanized bolts and nuts and washers of grade 5.6 shall be provided in all connections involving leg members main diagonals as well as horizontal through inter section of the main diagonals in k brace, panels and plain bracings
- (viii) Hot dip galvanized contact surfaces of joints providing with hot dip galvanized bolts nuts and washers shall be free of oil, paint and lacquer or other coatings and shall be scored by wire brushing or light blasting after galvanization and prior to assembly.
- (ix) Bolts used for connections shall not be less than 12mm dia. and the length shall be such that not more than half of the pitch of the thread lies inside the grip length. The threaded portion of the bolt shall protrude by not less than 3mm beyond the lock nut after it has been fully tightened.
- (x) Bolts and nuts shall be tightened by using the part turn method. The nut

shall be brought to the snug, tight position after which it will be given a further half to one turn depending upon the length of the bolt. In joints with several fasteners all the nuts bolts shall be brought to the snug tight position, before tightening further systematically. The nut rotation from snug tight condition is given in the table below:

NUT ROTATION FROM SNUG TIGHT CONDITION

Bolt length (as measured from underside of head to extreme end of point)	Bolts faces Normal to bol t axis.	One face normal To bolt axis & other face sloped not more than 1:20 (bevel washer not used)	Bolt faces slope not more than 1:20 from normal to bolt axis (bevel washers not used).
Upto including 4 dia.	1/3turn	1/2 turn	2/3 turn
Over 4 dia. But not exceeding 8 dia.	1/2 turn	2/3 turn	5/6 turn
Over 8 dia. But not exceeding 12 dia.	2/3 turn	5/6 turn	1 turn.

(xi) Alternatively nuts may be tightened using a calibrated wrench so that the proof load of the bolt specified in IS 1367 is achieved “snug tight is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench. Following this initial operation, bolts shall be placed in remaining holes in the connection and brought to snug tight position”.

VERTICALITY TOLERANCES

The verticality of towers of different heights shall be within the provisions of Table-1(III)(b) of IS:12843 : 1989, viz. $+ H / 1000$ or ± 20 mm (whichever is less) and $H/1500$ or ± 25 mm (whichever is less) for towers up to and including 30M height and over 30M height respectively. (H refers to the height of tower).

WORKING PLATFORM AND LADDER

A set of 3 (three) platform with railing as per the attached drawing at Annexure – I shall be provided at height of 34M, 36.4M and 38.8M respectively. A resting platform shall also be provided at a height of 20M from the ground level as per the details provided in the specifications. A ladder up to the top most platform inside the tower and cable tray assembly shall also be provided as per the specifications attached at Annexure II.

A working platform with railings is provided at a height from where erection and maintenance of Antenna, Aviation lamps, Lightning arrester etc. can be done easily. A ladder from rooftop up to top of platform at tower is provided with safety rings. Width of ladder shall be minimum 300 mm and safety ring of 750 mm shall be provided. Entry from ladder up to top of platform shall be such that no

extra efforts will require to reach at the platform. Width of platform should be minimum 600mm.

WAVE GUIDE

A tray of galvanized m.s. angle and flats of 600 mm width shall be provided as waveguide to carry the feeder cables from Antenna fixed at top of tower up to the BTS. This shall not bend sharply at right angles at turning point to avoid damage to running feeder cables.

Waveguide is provided in towers to carry the feeder cables from Antenna fixed at top of tower up to Transmission room. It is a tray of galvanized M.S. angles and Flats of 600mm width.

- (a) Wave guide should enter straight into the termination at last length.
- (b) Precaution should be taken to avoid twisting of the wave-guide while tightening the nut of the termination flange.
- (c) Twisting can be permissible by an amount of 1 over 5 meters of wave guide length.
- (d) Bend in the wave-guide should be less than 2M diameter.
- (e) Wave-guide should be clamped suitably at all the stages on wave-guide rack and at proper places at approx. every 2 meters length in bend portion.

MEASUREMENTS

Unless otherwise specified, for item of erection, the payment shall be made on weight basis. The weight shall be calculated as under.

The weight of all the structural members including tees, angles, channels, flats, rods, bars, tubes, gusset plates, splice plates, chequered plates, cleats, brackets, antenna, holding pipes, lightning arrestor pipe etc. shall be measured as given below.

The actual dimensions (length & width) of the members shall be measured in running meters correct to a centimeter and the thickness shall be measured correct to a millimeter.

For calculation of weight, the coefficients as given in the standard tables of BIS codes shall be followed.

In case the coefficients are not available in BIS Codes, than the coefficient available in other standard tables shall be followed.

In case the coefficients are neither available in BIS Codes nor in other standards, than the coefficients shall be derived based on actual weight taken at site.

In case none of the above is possible, the actual weight shall be measured at site before erection.

No deductions shall be made for rivet or bolt holes made as per drawings and no additions shall be made in weight due to galvanizing of the members.

If actual weight measured at site, is less than the weight as per BIS codes / other standards, then the actual weight shall be measured.

RATES

Unless otherwise specified, the rates quoted for the items shall include all labour, material, taxes, insurance, watch & ward, necessary T&P required for the work, tests, all weighing / measuring equipments etc. all complete. Nothing extra shall be paid over and above the quoted rates for the items.

The contractor shall pay Octroi wherever applicable. The Form "C" & "D", Octroi exemption certifies etc will not be issued by BSNL for any materials required in the work. The contractor shall quote all inclusive rates only. Nothing extra shall be paid over the quoted rates.

c) LIST OF PREFERRED MAKES FOR VARIOUS ITEMS OF WORK

S.No	Material	Preferred Make
1.	Water Proofing Compound	Fosroc, Pidilite, Impermo by M/s Snowcem, Sika, Accoproof.
2.	PVC Pipes & Fittings	Supreme, Prince, Sudhakar, Truebore.
3.	Acrylic Distemper/Plastic Paint	Asian Paints, ICI, Berger.
4.	Synthetic Enamel Paint	ICI(Dulux Gloss), Asian Paints (Premium apcolite Gloss)
5.	Steel Primer	ICI, Asian Paints, Berger, Shalimar.
6.	Dash/Anchoring Fasteners	HILTI / Fischer
7.	Nuts/Bolts and Screws	GKW / Atul.
8.	Stainless Steel Sink (Out of Salem Steel only)	DIAMOND. NIRALI, Jayana, Prestige.
9.	Float Valve	Viking, Prayag.
10.	Admixtures	Fosroc, Pidilite, Roff.
11.	Vitreous China Sanitary Ware	Parryware, Hindustan Sanitaryware, Jhonson, Jaguwar
12.	Plastic seat cover of W.C.(ISI Mark only)	Commander, Hindware, Parryware
13.	Centrifugally Cast(spun) Iron Pipes & Fittings	NECO or any other B.I.S. marked product & fittings.
14.	Centrifugally Cast(spun) Iron Pipes (Class LA)	Electro Steel, Kesoram, Jindal.
15.	G.I. Pipes	Jindal (Hissar), Tata, Zenith.
16.	G.I. Fittings	Unik, Zenith, HB.
17.	Gun Metal Valves	Leader, ZOLOTO
18.	Stone ware pipes & Gully traps	Perfect, Hind or Crystal.
19.	Mirror Glass	Saint Gobain, Modiguard, Asahi.
20.	Grouting Compound	Latticrete, Fosroc.
21.	Aluminium Sections	Hindalco, Jindal, Indal.
22.	Ready Mix Concrete.	Ultratech, ACC, M/s L&T Concrete, Birla.
23.	Aluminium Fittings	Classic, Everite, Jyothi.
24.	Hydraulic door closer	Hardwyn, Everite.
25.	Floor Springs	Ozone, Hardwyn, Everite,
26.	Exterior paint	Asian, ICI, Berger, Jenson & Nicholson
27.	Pre-laminated particle board	Novapan, Ecoboard, Kitply, Green ply
28.	Aluminum Composite Panel (ACP)	Armstrong, Reynobond, Alpolic, Alucobond.
29.	Reflective glass	Saint Gobain, Asahi, Modi.
30.	Polyvinyl Butyl film	Dupont, Trossifoil, Trusssof.
31.	PVC Sheet flooring	LG, Armstrong, Jindal.
32.	Preprinted sheet	Tata-bluescope, Jindal.
33.	ERW pipe	Tata, Jindal.
34.	Silicon sealant	Dow corning, GE.
35.	Epoxy grouts	Saint Bobin, Latticrete, FOSROC.
36.	Flush Door Shutters	Kitply , Standard, Kutty.

37.	Hardware Fittings	EARL BIHARI / HETTICH / LAXMI.
38.	Cupboard lock	Dorset, Godrej, Europa.
39.	Drawer Multilock	KEYMAN / Earl Behari.
40.	Cylindrical lock	SECUR, DORSET, Godrej.
41.	Mortice latch & lock	Godrej, Navtal, Sheel.
42.	Glass	Modifloat / Asahi / Saint Gobain.
43.	Plyboard	GreenPly / Kitply.
44.	Prelaminated MDF Board	Merino.
45.	Plain MDF Board	NUWOOD.
46.	Laminates	Greenlam/Formica/Merinolam/Royal Touch.
47.	Paints	Jenson & Nicholson/Asian/British/Nerolac/ICI./Be Rger
48.	Water Proof cement paint	Super Snowcem, Nitcocem.
49.	PVC tiles	Wonderfloor, Carara.
50.	Glue	Fevicol / Vamicol.
51.	Ceramic tiles	Kajaria / Bell / ORIENT / Somany
52.	Porcelain ware	Parryware / Nycer / Hindware.
53.	CP fittings & accessories	Parko / Gem / Kingston.
54.	Sand cast iron pipes	RIF / BC.
55.	R.C.C. Pipes	IHP.
56.	Insulation above false ceiling	Armflex / Superion / Eurobatex.
57.	Square perforated metal false ceiling	Conwed / Unimet / TRAC.
58.	Providing Acoustical felt treatment	Soundtex.
59.	Gypsum board accessories	INDIA Gypsum Ltd.,
60.	Epoxy paint	Nerolac / Asian.
61.	Access flooring system (False floor)	Unitile / Donn.
62.	Perforated panels (False floor)	Unitile / Donn..
63.	Modular work stations	Bristol, Godrej, Blow plast, Featherlite, Legend.
64.	Tinted film	Garware, Meditech, 3M.
65.	Vitrified tiles	RAK ceramics, Kajaria, Somany, NITCO
66.	Wood preservative	Bison by British paints, Woodguard, Termiseal.
67.	Marine plywood	Kenwood, Kitply, Greenply.
68.	Commercial plywood	Guna, Kenwood, Galaxy, Century.
69.	Plain particle board	Novopan, Ecoboard.
70.	PVC water tank	Sintex (with ISI mark embossing only)
71.	PVC Door shutter	Rajashri, Sintex.
72.	White Cement	Birla White / J.K. White.
73.	PVC gratings	Prince / Prayag.
74.	Urinal Frameless glass partition	Jaguar/Hindware/Approved Equivalent
75.	Mineral fibre tiled false ceiling	Armstrong or any approved equivalent

I/We hereby undertake that, I/We/my authorized representative have received the copy of the stated list (along with the tender documents) of brand names of various items to be used for the above work and I/we shall quote my rates of various item accordingly.

CONTRACTOR

Executive Engineer (Civil)

SCHEDULE OF QUANTITIES

Name of the work : Civil Works at RAN sites under Phase IX.2 4G Project in Warangal OA.

I. No.	Description of Item	Quantity	Rate (Rs)	Unit	Amount (Rs)
1	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness 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.	115.00	Sqm	One Square Metre	
2	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:				
a)	G.S. Sheet	115.00	Sqm	One Square Metre	
3	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width.	30.00	Metre	One Running Metre	

4	Providing and fixing plain lining with necessary screws/nuts & bolts/nails including a coat of approved primer on one face and fixed on wooden /steel frame work, complete as per direction of Engineer-in-charge. (Frame work shall be paid for separately)					
a)	18mm thick commercial ply conforming to IS : 1328 BWR type.	115.00	Sqm		One Square Metre	
5	Tightening of bolts and nuts for the entire ground based tower of 40M high, including fixing of necessary missing angles, plates, bolts and nuts, plain and spring washers, check nuts, etc., complete wherever required (the cost of the materials shall be paid in the relevant item). Tightening of bolts and nuts with Torque Wrench and with all other required tools as per site condition and as per the directions of the Engineer in charge. (Rate includes the cost of tightening of existing bolts and nuts with plain washers and spring washers and checknuts, necessary scaffolding arrangement, helmets, ropes, pullies and other safety arrangements, insurance for all the labour & technicians etc., all complete as per directions of Engineer-in-Charge. Payment for missing angles, plates, bolts and nuts shall be made seperately under relevant item).	10.00	Job		Each Job	
	Note:- BSNL or any of its Staff shall not be responsible for any mishaps, damages etc., if any, occuring during the execution of the work. The rate includes the cost for taking necessary insurance for workmen compensation and for comprehensive risk coverage. The rate also includes for arranging necessary labour & technicians for conducting necessary AT for checking of the work.					

6	Providing of required galvanised - angles, plates, bolts and nuts, plain and spring washers, check nuts, etc. for the entire 40 mtrs tower and gantry of required size, length and bolts & nuts of required diameter of grade 5.6 complete as per directions of Engineer In Charge. The fixing charges of the materials provided are included in the above Item. The weight of the items provided at site shall only be measured for payment. Rate includes cost of materials, taxes, transport, loading & un loading charges etc. All complete and as per the directions of the Engineer - in - charge.	500.00	Kg		One Kilogram	
7	Painting with High gloss synthetic enamel paint of approved colour, brand and manufacture to give an even shade for the existng 40m tower. The finished painted surface shall look even without any patches, loose flakes etc. The painting shall be done with utmost care using all safety equipment like ropes, safety belts etc. The rate includes all material costs, taxes, transport, labour charges, etc. Each tower painted shall be measured as one job for making payment. All complete and as per the directions of the Engineer - in - charge.					
	a) Two or more coats on old work.	10.00	job		One Job	
8	Supplying and fixing in position 2.00 mm thick antistatic polyvinyl chloride sheet of approved colour, brand and manufacture, using DUNLOP or approved equivalent rubber based adhesive (viz: 8753 or equivalent) including fixing of 25mm wide x 0.60 mm thick copper strip in required pattern. The rate includes cost of all materials, wastage, taxes, transport, albour charges etc. The finished laid anti static pvc flooring shall be measured for payment. All complete as per manufacturers specifications and as directed by the Engineer-in-charge.	115.00	Sqm		One Square Metre	

9	Removing the existing damaged antistatic PVC flooring and the damaged ply wood in the BTS shelter including disposing the unserviceable materials to the approved dumping ground and stacking the serviceable materials at a designated place within 10 Km lead etc. complete as directed by the Engineer-in-charge. Each BTS shelter where the damaged antistatic PVC flooring and the damaged ply wood are removed shall be measured as one job for making payment. All complete as directed by the Engineer-in-charge.	15.00	Job		Each Job
10	Repairing of BTS shelter door shutter by removing, making necessary repairs and refixing it properly in position with new pair (2 Nos) of stainless steel hinges 125x85x5mm (heavy type) with necessary screws, nut bolts etc complete as directed by Engineer in charge. Each BTS shelter where the repairs to th door are provided shall be measured as one job for making payment. Nothing extra shall be paid over and above the rate on any account. All complete as directed by the Engineer-in-charge.	15.00	Job		Each Job
11	Providing and Fixing Aluminium sliding door bolt of approved brand and manufacture of Size 300mm x16mm with 75/100mm long G.I. nut bolts including drilling etc complete as directed by the Engineer-in-charge. Each Aluminium sliding door bolt provided to the BTS shelter shall be measured as one job for making payment. All complete as directed by the Engineer-in-charge.	15.00	Job		Each Job
				Total :	

Contractor

Executive Engineer (Civil)