

# TENDER DOCUMENT

FOR  
THE WORK

**Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at  
4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA..**

**(NIT No:37/EEC/BSNL/Nasik /2018-19)**

**To be submitted only online on webportal:  
<https://eprocure.gov.in>**

**By 18.00 hrs on 29/10/2018**

**Executive Engineer (Civil), BSNL Civil Division, Nasik  
Shahyadri Nagar, CIDCO,  
Nasik -422 009.  
Phone No: 0253-2397401, Fax : 0253-2397402  
Email: eecivilnsk@gmail.com**

# I N D E X

NAME OF WORK: **Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.**

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**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS/ BIDDERS FOR e – TENDERING**

Percentage Rate e-Tenders are invited by the Executive Engineer, BSNL Civil Division, **Nasik**, on behalf of Bharat Sanchar Nigam Limited (A Govt of India Enterprise) for the following work from the contractors enlisted in appropriate class in BSNL, CPWD, MH PWD (B&R), DOP, MES& Railways, as well as non enlisted specialized Contractors.

NIT No. - 37/EEC/BSNL/NSK/2018-19/794 dated 16/10/2018

Name of Work	Estimated Cost put to bid	Earnest Money	Period of Completion	Last Date & Time of submission of on line bid	Period during which EMD, Cost of Bid Document and other Documents shall be submitted	Date & time of opening of EMD, Cost of bid document & other document	Date & time of opening of on line bid
Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.	Rs.12,18,120/- (Rs. Twelve Lakhs Eighteen Thousand and One Hundred Twenty only)	Rs.24,370 /- (Rs. Twenty Four Thousand Three Hundred Seventy only)	45 Days	Up to 18.00 hrs on 29/10/2018	From 10:00 hrs on 30/10/2018 up to 15:00 hrs on 31/10/2018	– At 15.30hrs on 31/10/2018	– At 11.00 hrs on 01/11/2018

1. The Tender Document consisting of specifications, the schedule of quantities of various types of items to be executed, terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <https://eprocure.gov.in> or [www.maharashtra.bsnl.co.in](http://www.maharashtra.bsnl.co.in), free of cost.
2. The intending bidder should read carefully & understand the tender document, procedure for e- tendering etc completely before participating in the e-tender. Participation in the e-tendering, presumes that the bidder (s) has/have read all the

conditions, Special Conditions of the contract, Schedule of quantity etc and agrees /abides by them. He should only submit his bid only if he considers himself eligible and he is in possession of all the documents required.

3. Information and instructions for bidders posted on website shall form part of bid document.
4. For e-Tendering of this tender BSNL has engaged e-portal maintained by NIC. The Intending bidder shall have to enrol with **<https://eprocure.gov.in>**. The intending bidder must have valid class-II digital signature to submit the bid.
5. There shall be no extension of date for submission of BID for the reason of failure of internet link or other issues with web portal. No such request in this regard from the bidder shall be entertained.
6. The bid can only be submitted after uploading the mandatory scanned copies of documents listed below. The documents can be uploaded on the website only in JPG format and PDF format.
  - 6.1 Earnest Money Deposit, as per format prescribed in Tender Document.
  - 6.2 Cost of Tender Document, as per format prescribed in Tender Document.
  - 6.3 Copy of Enlistment Order of the Contractor.
  - 6.4 Copies of Certificates regarding requisite Work Experience.
  - 6.5 Declaration regarding near relatives working in BSNL, as stipulated in clause 17 of BSNL W-6 of Tender Document.
  - 6.6 Undertaking as stipulated under clause 21 of BSNL W-6 of Tender Document.

The original instruments of EMD & Tender Cost, original copies of Declaration & Undertaking and self attested photo copies of Enlistment order & Certificates of work experience must be submitted in sealed envelope in the office of the, **Executive Engineer (Civil), BSNL Civil Division, Nasik, Shahyadri Nagar, CIDCO, Nasik -422 009. Phone No: 0253-2397401, Fax : 0253-2397402 by 15.00 hrs on 31/10/2018.**

**BSNLW - 6****Bharat Sanchar Nigam Ltd.**

**Executive Engineer (Civil), BSNL Civil Division, Nasik, Shahyadri Nagar,  
CIDCO, Nasik -422 009. Phone No: 0253-2397401, Fax : 0253-2397402  
Email: eecivilnsk@gmail.com**

**NOTICE INVITING TENDER**

**[NIT No: 37/EEC/BSNL/NSK/2018-19/794 dated 16/10/2018]**

- 1.** Percentage Rate e-Tenders are invited by the Executive Engineer, BSNL Civil Division, **Nasik**, on behalf of Bharat Sanchar Nigam Limited (A Govt of India Enterprise) for the following work from the contractors enlisted in appropriate class in BSNL, CPWD, MH PWD (B&R), DOP, MES & Railways, as well as non enlisted specialized Contractors.

**Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.**

- 1.1** The work is estimated to cost **Rs.12,18,120/- (Rs. Twelve Lakhs Eighteen Thousand One Hundred Twenty only)**
- 1.2** e-Tenders will be opened in respect of eligible contractors provided they submit The eligibility documents listed in Tender Document.
  - 1.2.1** Eligibility Experience for participation in tender for the contractors enlisted in BSNL Building Works in appropriate class: **NIL**
  - 1.2.2** Eligibility Experience for participation in tender for contractors registered in CPWD, MH PWD (B&R), DOP, MES & Railways in appropriate class as well as non enlisted specialized Contractors.

**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.4,87,248/- (Rs FourLakhs Eighty SevenThousand Two Hundred Forty Eightonly).**  
**Or**
- b.** Two similar completed works each costing not less than the amount equal to **Rs.6,09,060/- (Rs SixLakhs NineThousand Sixtyonly).**  
**Or**

- C. One similar completed work costing not less than the amount equal to Rs.9,74,496/- (Rs Nine Lakhs Seventy Four Thousand Four Hundred Ninety Six Five only).**

**Similar work means: Steel Tower Erection/Dismantling works executed in Central Govt / MH State Government departments or in Public Sector Units of Central / MH State Govt.**

2. Agreement shall be drawn with the successful bidders on prescribed Form No BSNL W7 and General Conditions of Contract with up to date correction slips which are available as a BSNL Publication/ BSNL website [www.maharashtra.bsnl.co.in&https://eprocure.gov.in](http://www.maharashtra.bsnl.co.in&https://eprocure.gov.in). Bidders shall quote his percentage as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work, will be **45 Days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. The bid document consisting of plans, Specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents including General Conditions Of Contract Form can be seen from website [www.maharashtra.bsnl.co.in](http://www.maharashtra.bsnl.co.in) & <https://eprocure.gov.in>.
6. After submission of the bid, the bidder can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. Earnest money in the form of Demand Draft or Pay Order or Banker's Cheque or Fixed Deposit Receipt, drawn in favour of 'AO (CASH), BSNL Nasik' shall be scanned and uploaded to the e-tendering website within the period of bid submission and original should be deposited in office of Executive Engineer (Civil).

**Earnest Money of Rs.24,370/- (Rs. Twenty Four Thousand Three Hundred Seventy only)**

in Banker's Cheque / Fixed Deposit Receipt / Demand Draft of a scheduled bank issued in favour of 'AO (CASH), BSNL Nasik'.

Note: Money due to contractor in any other work or earnest money of the previous call of the same work shall not be adjusted towards earnest money.

- a) Cost of Bid Document – Banker's Cheque / Demand Draft Amounting to **Rs.590/-** drawn in favour of 'AO (CASH), BSNL Nasik'

**8. Submission of Eligibility Documents:**

The documents listed below shall be submitted by the bidder in order to establish his eligibility:

- a. EMD in the form of Demand Draft / Pay Order / Banker's Cheque / FDR, in original.
- b. Cost of Bid Document in the form of Demand Draft in original.
- c. Self attested copy of the Enlistment Order.
- d. Self attested copies of Work Experience Certificates.
- e. Declaration regarding near relatives working in BSNL, in original.
- f. Undertaking as stipulated under clause 21 of BSNL W-6 Notice Inviting Tender.

The bidder shall upload the scanned copies of all the eligibility documents listed above on the e-tendering website within the period of bid submission **i.e. by 18.00 hrs on 29/10/2018**

All the documents shall be further placed in a sealed envelope. The name of work, NIT no, date of submission, date of opening and the name of the vendor shall be clearly mentioned on the envelope. The sealed envelope shall be submitted in the office of Executive Engineer after last date & time of submission of bid & upto **15.00hrs on 31/10/2018**.

The documents submitted by the bidders shall be opened at **15.30 hrs on the same day**.

9. Online bid documents submitted by intending bidders shall be opened only of those bidders, who deposits Earnest Money deposit, Cost of Bid Document and other Eligibility documents scanned and uploaded on website as well as submits in the **O/o Executive Engineer (Civil), BSNL Civil Division, Nasik** before the designated time and date.

The online bids of the eligible bidders shall be opened at **11.00 hrs on 01/11/2018**.

10. The bid submitted shall become invalid and cost of bid shall not be refunded if the bidder is found in eligible. If any discrepancy is noticed between the documents uploaded on the website at the time of submission of bid and documents submitted in the office of the Executive Engineer (Civil), the eligibility of bidder shall be decided in the following manner:
- a. If all the documents uploaded on the website are not submitted in the office of the Executive Engineer (Civil), the bidder may be required to submit the balance documents to the office of the Executive Engineer. The eligibility of the bidder shall be decided on the basis of the documents finally submitted in the office of the Executive Engineer.
  - b. If all the documents submitted in the office of the Executive Engineer are not uploaded on the website, the eligibility shall be decided on the basis of the documents submitted in the office of the Executive Engineer.
  - c. If minor typographical errors are noticed in the name of payee in respect of instruments for Tender Cost & Earnest Money Deposit, the same may be allowed to be corrected as

long as the amount of the Tender Cost & Earnest Money Deposit is not less than the amount specified in the tender document.

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.

11. The description of the work is as follows:

**Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.**

12. 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 Proforma 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 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 at rate of 5% of the tendered value in the form of irrevocable Bank Guarantee of requisite amount to the Engineer-in-charge in the Proforma 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.
13. Copies of other drawings and documents pertaining to the work will be open for inspection by the tenderers at the office of the **Executive Engineer (Civil) BSNL Civil Division, Nasik.**

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 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.



14. The competent authority on behalf of the BSNL does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without assigning any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
15. Canvassing whether directly or indirectly, in connection with bids is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
16. The competent authority on behalf of BSNL reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
17. 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 (Civil/Electrical) is/are posted in any capacity either non-executive or executive employee. Near relative (s) for this purpose is/are defined as:
  - 17.1 Member of Hindu Undivided family (HUF).
  - 17.2 They are Husband and Wife.
  - 17.3 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/Declaration 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 as under:

**"I \_\_\_\_\_ s/o Shri \_\_\_\_\_ Resident of \_\_\_\_\_ hereby certify that none of my relative(s) as defined in clause 17 of BSNL W-6 is/are employed in concerned BSNL Civil Zone. 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."**

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 of 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.

18. 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 two years after his retirement from Government service, without previous permission of the Government 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 Government of India /State Government or PSUs as aforesaid before submission of the tender or engagement in the contractor's service.
19. The bid for the works shall remain open for acceptance for a period of **60(Sixty)Days** from the date of opening of Bids. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, 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. Further the bidder shall not be allowed to participate in the rebidding process of the work.
20. 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, 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, 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 W7 as on websites [www.maharashtra.bsnl.co.in](http://www.maharashtra.bsnl.co.in) and <https://eprocure.gov.in>.
  - c) Agreement signed on non-judicial stamp paper as per proforma annexed to the tender document.
21. If the contractors do not submit the physical bid documents / Technical Bid consecutively three times after submission of online bids, action shall be taken to withdraw his/their enlistment / debar him/them from tendering in BSNL for the period of six months.

All the intending tenderers will have to submit an undertaking in the format given as under.

*I. .... S/o Shri ..... Resident of ...  
 ..... hereby submit the undertaking  
 that “If I/We do not submit the physical bid documents / Technical Bid  
 consecutively three times after submission of online bids, 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”.*

22. Payment to the contractors shall be made through e-payment system. The contractor will be required to submit the details of his PAN number, Bank Account Number and other details as required by BSNL in order to make e-payment to the contractor.
23. 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.
  - c. Submission, by the contractor, of Labour License and Registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable.
24. General conditions of works in BHARAT SANCHAR NIGAM LTD are available on website ***www.maharashtra.bsnl.co.in*** and ***https://eprocure.gov.in*** as well as in the Divisional/ Sub divisional Office.
25. **Condition for EPF:**
  - a. The contractor shall furnish EPF registration certificate at the time of entering into agreement. In case the contractor feels that the EPF Act is not applicable in his case and EPF registration certificate is not required for the work, he shall be allowed to enter in to the agreement only on production of Indemnity bond in favour of BSNL against any EPF liability.
  - b. In the event of failure on the part of the contractor, to comply with the conditions stated above, full EMD will be forfeited in favour of BSNL & no claim what so ever shall be entertained on this account.
  - c. The contractor shall also furnish copy of PAN card.
26. **Goods & Services Tax (GST):**

The rates quoted by the contractor shall be inclusive of GST. GST or any other tax applicable in respect of **inputs procured by the contractor** for this contract shall be payable by the Contractor and BSNL will not entertain any claim whatsoever in respect of the same. However, **component of GST at time of supply of service ( as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.**
27. For redressal of any complaints, following officers may be contacted:

- a. The Chief General Manager, BSNL MH Circle, Admin Bldg, A-wing, 6th floor, Juhu Danda, Santacruz (W), Mumbai-400054.  
Telephone No: 022- 26616999 Fax No: 022-26616777
  - b. The Deputy General Manager(Vig)O/o CGMT, BSNL MH Circle, AdminBldg, A-wing, 6th floor, Juhu Danda, Santacruz (W), Mumbai-400054.  
Telephone No: 022-26616715 Fax No: 022- 26615774
28. The agency intending to participate in tendering process shall have to enrol with **<https://eprocure.gov.in>**.
29. If any terms and conditions under General Rules and Directions is in contravention to terms and conditions as above, the terms and conditions as above shall prevail.
30. The contractor may be required to execute the additional tower work in adjoining SDCA as per the requirement of BSNL on the same terms and conditions.

**BSNL W - 7**  
**BHARAT SANCHAR NIGAM LIMITED**  
 (A GOVERNMENT OF INDIA ENTERPRISE)

STATE: Maharashtra State  
 ZONE: Mumbai

CIRCLE: Mumbai  
 DIVISION: Nasik

**Percentage Rate Tender & Contract for Work**

<b>Name of the work</b>	Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.
<b>1.</b>	Bids to be submitted online by <b>18.00 hrs on 29/10/2018</b> on e-Tender Portal <b><a href="https://eprocure.gov.in">https://eprocure.gov.in</a></b>
<b>2.</b>	Hard Copies of the Eligibility Documents to be submitted to the <b>Executive Engineer, BSNL Civil Division, Nasik, by 15.00 hrs on 31/10/2018</b>
<b>3.</b>	To be opened at <b>15.30</b> hours on <b>31/10/2018</b> in the office of the <b>Executive Engineer, BSNL Civil Division, Nasik</b>

**TENDER**

I/We have read and examined Notice Inviting Tender, Schedules A, B, C, D, E & F, Specifications applicable, Drawings & Design, General Rules and Directions, Conditions of Contract, Special conditions, Schedule of Rate & other document & 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 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 **60(Sixty) days** from the date of opening of tenders 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 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. Further, the tenderer shall not be allowed to participate in the re-tendering process of the work.

A sum of **Rs.24,370/- (Rs. Twenty Four Thousand Three Hundred Seventy 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, up to 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. Further, I/We agree that, in case of forfeiture of earnest money or both earnest money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

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

I/we hereby 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 **Nasik** only." (Where the NIT/Tender has been issued)

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

Witness: \*\*

( \_\_\_\_\_ \*\* \_\_\_\_\_ )

Address: \*\*

**Signature of Contractor**

Occupation: \*\*

Postal Address:-\*\*

\*\*\*\*\*

## ACCEPTANCE

The above composite 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

Signature .....\*.....

Name and designation .....\*.....

Dated \_\_\_\_\_\*\_\_\_\_\_

- 
- \* Blanks to be filled by EEC.
  - \*\* To be filled by Contractor

**DECLARATION**

(To be submitted by the contractor regarding near relatives working in BSNL as per clause 17 of BSNL W-6)

"I . . . . . S/o Shri . . . . .  
Resident of----- hereby certify that none of my  
near relative(s) as defined in clause 17 of BSNL W-6 is/are employed in  
concerned BSNL Civil Wing.

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."

Signature of Contractor



**UNDERTAKING**

(To be submitted by the contractor as per clause 21 of BSNL W-6)

**I .....** **S/o Shri .....**  
**Resident of .....** hereby submit the  
undertaking that "If I / We do not submit the physical bid documents /  
Technical Bid consecutively three times after submission of online bids, 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".

Signature of Contractor

<b>PROFORMA OF SCHEDULES</b>				
<b>(FOR CIVIL COMPONENT)</b>				
<b>SCHEDULE "A"</b>				
"Schedule of Quantities" - attached				
<b>SCHEDULE "B"</b>				
Schedule of Materials to be issued to the contractor				
S. No	Description of Item	Quantity	Rates in figures & words at which the materials will be charged from the contractor	Place of issue
1	2	3	4	5
<b>NIL</b>				
<b>SCHEDULE "C"</b>				
Tools and Plants to be hired to the contractor				
S. No.	Description of Item	Hire charges per day	Place of issue	
1	2	3	4	
<b>NIL</b>				
<b>SCHEDULE "D"</b>				
"General Instructions" - enclosed				
<b>SCHEDULE "E"</b>				
Schedule of component of Materials, Labour etc for escalation				
<b>CLAUSE 10 C</b>		<b>Not Applicable.</b>		
<b>CLAUSE 10 CA</b>		<b>Not Applicable</b>		
<b>CLAUSE 2A</b>		<b>Not Applicable</b>		
Component of Materials expressed as percent of Total Value of Work		"X"	75 %	
Component of Labour expressed as percent of Total Value of Work		"Y"	25 %	
Component of POL expressed as percent of Total value of Work		"Z"	0%	
<b>SCHEDULE "F"</b>				
<b>Reference to General Conditions of Contract</b>				
Name of Work		Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.		
Estimated cost of Work		Rs.12,18,120/- (Rs. Twelve Lakhs Eighteen Thousand One Hundred Twenty only)		

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Earnest Money	Rs.24,370/- (Rs. Twenty Four Thousand Three Hundred Seventy only)
Performance Guarantee	(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. 15.00 Lakhs)
Security Deposit	(10% of the tendered value for works with estimated cost put to tender up to Rs. 15.00 Lac) (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. 15.00 Lakhs)

## GENERAL RULES AND DIRECTIONS

Officers inviting tender	Executive Engineer (Civil), BSNL Civil Division, Nasik
<b>Definitions</b>	<b>See below</b>
2(v) Engineering in Charge	Executive Engineer (Civil), BSNL Civil Division, Nasik
2(viii) Accepting Authority	Superintending Engineer (Civil), BSNL Civil Circle, Mumbai.
2(x) Percentage on cost of materials and Labour to cover all overheads and profit	10 %
2(xi) Standard Schedule of Rates	Delhi Schedule of Rates 2016 printed by CPWD corrected up to date.
9(ii) Standard BSNL Contract Form	BSNL W-7 form as modified with up to date correction slips.
<b>Clause 1</b>	Time allowed for submission of applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying therefore from the date of issue of letter of acceptance 30 (Thirty) days.
Authority for fixing compensation under Clause 2	Superintending Engineer (Civil), BSNL Civil Circle, Mumbai.
<b>Clause 2 A</b>	<b>Not Applicable</b>
<b>Clause 3A</b>	
Whether Clause 3A shall be applicable	<b>Not Applicable</b>
<b>Clause 5</b>	
i) Time allowed for execution of work.	<b>45 Days.</b>
ii) Authority to give fair and reasonable extension of time for completion of work.	Superintending Engineer (Civil), BSNL Civil Circle, Mumbai.

<b>Clause 6A</b>		
Whether Clause 6A shall be applicable		<b>Applicable for works where estimated cost put to tender is more than Rs 15 Lakh. However for the works where the estimated cost put to tender is less than Rs 15 Lakh, the CMB can be adopted at the option of the contractor.</b>
<b>Clause 7</b>		
Gross value of work to be done together with net payment /adjustment of advances for materials collected, if any, since the last such payment for being eligible to interim payment.		<b>Rs. 4,00,000/- (Rs Four Lakh Only)</b>
<b>Clause 7 A</b> Whether Clause 7A shall be applicable		<b>Applicable</b>
<b>Clause 10</b>		
Reinforcement steel to be used in the work shall have to be procured as below: <b>(a) TMT bars Manufactured by Secondary producers as approved by Engineer-in-charge</b>		
<b>Clause 10 CA – Not Applicable</b>		
<b>Clause 11</b>		
Specification to be followed for execution of work.		<b>CPWD Specifications 2009 Volume I to II with up to date correction slips.</b>
<b>Clause 12</b>		
12.1.2 (iii)	Schedule of rates for determining rates for additional, altered or substituted items that cannot be determined under clause 12.1.2 (i) and (ii).	<b>CPWD DSR 2016 with rates corrected for 10% contractor's profit instead of 15%.</b>
12.1.2(iii)	Plus/minus the % over the rate entered in schedule of rates	<b>Deleted</b>
12.2 & 12.3	Deviation limit	<b>50% (Fifty percent)</b>

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<b>Clause 16</b>	
Competent authority for deciding reduced rates.	<b>Superintending Engineer (C), BSNL Civil Circle, Mumbai.</b>
<b>Clause 36(i)</b>	
(a) Minimum requirement, qualification and experience of Technical Staff for civil works with estimated cost put to tender.	
Cost of Work up to 150 lakhs	<b>Graduate Engineer 1 No. with 2 years minimum experience. Or Diploma Engineer 1 No. with 5 years minimum experience.</b>
(b) Recovery to be affected from the contractor in the event of not fulfilling the provisions of clause 36(i).	<b>Rs. 15,000/- Per Month</b>
<b>Clause 37(i)</b>	<b>GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of <b>input for or output</b> by this contract shall be payable by the contractor and BSNL shall not entertain any claims whatsoever in this respect <b>except as provided under Clause 38.</b></b>

<b>Clause 38 (i)</b>	All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GST, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs. However, effect of variation in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease. Provided for Building and Other Construction Workers Welfare Cess or any tax ( other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/cess . Provided further that such adjustment including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time under Clause 5 in Schedule F.
Rate of GST Applicable as on date	18%
<b>Clause 42</b>	
i)	Schedule / statement for determining theoretical quantities of cement on the basis of Delhi Schedule of Rates 2016 Printed by CPWD with up to date correction slips as on the date of opening of tenders.
ii)	Variation permissible on theoretical quantities
a)	Cement for works with estimated costs put to tender
	i) not more than Rs. 5 lakhs <b>3 % minus</b>
	ii) More than Rs. 5 lakhs <b>2 % minus</b>
b)	Steel reinforcement and structural steel sections for each diameter, section and category. <b>2 % minus</b>
<b><u>Star prices to be considered for escalations &amp; recoveries</u></b>	

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S.No	Material	<b>Star Price</b> ( Rate in Figures and Words)
1	For Cement	Not Applicable
2	For Reinforcement steel TMT bars conforming to relevant IS code.	Not Applicable

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

**\*\* Star prices should be filled up by EE before publishing the NIT.**

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## GENERAL INSTRUCTIONS

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1. The entire work shall in general conform to the CPWD Specifications for Works 2009 (Volume I & II) with all correction slips issued up to date as on the date of opening of tenders and description in the Schedule of Quantities, special conditions, latest relevant Bureau of Indian Standard codes, drawings etc.
2. All the above documents shall be considered complementary to each other. However in case of conflict among them, the following order of precedence shall be followed.
  - a. Provision in description of item(s) in schedule of quantities, including drawings, if any mentioned therein
  - b. Particular specifications, special and additional conditions etc. As stipulated in tender document.
  - c. BSNL General conditions of Contract for Civil works – 2013 with up-to-date correction slips.
  - d. CPWD Specifications
  - e. Latest relevant BIS codes
  - f. Drawings not specifically mentioned in the nomenclature of the item in Schedule of Quantity
  - g. Sound Engineering Practice
  - h. Manufacturer's specifications
  - i. Decision of Engineer-in-charge shall be final and binding.
3. Where-ever "CPWD Specification" is referred to in the tender document; it shall mean "CPWD Specifications 2009 (Volume I & II) with all up to date correction.
4. Wherever any reference to any Indian Standard Specifications (BIS) occurs in the documents relating to this contract, the same shall be inclusive of all up to date amendments or revisions.
5. Where ever "DSR" is referred to in the tender documents, it shall mean "CPWD Delhi Schedule of Rates 2016 with all up to date correction slips as on the date of opening of tenders".
6. The work shall be executed and measured as per Metric Dimensions given in the schedule of quantities, drawings etc. (F.P.S. units wherever indicated are for guidance only).



## **Amendment / Correction to General Condition of Contract for Civil works in BSNL**

1	Clause 1(Addition)	The contractor whose bid is accepted will also required to furnish either copy of applicable licenses /registrations or proof of applying for obtaining labour license , registration with EPFO,ESIC and BOWC welfare Board and programme chart (Time and progress) within the period specified in schedule F
2	Clause 7A (New Provision)	No Running Account Bill shall be paid for the work till the applicable labour Licenses, registration with EPFO,ESIC and BOCW welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.
3	Clause 19(Addition)	<p>The contractor shall obtain a valid license under the contract labour (R&amp;A) Act, 1970 and the contract labour (regulation and Abolition) Central Rules, 1971 before the commencement of the work and continue to have a valid license until the completion of the work.</p> <p>The contractor shall also comply with provision of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act,1979</p>

**ADDITIONAL CONDITIONS FOR DISMANTLING OF TOWERS**

1. The mode of dismantling shall be got approved from the Engineer-in-Charge in writing.
2. The dismantling shall be done strictly as per the directions of Engineer-in-Charge.
3. All the precautions shall be taken during the dismantling process as per relevant codes and as per the directions of the Engineer-in-Charge.
4. The dismantling shall be done with due care such that no tower members, gusset, bolts, nuts etc are damaged during dismantling.
5. The damaged / missing tower members, nut, bolts etc shall be reported to the Engineer-in-Charge before actual start of dismantling work.
6. Before / during dismantling of the tower all the members shall be systematically / properly numbered with permanent ink or paint, so as to facilitate the erection work later as per the directions of Engineer-in-Charge.
7. The dismantled tower members etc shall not be thrown directly to the ground.
8. In case of any damage to the tower material due to mishandling etc the same shall be made good by the contractor at his own cost.
9. The dismantled members etc shall be properly stacked & stored.
10. The unserviceable material shall be stacked separately in the compound for which nothing extra shall be paid to the contractor.
11. The unserviceable material obtained from dismantling shall not be removed from the site without the written permission of Engineer-in-Charge.
12. The tower members, nut, bolts etc obtained from dismantling shall be properly cleaned, & approved de-rusting agent will be applied (if so required). The de-rusting agent shall be as approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.
13. During execution of the work, adequate precaution shall be taken to avoid any damage to the existing structure / finishes. In the event any damage occurs, the same will have to be made good by the contractor at his own cost.
14. The contractor will be responsible for the safe storage and custody of the material until the dismantling is completed and handed over to the department.
15. The Agency is to take & arrange all kinds of safety measures for work & workers to avoid any kind of eventuality.

**SPECIAL CONDITION FOR ERECTION OF STEEL TOWER**

The following conditions shall be applicable in addition to other conditions given in tender form. Nothing extra shall be paid on these accounts unless otherwise mentioned.

- 1.0** All structural steel members like high tensile steel angles, Tees and Plates etc. shall be conforming to IS: 2062-2006 and IS: 8500-1991. The contractor shall procure all structural steel members i.e. Angles, tees, Plates, nuts & bolts etc. (as required) conforming to relevant I.S. Codes from main producers as approved by the Ministry of Steel namely SAIL, TISCO and RINL or BIS approved. However, in case of procurement from other BIS approved manufacturers, prior approval of BSNL shall be required and materials from approved manufactures are only allowed to be used in the work. However, the material procured from other BIS approved manufacturer may also be allowed provided the samples of the materials proposed to be used are got tested by the Engineer-in-charge, and the same is successfully passed on all parameters as per provisions of 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 the agency before tower members/ templates are cut.
- 2.0** The Nuts, bolts, plain / spring washers shall be procured from producers approved by Power Grid Corporation of India or equivalent. Nuts and bolts of grade 5.6 conforming to relevant IS codes 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.
- 3.0** 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)
- 4.0** Agency executing the Transportation 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.
- 5.0** 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.
- 6.0** 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.

## **7.0 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.

## **8.0 CUTTING**

Cutting may be affected by shearing, flame cutting or sawing. The surface so cut shall be clean, smooth, square and free from any distortion.

## **9.0 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.

## **10.0 TOLERANCES**

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

## **11.0 GALVANIZING**

11.1 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.

11.2 Zinc for galvanizing should conform to IS 13229-1991.

- 11.3 All members and fasteners of Tower member/ bolts 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.

## **12.0 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.

### **12.1 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.

### **12.2 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 zinc Chromate/phosphate shall conform to IS 104.

### **12.3 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.

### **12.4 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.

### **12.5 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.

**12.6 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.

**12.7 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.

**12.8 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.

**13.0 RECTIFICATION / REPAIRS TO DAMAGED PARTS**

13.1 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.

13.2 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.

**14.0 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 member's 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 bolt 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).
Up to 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”.

**14.1 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  $\pm 20$  mm (whichever is less) and  $H/1500$  or  $\pm 25$  mm (whichever is less) for towers up to and including 30M height and over 30M height respectively. (H refers to the height of tower).

**14.2 WORKING PLATFORM AND LADDER**

A set of 3 (three) platform with railing as per the drawing 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.

A working platform with railings is provided at a height from where erection and maintenance of Antenna, Aviation lamps, Lightening 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.



## 15.0 WAVE GUIDE

A tray of galvanized m.s. angle and flats of 600 mm width shall be provided as wave-guide 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 diameters.

(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.

## 16.0 MEASUREMENTS

16.1 Unless otherwise specified, for new members required for erection, the payment shall be made on weight basis. The weight shall be calculated as under.

16.2 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, lightening arrestor pipe etc. shall be measured as given below.

16.3 The weight of nuts & bolts, washers, packing pieces etc. shall not be measured for payment purposes.

16.4 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.

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

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

16.7 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.

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

16.9 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.

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

**17.0 PROTECTION OF LIFE, PROPERTY AND EXISTING FACILITIES :**

- 17.1 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 a reasonable safe condition. The Contractor shall protect all life and property from damage or losses resulting from his construction operations and shall minimize the disturbance and inconvenience to the public.
- 17.2 In this connection, the attention of the contractors are drawn to the safety measures and precautions including code of conduct while safely carrying out the work and also detailed Engineering Instructions enumerated in this tender document.
- 17.3 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 client), charges and expenses in condition therewith and / or incidental thereto.
- 17.4 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.

**18.0 INSURANCE**

Without limiting any of his other obligations or liabilities, the contractor shall, at his own expense, take and keep comprehensive insurance including third party risk for the plant, machinery, materials, etc. brought to the site and for all the work during the execution. The contractor shall also take out workmen's compensation insurance as required by law and undertake to indemnify and keep indemnified the BSNL from and against all manner of claims and demands and losses and damages and cost (including between attorney and client) charges and expenses that may arise in regard the same or that the BSNL may suffer or incur with respect to and/or incidental to the same.

**19.0 INDEMNITIES:**

- 19.1 The contractor shall all the times hold the BSNL harmless and indemnify from against all actions, suits, proceedings, works, cost, damages, charges, claims and demands of every nature and descriptions brought or procured against BSNL, its officers, and employees and forthwith upon demand and without protest or demur to pay the BSNL any or all losses and damages and cost (inclusive between attorney and client) and all costs incurred in endorsing this or any other indemnity or security which the BSNL may now or at any time have relative to the work or the contractor's obligation or in protecting or endorsing its right in any suit or other legal proceedings, charges and expenses and liabilities resulting from or incidental or in connection with injury, disease or disablement to or death of any person(s) including employee(s) of the contractor or damage to property resulting from or arising out of or in any way connected with or incidental to the

operations caused by the contract documents. In addition the contractor shall reimburse the BSNL or pay to the BSNL forthwith on demand without protest or demur all costs, charges and expenses and losses and damages otherwise incurred by it in consequences of any claims, demand and actions which may be brought against the BSNL arising out of or incidental to or in connection with the operation covered by the contract.

- 19.2 The contractor shall at his own cost at the BSNL request defend any suit or other proceeding asserting a claim covered by this indemnity, but shall not settle, compound or compromise any suit or other finding without first consulting the BSNL.
- 20.0 The work shall be executed as per programme approved by the Engineer-in-charge of the work. No claim whatsoever will be entertained on this account.
- 21.0 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.
- 22.0 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.
- 23.0 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.
- 24.0 The rate for every item of work to be done under this contract shall be for all heights, depths, lengths and widths of the structure (except where specially mentioned in the item) and nothing extra will be paid on this account.
- 25.0 The contractor shall maintain in good condition all work during execution till completion of entire work allotted to him.
- 26.0 The contractor shall cause the site to be cleared thoroughly of rubbish, scaffolding materials etc. before the actual date of completion of the work as well as time to time as per directions of the Engineer-in-charge of the work.
- 27.0 The contractor shall make his own arrangement for obtaining electrical connection, if required and make necessary payments directly to the department concerned.
- 28.0 The contractor shall be responsible to arrange at his own cost all necessary tools and plants required for execution of the work.
- 29.0 The rate of all items of work, shall, unless clearly specified otherwise, include cost of all labour, material and other incidental inputs involved which are essential to complete the work as per entire satisfaction of the Engineer-in-Charge.

- 30.0** For the purpose of recording measurement for preparing running account bills, the abbreviated nomenclature indicated in the standard schedule of rates relevant to the contract may be adopted. The abbreviated nomenclature shall be taken to cover all the materials and preparations as per the complete nomenclature of the relevant items in the agreement and other relevant specifications.
- 31.0** In case of items for which abbreviated nomenclature is not available in the standard relevant schedule of rates and also in the case of extra and substituted items of work for which abbreviated nomenclature is not provided in the agreement the full nomenclature of items shall be reproduced in the measurement books and bill forms for running account bills.
- 32.0** Whenever any reference to any Indian standard specifications occurs in the documents relating to this contract the same shall be inclusive of all amendments issued thereto if any, up to the date of receipt of the tender.
- 33.0** The contractor shall take instruction from the Engineer-in-Charge regarding collection and stacking of materials at any place.
- 34.0** The site of work should be seen by the tenderer before quoting his rates with respect to approaches to the site and conditions of the same. If any approach road from main road is required at the site or existing approach is to be improved and maintained, for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.
- 35.0** If as per municipal rules the huts for labourers are not to be erected at the site of work by the contractor, the contractors are required to provide such accommodation as is acceptable to local bodies and nothing extra shall be paid on this account.
- 36.0** The contractor shall take all precautions to avoid all 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 paid on this account. Any damage done by the contractor to any existing work during the course of execution of the work awarded to him shall be made good by him at his own cost.

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**PROFORMA FOR AGREEMENT**

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(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)

CONTRACT AGREEMENT FOR THE WORK OF \_\_\_\_\_ DATED \_\_\_\_\_  
Between M/s. \_\_\_\_\_ (refer note) in the town of \_\_\_\_\_  
\_\_\_\_\_ herein after called the contractor (which term shall unless excluded by or repugnant to be subject or context include its successors and permitted assigns) of the one part and BHARAT SANCHAR NIGAM LIMITED hereinafter called the BSNL (which term shall unless excluded by or repugnant to the subject or context include its successes and assigns) of the other part.

**WHEREAS**

- a) The BSNL is desirous that the construction of \_\_\_\_\_ at \_\_\_\_\_ should be executed as mentioned, enumerated or referred to in the tender including Press Notice Inviting Tender, General Conditions of the Contract, Special conditions of the contract, Specifications, Drawings, Plans, Time Schedule of completion of jobs, Schedule of Quantities and Rates, Agreed Variations, other documents, has called for Tender.
- b) The contractor has inspected the site and surroundings of the work specified in the tender documents and has satisfied himself by carefully examination before submitting his tender as to the nature of the of surface, strata, soil, subsoil and grounds, the form and nature of the site and local conditions, the quantities, nature and magnitude of the work, the availability of labour and materials necessary for the execution of work, the means of access to site, the supply of power and water thereto and the accommodation he may require and has made local and independent enquiries and obtained complete information as to the matters and things referred to or implied in the tender documents or having any connection therewith and has considered the nature and extent of all the probable and possible situations, delays, hindrances or interferences to or with the execution and completion of the work to be carried out under the contract, and has examined and considered all other matters, conditions and things and probable and possible contingencies, and generally all matters incidental thereto and ancillary thereof affecting the execution and completion of the work and which might have influenced him in making his tender.
- c) The tender documents including BSNL's Press Notice Inviting Tender, General conditions of Contract, Special Conditions of Contract, Schedule of Quantities and Rates, General obligations, Specifications, Drawings, Plan, Time Schedule for completion of work, Letter of Acceptance of tender and any statement of agreed variations with its enclosures copies of which are hereto annexed form part of this contract though separately set out herein and are included in the expression Contract wherever herein used.

## AND WHEREAS

The BSNL accepted the tender of M/s.\_\_\_\_\_ (refer note \_\_\_\_\_) (Contractor) for the construction of \_\_\_\_\_ at \_\_\_\_\_ and conveyed vide letter No. \_\_\_\_\_ dated \_\_\_\_\_ at the rates stated in the Schedule of quantities for the work and accepted by the BSNL (hereinafter called the Schedule of Rates) upon the terms and subject to the conditions of the contract.

## NOW THIS AGREEMENT WITNESSTH &amp; IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:-

1. In consideration of the payment to be made to the contract for the work to be executed by him, the contractor hereby convenient with the BSNL that the contractor shall and will duly provide, execute, complete and maintain the said work and shall do and perform all other acts and things in the contract mentioned or described or which are to be implied and there-from or may be reasonably necessary for the completion of the said works and at the said times and in the manner and subject to the terms and conditions or stipulations mentioned in the contract, AND
2. In consideration of the due provisions execution, completion and maintenance of the said work, the BSNL does hereby agree with the contractor that the BSNL will pay to contractor the respective amounts for the work actually done by him and approved by the BSNL at the Schedule of Rates and such other sum payable to the contractor under provision of the contract, such payment to be made at such time in such manner as prescribed for in the contract.
3. "The contract is subject to the jurisdiction of Court at ----- only." (Where the NIT/Tender has been issued)

It is specifically and distinctly understood and agreed between the BSNL and the contractor that the contractor shall have no right, title or interest in the site made available by the BSNL for execution of the works or in the building, Structures or works executed on the said site by the contractor or in the goods, articles, materials, etc., brought on the said site (unless the same specifically belongs to the contractor) and the contractor shall not have or deemed to have any lien whatsoever charge for unpaid bills will not be entitled to assume or retain possession or control of the site or structures and the BSNL shall have an absolute and unfettered right to take full possession of site and to remove the contractor, their servants, agents and materials belonging to the contractor and lying on the site.

In Witness whereof the parties hereto have here-into set their respective hands and seals in the day and the year first above written.

Signed and delivered for and on behalf  
of BSNL

Signature and delivered for and on  
behalf of the contractor

(BHARAT SANCHAR NIGAM LIMITED)  
OFFICIAL ADDRESS

(Contractor)

Date  
Place

Date  
Place

IN PRESENCE OF TWO WITNESS

SIGNATURE  
NAME

SIGNATURE  
NAME

### For Proprietary Concern

Shri .....s/o..... r/o..... Carrying on business under the name and style of.....at..... (hereinafter called the said Contractor which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

### For Partnership Concern

M/s..... a partnership firm having its registered office at ..... (hereinafter called the said Contractor which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives). The partners of the firms are:

- i) Shri.....s/o..... , And
- ii) Shri.....s/o.....etc.

### For Companies

M/s ..... a company duly incorporated under the Indian Companies Act, 1956 and having its registered office at .....in the State of .....(hereinafter called the said Contractor which expression shall unless the context requires otherwise include its successors and assign).

**FORM OF PERFORMANCE SECURITY****BANK GUARANTEE BOND**

1. In consideration of the BHARAT SANCHAR NIGAM LIMITED (hereinafter called "the BSNL") having agreed under the terms and conditions of agreement No. \_\_\_\_\_ Dated \_\_\_\_\_ made between \_\_\_\_\_ and \_\_\_\_\_ (hereinafter called "the said contractor(s)") for the \_\_\_\_\_ work (hereinafter called "the said agreement") for compliance of his obligation in accordance with the terms and conditions in the said agreement.

We \_\_\_\_\_ (indicate the name of the Bank) (hereinafter referred to as "as Bank) hereby undertake to pay to the BSNL and amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) on demand by the BSNL.

2. We \_\_\_\_\_ (Indicate the name of the Bank) do hereby undertake to pay the amount due and payable under this Guarantee without any demure, merely on a demand from the BSNL stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only).

3. We undertake to pay to the BSNL any money so demanded notwithstanding any dispute or disputes raised by the contractor (s) in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment made by us under this bond shall be valid discharge of our liability for payment to there-under and the contractor(s) shall have no claim against us making such payment.

4. We \_\_\_\_\_ (Indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the BSNL under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-charge on behalf of the BSNL certifies that the terms



and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) accordingly discharges this guarantee.

5. We \_\_\_\_\_(indicate the name of Bank) further agree with the BSNL that the BSNL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time to time any of the powers exercisable by the BSNL against the said contractor(s) and to forebear or enforce any of the terms and conditions relating to the said agreement shall not be relieved from our liability by reasons of any such variation or extension being granted to the said contractor(s) or for any forbearance act of omission on that part of the BSNL or any indulgence

by the BSNL to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effected or so relieving us.

6. The guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

7. We \_\_\_\_\_(indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of the BSNL in writing.

8. This guarantee shall be valid upto \_\_\_\_\_ unless extended on demand by BSNL. Notwithstanding anything mentioned above our liability against this \_\_\_\_\_ Guarantee is \_\_\_\_\_ restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under the Guarantee shall stand discharged.

Date the \_\_\_\_\_ date of \_\_\_\_\_

for \_\_\_\_\_  
(Indicate the name of Bank)

## ANNEXURE – (I)

**AFFIDAVIT**

I/We have submitted a bank guarantee for the work \_\_\_\_\_

\_( Name of Work), Agreement No. \_\_\_\_\_

\_\_\_\_\_ Dated: \_\_\_\_\_ from \_\_\_\_\_

\_\_\_\_\_ (Name of the Division) with a view to seek exemption from payment of performance guarantee in cash. This Bankguarantee expires on \_\_\_\_\_

I/ We undertake to keep the validity of the bank guarantee intact by getting it extended from time to time at my/our own initiative upto a period of \_\_\_\_\_ months after the recorded date of completion of the work or as directed by the Engineer in charge.

I/We also indemnify the Bharat Sanchar Nigam Limited against any losses arising out of non-encashment of the bank guarantee if any.

(Deponent)

Signature of Contractor

Note: The affidavit is to be given by the Executants before a first class Magistrate.

### SCHEDULE OF QUANTITIES

Name of the work :Dismantling, Transportation and Erection of 40 Mtr. Steel tower (USO Tower) at 4 location in Pimpalner, Navapur and Taloda SDCA in Dhule SSA.

Sl No	Description of Item	Quantity	Unit	Rate	Amount
1)	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
a)	All kinds of soil.	8.00	Cum	51.35	411.00
2)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
a)	1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 20 mm nominal size)	0.80	Cum	5346.38	4277.00
3)	Dismantling of 40 m USO GBT Tower material upto 10 MT weight consisting of Steel angles, Flats,Plates etc. including platforms, Ladder,Aviition Lamp & Wave Guide etc including sorting of material at site, oiling of nuts & bolts complete including stacking of material within 50 m lead as per direction of Engineer-in-charge [ Note: 1) Agency has to be produce the list of unavailable / missing members to Engineer -in-charge before start of dismantling work of tower. 2) Only Labour charges are covered in this item. ]	4.00	One Job	48884.00	195536.00

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4)	Mechanical Transportation of 40 Metre high dismantled tower material (Approx. 10.00 MT weight ) including loading, transportation, Toll charges & unloading at site of work, carriage from road side to work site & stacking the same, making security arrangement against theft/ loss etc., allied activities all complete as per the directions of the Engineer-in-charge.				
a)	Upto initial 5 km distance for upto 10 MT weight.	4.00	One Job	5551.00	22204.00
b)	Beyond 5 Km distance for upto 10 MT weight.	1810.00	Per Kilometer	66.66	120655.00
5)	Erection, testing and commissioning of 40 metre high four legged, ground based self-supporting narrow base communication USO Tower in Dhule SSA, using new/old/recovered dismantled material (Weight of Tower upto 10.00 MT) as per approved drawing and specifications with all its necessary components which includes ladder, working platform with railing, carrier and fastenings, gantry, cable feeder rack, antenna fixtures, hexagonal nuts and bolts, spring washers, foundation anchor nuts, base plates, wave guide rack and rack support etc. all complete as per the directions of the Engineer-in-charge.				
	Note:- (i) Tower materials including all the members, bolts & nuts will be supplied by BSNL free of cost.				

	(ii) Rate includes cost of all operations involved in hoisting and erection of tower including hire charges of tools, plants and machineries etc. and is inclusive of cost of all type of labours including skilled, unskilled, highly skilled labours, technicians etc. with insurance premium of all the workers employed by the agency and also includes straightening of any bent tower materials, matching holes of members/gusset plates and nothing extra will be paid on any account whatsoever.				
	(iii) The erected tower will have to meet the tower erection standards of the department and any deficiency/ discrepancy/ deviation in erected tower pointed out by the testing authority during acceptance testing (A/T) of the same, will have to be rectified.				
	(iv) Tower Erection may be carried out in habitant area; hence the agency has to ensure extreme precaution during the execution of the work to prevent any accident/ injury/ harm/ damage to any human or animals or property or trees and plants etc. at all cost. If any mishap happens due to negligence of the agency, he will be held sole responsible for the damage and will have to face the law and bear the cost as well.	4.00	One Job	66348.92	265396.00

6)	Supplying deficient tower materials (due to Shortage/unserviceable materials on Account of material recovered from dismantling of tower) at site. The material required for tower, ladder, wave guide rack, antenna fixtures, pipe stand for lightening arrester, templates, base plates, cable tray, runway etc. as required shall be provided as per drawings in required lengths including drilling holes for bolts etc. in exact conformity with the approved drawings and as per the direction of Engineer-in-charge. .				
	NOTES:				
	1. All tower materials shall be hot dipped galvanized. The tower materials, fabrication and galvanizing shall be as per relevant BIS and SERC specifications.				
	2. Measurements: Weight of individual member shall be worked out on the basis of linear measurements and standard coefficients. Nuts, bolts and washers shall be measured for payment.	1160.00	Kg	130.45	151322.00
7)	P/F of G.I.sheet pressed in required profile for waveguard on horizontal runway including jointing with nut bolting ,rivetting as required by Engineer in charge.	80.00	Kg	116.84	9347.00

8)	Painting of 40 m high self-supporting tower with two coats of synthetic enamel paint of approved brand and manufacture as per international Civil aviation rules (International white & orange) over one coat of Zinc Chromate Yellow primer all as per direction of Engineer-in-charge. The rate is inclusive of painting of all tower materials including platform, antenna mount, ladder, vertical and horizontal tray, post etc. and will have to get insurance premium of all the workers employed by him on painting.				
a)	40m USO Tower	4.00	One Job	41652.19	166609.00
9)	Providing and fixing marker plate of Size 0.9 M X 0.60 M made up of MS sheet 0.50 mm thick and MS angles 25x25x5 mm alround including painting the plate & angles with sythetic enamel paint and Zinc chromate primer and lettering with synthetic enamel paint near base of the tower/ at the specified height indicating its height, weight, date of erection, type of antenna etc. all complete as per the direction of Engineer-in-charge.	4.00	job	1555.40	6222.00
10)	Supplying at site hot dipped Galvanised (Galvanising shall not be less than 85 micron) nuts and bolts conforming to IS: 4736, of required size and of grade 5.6 and as per IS 12427 including spring & plain washers of required thickness all complete as per direction of the Engineer In Charge.	1000.00	Kg	171.09	171094.00

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11)	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame, concrete/ masonry, etc. as per direction of Engineer-in-charge. (a) 10 x 60 mm	48.00	Each	68.37	3282.00
12)	Cutting holes up to 30x30 cm (or equivalent area) in walls including making good the same:With common burnt clay F.P.S. (non modular) bricks	4.00	Each	213.78	855.00
13)	Providing and fixing mounts to the tower for fixing antenna etc made of G I pipe normal bore 63 mm of 2000mm long, fixing to the tower at required height including clamps, nuts bolts etc. all complete as per the direction of Engineer-in-charge.	8.00	Each	2749.95	22000.00
14)	Providing and fixing copper Lightening arrester of 1500mm length, 25mm dia, hollow tube and of wall thickness not less than 1.60 mm including tinning the bottom portion of the spike for a length of not less than 150mm and connecting to the G.I. strip of size 50 x 3mm by means of clamps and 2nos 10mm dia brass bolts and nuts all complete as directed by the Engineer-in-charge. The lightening spike shall be fixed to the tower with Teflon sheet to avoid direct contact with the tower.	4.00	One Job	1949.36	7797.00



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15)	Providing and fixing LED aviation obstruction lamp of Saraj, Binoy, Aviads, Litten or equivalent make with light dependent resistance sensor (day and night automatic timer) with necessary MS brackets and MCB switches, clamps etc., complete, all as per directions of Engineer-in-charge.	4.00	One Job	9000.21	36001.00
16)	Supplying & laying of 2x1.5 Sqmm armoured copper conductor Cable "Armoured/ ISI PVC Insulated & sheathed cable" of approved quality and brand including copper terminations/ Lugs etc. all complete as per directions of Engineer- in-charge. Sheath earthing for the armoured cable shall be done at minimum of two points on the tower as per the standards specified.	200.00	One Metre	175.56	35112.00
Total				Rs.	1218120.00

Estimated Cost	Rs. 12,18,120.00
Percentage to be quoted by tendered	%
Above/Below	Above/Below

Contractor

Executive Engineer