GOVERNMENT OF INDIA: DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTER SHAR:: SRIHARIKOTA – 524 124
SRI POTTI SREERAMULU, NELLORE DISTRICT (A.P)

TENDER NOTICE NO. SDSC SHAR/Sr.HPS/PT/RO/11/2019-2020

On behalf of President of India, Sr. Head Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites online quotations for the following.

<table>
<thead>
<tr>
<th>SI No</th>
<th>Ref. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SHAR LS 2019 0 12242 e-procurement [Two Part basis]</td>
<td>Supply, fabrication and commissioning of Hydrants</td>
<td>1 Lot</td>
</tr>
<tr>
<td>02</td>
<td>SHAR RO 2019 0 12323 e-procurement [Two Part basis]</td>
<td>Work contract for technical services of TPF</td>
<td>Lump sum</td>
</tr>
<tr>
<td>03</td>
<td>SHAR VAST 2019 0 12508 e-procurement [Two Part basis]</td>
<td>Hydraulic System for Gaganyaan Project</td>
<td>Lump sum</td>
</tr>
<tr>
<td>04</td>
<td>SHAR VAST 2019 0 12444 e-procurement [Two Part basis]</td>
<td>Structural modification at UT/SLP</td>
<td>Lump sum</td>
</tr>
</tbody>
</table>

Last Date for downloading of tender documents : 02.12.2019 at 16:00 hrs.
Due Date for submission of bids online : 02.12.2019 at 16:00 hrs.
Due Date for Bid Sealing on : 02.12.2019 at 16:01 hrs. to 02.12.2019 at 17.30 hrs.
Due Date for Online Authorization : 02.12.2019 at 17:31 hrs. to 04.12.2019 at 17:00 hrs.
Due Date for opening of tenders : 05.12.2019 at 14:30 hrs.

Instructions to Tenderers:

Bids shall be submitted online through EGPS only and No tender fee shall be applicable.

01. For full details/scope of work and terms and conditions etc., please see the enclosed annexures.

02. Interested tenderers can download the e-tender from ISRO e-procurement website https://eprocure.isro.gov.in and submit the offer online in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.

03. Tender documents are also available on ISRO website www.isro.gov.in ISRO e-procurement website https://eprocure.isro.gov.in and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offer submitted only in the e-procurement portal only.

04. Quotations received after the due date/time will not be considered.

05. The tender documents are available for download upto 02.12.2019 at 1600 hrs. and last date for submission of tenders on line 02.12.2019 at 1600 hrs. and Tender Opening on 05.12.2019 at 14:30 hrs.

06. Interested vendors can attend the Bid opening sessions to know the details. Presence not mandatory to consider the quote for evaluation.

07. Sr. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.

DT: 07.11.2019

Sr. HEAD PURCHASE AND STORES

Indian Space Research Organisation
Tender Specification

SUPPLY OF RAW MATERIAL, FABRICATION, ERECTION AND COMMISSIONING OF STRUCTURAL ELEMENTS FOR GAGANYAAN MISSION AT UMBILICAL TOWER OF SECOND LAUNCH PAD (SLP)

Indent No. SHAR/VAST/2019/2444

SPECIFICATIONS

OWNER: INDIAN SPACE RESEARCH ORGANISATION
PROJECT: GAGANYAAN PROJECT
LOCATION: SDSC SHAR, SRIHARIKOTA
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GENERAL SPECIFICATIONS

Proposals are invited from the interested bidders for the enclosed scope of work in two-part bid. Part-1 technical and unpriced part of the work and Part-2 Priced commercial part.

This tender specification document is organized in four sections as follows.

Section –A General Terms and Conditions of the Contract
Section –B Scope of Work
Section –C Technical Specifications
Section–D Annexures

Title of the proposal: “Supply of raw material, fabrication, erection and commissioning of structural elements for GAGANYAAN mission at umbilical tower of Second Launch Pad (SLP)”

1.0 General Instructions to Bidders:

1.1. Bidder shall sign and stamp each page of the tender document (proposal) as token of his acceptance, scan & submit online along with his offer. in case, if the bidder is unable to upload all the documents, they can submit the same through post in a sealed cover by indicating tender no. with due date as per details given in clause 2.6.1(h)

1.2. Transfer of Proposal document issued to one Bidder to another is not permissible.

1.3. The online bid shall be submitted before the time limit specified in the letter inviting the bid.

1.4. The online bids will be opened on the date and time specified in the letter inviting bid or as soon as thereafter as convenient. Offers not received in time will not be considered.

1.5. Proposal documents shall remain the property of SDSC SHAR and shall not be used for any other purpose without the consent of the SDSC SHAR.

1.6. The proposal shall be completely filled in all respects and shall be tendered together with requisite information and Annexure. Any offer incomplete in any particulars is liable to be rejected.

1.7. Bidders shall set their quotations in firm figures and without variations/additions in the terms given in technical tender specification.

1.8. Proposal containing qualifying expressions such as “subject to minimum acceptance” or “subject to prior sale” or any other qualifying expressions or
incorporating terms and conditions at variance with the terms and conditions incorporated in the Proposal documents are liable to be rejected.

1.9. **ADDENDA /CORRIGENDA**

Addenda/corrigenda to the tender document may be issued by SDSC SHAR prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions. Such addendum/corrigenda will be distributed to each firm or person who had purchased the tender documents.

1.10. **AMBIGUITY**

Should there be any ambiguity or doubt as to the meaning of any of the tender clause/condition or if any further information is required, the matter shall be immediately brought to the notice of Head, Purchase & Stores, of the SDSC SHAR in writing.

2.0 **PREPARATION OF BIDS**

2.1 **Site Visit**

2.1.1 Bidder is advised to visit and examine the site and its surrounding to familiarize himself of the existing facilities and environment and shall collect all other information which may be required for preparing and submitting the bid and entering into the contract. Claims and objections due to ignorance of existing conditions or inadequacy of information will not be considered after submission of the bid and during implementation.

2.2 **Validity of Offer**

Bid shall remain valid for acceptance for a period of **4 (four) months** from the due date of submission of the Bid. The Bidder shall not be entitled during the said period to revoke or revise his Bid or to vary the Bid except and to the extent required by SDSC SHAR in writing. Bid shall be revalidated for extended period as required by SDSC SHAR in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms and conditions of Bid finalized till that time.

2.3 **Cost of Bidding**

All direct and indirect costs associated with the preparation and submission of bid shall be to Bidder's account and the SDSC SHAR will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.
2.4 Applicable Language

The bid and all correspondence incidentals to and concerning the bid shall be in the English Language. For supporting document and printing literature submitted in any other language, an accurate English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Bidder.

2.5 Schedule of Prices

The schedule of prices in Annexure-1 shall be read in conjunction with all the sections of proposal document. The price must be filled in the price bid format only.

2.6 Documents Comprising the Bid

Bids shall be arranged in the following order.

2.6.1 Part – I Technical and Unpriced Commercial Part

Technical and unpriced commercial part shall comprise the following document & they shall be signed and uploaded in ISRO e-procurement portal. In case of space problem, these documents shall be submitted in signed and stamped hard copy in sealed cover

(a) Submission of bid letter along with one set of tender specification document duly signed and stamped as token of acceptance

(b) Power of attorney in favor of authorized signatory of the bid / proposal documents.

(c) All the annexure enclosed in proposal duly filled, signed and sealed.

(d) Unpriced copy of schedule of prices with all other commercial terms, taxes, duties, exemption certificates and conditions duly filled (Prices to be kept blank), signed and stamped

(e) Data sheets for all the equipment & checklists enclosed in proposal duly filled, signed, & stamped.

(f) Technical details, catalogue, etc as applicable and any other document as mentioned in the proposal.

(g) Conceptual layout/ design with preliminary inputs.

(h) Deviation statement, filled, signed & stamped. Absence of any technical information will be considered as agreement as per tender clauses, If not explicitly brought out in deviations/exclusion summery matrix.

(i) Any other relevant document, bidder desires to submit.
### PART-1 TECHNO COMMERCIAL BID

<table>
<thead>
<tr>
<th>Name Of The Client</th>
<th>Satish Dhawan Space Centre SHAR Indian Space Research organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the proposal</td>
<td>“SUPPLY OF RAW MATERIAL, FABRICATION, ERECTION AND COMMISSIONING OF STRUCTURAL ELEMENTS FOR GAGANYAAN MISSION AT UMBILICAL TOWER OF SECOND LAUNCH PAD (SLP)”</td>
</tr>
<tr>
<td>Tender No:</td>
<td>SHAR/VAST/2019……..</td>
</tr>
<tr>
<td>Due Date &amp; Time of opening</td>
<td>DD/MM/YYYY</td>
</tr>
<tr>
<td>From (Name of the bidder with address)</td>
<td></td>
</tr>
</tbody>
</table>

To:

The Head, Purchase & Stores
Satish Dhawan Space Centre SHAR
ISRO, Dept. of Space
Govt. of India
Sriharikota – 524124
SPSR Nellore Dist, Andhra Pradesh, India

#### 2.6.2 Part – II Priced Commercial Bid

Priced commercial bid shall contain price bid form which shall be duly filled and submitted to purchase. No deviations, terms and conditions, assumptions, conditions, discounts etc. shall be stipulated in price bid. SDSC SHAR will not take cognizance of any such statement and may at their discretion reject such bids.

(a) SDSC SHAR may open part-1 of the bid on the due date of opening, subject to meeting the minimum evaluation criteria. Price bids (part-2) of technically and commercially acceptable offers will be opened at a later date.

(b) SDSC SHAR reserves the right to reject any or all the bids without assigning any reasons thereof.

(c) Party shall quote for the complete system as given in the scope of supply as per the format mentioned in Annexure-1. Bids containing the offers for partial supply will be rejected.
(d) Tender evaluation is only for full scope & not for partial offers. Hence P.O. placement will be for full scope.

3.0 DETERMINATION OF RESPONSIVENES:

SDSC SHAR will scrutinize tenders to determine whether the tender is substantially responsive to the requirements of the tender documents. For the purpose of this clause, a substantially responsive tender is one which inter-alia conforms to all the terms and conditions of the entire Tender document without any deviations and reservations. The decision of SDSC SHAR shall be final in this regard.

4.0 BID EVALUATION

4.1 During evaluation, SDSC SHAR may request Bidder for any clarification on the bid, additional documents.

4.2 Techno-commercial discussion shall be arranged with Bidder, if needed. Bidder shall depute his authorized representatives for attending discussions. The representatives attending the discussions shall produce authorization from his organization to attend the discussion and sign minutes of meeting on behalf of his organization if required. The authorized representative must be competent and empowered to settle/decide on all technical and commercial issues.

4.3 Bidder must provide the point by point compliance to the technical specifications & commercial terms & conditions by filling the enclosed checklists along with deviations in enclosed format as given in Annexure-2, 3 & Format-J. The tender can be rejected if the deviations are not acceptable to the Department.

4.4 The bids received without providing the exception / deviation, scheduled of prices & check list as given in Annexure-1, 2, 3 & Format-J will not be considered for Bid evaluation.

4.5 The time schedule for completion is given in the Proposal document. Bidder is required to confirm the completion period unconditionally.

4.6 If necessary, for bid evaluation purpose, wherever applicable, loading on total quoted prices shall be done.

4.7 SDSC SHAR reserves the right to reject any bid if technically/commerically not meeting the requirement/terms & conditions. Such decisions by the SDSC SHAR shall bear no liability whatsoever consequent upon such decision.

4.8 The Bidder, whose bid is accepted by SDSC SHAR, shall be issued a Letter of Intent (LOI) /Purchase Order (PO) to proceed with the work. Bidder shall confirm acceptance by returning a signed copy of the LOI/PO. Bidder shall confirm
acceptance by returning a signed copy of the LOI/PO along with 10% of total order value as security deposit within 10 days from LOI/POS.

5.0 PRE-QUALIFICATION CRITERIA

All the tenderers shall meet the following pre-qualification criteria. Offers of Those parties not meeting the criteria will be duly rejected and will not be considered for evaluation. Bidder shall submit the compliance for the questionnaire given in this document.

A. Technical Qualification Requirements

The bidder shall meet the following technical qualifying requirements and shall submit relevant certificates to establish his credentials.

1. Bidder shall be an organization with at least 5 years in execution of contracts in the field of structural fabrication, erection and commissioning of working platforms & general fabrication in elevated height.

2. Bidder shall summit the details of firm registration, experience etc.

3. Bidders have to provide relevant certificates, purchase orders and amendments etc. to the values along with the Techno-Commercial Bid, without which the offer will be summarily rejected.

B. Financial Qualification Requirements

1. The Bidder’s average annual financial turnover shall be not less than Rs150 lakhs per year during last three financial years ending with 31.03.2018.

2. During Last 5 Years ending 30.09.2019, the bidders should have successfully completed

   ✓ Similar structural fabrication & erection work through single order worth not less than Rs. 150 lakhs or two works orders of 100Lakhs each or three work order of 60Lakhs each.
C. Documents to be submitted along with the bid submission

1. Firm establishment certificate and nature of work.
2. Details of work similar type completed during the last 5 years ending
3. Satisfactory work completion certificates from the clients, with the work order copies
4. The Bidders PAN, GST Registration No.
5. IT/ TDS certificate shall be submitted for last three years.
6. Structure and Organization chart of the company.
7. List if personnel with qualification & experience in the firm in the areas of design, production, quality, safety, administration etc.,
8. List of Machinery & Equipment’s to be used for the work.

D. Bid Selection Procedure and Process of Pre –Qualification

1. Short listing based on documents submitted, satisfying the all eligibility criteria given above by the firm or individual along with their Bid / application. (Non – submission of any document as given in above list within stipulated time leads to rejection of Bid).
2. Subsequently Bidder’s competency, their technical achievements and financial status will be evaluated suitable for this this project.
3. Feedbacks from Bidder’s clients will be verified.
4. Visit to sites by technical team (ISRO or Third party) where Bidder has established facilities for above mentioned works.
5. If required, visit will be made to their factory/ firm by technical team (ISRO or third party) for accessing the capability of manufacturer.
6. Scrutiny of all technical specification and supply conditions mentioned in techno-commercial bid.
7. Vendor shall provide the data in the format given below.
**Vendor Evaluation Format**

SDSC SHAR seeks response to the following questionnaire for assimilating data which would be used for evaluating the capability of the supplier for executing the referred work. Hence, the supplier is requested to provide only genuine data and any discrepancy found at a later point of time may result in rejection of the supplier from purchase process. Furnishing of data cannot be construed as automatic qualification for participation in the tender. Questionnaire should be signed by a responsible and authorized person of the Company / Agency.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Supplier Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Name of the company</td>
<td>:</td>
</tr>
</tbody>
</table>
| 2.   | Type of the Company  
      (Proprietary/Pvt.Ltd/Public Ltd/Joint Venture/Consortium) | : |
<p>| 3.   | Registration Number | : |
| 4.   | Year of Inception of the Company | : |
| 5.   | Registered address | : |
| 6.   | Name &amp; Address of the Office of the Chief Executive of the Company | : |
| 7.   | Contact person for this tender with name &amp; address, email and contact number | : |
| 8.   | Locations of the Branches of Company (if any) | : |
| 9.   | Current Annual turn-over of the company | : |
| 10.  | Major customers (Enclose copies of the Purchase Orders) | : |</p>
<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Supplier Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Any customers feedback on the services which is in writing (Pl. enclose copies)</td>
<td>:</td>
</tr>
<tr>
<td>12.</td>
<td>Latest income tax certificate</td>
<td>:</td>
</tr>
<tr>
<td>13.</td>
<td>PAN Card Copy</td>
<td>:</td>
</tr>
<tr>
<td>14.</td>
<td>Details of last 5 years of experience of tenderer in executing similar type of work.</td>
<td>PO numbers &amp; description of work Note: copy of purchase orders may be enclosed.</td>
</tr>
</tbody>
</table>

Signature of Authorized Person with Seal
SECTION -A

GENERAL TERMS AND CONDITIONS OF THE CONTRACT
1.0 INTRODUCTION

SDSC SHAR invites tenders from reputed firms with proven ability for “Supply of raw material, fabrication, erection and commissioning of structural elements for GAGANYAAN mission at umbilical tower of Second Launch Pad (SLP)” as per the specifications.

2.0 SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

The detailed scope of work and technical specifications are given in Section B & C of technical specification document. The drawings are attached in Annexure-4. The general terms and conditions are given below.

3.0 SUPPLIER'S OBLIGATIONS & FUNCTIONS

3.1. SPECIFICATIONS AND DRAWINGS

The Supplier shall execute the works in compliance with the provisions of CONTRACT, good engineering practices and code requirements.

3.2. APPROVAL OF TECHNICAL DOCUMENTS / DRAWINGS

Supplier shall prepare and submit to SDSC SHAR for approval of the following

3.2.1. Clear plan for fabrication, erection, trial testing & commissioning of structural elements.

3.2.2. Quality Assurance Plan (QAP) document.

3.2.3. List of suppliers/dealers for raw material & brought out item including catalogs.

Note: No activity shall be executed unless SDSC SHAR's approval is obtained.

3.3. DELIVERY AND STORAGE

3.3.1. Dispatch Instructions given in the Contract shall be strictly followed. Failure to comply with the instructions may result in delay in payment apart from imposing any other charges as may be deemed to fit.

3.3.2. The Supplier shall be responsible for transporting all the equipment/material to site, unloading and storage. If the supplier wishes to carry out the work in situ at SDSC site, suitable location will be identified.

3.3.3. No equipment/material shall be delivered without obtaining dispatch clearance from SDSC SHAR.

3.3.4. All the equipment/material shall be properly packed to avoid any damage during transportation / handling / storage.

3.3.5. The equipment/material received at site shall be stored at a place assigned for this purpose.
3.3.6. Supplier shall take proper care while storing the equipment and shall provide watch and ward at his own cost.

4.0 ERECTION

4.1. GENERAL

4.1.1. Supplier’s staff shall include adequate number of competent erection supervisors with proven experience on similar works to supervise the erection works and sufficient skilled, unskilled and semiskilled labor to ensure completion of work in time.

4.1.2. During erection, Department's engineer will visit site from time to time with or without Supplier's supervisor to establish conformity of the work with specification. Any deviations, deficiencies or evidence of unsatisfactory workmanship shall be corrected as instructed by Department.

4.1.3. Supplier shall carry out work in a true professional manner and strictly adhere to the approved drawings. Any damage caused by Supplier during erection to new or existing structures shall be made good at no extra cost to Department.

4.2. RECORDS

4.2.1. Supplier shall maintain records pertaining to the quality of erection work in a format approved by Department. Whenever erection work is complete, Supplier shall offer erected equipment for inspection to Department's engineer who along with Supplier's engineer will sign such records on acceptance.

4.3. EQUIPMENT ERECTION

4.3.1. Supplier shall carry out the works in accordance with the specific instructions given on the approved drawings, procedure, manufacturer’s drawings / documents or as directed by Department. Equipment shall be erected using skilled work men so that proper care will take for alignment. o equipment/member shall have welded to the main floor beam/support member, until its alignment is checked and found acceptable by Department.

4.3.2. Supplier shall provide all supervisor, labourer, tools, machines, local handling equipment like chain pulley block, jacks etc. scaffolding, and erection tools such as bolts, welding material etc. required to complete the works. Supplier shall also provide at his own cost all consumables like oxygen – acetylene for gas cutting, welding rods, grinding wheels, temporary supports, shims etc. required to complete the work.

4.3.3. Supplier shall take at most care while handling instruments, delicate equipment etc. and protect all such equipment on erection.

4.3.4. All the material handling equipment like hydra, fork lift, pallet truck for shifting of material at ground, during day to day fabrication activities in scope of tenderer.
4.3.5. Material handling support for erection of fabricated module at elevated height of UT will be provided by department at free of cost.

4.4. SAFETY

Supplier shall follow the safety regulations / codes and shall take necessary measures at their own cost.

4.5. ERECTION & CONSTRUCTION POWER SUPPLY

4.5.1. Electrical power may be extended by SDSC SHAR on chargeable basis, as per the tariff rules of State Electricity Board. Reasonable quality of normal Construction power will be made available at one point (415V, 3 phases, 50 Hz). However onward distribution shall be arranged by the supplier. Installation of necessary energy meters, switchgear & distribution system etc to derive construction power in a safe manner in strict conformity to local rules & regulations will be responsibility of the supplier.

4.5.2. During non-availability of power, supplier shall make their own arrangement of alternate power source at their cost.

4.5.3. The choice of carrying out the fabrication works either at SDSC SHAR premises/ vendor’s premises depends on vendor. For comparison of price bid, electrical charges will be added extra if vendor wish to carry out the work in SDSC SHAR. The extra bill for electricity will be calculated as Rs.1500 per ton of fabrication carried out at site.

4.6. WORK RULES

The work shall be carried out in working days. Any work during night or public holidays, shall be carried out with written permission of the contract manager and same will be cleared by department.

4.7. SITE CLEARANCE

Upon completion of work, supplier shall remove all their equipment and material from the site within one month or time mutually agreed upon. Supplier shall keep site in neat condition and remove all unwanted material at regular intervals. In case supplier fails to remove all their equipment and material within the mutually agreed time it is deemed that SDSC SHAR will arrange to remove the same at supplier’s cost.

4.8. ACCOMMODATION& INSURANCE

4.8.1. Very limited accommodation may be provided by SDSC SHAR to senior supervisory staff on chargeable basis subject to availability. Supplier shall make their own arrangement for accommodation & canteen facility for all its
staff, technicians, labor & workers including transportation to the staff. No labor camp is permitted at work place.

4.8.2 Before starting the site work, the tenderer has to insure all his personnel working at site in Sriharikota against accidents.

4.8.3 Transit insurance for the transportation of the total system from tenderers site to the purchaser's site is the scope of Supplier only.

4.9. MEDICAL FACILITIES

No medical facilities will be provided by SDSC SHAR. Supplier shall make their own arrangement at their own expenses for medical facilities for site personnel.

4.10. WORK PROGRAMME

Supplier shall prepare a detailed programme schedule for review / approval by SDSC SHAR. Supplier as per exigencies of work shall revise and update programme periodically.

4.11. SUB-CONTRACTS

4.11.1. Whole of the work shall not be subcontracted.

4.11.2. Any subcontracting shall be after approval of SDSC SHAR.

4.11.3. Supplier shall be responsible for the proper execution of any sub-contract placed by their, in connection with this purchase order.

4.11.4. Supplier shall furnish to SDSC SHAR the copies of all un-priced sub-orders showing promised delivery dates and places.

4.12. CHANGES AND MODIFICATION TO SPECIFICATIONS, DESIGNS, DRAWINGS AND QUALITATIVE / QUANTITATIVE REQUIREMENTS

4.12.1. Supplier shall obtain approval for the detailed engineering/fabricated drawings from SDSC SHAR before initiating the action for procurement / fabrication.

4.12.2. If any changes in the design are called for at site during work execution, same will be incorporated in drawing before starting of that particular work.

5.0 TAXES AND DUTIES

5.1 As per Notification No. 47/2017-Integrated Tax (Rate) Dt: 14.11.2017 issued by Ministry of Finance (Dept. of Revenue), SDSC SHAR is eligible to avail a reduced rate of IGST@5% for the procurements of goods made by the Dept. of Space (DOS) being a Public Funded Research Institution. We will provide IGST
Exemption Certificate. For fabrication, erection and commissioning, 12% GST will be given as per work contract rule.

5.2 CGST/SGST/UTGST/IGST (whichever is applicable) shall not be included in the lump sum quote, but indicated (both percentage of tax applicable & amount on which it is applicable) separately in schedule of prices.

5.3 It is the responsibility of the contractor to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act). Contractor to indicate the proper GSTN Registration/ HSN code in their tax invoices.

5.4 CGST/SGST/UTGST/IGST shall be paid at actuals against Tax Invoice but restricted to the amount and percentage in the contract.

GST details of SDSC SHAR are given below
GSTIN: 37HYDF00385A1DZ
LEGAL NAME: SATISH DHAWAN SPACE CENTRE SHAR
VALIDITY FROM:06/10/2018
TYPE OF REGISTRATION: REGULAR

6.0 RISK COVERAGE

The Supplier shall arrange comprehensive risk coverage at his own cost covering the value of equipment including transportation to the site from manufacturer's works, storage at site, fabrication, erection, testing and commissioning at site. The period of such coverage shall be up to contractual completion period or any extension granted by Department thereof.

7.0 INCOME TAX

Income tax at the prevailing rate as applicable and if applicable from time to time shall be deducted from the supplier's bills as per Income Tax Act. and a certificate issued (TDS Certificate).

8.0 EARNEST MONEY DEPOSIT (EMD)/BID SECURITY

The tenderer has to submit an Earnest Money Deposit (EMD) for Rs.3,00,000 (Rupees Three Lakhs) in a single installment through Demand Draft (DD)/Banker's Cheese/ Fixed Deposit Receipts or Bank Guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value. In case of Bank Guarantee, it shall be valid for a period of 45 days beyond the final tender validity date. It shall be taken in favor of Sr. Accounts Officer, SDSC
SHAR payable at State Bank of India, Sriharikota branch. Any tender not accompanied with EMD shall be treated as invalid tender and rejected. EMD of a vendor shall be forfeited if the tenderer/Contractor withdraws or amends his tender or deviates from the tender in any respect within the period of validity of the tender. Failure to furnish security deposit/performance bond by a successful vendor within the specified period shall also result in forfeiture of EMD.

EMD shall be refunded to all the unsuccessful vendors within thirty days after placement of the Purchase Order. EMD shall be refunded to the successful tenderer/Contractor after payment of the Security Deposit or may be adjusted against the Security Deposit. EMD shall be refunded to all the participants in cases where the tender is cancelled or withdrawn by the Centre/Unit, within thirty days from the date of such cancellation or withdrawal.

**Note: EMD clause is not applicable for the vendors registered under e-procurement with SDSC SHAR**

**9.0 SECURITY DEPOSIT**

9.1. The supplier, whose tender is accepted, will be required to furnish by way of Security Deposit for the due fulfillment of the contract such a sum as will amount to 10% of the contract price of the work awarded.

9.2. The security deposit (bearing no interest) shall be held by the Department as security till satisfactory completion, testing and handing over of all the system and for the due performance of all suppliers’ obligations under the contract as per delivery period or extension granted thereof by the Department.

9.3. The supplier within 10 days of Purchase Order or signing of Contract, deposit with the Accounts officer, Satish Dhawan Space Centre SHAR, Sriharikota as detailed above by any one or more of the following modes namely

   i. By a crossed demand draft in favor of Accounts officer, Satish Dhawan Space Centre SHAR drawn on SBI and payable at Sriharikota.

   ii. By an acceptance bank guarantee. The bank guarantee shall be from a nationalized bank for & shall be valid for 30 days beyond completion period.
9.4. In case of breach of contract, the Security deposit shall be forfeited in addition to other relief available to the Department under this contract.

10.0 PACKING AND FORWARDING

10.1. The Supplier shall arrange to have all the material suitably packed as per the standards and as specified in the contract. Unless otherwise provided for in the contract, all containers (including packing cases, boxes, tins, drums, and wrappings) used by the Supplier shall be non-returnable.

10.2. All packing and transport charges, transit handling costs, transit risk coverage and transport fees of agents employed at the place of delivery or elsewhere, shall be deemed included in the price to be paid to the Supplier.

11.0 APPLICABLE LAW AND JURISDICTION

The laws of India shall govern this purchase order for the time being in force. The Courts of Andhra Pradesh, India only shall have jurisdiction to be with and decide any legal matters or disputes what so ever arising out of the purchase order.

12.0 FORCE MAJEURE

Should a part or whole work covered under this purchase order be delayed due to reasons of Force Majeure which shall include legal lockouts, strikes, riots, civil commotion, fire accident, quarantines, epidemic, natural calamities and embargoes the completion period for work, equipment referred to in this agreement shall be extended by a period not in excess of the duration of such Force Majeure. The occurrence shall be notified within reasonable time.

13.0 GUARANTY

The Supplier shall guarantee that the equipment/material furnished by him is in conformance with the requirement of the specifications. Goods covered by the contract shall be free from defects in design, materials or workmanship for a period of twelve months from the date of successful commissioning & acceptance by Department. During the warranty period, supplier has to provide and adhere to the following:

13.1 He has to attend quarterly based preventive maintenance visits and brake down maintenance calls. All the defective components have to be replaced or rectified on one to one basis.

13.2 Breakdown maintenance should be responded within 48 hours time and shall be completed within 48 hours after respond.

13.3 Department will not provide any transport/accommodation for technician
attending the maintenance calls.

13.4 Incase vendor fails to attend and repair the system within 7 days from the date of reporting the problem, department will reserve right to forfeiting the BG apart from withheld of any payment payable to vender.

13.5 Where defects in items are remedied under warranty, the period for which the warranty operates shall be extended by such period, as the items were not available to SDSC SHAR. Where defect items are replaced by new ones, the full warranty period stipulated in the purchase order shall apply to such replacement items as from the date of their delivery.

**14.0 SCHEDULE OF PRICE**

14.1 CONTRACT price shall include all costs of “procurement of raw materials, brought out item, machining cost, transport to site, unloading, fabrication, erection & commissioning, and any other cost for proper and complete execution of the CONTRACT.

14.2 CONTRACT prices shall also include all travelling expenses, living expenses, salaries, overtime, benefit and any other compensation for supervisors, skilled, semiskilled workmen, watch and ward staff, labours and other staff employed by the Supplier, cost of tools, tackles and cranes required for erection and other consumable material required, and all taxes, duties, and levies as applicable on the date of submission of bid.

14.3 Price shall be firm & fixed.

14.4 Supplier shall quote the prices as per the price bid format (i.e., as per Annexure – 1) in the E-procurement only.

14.5 The rate quoted shall be on FOR SDSC SHAR, Sriharikota basis.

14.6 The taxes applicable for supply and erection & commissioning shall be indicated separately in terms of percentage in the price bid. If the offers submitted by the tenderers are silent on taxes, it will be presumed that quoted rates are inclusive of taxes & duties and no claim in this regard will be entertained later.

14.7 Department is exempted from Customs Duty and necessary Exemption Certificate will be provided by the Department for the imported items. This may be taken into account while quoting. A list of imported items along with quantities required for the scope of work shall be furnished along with technical bids for our evaluation.
15.0 DISCOUNTS
Tenderer shall not indicate any discount separately and quoted price should be after deducting the discount.

16.0 TERMS OF PAYMENTS
Our standard payment term is 100% within 30 days from the date of acceptance. However if the bidder make request for any pro-rata basis payment following payment terms shall be followed.

16.1 For supply of equipment’s /fabrication
- 20% of PO value as an advance against submission of bank guarantee for an equal amount from a reputed nationalized/scheduled bank and shall be valid till Contract completion period. A format of Bank guarantee form shall be obtained from Department.
- 60% of supply cost against receipt of fabricated & machined item at UT/SLP, SDSC SHAR / completion of items fabrication at SDSC SHAR.
- 20% of supply cost after successful erection, commissioning & acceptance by department for the system covered under contract and against submission of performance bank guarantee as per section 17.0 (i.e. 10% of total P.O. value).

16.2 For erection, testing and commissioning of equipment at site:
- 100% of erection cost along with GST cost after total completion of erection, testing, commissioning & acceptance at site and after submission of performance bank guarantee as per Section 17.0.

16.3 For removal of structural elements from existing UT
- 100% of removal cost with GST cost after total completion of removal works and after submission of performance bank guarantee as per Section 17.0.

16.4 For third party inspection charges
- 100% of third-party inspection charges along with GST charges after total completion of work at SDSC SHAR site.

This is to be noted that before each milestone payment, the extent of work completed shall be certified by CLIP inspection-SDSC SHAR & third party engaged by supplier and certification by site Engineer in charge.

Wherever advance payment is requested by tenderer, Bank Guarantee from any Nationalized Bank/Scheduled Bank should be furnished. In case of advance payments, if the vendor/supplier is not supplying the material within the delivery schedule, interest will be levied as per the Marginal Cost of Lending Rate (MCLR) of SBI plus 2% penal interest.
Interest will be loaded for advance payments/stage payments as per the MCLR of SBI and will be added to the landed cost for comparison purpose. In case of different milestone payments submitted by the parties, a standard and transparent methodology like NPV will be adopted for evaluating the offers.

17.0 PERFORMANCE BANK GUARANTEE (PBG)

17.1 The supplier shall guarantee for the performance of the system/workmanship by providing bank guarantee from a Nationalized / Scheduled Bank in favor of the Department for an amount equivalent to 10% (ten percent) of the total value of this contract valid till the completion of warranty period plus 60 days.

17.2 The performance bank guarantee shall be submitted by the supplier within fifteen days from the date of accepting the material as per the contract. The format for the performance bank guarantee shall be obtained from the Department.

18.0 DELIVERY SCHEDULE

Bidders are requested to adhere to the schedules given below. The structural modification works shall be completed within 6 months from the date of release of LOI/Purchase Order, including the site erection & commissioning and acceptance by the Department.

Tenderer shall follow the following schedule for executing the contract:

<table>
<thead>
<tr>
<th>S.N</th>
<th>Work involved</th>
<th>Time duration</th>
<th>Time line</th>
<th>Compliance (YES/NO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Release of P.O</td>
<td>--</td>
<td>T0</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Comments of fabrication drawing, submission of erection &amp; testing plan document and QAP</td>
<td>½ months</td>
<td>T0+½ months</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Procurement of raw material and initiation of fabrication works</td>
<td>1 month</td>
<td>T0+1 months</td>
<td>½ months</td>
</tr>
<tr>
<td>04</td>
<td>Supply of fabricated &amp; machined item to SDSC SHAR site along with the bought out items</td>
<td>21/2 months</td>
<td>T0+4 months</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Erection, testing and commissioning</td>
<td>2 months</td>
<td>T0+6 months</td>
<td></td>
</tr>
</tbody>
</table>
Note:-

1. The supplier should strictly comply the schedule highlighted above and should give highest priority for this work.

2. The erection of fabricated item shall be taken up during launch pad free period i.e. in between the launches.

19.0 LIQUIDATED DAMAGES

In the event of the Supplier failing to complete the work within the delivery period specified in the contract agreement or in extension agreed thereto, Department shall reserve the right to recover from the Supplier as liquidated damages, a sum @0.5 percentage per week for the undelivered portion of the total contract price of equipment or work. The Total liquidated damages shall not exceed the 10.0 percentage of the total Contract price.

20.0 DISCLOSURE AND USE OF INFORMATION

20.1 If the documents supplied by the SDSC SHAR are marked ‘restricted use’, supplier shall take all necessary steps to ensure the same.

20.2 Supplier shall guarantee that all information and data received during execution of Purchase Order from SDSC SHAR shall be classified as “confidential” within the meaning of the Official Secrets Act and will not be divulged to any third party without prior written permission of SDSC SHAR. All drawings & documents shall be returned after execution of work.

20.3 No publicity of any kind whatsoever regarding this work shall be given without prior clearance from SDSC SHAR.

21.0 SUSPENSION:

Department may notify the Supplier to suspend performance of any or all of his obligations under the Contract. Such notice will specify the reasons for suspension and the effective date of suspension. Supplier thereupon shall suspend the performance of such obligations until ordered in writing to resume performance of Contract by Department.

22.0 CANCELLATION

The Department shall have the right at any time to cancel a contract either wholly or in part by giving written notice by registered mail. From the time of receipt of the written notice the Supplier shall undertake to observe the instructions of the Department as to the winding up of the contract both on his own part and on the part of his sub-suppliers.
23.0 **ARBITRATION:**

In the event of any dispute or difference arising under these terms & conditions or any condition contained in the Purchase Order or in connection with this Contract. (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase Office or of some other person appointed by him, and the dispute further processed in terms of the Arbitration & Conciliation Act, 1996. There will be no objection that the arbitrator is a Government Servant that he had to deal with matter which the Contract relates to or that in the course of his duties as Government Servant has expressed views on all or any of the matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

If the arbitrator is the Head of the Purchase Office –

(i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in office either to proceed with the reference himself for to appoint another person as arbitrator, or

In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Purchase Office to appoint another person as arbitrator.

If the arbitrator is a person appointed by the Head of the Purchase Office – In the event of his denying or neglecting or refusing to act, or resigning or being unable to act, for any reason, shall be lawful for the Head of the Purchase Office either to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator subject, as aforesaid, to the Arbitration & Conciliation Act, 1996, and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under the clause. The Arbitrator shall have the power to extend with the consent of the Purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as the Purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during Arbitration Proceedings.

In case of Imported Stores, all disputes arising in connection with this Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules. The Contract shall be interpreted, construed and governed by the laws of India.
SECTION -B

SCOPE OF WORK
1.0 Introduction:

Umbilical tower (UT) of Second Launch Pad (SLP) at SDSC SHAR, Sriharikota is a 70m tall octagonal shape steel tower used for launching of ISRO launch vehicles. As part of the augmentation of launch pad system for requirements of human space flight (Gaganyaan mission), there is a need of structural augmentation/modification of UT systems for crew ingress & egress at launch pad. The structural works like realization of extension platforms by deriving support from the existing columns, crew access arm, locking arrangements will be carried out for crew entry & exit. The structural works will contain the fabrication of hot rolled steel sections at site and machining of components like hinge shaft, bearing retainers/housing etc. Some of the bought out items like bearing, fasteners, rollers etc also will be used during erection of elements/components. The mechanical systems like crew access arm (CAA), lock & unlock mechanism etc. will be interfaced with hydraulic/electric drive system and PLC based control system for remote operation of mechanisms. For emergency escape of crew from launch pad, wire rope basket system will be realized by deriving support from the extension platforms to be realized at EL 46m. The schematic layout of modifications to be carried out at launch pad as part of crew ingress & egress system is shown in Fig-1. The list of works, which are under the scope of tenderer are listed in sec. 2.0

![Fig-1: Overall layout of extension platforms & crew access arm at UT-SLP](image-url)
### 2.0 Master list of structural works to be carried out at UT:

Following works are being planned for modification at UT

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description of works</th>
<th>Approx weight in tonne</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New fabrication works:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>Strengthening of UT beams &amp; bracings where ever required</td>
<td>3</td>
<td>Structural fabrication work.</td>
</tr>
<tr>
<td>02</td>
<td><strong>Realization of extension platform</strong>&lt;br&gt;a. New extension platform at EL 42.9m &amp; EL 46m&lt;br&gt;b. Safety handrails and other minor works</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td><strong>Realization of Crew Access Arm (CAA) at EL 42.9m</strong>&lt;br&gt;a. Structural boom at EL 42.9m&lt;br&gt;b. Hinge for CAA (involving machining works)</td>
<td>12</td>
<td>Weight of structural boom: 4t&lt;br&gt;Weight of hinge i.e. machined works: 8t</td>
</tr>
<tr>
<td>04</td>
<td><strong>Locking of SCVRPs &amp; CAA</strong>&lt;br&gt;a. Creation of new locking for SCVRP-2 at EL 37.2m&lt;br&gt;b. Modification existing SCVRP-3-A locking arrangement to removable type&lt;br&gt;c. Realization of auto locking &amp; unlocking mechanism for SCVRP-3 &amp; CAA (involving machining works)</td>
<td>7</td>
<td>Machining works: 5t&lt;br&gt;Structural work: 2t</td>
</tr>
<tr>
<td>05</td>
<td><strong>Modifications in bubble lift enclosure</strong>&lt;br&gt;a. Creation of new landing floor at EL 42.9m&lt;br&gt;b. Realization of sliding doors for each floor opening (involving machining work)</td>
<td>10</td>
<td>Machining work: 2t&lt;br&gt;Structural work: 8t</td>
</tr>
<tr>
<td>c. Modification of entry staircase to increase the width.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td><strong>Checkout cable tray</strong>&lt;br&gt;Erection of cable tray (2 nos.) from ground to EL 46m elevation.</td>
<td>8</td>
<td>Structural fabrication work.</td>
</tr>
</tbody>
</table>

### Removal of existing items

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description of works</th>
<th>Approx weight in tonne</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>Removal of existing structural member of UT at various locations like&lt;br&gt;• 42m floor beam, bracings etc&lt;br&gt;• Vortex spoiler from 42m to 46m&lt;br&gt;• Existing 46m extension platform (both sides)&lt;br&gt;• SCVRP-3 members for free path</td>
<td>5</td>
<td>There will be no supply of material for this work</td>
</tr>
</tbody>
</table>

### Notes:

1. Weights given in document/drawing are indicative only. The final weight may vary by ±20% and hence the party needs to account the same while submitting the quotation. However, payment will be done as per the actual work carried out at site.
and after certification of CLIP. In case of extra works to be carried out, same will be made after amendment of P.O. and will be based on the unit rate as applicable.

2. Enclosed drawing/model is for tendering purpose only. Final fabrication drawing will be issued to tenderer during release of P.O.

3. The contractor has to engage parallel fabrication gang at UT/SLP site for carrying out minor works/in situ fabrication works listed in point no.04,05,06 & 07 in above table to strictly ensure the given completion schedule of 6 months.

4. The indicated weight in the above table is based on the drawing weight and some extra weight is added to complete the unforeseen finish works.

5. As the above described works are interdependent, for smooth execution of work without any interface issues, overall L1 will be selected for placement of P.O.

3.0 Description of major structural works to be carried:

3.1 Strengthening of UT beams & bracings where ever required (master list-SL. No-1)
Due to addition of extension platforms at EL 42.9m and 46m, the existing floor level beams at UT will be strengthened to keep the structurer in safe working limits. It is planned to add new beams similar to the existing beams over it and/or convert the existing open type beams to close type beam by providing additional plates. Due to modification of floor beams the interconnecting bracing will also be modified suiting to the structure. The estimated weight for this works is around: 3t.

3.2 New extension platform at EL 42.9m& EL 46m (master list-SL. No-2.a)
It is proposed to create extension platforms at EL 42.9m and EL46m by deriving support from the existing UT columns. The 42.9m platform will be supported from 42m platform. The 42.9m platform will be used for crew entry and the 46m platform will be used for erection of hinge system of crew access arm. Further the 46m platform will be used for fixing of pulley system of zip line, lock and unlock system of SCVRP & CAA. The extension platform is structural platform fabricated with steel material as per the given drawing.
The plan view of the 42.9m extension platform and 46m extension platform is shown in the figure 3 and 4 below. The overall dimension of the 46m platform is around 4.25m X 3m while the overall dimension of the 42.9m platform is approximately 10m X 7.5m. The approximate weight is 28t.

Fig-3: Plan view of 42.9m extension platform
Fig-4: Plan view of 46m extension platform

Fig-5: Plan view of 46m extension with locking platform
3.2 Safety handrails and other minor works (master list-SL. No-2.b)

After realization of external platforms, safety handrails will be provided around the platform. MS Pipes of 40NB and 32NB will be utilized for the safety handrails. Minor fabrication works like providing the gusset plates and stiffener plate of 12mm/16mm/20mm thickness will be provided wherever required. The approximate weight for the same is around: 2t.

3.3 Structural boom at EL 42.9m (master list-SL. No-3.a)

The crew access arm is rotating cantilever structure arm connected from hinge being supported on 46m extension platform. The hinge will be rotated through a hydraulic actuator. The CAA is a 12m long cantilever boom having opening of 1.25m width and 2.3m height opening for crew entry. The structure of the boom is made up of MS pipes and the floor is cover with chequered plate. The approximate weight of boom is: 4t

3.3 Hinge for CAA involving machining works (master list-SL. No-3.b)

The hinge part of CAA is machined item which will be interfaced with the structural boom. The shaft of the hinge is EN24T and will be heat-treated to achieve required strength and hardness. Involute teeth Splines will be prepared on shaft to interface with the actuator. The shafts will be rotated through bearings. The approx. weight of machining part of boom is:8000Kg (8t)..The hinge mechanism for crew access arm is shown in figure 7.

![Fig-6: Crew access arm (CAA) view](image)
3.4 Creation of new locking for SCVRP-2 at EL 37.2m (master list-SL. No-4.a)

At present SCVRP-2 manual locking arrangement is available at 46m elevation at 135° orientation. During Gaganyaan mission, the location of the platform will be changed to 37.2m extension platform. To provide the locking arrangement at 37.2m, existing locking arrangement of SCVRP-2 and 37.2m extension platform need to be modified as shown in the figure 7. The proposed Modification is minor in nature which involves trimming the corner of existing platform and addition of new members. The existing elements of the locking arrangement like turn buckle, supporting pedestal etc. will be used as it is by fixing in required direction. The approximate weight for the above work: 1t. Schematic arrangement is shown in fig-8.
Area to be trimmed for the locking arrangement

Fig-8: Locking arrangement using turn buckles
3.4 Modification existing SCVRP-3 locking arrangement to removable type (master list-SL. No-4.b)

The existing manual locking of SCVRP-3A & 3B will be made removable type as the location where the locking arrangement exists will interfere with the crew ingress and egress. The manual locking will be removed for Gaganyaan mission and will be fixed back during non Gaganyaan mission. Hence, it is proposed to make the locking arrangement removable. The work involved for this is minor in nature. The approximate weight for same is round 1t.

3.4 Auto locking of SCVRP-3 & Crew access arm (CAA) (master list-SL. No-4.c).

SCVRP 3 auto- locking is proposed at 46m on the top of girder and on 46m platform. This proposed auto-locking is designed to lock SCVRP at 102° instead of current locking of 135°. The auto locking and unlocking will be operated remotely from the control room.

Major features of the proposed scheme are as following-

1. SCVRP 3A & 3B both will be locked at 102°.
2. Striking arm is placed on the top SCVRP girder which will hold the locking.
3. The locking system at 46m platform will be remotely operated.
4. The locking system is operated by a flameproof electrical motor which will serve the function of both locking and unlocking. (This work is in scope of department). However the scope of tenderer is to demonstrate the free rotation lever around the hinge shaft.
Total 3 number of this auto-locking system has to be realized for Both SCVRP-3A, SCVRP-3B and CAA (one for each system). This involves the machining works like brackets, rotating pin with keys, swing arm, Striker plates, etc. The bought items like bearings etc. within the scope of supplier. The incorporation of drive system for auto locking system will be carried out by department. The auto-locking arrangement is shown in the figure 9. The approximate weight for this is around: 5t

Fig-9 : Auto locking arrangement for SCVRP-3 and CAA
3.5 Creation of new landing floor at EL 42.9m (master list-SL. No-5.a)

To facilitate crew entry at EL 42.9m, it is planned to create a new floor at bubble entry location by deriving support from the 42m floor. The new platform will be of size 4m X 1m covered with chequered plate. After creating the platform/floor, connection to existing UT floor will be provided by staircase of 900m height. Modification of interfering bracing suitably will be carried out. A hinged door will be provided for the opening created for crew entry. The supporting columns of shafts at that region will be modified to suit the new requirement. The approximate weight: 2t
3.5 Realization of sliding doors for each floor opening (master list-SL. No-5.b)

At present for entry to bubble lift there an opening of 1m(W) x 2m(H) at every floor level. For Gaganyaan mission it is planned to close the opening by providing sliding doors. The doors will be fixed with 6204-C-2Z type bearing with 20mm dia. shaft for rolling. Total no of doors to be provided is 16. The approximate weight: 3t

3.5 Modification of entry staircase to increase the width (master list-SL. No-5.c)

At present for entry to bubble lift at El 3.5m there an staircase at ground level which width is 800mm. The staircase width will increase to 1m for interference entry of crew members. The approximate weight: 5t.
3.6 Erection of cable tray (2 nos) from ground to EL 46m elevation (master list-SL. No-6)

For routing the cable from ground to required elevation it is planned to erect cable tray by deriving support from the existing UT floor beams. The section to be used for cable trey is 150mm box. The approximate weight for cable trey is 8t.

Note: Depending on the site condition location of tray may change.

4 Scope of work:

The scope of the contractor shall include understanding the UT systems along with modification/augmentation proposed for Gaganyaan project, submission of manufacturing & heat treatment/stress relieving methodology, procurement of raw material, fabrication, assembly of sub-systems along with free issue and bought out items, trial assembly at contractor’s works, testing & inspection, painting, packing, forwarding, transportation, transit insurance, delivery at site(SLP, SDSC SHAR), erection, testing and commissioning which involves load testing of the integrated system as per drawing at site and carrying out performance/acceptance tests of the system as per specifications of ISRO & Third Party Inspection Agency(TPIA). The scope of work shall also include collection of free issue items from purchaser, assembling the same with manufactured items of contractor and dispatching with the final products.
5 **Detail scope of work:**

The scope of work after the award of contract includes, but will not be limited to the following:

5.1 Clearly understanding the fabrication drawings provided by SDSC SHAR, and listing out the raw material & bought out items required for the project.

5.2 Preparation of sequence of work (as per their priority) with expected time of completion for procurement of raw materials, fabrication either at site/ in supplier’s premises, machining of components at suppliers’ work center & procurement of bought out items. There should not be any hold in progress of work in the want of any components during erection at site.

5.4 Procurement of raw materials like hot rolled steel sections, pipes, plates chequered plates, EN24T etc. as per the bill of material in the fabrication drawing. While procuring the raw materials, supplier should consider the fabrication wastage in its account.

5.5 Procurement of bought out item as per the specification is in scope of supplier. The bought out must be of same make as indicated in the drawings. The source of procurement of bought out item shall be informed to department in writing for obtaining the clearance.

5.6 Fabrication of steel structure as per drawing. The fabrication work can be carried out either at supplier’s place or at SLP site, accordingly the price bid comparison will be made. Before initiation of fabrication, Layout marking on a leveled surface on ground as per the fabrication drawing/as per site dimension by fabricator and same will be verified by department engineer.

5.7 Machining of components at supplier’s workshop outside the SDSC SHAR shall be carried in parallel as per the approved drawing. The tolerances in the dimension in the machining components must be as per the drawing, any variation in same shall be informed to department engineer to take necessary action.

5.8 Where ever mating components are required for carryout the machining works (like spline for CAA hinge shaft), the mating components will be provided by department as free issue item. (If the work is carried out at SLP site BG is not required).

5.9 Supplier has to submit Bank Guarantee of equivalent value or indemnity bond and insurance policy in favor of department for the value of the free issue items before collecting the free issue items from the department. Sufficient care has to be taken for packing the free issue items.
5.11 Erection of fabricated structure at the required elevation of UT/SLP. The extension platforms will be erected in 42.9m & 46m. Tenderer shall engage sufficient experienced manpower for carrying out such erection works.

5.12 Assembly of machining components with fabricated component at site as per the given assembly procedure. After assembly, manual rotation of the rotating items shall be checked before going ahead with final bolting/welding.

5.13 DP test to the critical welding joints shall be carried out for root welding and final welding where ever required. Arrangement of DP test kit is in the scope of contractor.

5.14 Heat treatment of CAA shaft as per requirement shall be carried out to achieve the strength & hardness. The heat treatment cycle curves shall be submitted to TPIA for review and approval.

5.15 Radiography/UT (Ultrasonic test) of major raw materials/components like hinge shaft, housing, etc. shall be carried out as per standards as part of NDT.

5.16 Grit blasting as per general standard shall be carried out for steel raw materials.

5.17 All the machined surfaces are to be protected with anti-corrosive coats. Final painting to be done after testing & commissioning.

5.18 Commissioning of the structural elements by proper load testing as per the approved test procedure shall be carried out by supplier.

5.19 Painting of the structural members as per the specifications/approved drawing. Application of etching primer coats at shop as specified in the specifications/drawings.

5.20 Packing, loading, unloading and transportation of items to site is in scope of supplier.

5.21 All the material handling equipment like hydra, fork lift, and pallet truck for shifting of material in ground during day to day fabrication works is in scope of tenderer.

5.22 Material handling support for erection of fabricated module at elevated height of UT will be provided by department at free of cost.

5.23 The requirement temporary approach platforms/scaffolding for erection of items at site is in scope of supplier.

5.24 Arrangement of gas cutting setup, cutting machine including the cutting, wheel, grinding machine and welding machine with electrodes and associated consumables is in the scope of contractor.
5.25 All the skilled & unskilled manpower required for the fabrication/erection work is in the scope of supplier.

5.26 Maintaining the inspection report, DP report, material test certificate etc. is in the scope of supplier.

5.27 Any minor work which is not indicated above but required for completion of project is in the scope of supplier.
SECTION –C

TECHNICAL SPECIFICATIONS
1.0 STEEL MATERIAL FOR STRUCTURAL WORKS:

1.1 All rolled steel section shall conform to IS: 2062-2011, E250, Gr-BR. Re-rolled steel will not be accepted by department.

1.2 Steel shall be procured exclusively from the main producers like SAIL/TATA/RINL/Jindal only. The manufacturing test certificate indicating the heat no. of material shall be provided and same should be stamped on the material.

1.3 The general steel sections that will be used are ISMB 600, ISMB 250, ISMB 200, ISMC 400, ISMMC 300, ISMC 150, ISMC 100, 50X50X3 box ISA 65X65X6 etc.

1.4 In case certain steel sections are not available in the market in the designed thickness, the next higher thickness available should be used.

1.5 All pipe structures shall confirm to the IS: 1161 and chequered plates shall confirm to IS:3502.

1.6 The chequered plates and plates shall be procured as per the specification of drawings. The plates having thinness more than 20mm shall undergo ultrasonic test to verify the laminations.

1.7 The material shall be of tested quality, recent manufacture & free from scales, slag intrusions, pitting, flake, rusts etc. Grit blasting shall be carried out for raw materials.

1.8 All hexagonal bolts, nuts and lock nuts will conform to IS: 1367-2002. Washers will conform to IS: 2016-2001.

1.9 Covered electrodes for arc welding will conform to IS: 814-2004. The welding electrodes of ESAB/ADVANI/ D&H SECHERON make only. Welding rod confirming to code AWS A5.1: E7018 of 3.15mm dia. shall be used for welding in general.

2.0 FABRICATION PROCESS / WORKMANSHIP

2.1. The fabrication of various components of the shelter shall be in accordance with the approved drawings.

2.2. The work shall be carried out in a thoroughly reliable manner using good engineering practices and workmanship in order to ensure satisfactory assembly and erection, interchangeability of similar members, accuracy of dimensions, position and alignment of holes etc.

2.3. All workmanship will be equal to the best practice in modern structural shops, and will conform to the provisions of the IS: 800 (with latest amendments). Only tested approved raw material shall be used for the fabrication of structures.
3.0 BOLTED CONSTRUCTION

3.1. The quality of steel used for nuts, bolts, washers etc. should confirm to mechanical properties as per IS: 1367/79 (with latest amendments) and dimension to IS: 6639 (with latest amendments). All bolts shall have hexagonal heads and hexagonal nuts or as per the approved drawings. The bolts shall be threaded with standard threads to take the full depth of the nut. All nuts shall fit tight to the bolts. Locknuts / spring washers shall be provided to all bolts and nuts. The bidder shall include sufficient spare bolts and nuts to compensate for loss / damage in the field during erection. The cost of bolts and nuts shall be included in the cost of Shelter material.

3.2. All bolts shall be threaded to take the full depth of the nuts and to permit firm gripping of the members, but not further. It shall be ensured that the threaded portion of each bolt protrudes not less than 3 mm and not more than 8 mm when fully tightened. All nuts shall fit and tight to the point, where the shank of the bolt connects to the head.

3.3. Flat and tapered washers shall be provided wherever necessary, spring washers shall be provided for insertion under all nuts. These washers shall be steel electro galvanized, positive lock type.

3.4. The fasteners shall be procured from reputed manufacturers such as UNBRACO, TVS etc.

3.5. All the bolts and nuts shall be galvanized by high temperature hot-dip galvanizing at temperature at 530°C in accordance with IS: 1367 (with latest amendments). The galvanizing coating should be uniform and its value should be between 80 to 115micron.

4.0 List of bought out items and free issue items.

4.1 List of bought out items:

All the bought out required for successful completion of work is listed below based on the preliminary drawings. However, the model or make may slightly change as per finalized drawings. Supplier shall keep this in mind while estimating the cost. Further supplier should submit the procurement plan along with party details for department clearance along with technical specification. Geneunity certificate/conformity certificate/Certificate of origin from OEM shall be supplied with item. Manufacturing test certificates for the bearings shall be provided with items.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item Name</th>
<th>Qty.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Auto-locking mechanism</strong> (For SCVRP-3A, 3B &amp; CAA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type: Taper roller bearing</strong></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specifications:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Make: FAG/SKF/Timken</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bearing no: 32220-A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bore: 100mm, OD: 180mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Static load: 475kN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Dynamic load: 335kN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Fasteners</strong></td>
<td>60</td>
<td>Extra shall be considered by supplier</td>
</tr>
<tr>
<td></td>
<td>Size: M20, Grade 8.8, Bolt &amp; Nut with two Washers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Bearing at Top of pivot shaft</strong></td>
<td>2</td>
<td>Only SKF/FAG/Timken make bearing is acceptable. The designation/model no may change due to change in brand/make (i.e either SKF/FAG/Timken) but there should not be any change in dimension and capacity of bearing.</td>
</tr>
<tr>
<td></td>
<td>Specification:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TYPE: taper roller bearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Make: SKF/FAG/TIMKEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Designation: NP741069</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bore dia: 400mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Outer dia: 676 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Width: 152.40 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Dynamic load capacity: 3770kN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Static load capacity: 6470 kN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>Bearing at Bottom of pivot shaft</strong></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specification:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TYPE: taper roller bearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Make: SKF/FAG/ TIMKEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Designation: HM265049</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bore dia: 368.24 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Outer dia: 523.87 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Width: 101.60 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Dynamic load capacity: 2270kN
- Static load capacity: 4340 kN

### Bearing of Bottom pin:
**Specification:**
- TYPE: taper roller bearing
- Make: SKF/FAG/TIMKEN
- Designation: JHM840449
- Bore dia: 200 mm
- Outer dia: 300 mm
- Width: 65 mm
- Dynamic load capacity: 695 kN
- Static load capacity: 1280 kN

<table>
<thead>
<tr>
<th>6</th>
<th><strong>Bearing of Bottom pin:</strong></th>
<th>4</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>7</th>
<th><strong>M52 X 160Lg Hex. Bolt &amp; Nut with two Washers</strong></th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8</th>
<th><strong>M52 X 300Lg Hex. Bolt &amp; Nut with two Washers</strong></th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9</th>
<th><strong>M52 X 3135Lg Hex. Bolt &amp; Nut with two Washers</strong></th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10</th>
<th><strong>M52 X 105Lg Hex. Screw with Washer</strong></th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11</th>
<th><strong>M16 X 55Lg Hex. Screw with Washer</strong></th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12</th>
<th><strong>M16 X 35Lg Hex. Screw with Washer</strong></th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13</th>
<th><strong>M16 X 350Lg Hex. Screw with Washer</strong></th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Property class: 8.8</td>
<td></td>
</tr>
</tbody>
</table>

The requirement of fasteners may increase during final execution. Supplier should arrange required no. of fastener for successful completion of project. All the fasteners must be TVS/Unbrako make only.
### 4.2 List of Free issue material (FIM):

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Item description</th>
<th>Qty</th>
<th>Weight</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Hydraulic rotary actuator</td>
<td>1</td>
<td>3t</td>
<td>60Lakhs</td>
</tr>
</tbody>
</table>

### 5.0 WELDED CONSTRUCTION

#### 5.1. General

Welding if any shall be carried out in accordance with IS: 816, IS: 1024 and IS:9595 (with latest amendments) as appropriate and as supplemented in the Specification. Welding will be done by experienced welders, who have been qualified by tests in accordance with IS: 817-1996. Joints in materials above 20 mm thick has to be welded with low hydrogen electrodes. The welding electrodes are of ESAB or ADANI make only, confirming to code AWS A5.1: E7018 of 3.15mm dia. shall be used for welding of the MS members. Pre-heating and post heating shall be employed as may be necessary for welding members. For welding of any particular type of joint, welder shall give evidence acceptable to SDSC SHAR of having satisfactorily completed appropriate tests as described in relevant codes. DP test has to carry out for the critical weld joints for both root and final welds.
5.2. Preparation of Material

Surface to be welded will be free from loose scale, slag, rust, grease, paint and any other foreign material except that mill scale, which withstands vigorous wire brushing, may remain. Joint surfaces will be free from fins and tears. Preparation of edges by gas cutting will, wherever practicable, be done by a mechanically guided torch without burns.

5.3. Assembly

Parts to be fillet welded will be brought in as close contact as practicable and in no event will be separated by more than 3 mm. If the separation is 1.5 mm or greater, the size of the fillet welds will be increased by the amount of separation. Wherever required, assembled jigs / fixtures will be used to get proper alignment and tolerance on jobs.

5.4 Equipment

Welding plant/machine and accessories will be capable of producing proper current so that the operator may produce satisfactory welds. The welding machine will be of a type and capacity as recommended by the manufacturer of electrodes or as may be approved by the purchaser.

6.0 GALVANIZING

The field connections, materials like bolts, nuts and washers shall be hot dip galvanized. Galvanization shall be carried out by hot dip process in a proper uniformly heated bath. It shall meet all the requirements when testing in accordance with IS: 2633.

7.0 ERECTION

- Tenderer has to ensure proper interfacing of fabricated item to the existing UT structure.

- Tenderer will prepare erection procedure indicating detail of erection sequence requirements of handling equipment’s and temporary fixtures etc., and furnish the same for Purchaser’s approval.

- Tenderer will provide necessary temporary power connections and establish erection site office. Tenderer will mobilize machinery and equipment required to meet the erection requirement as stipulated in approved erection procedure well in advance.

- All field connection materials like bolts, nuts, washers and electrodes will also be supplied by the Tenderer. In addition, the Tenderer will supply all other materials like oxygen, acetylene, paints, fuels, lubricants, which are necessary for the execution of the work in accordance with the contract.
The Tenderer will maintain a fully equipped workshop at site for fabrication, modification and repairs of steel work at site as may be required to complete the works according to the requirements.

All material required to be supplied by the Tenderer under this contract will conform to the relevant Indian standard specifications.

### 7.1 Storage of materials

All material will be stored as to prevent deterioration and to ensure the preservation of their quality and fitness for use in the works. Any material which has been deteriorated or damaged beyond repairs and has become unfit for use will be removed immediately from the Site, failing which, the Purchaser will be at liberty to get the materials removed by other agency and the cost incurred thereof will be realized from the Tenderer's dues.

### 7.2 Covered Store

All field connection materials, paints, cement etc., will be stored on well-designed racks and platforms off the ground in a properly covered store building to be built at the cost of the Tenderer.

### 7.3 Erection procedures/workmanship

- All material shall be completely fabricated at UT/SLP site and the machining components shall be prepared at supplier’s work shop and sent to SLP site; trial assembled at party’s site and UT site also. Before lift the item for erections, all the minor equipment required shall be readily available at site.

- All the components shall be wrapped with 0.5 mm thick High density polyurethane sheet prior to the packing and transportation.

### 7.4 Erection equipment

The suitability and adequacy of all erection tools and equipment proposed to be used will be efficient, dependable, in good working condition and will have the approval of the Purchaser.

### 7.5 Method and sequence of Erection

The method and sequence of erection will have prior approval of Purchaser. The Tenderer will arrange for most economical method and sequence available to him consistent with the Drawings and Specifications. Tenderer shall prepare site erection procedure. The procedure shall clearly bring out erection sequence of all components, temporary fixtures requirement and their erection procedure, etc.
7.6 Temporary platforms / scaffolds

It will be the responsibility of the Tenderer to provide free of cost planking and to cover such floors during the work in progress as may be required by any Act of Parliament and / or bye-laws of State, Municipal or other local authorities.

7.7 Setting out

Positioning and levelling of all steel work, plumbing of column/beams and placing of every part of the structure with accuracy will be in accordance with the approved drawings and to the satisfaction of the Purchaser. No permanent field connections will be carried out until proper alignment and plumbing has been attained.

7.8 Final Cleaning

Upon completion of erection and before final acceptance of the work by the Purchaser, the Tenderer will remove at free of cost all false work, rubbish and all temporary Works resulting in connection with the performance of his work.

7.9 ACCEPTANCE

Structures and members which conform to all requirements specified above and other applicable provisions of this specification and are within the limits of tolerances specified above and / or otherwise approved by the Purchaser will be treated as approved and accepted for the purpose of fulfilment of the provisions of this Contract.

8.0 SURFACE PREPARATION & PAINTING OF STRUCTURAL MEMBERS

8.1. SCOPE

All the fabricated structural members shall be painted with one coat of etching primer immediately after fabrication and DP testing. After completion of erection, all the damaged primer painted area will be touched up with same primer and two coats of enamel paint of approved quality and colour shall be painted.

8.2. PAINTING SCHEME

The painting scheme will be followed as below

i. Ignorance zinc silicate (Primer paint) - 65 microns
ii. Inhibitive polyamide epoxy (Intermediate paint) - 100 microns
iii. Aliphatic acrylic polyurethane (Enamel finish paint) - 40 microns
(Non-fading colour due to UV radiation)

The paints used in painting shall be of best quality from reputed paint manufacturer such as Grand Polycot, Asian, Burger, Shalimar paints in accordance with relevant BIS codes.
8.3. APPLICATION OF PAINTS
Site painting of finish paint will only be done after the structure is erected, levelled, plumbed, aligned and connected in its final position. However, touch up painting, make-up of any damaged painting will be carried out by the Tenderer free of cost. The materials and specification for such painting in the field will be in accordance with the requirements of the specification for shop painting. All coatings, thinners and cleaners will be a product of the same manufacturer and will confirm to relevant provisions of the Indian Standards. To ensure inter coat compatibility, coating systems consisting of more than one coat will be product of the same manufacturer. The inspection of various coats of primer & finish paints as well as their Dry Film Thickness will be carried-out by the third party inspection agency. Necessary inspection equipment like Elcometer or paint thickness measuring gauges and other tools required are to be supplied by the Tenderer.

9.0 MEASUREMENTS STRUCTURAL STEEL
Structural steel work will be measured by the metric ton and as per IS: 1200 (part-8) – 1993 and IS: 1200 (part-9) – 1973 subject to provisions outlined below:-

a) The calculation of quantities will be based on unit weights for structural sections as given in IS Handbooks, the case of mild steel plates, the calculated weights will be based on 78.5 kg per square metre per centimetre thick plate. Payments will be made on the basis of weights of members given in the approved fabrication drawings. However, in case of any change on the above weights during fabrication / erection, payment will be based on sketches approved by Purchaser. In the event the I.S. does not specify any mode of measurement for a particular item of work, the same will be measured as per any other relevant International standard or as directed by Purchaser.

b) The weight of all plates and sections will be calculated from approved drawings using the minimum overall square or rectangular dimensions and theoretical weight, no deduction being made for skew cuts, holes etc., In the case of plates, other than gussets, the actual dimensions shown on approved drawings will apply unless approved otherwise by Purchaser based on cutting diagram of mother plates.

c) The weight of all welding runs, bolt, stanchion base pickings, cuttings to waste and rolling margins, and coatings of paint, will be excluded from the measured weight and will be deemed to have been allowed for in the rates for structural steel works quoted by the Tenderer.

d) Temporary works necessary for fabrication & erection and all other materials not included in the permanent works will be excluded from any measurement for payment.
e) All the works that are carrying out are to be confirming to their suitable relevant Indian Standards.

10.0 ACCEPTANCE
After completing the erection of a unit or portion thereof, the Tenderer will give a notice in writing, stating that the job is complete in all respects and ready for acceptance. The job will be jointly inspected visually by the representatives of Tenderer and Purchaser. All observed defects and omissions from the drawings and specification will be noted down. If he defects are not major in the opinion of Purchaser / or Purchaser’s representative, the Tenderer will be issued a acceptance certificate mentioning the defects, deficiencies and omissions which will be made good by the Tenderer within a period mutually agreed to with the Purchaser.

11.0 MAITENANCE & GUARANTEE.
Commencing from the date of issue of final acceptance certificate or conclusion of final acceptance test, the Tenderer will stand guarantee for a period of 12 calendar months, for the satisfactory performance of steel structures of the unit. In the event of issue of more than one certificate by the Purchaser, maintenance period will commence from the date of issue of last certificate for the particular unit. The Tenderer will replace / rectify all parts / components which become defective due to poor quality of material, bad fabrication or erection or due to any act of oversight or omission. All such rectification or replacements of defective materials or workmanship will be done free of cost by the Tenderer.

12.0 THIRD PARTY INSPECTION:
- For both mechanical & structural item, third party inspection agency like BVQ, DNV, MN Dastur etc. shall be engaged to inspect all the items as per the cleared fabrication drawing & approved QAP from raw material & bought out item procurement stage to final assembly of item at site.
- The supplier shall execute the contract for third party agency and provide all approved drawings to the party. The cost of the same shall be included in the quotation.

13.0 Quality system and inspection.

13.1 GENERAL

13.1.1 Inspection will be carried out at the works of the Tenderer during fabrication and on final product to ensure conformity of the same with the acceptable criteria of technical specifications, approved fabrication drawings and indicated standards.
13.1.2 This specification is in addition to the provisions laid down in Purchaser’s General Condition of Contract (GCC) and special instructions to tenderer, if any.

13.2 QUALITY SYSTEM REQUIREMENTS.

The Tenderer must recognize the importance of quality and follow the defined quality program in all manufacturing and quality control activities of the product. The Tenderer will define and implement the tasks and controls that will provide needed assurance in case manufacturing of product is subcontracted either partly or fully and/or for the procured components of the product.

Purchaser reserves the right to verify the quality program and entire product characteristics to assure the intended and specified quality of the product.

13.3 QUALITY ASSURANCE PLAN (QAP)

13.3.1 The Tenderer will furnish the Quality Assurance Plan (QAP) for the respective structural unit / component after finalization of billing schedule for Purchaser’s approval at least two months prior to start of manufacturing.

13.3.2 The Tenderer will indicate the procurement source and furnish to Purchaser during discussions on QAP, copies of Purchaser Order, Sub-Purchaser Order, data sheets as backup reference materials for scrutiny & finalization of QAP.

13.3.3 Detailed QAP will be prepared by the Tenderer based on the general plan given by Purchaser to avoid any complication later.

13.3.4 QAP will clearly indicate the followings through use of codes in the appropriate columns:

13.3.4.1 Range of inspection & tests to be done by the Tenderer during fabrication of structures from raw materials to finishing stage.

13.3.4.2 Suggestive check / hold points for Purchaser’s inspection and witnessing of tests during the fabrication and final product inspection.

13.3.4.3 Details of test certificates, internal inspection reports and calibration certificates to be furnished by the Tenderer to Purchaser.

13.3.4.4 Inspection documents to be furnished by the Tenderer to Purchaser for reference during inspection.

13.3.5 While submitting the QAP, the Tenderer will indicate the acceptance criteria regarding check parameters of each component. Acceptance criteria will have reference of documents viz., Purchaser Order, Sub-Purchaser
Order, T.S., Approved fabrication drawings. Wherever the acceptance criterion is not available in above documents, the same will be specified with traceability to national / international specifications.

13.4 TEST CERTIFICATES AND DOCUMENTS.

13.4.1 For each of the items being fabricated, the following test certificates and documents, as applicable, in requisite copies including original will be submitted to Department. All test certificates must be endorsed by the Tenderer with linkage to project, Purchaser order and acceptance criteria.

13.4.1.1 Raw materials identification & physical and chemical test certificates for all materials used in fabrication of the component

13.4.1.2 WPS, PQR & WPQ documents as per applicable code

13.4.1.3 Qualification of the welding procedures to be used and the performance of welder & welding operators shall confirm to the requirements of the BPV codes and section IX. For equipment under the purview of IBR, these also shall meet the requirement of IBR

13.4.1.4 No production welds shall be undertaken until qualification requirements are completed to the specification of the department.

13.4.1.5 Details of stage wise inspection & rectification records for fabricated items and machined articles.

13.4.1.6 Surface preparation and painting certificates.

13.4.1.7 Certificates from competent authority for the items coming under statutory regulations.

13.4.2 The inspection agency will have the right to be present and witness all tests being carried out by the tenderer at their own laboratory or approved laboratories. Also, the Inspection agency will reserve the right to call for confirmatory test on samples, at his discretion.

13.5 INTERNAL INSPECTION BY TENDERER

13.5.1 Inspection and tests will be carried out by the tenderer in accordance with approved drawings, Technical specification, Purchaser Order, and approved QAP. The tenderer will maintain records of each inspection and test carried out and signed documents will be submitted to Purchaser for verification.

13.5.2 The Tenderer will ensure use of appropriate calibrated measuring equipment during their internal inspection, as well as, make available the same during
Purchaser’s inspection and test. Also, they will make necessary arrangement for access and use of Purchaser owned measuring equipment during inspection.

13.5.3 The Tenderer will identify all the inspected component / raw materials & will maintain the record of status of inspection viz. inspected & found acceptable, require rectification / rework, rejected etc.

13.5.4 The Tenderer will establish and maintain procedures to ensure that product that does not conform to specified requirements, is prevented from inadvertent use or installation. The description of non-conformity that has been accepted subsequently by Purchaser by concession and / or of repairs will be recorded.

13.5.5 Repaired and reworked product will be offered for re-inspection to Purchaser along with records of corrective action taken.

13.5.6 The Tenderer will not dispatch any equipment till receipt of dispatch clearance from Purchaser.

13.6 METHOD OF UNDERTAKING INSPECTION & TESTING BY PURCHASER

13.6.1 Agency Responsible: -

Inspection / Waiver of component will be undertaken by purchaser depending upon the location of manufacturers.

13.6.2 Method of Issuing Inspection Call to Purchaser:

13.6.2.1 Inspection call will be floated to Purchaser with ten days clear margin, enclosing all documents like test certificates, Internal inspection reports, Purchase order, Sub-purchase order, T.S., Approved QAP, approved GA drawings / data sheets and fabrication drawings with a copy of call letter to purchaser. Inspection calls without above documents will be ignored.

13.6.2.2 Department shall have all rights to ask for replacement or accept with rectification starting from raw material to finished component/sub-assembly if the requirements/ specifications are not complied. All the rectification/ replacement works thus derived from each inspection shall be carried out without any additional claim.

13.6.2.3 Supplier should prepare all the inspection report like dimensional report, DP test report, assembly report, functional check report and produce to department for review and clearance for next process.
13.7 STAMPING AND ISSUE OF INSPECTION DOCUMENTS.

13.7.1 Inspection Memo: -
For stage inspection & for rejected items / items which do not conform to Technical Specification in one or more quality characteristics requiring rectification / rework, Inspection Memo will be issued in standard form indicating therein the details of observation & remarks. All the non-conformities with respect to specification of the product will be indicated in the Inspection Memo for further control by Fabricator.

13.7.2 Inspection Certificate: -
On satisfactory completion of final inspection & testing, all accepted plant & equipment will be stamped suitably and Inspection Certificate in standard form will be issued by the Inspection Engineer for the accepted items.

13.7.3 Inspection Waiver Certificate: -
For the waiver category of items identified in the approved QAP, Purchaser will issue Inspection Waiver Certificate after scrutiny of tenderer’s Internal Inspection Report, Test Certificates and other Documents as identified in QAP.

14.0 Standards/Codes
The design, manufacturing, fabrication, erection procedure and materials used for manufacture/machining and erection of structural shall conform to the following Indian Standards (IS) which shall mean latest revisions, with amendments / changes adopted and published, unless specifically stated otherwise in the Specification. Apart from these codes, any relevant codes need for successful completion of work will be followed.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>IS Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IS 800</td>
<td>Code of Practice for General Construction in Steel</td>
</tr>
<tr>
<td>2</td>
<td>IS 1367</td>
<td>Technical Supply Conditions for Threaded Steel Fasteners</td>
</tr>
<tr>
<td>3</td>
<td>IS 6639</td>
<td>Specification for Hexagon Bolts for Steel Structures</td>
</tr>
<tr>
<td>4</td>
<td>IS 1363</td>
<td>Hexagon Head Bolts, Screws and Nuts of Product Grade ‘c’</td>
</tr>
<tr>
<td>5</td>
<td>IS 1573</td>
<td>Specification for Electroplated Coatings of Zinc on Iron and Steel</td>
</tr>
<tr>
<td>6</td>
<td>IS 7215</td>
<td>Tolerances for Fabrication of Steel Structures</td>
</tr>
<tr>
<td>7</td>
<td>IS 5358</td>
<td>Specification for galvanization of Bolts and other fasteners</td>
</tr>
<tr>
<td>8</td>
<td>IS 2062</td>
<td>Steel for General Structural Purposes-Specification</td>
</tr>
<tr>
<td>9</td>
<td>IS 1852</td>
<td>Rolling and cutting tolerances for hot rolled steel products</td>
</tr>
<tr>
<td>10</td>
<td>IS 2500</td>
<td>Sampling Procedure for Inspection by Attributes</td>
</tr>
<tr>
<td>11</td>
<td>IS 808</td>
<td>Dimensions for Hot Rolled Steel Beam, Channel and Angle</td>
</tr>
<tr>
<td>Sections</td>
<td>Standards</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>IS 4000</td>
<td>High Strength Bolts in Steel Structures-Code of Practice</td>
</tr>
<tr>
<td>13</td>
<td>IS 5666</td>
<td>Specification for Etch (Pretreatment) Primer</td>
</tr>
<tr>
<td>14</td>
<td>IS 2932</td>
<td>Specification of synthetic enamel paint</td>
</tr>
<tr>
<td>15</td>
<td>IS 816</td>
<td>Code of practice for use of metal arc welding for general construction in mild Steel</td>
</tr>
<tr>
<td>16</td>
<td>IS 3502</td>
<td>Steel Chequered Plates-Specifications</td>
</tr>
<tr>
<td>17</td>
<td>IS 12843</td>
<td>Tolerances for Erection of Steel Structures</td>
</tr>
<tr>
<td>18</td>
<td>IS 1161</td>
<td>Pipes Specifications</td>
</tr>
</tbody>
</table>
SECTION –D
ANNEXURES
### Schedule of Price

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Units</th>
<th>Qty</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strengthening of UT beams &amp; bracings where ever required</td>
<td>tons</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Realization of extension platform at EL 42.9m and 46m</td>
<td>tons</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Realization of Crew Access Arm(CAA) at EL 42.9m</td>
<td>tons</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Locking of SCVRPs &amp; CAA including auto locking and platform modification</td>
<td>tons</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Modifications in bubble lift enclosure</td>
<td>tons</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Realization of checkout cable trey</td>
<td>tons</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>GST for Supply</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>8</td>
<td>Erection and commissioning of structural elements for Gaganyaan project (weighing 70ton), handling at SDSC SHAR, erection, testing, commissioning and carrying out performance test as per attached specification</td>
<td>Lumps</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>GST for site works</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>10</td>
<td>Removal of existing structural members of UT (weighing 5 ton)</td>
<td>Lumps</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>GST for removal of steel</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>12</td>
<td>Third party inspection charges</td>
<td>Lumps</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>GST for service</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14</td>
<td>Transportation charges if any</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>15</td>
<td><strong>Sub Total -1 (sum of 1 to 14)</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**Following unit rate shall be provided by party for future requirement (To take care quantity variation)**

A. Unit rate for machining item including material
B. Unit rate for structural fabrication including material
**Terms & Conditions:**

a. The rate quoted shall be on **FOR DESTINATION BASIS** i.e., **FOR DEPARTMENT**, Sriharikota basis. Even unloading of the material at our site shall be your responsibility at your cost. Thus transportation of material from your works to DEPARTMENT and unloading at our site shall be the responsibility of tenderers.

b. The taxes applicable for supply and erection/installation shall be indicated separately in terms of percentage in the unpriced techno commercial offer as well as price bid. If the offers submitted by the tenderers are silent on taxes, it will be presumed that quoted rates are inclusive of taxes & duties and no claim in this regard will be entertained later.

c. The tender will not be split as all the works are technically related with each other and the contract will be awarded on overall L1 (Lowest 1) basis, who is qualifying in all the terms & conditions of the tender.

**Signature of Authorized Person with Seal**
INFORMATIONS TO BE FURNISHED WITH THE TENDERER

SATISH DHAWAN SPACE CENTRE SHAR

NAME OF THE WORK: ____________________________________________________________

NAME OF BIDDER: ______________________________________________________________

CHECK LIST FOR TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Technical parameter (to be followed)</th>
<th>Response by supplier (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Supplier has visited to site for clear understanding of requirement</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Preparation of work flow chart and QAP</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Procurement of raw material. All the raw material must be from SAIL/TATA/RINL/Jindal make only</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Procurement of bought out item</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Fabrication &amp; erection at site</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Commissioning and trail tests</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Engagement of third party and inspection</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>All the fabrication related machines &amp; consumables</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>All the material handling equipment shall be provided by tenderer. During erection at height department will provide the material handling support.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Compliance to all relevant standards/code</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Components level inspection, assemble stage inspection and final commissioning inspection shall be arranged by supplier</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Issue of all documents and catalogues, warranty paper for bought out item.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Warranty of total work for 12months from the date of acceptance.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Sufficient no. of working fabrication gangs shall be deployed to carryout parallel works</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Sufficient no. of bolts shall be kept as spares to use in case of requirement.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>All the fasteners shall be of TVS/Unbrako only</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>All the bearings must be SKF/FAG/Timken make only</td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Person with Seal
Annexure-3

INFORMATIONS TO BE FURNISHED WITH THE TENDERER

SATISH DHAWAN SPACE CENTRE SHAR

NAME OF THE WORK: ____________________________________________

NAME OF BIDDER: ____________________________________________

CHECK LIST FOR COMMERCIAL TERMS & CONDITIONS

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Response by Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The detailed scope of work and technical specifications are under stood and price was quoted accordingly.</td>
<td>Yes / No</td>
</tr>
<tr>
<td>2.</td>
<td>EMD attached</td>
<td>Yes / No</td>
</tr>
<tr>
<td>3.</td>
<td>Validity of Offer is 4 months</td>
<td>Yes / No</td>
</tr>
<tr>
<td>4.</td>
<td>Vendor Evaluation Format is attached</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.</td>
<td>EDEC shall be provided the by Dept. list of EDEC items are provided.</td>
<td>Yes / No</td>
</tr>
<tr>
<td>6.</td>
<td>CDEC shall be provided by the Dept. List of imported items with quantities are provided.</td>
<td>Yes / No</td>
</tr>
<tr>
<td>7.</td>
<td>GST at the prevailing rates. If not mentioned it will be assumed that the price quoted are inclusive of taxes</td>
<td>Yes / No</td>
</tr>
<tr>
<td>8.</td>
<td>Delivery Schedule is 6 months with milestones</td>
<td>Yes / No</td>
</tr>
<tr>
<td>9.</td>
<td>Accepted the Department Payment Terms</td>
<td>Yes / No</td>
</tr>
<tr>
<td>10.</td>
<td>Warranty for the fully commissioned and accepted system is 12 months</td>
<td>Yes / No</td>
</tr>
<tr>
<td>11.</td>
<td>10 % of the Order Value shall be submitted as Security Deposit for the performance of the contract. Valid till acceptance of the system plus 60 days.</td>
<td>Yes / No</td>
</tr>
<tr>
<td>12.</td>
<td>10 % of the Order Value shall be submitted as Performance Bank Guarantee. Valid till completion of the warranty period plus 60 days.</td>
<td>Yes / No</td>
</tr>
<tr>
<td>13.</td>
<td>Liquidated Damages (Ref. Clause 24 of Section A.) acceptable</td>
<td>Yes / No</td>
</tr>
<tr>
<td>14.</td>
<td>Latest income tax certificate is enclosed</td>
<td>Yes / No</td>
</tr>
<tr>
<td>15.</td>
<td>Registration certificate of the company is enclosed</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

Signature of Authorized Person with Seal
EXCEPTIONS AND DEVIATIONS (FORM-J)

In line with Proposal Document, Bidder may stipulate Exceptions and deviations to the Proposal conditions if considered unavoidable.

<table>
<thead>
<tr>
<th>SL. NO</th>
<th>Reference in Specification</th>
<th>Dept. Specification</th>
<th>Offered Spécification</th>
<th>DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAGE NO</td>
<td>CLAUSE NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE:

✓ Only deviations are to be written in this FORM-J.

✓ Any deviations taken by the Bidder to the stipulations of the Proposal document shall be brought out strictly as per this format and enclosed along with the bid.

✓ Any deviations not brought out as per this Proforma (FORM-J) and written elsewhere in the Proposal document shall not be recognized and the same is treated as null and void.

✓ Any willful attempt by the Bidders to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the Bid itself non-responsive.

✓ Absence of technical details, information will be treated as acceptance to the technical specification unless otherwise brought out in deviations/expectations.

Signature of Authorized Person with Seal
Annexure-4

LIST OF TENDER DRAWINGS ENCLOSED

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Description</th>
<th>Dwg. No.</th>
<th>Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extension platforms</td>
<td>UT/GY/001A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UT/GY/001B</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UT/GY/001C</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Crew Access arm</td>
<td>UT/GY/002A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UT/GY/002B</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UT/GY/002C</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bubble lift modification</td>
<td>UT/GY/004A</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Locking &amp; unlocking arrangement</td>
<td>UT/GY/005A</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Cable tray arrangement</td>
<td>UT/GY/005A</td>
<td>1</td>
</tr>
</tbody>
</table>
Total weight for all extension platforms and beam strengthening= 33t
Tender Specification: Structural modification at UT/SLP

Drawing No.: UT/GY/001C

TENANT SPECIFICATION

SECOND LAUNCH PAD

SDSC SHAR
Boom weight: 4t

Drawing No.: UT/GY/002A
Hinge weight: 8t
Modification of bubble lift enclosure: 10t

Existing staircase for bubble lift (PLAN)
Existing step width 818mm
planned to increase up to 1000mm
Call for modification of side beams, steps & handrails.

Drawing No.: UT/GY/004A
Material information:
Shaft dia: 150mm, Length: 1m, EN24T
Striker Plates: MS 63mm(size: 600X400), base plates: 40mm(175X500)
Striker and rotating lever: ISMC 350 box
Bracket size: 575mm(H)X400mm(W), Stiffener plates: 20mm thk. Size: 170X125

Total weight of auto locking and platform modification: 7t

Drawing No.: UT/GY/005A

SDSC SHAR
Tender Specification: Structural modification at UT/SLP

SECOND LAUNCH PAD

Total weight of cable tray: 8t

Protection cover (3mm GI Sheet)

Cable tray at rear side of UT

Drawing No.: UT/GY/006A
Welcome, Materials Master (isro)

31 August 2017, 17:16:08 IST

STANDARD TERMS & CONDITIONS

Page Destination: Tender Header  Format Type: Normal

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTRE
PURCHASE DIVISION

Tele No.08623-225023/225174/225127
Fax No.08623-225170/22-5028
e-Mail ID : hps@shar.gov.in, hasan@shar.gov.in, sselvan@shar.gov.in

STANDARD TERMS & CONDITIONS

1. Offers shall be sent online only using standard digital signature certificate of class III with encryption/decryption. The tenders authorised online on or before the open authorisation date and time only will be considered as valid tenders even though the bids are submitted online.

2. The tenderer must authorise bid opening within the time stipulated in the schedule by SDSC SHAR. Otherwise the online bid submitted will not be considered for evaluation. Physical copy will not be considered even though it is received before the bid submission date.

In case of two-part tenders, parties shall submit their offers as follows:

1) Part-I – Techno-commercial Bid

(No price details shall be mentioned in this bid and shall not upload the details of price along with the techno-commercial bid)

2) Part-II – Price Bid

In view of two part Tender, the Offers submitted contrary to above instructions will be summarily rejected.

3. In case, the tenderer is not interested to participate in the tender, the tenderer shall submit regret letter giving reasons, failing which future enquiries will not be sent.

4. Offer Validity: The validity of the offers / tenders should be 90 days (in case of single part tender) and 120 days (in case two part tender) from the date of opening of the tenders. Tenders with offer validity less than the period mentioned above, will not be considered for evaluation.

5. GST - GST and/or other duties/levies legally leviable and intended to be claimed should be distinctly shown separately in the tender.

GSTIN: 37AAAGS1366J1Z1

LEGAL NAME: SATISH DHAWAN SPACE CENTRE SHAR

VALIDITY FROM: 29/08/2017

TYPE OF REGISTRATION: REGULAR

6. Customs Duty - SDSC-SHAR is eligible for 100% Customs Duty exemption as per Notification No. 050/2017 539 (b) DT: 30.06.2017. This may be taken into account while quoting for import items, if any.

In case tenderers offering items considering customs duty exemption, they should also indicate the bill of materials and price, separately, with Customs Duty component and terms and conditions thereto.

8. Advance Payment - Wherever advance payment is requested, Bank Guarantee from any Nationalized Bank/Scheduled Bank should be furnished. In case of advance payments, if the party is not supplying the material within the delivery schedule, interest will be levied as per the Prime Lending Rate of RBI plus 2% penal interest.

Interest will be loaded for advance payments/stage payments as per the prime lending rate of RBI and will be added to the landed cost for comparison purpose. In case of different milestone payments submitted by the parties, a standard and transparent methodology like NPV will be adopted for evaluating the offers.

9. Liquidated Damages - In all cases, delivery schedule indicated in the Purchase Order/Contract is the essence of the contract and if the party fails to deliver the material within the delivery schedule, Liquidated Damages will be levied @ 0.5% per week or part thereof subject to a maximum of 10% of total order value.

10. Performance Bank Guarantee - Performance Bank Guarantee for 10% of the order value should be furnished in the form of Bank Guarantee from nationalized/scheduled bank or by Demand Draft valid till warranty period plus sixty days as claim period.
11. **Security Deposit** – Security Deposit for 10% of the order value is mandatory, if the ordered value is Rs. 5.00 lakhs and above. Party shall furnish the Security Deposit in the form of Bank Guarantee from nationalized/scheduled bank or by Demand Draft valid till completion of the contract period plus sixty days towards claim period for faithful execution of the contract.

12. **BANK GUARANTEE FOR FIM**: Supplier has to submit Bank guarantee for equal value of Free Issue of Materials (FIM) issued by the Department from Nationalised / Scheduled Bank valid till receipt and acceptance of supply and satisfactory accounting of FIM plus sixty days as claim period.

13. The delivery period mentioned in the tender enquiry, IF ANY, is with the stipulation that no credit will be given for earlier deliveries and offers with delivery beyond the period will be treated as unresponsive.

14. The Department will have the option to consider more than one source of supply and final orders will be given accordingly.

15. The bidders should note that conditional discounts would not have edge in the evaluation process of tenders.


17. Wherever installation/ commissioning involved, the guarantee/warranty period shall reckon only from the date of installation and commissioning.

18. **Purchase/Price Preference**: will be extended to the MSMEs under the Public Procurement Policy for MSMEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006 and instructions issued by Government of India from time to time. Vendors who would like to avail the benefit of MSME should clearly mention the same and submit all the documentary evidences to substantiate their claim along with tender itself.

19. The drawings, specifications, end use etc., given by the Centre/Unit along with the tender enquiry are confidential and shall not be disclosed to any third party.

20. **SPECIAL CONDITIONS FOR SUBMITTING QUOTATIONS IN FOREIGN CURRENCY BY THE INDIAN AGENTS**

The Tenderer should submit the following documents/information while quoting:-

a) Foreign Principal's proforma invoice/quote indicating the commission payable to the Indian Agent and nature of after sales service to be rendered by the Indian Agent.

b) Copy of Agency agreement with the Foreign Principal and the Indian Agent, precise relationship between them and their mutual interest in the business.

c) Registration and item empanelment of the Indian Agent.

d) Agency Commission will be paid only Indian Currency.

e) Compliance of the tax laws by the Indian Agent.

21. **High Sea Sales** - Against High Sea Sale transactions:

a. Offers shall be on all inclusive basis including delivery up to Sriharikota at the risk and cost of the supplier. Customs Clearance is the responsibility of the supplier and at his cost and risk.

b. 100% payment will be made within 30 days after receipt and acceptance of the items at our site.

c. GST as applicable

d. Customs Duty Exemption Certificate and other relevant documents required for Customs clearance will be provided.

e. High Sea Sales Agreement furnished by the supplier in accordance with the terms and conditions of our purchase order will be signed and issued by SDSC-SHAR.

22. The following information/ documents are to be submitted wherever applicable.

1. Product Literature

2. Core banking account number of SBI, RTGS Details

3. PAN No. in quotation and invoices

4. GST Registration details.

5. In case of MSME, registration details / documents from Competent Authority.

23. **EXCLUSION OF TENDERS**

The following tenders shall be summarily rejected from the procurement process

a. Tenders received from vendors who have not qualified in terms of their registration.

b. Tenders received against publishing of a limited tender in the CPP portal.

c. Tenders of vendors who have been removed from the vendor list or banned/debarred from having business dealings.

d. Unsolicited tenders from vendors.

e. The tenders which materially depart from the requirements specified in the tender document or which contain false information.

f. The tenders which are not accompanied by the prescribed Earnest Money Deposit.

g. The tenders of vendors who have not agreed to furnish Security Deposit, Performance Bank Guarantee and Liquidated Damages.

h. The validity of the tenders is shorter than the period specified in the tender enquiry.

i. The tenders received from vendors or their agents or anyone acting on their behalf, who have promised or given to any official of the Centre/Unit/Department, a gratification in any form, or anything of value, so as to unduly influence the procurement process.

j. The tenders received from vendors, who, in the opinion of the Centre/Unit, have a conflict of interest materially affecting fair competition.
k. The tenders received from Indian agents on behalf of their foreign Principals/OEMs (in cases where the Principals/OEMs also submit their tenders simultaneously for the same item/product in the same tender).

l. In case two or more tenders are received from an Indian agent on behalf of more than one foreign Principal/OEM, in the same tender for the same item/product.

m. If a firm quotes 'NIL' charges / consideration, the bid shall be treated as un-responsive and will not be considered.