



AN ISO 9001 & 14001 COMPANY

NIT DOCUMENT

WRO/CON/893/SBM-GOA/333

Dated: 09.02.2024

FOR

Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."

VOL I

NIT, BIDDERS INFORMATION, BANKERS DETAILS, SPECIAL INSTRUCTION TO BIDDERS FOR E-TENDERING, LETTER OF UNDERTAKING, FORM OF TENDER, MEMORANDUM AND VARIOUS ANNEXURES

ENGINEERING PROJECTS (INDIA) LTD.

**WESTERN REGIONAL OFFICE MUMBAI
6A, BAKHTAWAR, NARIMAN POINT
MUMBAI 400021**

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**ENGINEERING PROJECTS (INDIA) LTD
(A Govt. of India Enterprise)
WRO, MUMBAI**

Tender No: WRO/CON/893/SBM-GOA/333

Dated: 09.02.2024

NOTICE INVITING E-TENDER

1.0 Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."

Engineering Projects (India) Ltd. (A Govt. of India Enterpriser) invites the online item rate tenders on behalf of "Directorate of Panchayats, Govt of Goa" through e-tendering from the eligible contractors/firms who fulfil the eligibility criteria as per the brief particulars of scope for the **"Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."** in two bid system (Techno-commercial bid & Price Bid) for the following works:

NAME OF WORK	ESTIMATED COST (Excluding GST) (Rs.)	TIME OF COMPLETION	EMD
"Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."	Rs. 39,86,41,491/- (Excluding GST).	9 Months	Rs. 49,86,415/- (Rupees Forty-Nine lacs Eighty-Six Thousand Four Fifteen)

Note: - The bidder to quote price excluding GST as per the format given in CPP portal. However, order shall be placed to successful bidder including GST as applicable.

Estimated cost is based on approved Annual Implementation Plan (AIP) for FY 2023-24 and approved detailed Project Report.

2.0 Scope of Work

The brief scope of work in this tender shall include (but not limited to) Supply, Installation, Testing and commissioning of Equipment's (As specified in Tender), IEC (Information, Education and Communication) component, Construction of required civil work in all villages/panchayats mentioned in NIT, to complete implementation of Swachh Bharat Mission-II (SBM) Grameen in state of Goa for 2023-24 for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa.

The details of scope of work are given in the tender document.

3.0 Time schedule of Tender activities:

Sl. No	Event Description	Date & Time
1	Invitation of E - NIT	09.02.2024
2	Last Date & Time for downloading of tender documents	01.03.2024 up to 01:00 PM
3	Last Date & Time of submission of Tenders (Online)	On or before 01.03.2024 up to 01:00 PM
4	Last Date for receiving Queries: (mail to wro-contracts@engineeringprojects.com)	16.02.2024 upto 05:30 PM
5	Date & Venue of Pre-Bid Meeting: Engineering Projects (India) Limited, 6A, Bakhtawar, Nariman Point, Mumbai – 400021.	19.02.2024 at 03:00 PM
6	Date & Time of online opening tender (Technical Bid)	02.03.2024 at 01:30 PM

4.0 Eligibility Criteria: -

A) Technical Eligibility Criteria: -

1. Intending bidders who fulfil the following eligibility criteria shall be eligible to apply.
Joint Venture is not allowed.
2. The **bidders** must have experience of having successfully completed following similar works during the last seven (7) years ending last day of the month previous to the one in which applications invited should be either of the following:

Three similar completed works costing not less than the amount equal to **40% of estimated cost** put to tender,

OR

Two similar completed works costing not less than the amount equal to **50% of estimated cost** put to tender.

OR

One similar completed work costing not less than the amount equal to **80% of estimated cost** put to tender,

'Similar work' would mean Experience of Construction of Civil Structural Work (Civil Structural work consist of Building work or Material Storage Sheds) including Solid Waste works or liquid waste works. (Solid Waste work defines "SITC of Solid Waste Equipment any one equipment's mentioned at BOQ" AND liquid Waste work define Construction of STP or ETP or FSTP")

3. In addition to above work/s, the Bidder should have executed / executing of Swachh Bharat Mission (SBM) works in PAN India basis with approved technologies as per SBM guidelines specially for Solid waste and liquid waste management.

4. Bidder shall submit copies of Completion certificates for above cl no 4.A.2 along with work order copy clearly mentioning the nature of work, value of work, date of start, time period & actual date of completion. The certificates shall be considered only if it is issued / countersigned by an officer not below the rank of EXECUTIVE ENGINEER OR equivalent in case issuing authority is a Government Department. In case of experience certificate issued by private firm, it should be supported with **LOI/Agreement, TDS/26 AS certificate duly signed by Statutory Auditor / registered CA.**
5. Bidder shall submit copies experience certificates & work order copy for above cl no 4.A.3 clearly mentioning the nature of work, value of work, date of start, time period & status of work till ending last day of the month previous to the one in which applications invited.
6. The cost of free issue materials shall not be considered in the completion cost of works. In case of developer, cost of land shall not be included in project completion cost.
7. For evaluation purpose, the completion cost of works mentioned in the Completion Certificate shall be enhanced by 7% per annum till the ending on previous date of last day of submission of bids. The experience certificate in this regard should be issued by Officer not below the rank of Executive Engineer/Project Manager/Unit Officer.

B) Financial Eligibility Criteria: -

- a. Should have Average Annual Financial Turnover of not less than 50% of the estimated cost of the work in the last three years ending 31.03.2023 duly certified by a Chartered Accountant. Turnover certificate duly certified by Chartered Accountant along with UDIN issued by ICAI is also to be submitted.
- b. Bidder to submit audited Balance Sheet and Profit & Loss account statement for the last three financial years ending on 31.03.2023 i.e., for financial year of 2022-23, 2021-22, 2020-21 duly certified by a Chartered Accountant along with UDIN issued by ICAI is also to be submitted.
- c. Bidder should have **Positive Net worth** in the last financial year ending on 31.03.2023. A net worth certificate certified by a CA should be enclosed with Technical bid.
- d. Bidder should not have incurred any loss (profit after tax should be positive) in more than two years during last five consecutive financial years ending 31.03.2023. A no loss certificate certified by a CA should be enclosed with Technical bid.
- e. Should have a Bankers Certificate from a Nationalized / Scheduled Bank of the amount equal to 40% of the estimated cost put to Tender. The Bankers certificate should not have been issued earlier than three months of last date of submission of the tender.

Or

- f. Net worth certificates of minimum 10 % of the estimated cost put to tender issued by Certified Chartered Accountant with Unique Document Identification number (UDIN). The Net worth certificate shall be of the last financial year ending on 31st March 2023.
 - g. The Banker's certificate & Net worth Certificated shall be in the format prescribed in Annexure-H.
 - h. The bidder Should have valid Permanent Account Number of Income Tax (Copy of PAN to be enclosed).
 - i. The bidder should have Goods and Service Tax (GST) Registration No. (Copy of GST Registration certificate to be enclosed).
 - j. It is desired that the bidder should have valid PF Registration number, ESI registration. In case the bidder does not have valid GST registration number in the state of Goa, the same shall be obtained by the successful bidder within one month from the date of LOI or before release of 1st R/A bill whichever is earlier.
- 5.0 Any bidder from a country which shares a land border with India will be eligible to participate in this tender only if bidder is registered with the Competent authority i.e., Registration committee constituted by the Department of Promotion of Industry and Internal Trade (DPIIT).
- 6.0 **Subletting of works is not allowed.** 100% subletting (Back-to-back) is not allowed. However, for specialized and labour works (other than construction work) subletting is allowed with the prior approval from Engineer-in- Charge. Bidder should provide self-undertaking for the same.
- 7.0 Bidder should submit the Affidavit for NIT (**Annexure – A**) and Affidavit for existing commitment and ongoing works (**Annexure G**) (enclosed with NIT) on Rs. 100/- non-judicial stamp paper duly notarised.
- 8.0 It is desired that the bidder visits the site before submitting the bid to access the ground and working conditions at site and submit Site Visit Declaration (**Annexure B**). In case bidder decides not to visit site, bidder has to submit a self-declaration with the bid in respect of the same declaring that "they shall be responsible for all consequences thereof"
- 9.0 Even though an applicant may satisfy the eligibility criteria, EPI reserves the right to reject the tender documents if he has record of poor performance such as abandoning work, not properly completing the work, delay in completion of work, poor quality of work, financial failure / weakness etc.

10.0 List of Technical Specification and preferred makes is enclosed. In special circumstances and due to non-availability of approved make product, bidder may propose equivalent make meeting entire Technical requirement, specification along with required details in support of the same. The same would be analysed and accepted if found suitable and shall be used in works after obtaining the prior approval of Engineer in-charge of EPI/Client i.e., CLIENT. Bidder will have no claim on price variation if make proposed is not approved. Bidder to quote as per make list given in tender.

11.0 If any credentials submitted by the bidder are found false/fraud, the bidder shall be debarred from future tender of EPI, besides rejection of bid.

Tender fees (Non-Refundable) of Rs 29,500/- (Rs 25,000 + GST @ 18 %) to be paid through RTGS /Online in the account as per the details given below:

IndusInd Bank

Name of Branch: Greater Kailash II, New Delhi

IFSC Code: INDB0000012

Name of A/c Holder: EPI LTD

A/C Number: 200001601125

Account Type: Current

The bidder has to upload the scanned copy of Tender Fee receipt after depositing the tender fee online in EPI's Bank account (as mentioned above) along with online bid. **Tender fees (Non-Refundable) is different than charges levied for portal fee registration (if any).**

12.0 The Bidder should not have been blacklisted or Debarred in any State Govt./Municipal Corporations/Central Govt./any State Govt. Organizations, Urban Local Body and/or its Undertaking company during last 03 years ending last day of the previous month of date of NIT. Bidder has to submit a notarized self-declaration with the bid in respect of the same that **"He has not been reprimand in past 03 years for poor performance and also he has not been debarred by any of his client/ in any State Govt. /Municipal Corporations/Central Govt./any State Govt. Organizations, Urban Local Body for poor performance, unprofessional/ slow work leading to cancellation of his ongoing assignment"**.

13.0 Bidder should sign the integrity pact on Rs 100/- stamp paper duly notarized (Format attached in **Annexure C**).

14.0 Contractor must open its own office for co-ordination at site location at Goa.

15.0 In case tender committee of EPI observed abnormally low quoted bid by L-1 bidder, additional performance bank guarantee shall be submitted by L-1 bidder as per ACC clause No. 9.

16.0 Tender documents comprising of the following are available on the website:
www.engineeringprojects.com and CPP Portal: www.etenders.gov.in

17.0 a) Notice Inviting Tender, Addendum to Instructions to Tenderers, Special instructions to Bidders for e-Tendering, Letter of Undertaking, Form of tender, Memorandum, Bidder Information, Affidavit of NIT (Annexure-A) and Site Visit Declaration (Annexure-B), Integrity Pact (Annexure C), Undertaking regarding Constitution of Firm, /Company (Annexure-D), Local Supplier Content Certificate (Annexure E), Bank Guarantee in lieu of Security Deposit (Annexure F), Existing commitment and ongoing works (Annexure G), Banker's certificate from a scheduled bank and form for certificate of net worth from chartered accountant (Annexure H). (Vol-I).

b) General Conditions of Contract, Additional Conditions of Contract, Technical Specification with scope of work and Drawings, Village Panchayat Requirements for SITC of MRF Equipment's. (Vol-II).

c) BOQ/ Price Bid (Vol-III).

18.0 In order to participate, the bidder should have Digital Signature Certificate (DSC) from one of the authorized Certifying Authorities.

19.0 Interested bidders have to necessarily register themselves on the portal <https://etenders.gov.in/eprocure/app> to participate in the bidding under this invitation for bids. It shall be the sole responsibility of the interested bidders to get them registered at the aforesaid portal for which they are required to contact:

For any technical related queries please call at 24 x 7 Help Desk Number 0120-4001 002, 0120-4001 005, 0120-6277 787

International Bidders are requested to prefix +91 as country code

Technical - support-eproc@nic.in

Policy Related - cppp-doe@nic.in

20.0 They may obtain further information regarding this tender from General Manager (Contracts) at the address given at Clause No. 21.0 below from 10:00 hours to 17:00 hours on all working days till the last date of online submission of Bidding Documents. No special character like ! @, #, \$, %, &, *, _ to be include while saving the file/uploading. Bidder has to pay Transaction Fee online at CPP Portal for Registration and it will be non-refundable / adjustable / transferrable which is different from Tender Fee.

21.0 For proper uploading of the bids on the portal namely <https://etenders.gov.in/eprocure/app> (hereinafter referred to as the 'portal'), it

shall be the sole responsibility of the bidders to apprise themselves adequately regarding all the relevant procedures and provisions as detailed at the portal as well as by contacting M/s CPPP., directly, as and when required, for which contact details are mentioned above. The EPI in no case shall be responsible for any issues related to timely or properly uploading/submission of the bid in accordance with the relevant provisions of Section Instruction to Bidders of the Bidding Documents.

22.0 Bidders can download the bid document from the portal without registering or Paying document fees in advance, any time from 02:00 PM on 09.02.2024. However, interested bidders have to pay tender fees for participating in the tendering and submitting the bid. For this purpose, the interested bidders shall be required to **pay Rs. 25,000.00 (Rupees Twenty-Five Thousand) plus GST @18% i.e., Rs. 4500/-** as non-refundable document fees and the bidder have to submit, the scanned copy of Tender fee receipt after depositing the tender fee online in EPI's Bank Account (as mentioned above) along with the on-line bid. However, tenders submitted without or insufficient tender fee shall be rejected except for those who claim exemption.

23.0 E-Bids must be uploaded along with scanned copies of relevant documents as required in this NIT including Technical & Financial Eligibility Criteria under Single Stage Two Bid Procedure on the CPP portal on or before last date and time of online bid submission. Under the above procedure, only the first envelope (Technical Part) shall be opened in the presence of the bidders' representatives who choose to attend in person at the address given below on schedule date and time of bid opening or may be viewed by the bidders by logging in to the portal as per features available to them. Second envelope i.e., Price part shall be opened of only technically qualified bidders.

24.0 The bid must be accompanied by an Earnest Money Deposit (EMD) of Rs. 49,86,415/- (Rupees Forty-Nine lacs Eighty-Six Thousand Four Fifteen) This can be either in the form of Insurance Surety Bond or Account Payee Demand Draft or Fixed Deposit Receipt or Banker's cheque or Bank Guarantee of any Nationalized Bank/Scheduled Bank/Commercial bank as per the enclosed format or payment online in an acceptable form for the full amount of EMD payable favouring "Engineering Projects (India) Limited" payable at Mumbai. The EMD shall be valid for minimum period of 150 days (One hundred fifty) from the last day of submission of tender. The earnest money (if any) will be forfeited without any prejudice to any right or remedy, in case the Bidder withdraws his Tender during the validity period or in case he changes his offer to his benefits, which are not acceptable to EPI. **The bid shall be valid for 90 days from date of opening of Price Bid. The validity period may be extended on mutual consent.**

In case of EMD BG bidder must submit SFMS message sent by their issuing bank as a part of the bid with EMD.

The scanned copy of EMD as mentioned above shall be submitted by the bidder with their online bid. However, the original of the same shall be submitted by the bidder at the later stage as and when required by EPI.

- 25.0 The Terms & Conditions contained in this NIT and tender documents shall be applicable. In case of any unscheduled holiday taken place on the last day of submission of tender, the next working day will be treated as scheduled day and time for submission of Tender.
- 26.0 EPI reserves the right to extend the date of submission of the tender or cancel the tender or accept any tender or reject any or all tenders or split the work of tender or annul this tendering process without assigning any reason and liability whatsoever and to re-invite tender at its sole discretion.
- 27.0 The corrigendum or addendum, extension, cancellation of this NIT, if any, shall be hosted on the EPI's website/CPP portal **<https://etenders.gov.in/eprocure/app>** the bidders are required to check these websites regularly for this purpose, to consider before uploading/submission of tender. **All Corrigendum and addendum are to be uploaded duly signed & stamped with tender documents as bid Annexure.**
- 28.0 The price bid of those bidders whose bid has been technically accepted on the basis of documents submitted shall be opened with prior intimation to them. However, it is made clear that the offer of the L-1 bidder shall be accepted subject to the confirmation of the authenticity of the PQ documents/BG from the concerned department/ Bank.
- 29.0 In case of tie-tender, where two or more firms are bidding lowest, EPI reserves the right to split the work among these bidders and / or EPI will reserve the right to award the tender to any one of such bidders. EPI reserves the right to delete any item while awarding the work.
- 30.0 Material recovered from excavation / dismantling should be properly stacked and handed over to EPI/CLIENT, as the property of EPI/CLIENT.
- 31.0 Public Procurement (Preference to Make in India) policy is applicable in this tender: Definitions:
- a. 'Local content' means the amount of value added in India in the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
 - b. 'Local content' means the amount of value added in India in the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
 - c. 'Class-I local supplier' means supplier or services provider, whose goods, services or works offered for procurement, meets the minimum local content i.e., 50% of total value of the goods, services or works.

- d. 'Class-II local supplier' means supplier or services provider, whose goods, services or works offered for procurement, meets the minimum local content i.e., 20% of total value of the goods, services or works.
 - e. Non – Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' as mentioned above.
- 32.0 Bidders to use as much as possible the material / services from MSME. Contractors to use as much as possible, the material/service from MSEs & Local suppliers/Manufacturers for promotion of Make in India. For Promotion of Public Procurement (Preference to Make in India) order 2017 (amended on 28.05.2018) GOI Guideline for procurement, the equivalent Indian makes of materials conforming to requisite quality in addition to List of Makes/Brands may be considered subject to approval of Client/Engineer.
- 33.0 **All the bidders (Class –I local supplier, Class-II local Supplier, Non-Local Supplier) shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplies other than companies) giving the percentage of local content in their bid as per Annexure-E irrespective of whether they are availing or not availing purchase preference under public procurement (Preference to Make in India) Policy.**
- 34.0 In case of any discrepancy between the downloaded tender documents from the website and the uploaded copy by the tenderer, the tender documents appearing in the website being uploaded by EPI with the tender shall hold good for contractual as well as legal purposes. The tenderer shall furnish a declaration to this effect that **"no addition/deletion/corrections have been made in the downloaded tender document being uploaded by him and it is identical to the tender document appearing on the Website. In case of any discrepancy between the downloaded tender documents from the website and the uploaded copy by me/us, the tender documents appearing in the website being uploaded by EPI with the tender shall hold good for contractual as well as legal purposes"**.
- 35.0 **Disqualification**
The tenderers may note that they are liable to be disqualified and not considered for the opening of Price Bid if;
- a) Representation in the forms, statements and attachments submitted in the pre-qualification document are proved to be incorrect, false and misleading.
 - b) EPI reserves its right to take appropriate action including disqualification of tenderer(s) as may be deemed fit and proper by EPI at any time without giving any notice to the Bidder in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the Bidders.

c) If bidder have submitted incompletely filled in formats without attaching certified supporting documents and credentials to establish their eligibility to participate in the Tender.

d) If the tenderers attempt to influence any member of the committee. EPI reserves its right to take appropriate action including disqualification of tenderer(s) as may be deemed fit and proper by EPI at any time without giving any notice to the contractor in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the Tenderers.

e) If documents are not uploaded by the bidder as per instructions/due to special characters while saving files the files are unable to download the bids will be disqualified.

f) The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the bidder's risk and may result in the rejection of its bid.

g) In case of existing contractors of EPI, if progress is not satisfactory in any of the project their bid will be rejected.

h) The credentials of the Bidders with respect to Technical & Financial criteria shall be verified and inspection of the works, if required, to be carried out by EPI. If not found satisfactory by EPI, their bid will be considered non-responsive and rejected.

i) They have record of poor performance during the past 10 years such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the contract, inordinate delay in completion, consistent history of litigation / arbitration awarded against the contractor or any of its constituents or financial failures due to bankruptcy etc. in their on-going / past projects.

j) If any tenderer withdraws his tender before the said period or issue of letter of acceptance/intent, whichever is earlier, or makes any modifications in the terms and conditions of the downloaded tender which are not acceptable to the EPIL, then the EPIL shall, without prejudice to any other right or remedy, be at liberty to forfeit entire amount of Earnest Money as aforesaid.

36.0 Tenderer shall submit the following documents duly signed and stamped as part of Technical bid online. Only Online mode will be accepted for tender submission. No documents are required to be submitted offline by the bidders.

a) Document evidence with regard to tender fees and EMD payment.

b) Notarized Power of Attorney.

c) Affidavit of NIT (**Annexure-A**) and Site Visit Declaration (**Annexure-B**)

d) Integrity Pact (**Annexure C**),

- e) Undertaking regarding Constitution of Firm /Company (**Annexure-D**),
- f) Local supplier Content certificate (**Annexure E**),
- g) Bank Guarantee in lieu of Security Deposit (**Annexure F**),
- h) Existing commitment and ongoing works (**Annexure G**),
- i) Banker's certificate from a scheduled bank and form for certificate of net worth from chartered accountant (**Annexure H**).
- j) Covering letter for participation in Bid with Bid name, number with All Corrigendum and addendum (if any).
- k) Details of similar works executed along with completion certificate & copy of Work order for qualification as per PQ criteria.
- l) List of works executed during the last 5 years indicating name of the Client, value, date of start and completion date.
- m) List of works under execution indicating name of the Client, Total Contract Value, and Value of balance work in hand, date of start and completion.
- n) CA certified Annual Reports including Audited balance sheets, Financial Turnover and profit and loss accounts along with schedules for the last 3 years up to 31.03.2023 with UDIN issued by ICAI is to be submitted.
- o) Tender Acceptance Letter (**Annexure I**)
- p) Declaration in Letter Head in accordance to Clause no. 34.0 of this NIT for **no addition/deletion/ corrections** in the downloaded tender document.
- q) A **notarized self-declaration** by bidder in accordance to Clause no. 12.0, of this NIT for not **blacklisted/debarred & reprimanded**.
- r) Form of Tender and Letter of Undertaking
- s) Registration Certificate/Memorandum and Articles of Association/ Partnership Deed /Affidavit as proof of the organization set up.
- t) Details of manpower and equipment/plant machinery available with Bidder.
- u) Copy of valid PF Registration No.
- v) Memorandum and Bidder Information with banker details as per the format
- w) Copy of PAN Card and GST Registration Certificate.
- x) Undertaking for **subletting** as per **NIT Cl no. 6.0**.

However physical submission of all original bid documents, EMD, POA etc. to be submitted by lowest bidder at later stage as and when required by EPI.

- 37.0 Bidder has to provide service and retrofitting works with supervision for 3 (Three) years against the items mentioned in BOQ. Bidder has to submit additional BG @ 5.00 % of the said item cost for those items for which service and retrofitting works with supervision is to be provided for a period of three years. Additional 5% BG has to be submitted after completion of execution of work and before starting of service and retrofitting works with supervision. BG will be released after 3 months of completion of service and retrofitting works.
- 38.0 Amount will be released Trench wise (i.e., Trench-I, Trench-II etc) from Directorate of Panchayats, Govt of Goa. Payment to the contractor will be made accordingly. In case if trench amount is not released by Directorate of Panchayats, Govt. of Goa

and work is foreclosed or does not require the whole work, as specified in the tender document, is to be carried out then contractor will have no claim to any payment of compensation in this regard. Any type of claim will not be accepted and entertained.

- 39.0 Bill for service and retrofitting works with supervision will be raised on quarterly basis for those items where bidder has to provide service and retrofitting works with supervision for 3(Three). The bill has to be certified by related Secretary/ BDO of Gram Panchayat.
- 40.0 The Bidder has to submit the relevant technological drawing/GA drawings of each electro mechanical equipment along with operational manual as mentioned at tender to EPI/Client for approval.
- 41.0 Post tender clarification will not be sought in case of non-submission of Tender Fee or EMD of requisite amount or unconditional letter of Acceptance or Affidavit for Correctness of documents/information or Basic Qualification Criteria Documents. In such case the bidder shall be rejected summarily without seeking any further clarification/documents.
- 42.0 The particulars of IEM (Independent External Monitor) of EPIL is as under:
a) Shri Arun Kumar Sharma, Email id: sharmaak6@gmail.com
b) Shri Animesh Chauhan, Email id: animeshchau@gmail.com
This tender is covered under Integrity Pact. The format of Integrity Pact is enclosed as Annexure-C.
- 43.0 Amendment in the list of Village Panchayat can be done up to 10% if there are any issues for execution as per Client Request. Pictures/Photos in the specifications are indicative only.
- 44.0 Agency appointed for execution of works or concerned village Panchayats where works are proposed will have to obtain Consent to operate/ consent to establish/authorization as per procedure mandate for setting up of Waste Management Facilities from Goa state Pollution Control Board.
- 45.0 Operation Manuel to be provided by the agency for all the equipment's of Solid waste and liquid waste management supplied at site.
- 46.0 **All correspondence with regard to the above shall be to the following address:**

(By Post/In Person/Through E mail)
General Manager (Contract Division)
Engineering Projects (India) Ltd.
6A, Bakhtawar, Nariman Point
Mumbai 400021
Tel No. – TEL NO: 022- 22885900, 22027585
E-mail: wro-
contracts@engineeringprojects.com

Contact details for site related
Queries / Visit:
Sh. Amit Tripathi
Sr. Manager (T) – 9425296150
Engineering Projects (India)
Limited, 101, 1st Floor, Edcon Mind
Space, Dr.Braganza Pereira Road,
St. Inez, Panji, Goa-403001

For more information on EPI, visit our website at <http://www.engineeringprojects.com> and For more information on the e-tender visit website <https://etenders.gov.in/eprocure/app>
General Manager
.....

ADDENDUM TO INSTRUCTIONS TO TENDERERS

Mode of submission of tender is through e-bids only. Hence clause no. 1 of ITT from GCC is deleted.

Kindly refer "Special instructions to Bidders for e-tendering" for downloading & uploading of tender documents as per NIT.

Bidders Information

Company Name*	
Registration Number*	
Registered Address*	
Name of Partners/Directors	
Bidder type* Indian/Foreign	
City*	
State*	
Country*	
Postal code*	
PAN/TAN/GST Number*	(PAN/TAN number must have 10 characters. e.g., AESTG2458A) For bidders who do not have PAN/TAN number may enter TEMPZ9999 as the PAN/TAN number.
Company's Establishment Year	
Company's Nature of business*	
Company's Legal status* Limited company/ Undertaking/Joint venture/Partnership/others	
Company Category* Micro unit as per MSME/ Small unit as per MSME/ Medium unit as per MSME/ Ancillary unit/Project of affected person of this company/SSI/other	
Contact Details	
Enter Company's Contact Person Details	
Title * Mr/Mrs/Dr/Shree/Ms	
Contact Name*	
Date of Birth* (DD/MM/YYYY)	
Correspondence Email*	(Correspondence Email ID can be same as your Login ID. All The mail correspondence will be sent only to the Correspondence Email ID.)
Designation	
Phone *	(Phone details e.g: +91 022 22272449)
Mobile*	

BANKER DETAILS

PAN NO*	
GST NO*	
ACTIVE BANK A/C DETAILS*	
A/C NO*	
A/C TYPE*	
BRANCH ADDRESS*	
IFSC *	

* Mandatory information (must be filled by the bidders)

LETTER OF UNDERTAKING
(TO BE ENCLOSED IN ENVELOPE-1 ALONG WITH EMD)
(TO BE TYPED ON LETTER HEAD)

To,
General Manager (Contract Division)
Engineering Projects (India) Ltd.
6A, Bakhtawar, Nariman Point,
Mumbai 400021.

Sub: Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

REF.: NIT No.: **WRO/CON/893/SBM-GOA/333 dtd. 09.02.2024**

Sir,

UNDERTAKING FOR ACCEPTANCE OF TENDER CONDITIONS

1. The Tender Documents for the work as mentioned in "Memorandum" to "Form of Tender" have been issued to us by ENGINEERING PROJECTS (INDIA) LIMITED and we hereby unconditionally accept the all tender conditions and Tender Documents in its entirety for the above work.
2. The contents of clause 1.2 and 1.3 of the Tender Documents (Instructions to Tenderers) have been noted wherein it is clarified that after unconditionally accepting the tender conditions in its entirety, it is not permissible to put any remarks(s)/condition(s)(except unconditional rebate on price, if any) in the 'Price-Bid' enclosed in "Envelope-2" and the same has been followed in the present case. In case this provision of the Tender is found violated at any time after opening "Envelope-2", We agree that our tender shall be summarily rejected and EPI shall, without prejudice to any other right or remedy bear liberty to forfeit the full said Earnest Money absolutely.
3. The required Earnest Money for this work is enclosed herewith.

Yours faithfully,

.....
Authorized Signatory

Seal of Tenderer

Dated:

FORM OF TENDER
(TO BE TYPED ON LETTER HEAD)

To,
General Manager (Contract Division)
Engineering Projects (India) Ltd.
6A, Bakhtawar, Nariman Point, Mumbai 400021

Sub: Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

REF.: NIT No.: **WRO/CON/893/SBM-GOA/333 dtd. 09.02.2024**

1. We hereby tender for execution of work as mentioned in "Memorandum" to this "Form of Tender" as per Tender Documents within the time schedule of completion of work as per separately signed and accepted rates in the Bill of Quantities quoted by us for the whole work in accordance with the Notice Inviting Tender, Conditions of Contract, Specifications of materials and workmanship, Bill of Quantities Drawings, Time Schedule for completion of jobs, and other documents and papers, all as detailed in Tender Documents.
2. It is agreed that the time stipulated for jobs and completion of work in all respects and in different stages mentioned in the "Time Schedule for completion of jobs" and signed and accepted by us is the essence of the contract. We agree that in case of failure on my/our part to strictly observe the time of completion mentioned for jobs and the final completion of work in all respects according to the schedule set out in the said "Time schedule for completion of jobs" and stipulations contained in the contract, the recovery shall be made from us as specified therein. In exceptional circumstances extension of time which shall always be in writing may, however be granted by EPI at its entire discretion for some items, and We agree that such extension of time will not be counted for the final completion of work as stipulated in the said "Time schedule of completion of jobs".
3. We agree to pay the Earnest Money, Security Deposit cum Performance Guarantee, Retention Money and accept the terms and conditions as laid down in the "Memorandum" to this "Form of Tender".
4. Should this Tender be accepted, we agree to abide by and fulfill all terms and conditions referred to above and as conditioned in Tender Documents elsewhere and in default thereof, allow EPI to forfeit and pay EPI, or its successors or its authorized nominees such sums of money as are stipulated in the Tender Documents.

5. We hereby pay the earnest money amount as mentioned in the "Memorandum" to this "Form of Tender" in favour of Engineering Projects (India) Limited payable at place as mentioned in the "NIT".
6. If we fail to commence the work within 10 days of the date of issue of Letter of intent and/or We fail to sign the agreement and/or We fail to submit Security Deposit cum Performance Guarantee, we agree that EPI shall, without prejudice to any other right or remedy, be at liberty to cancel the Letter of Intent and to forfeit the said earnest money as specified above.
7. We are also enclosing herewith the Letter of Undertaking on the prescribed proforma as referred to in condition of NIT.

Date the day of -----

----SIGNATURE OF TENDERER -----

NAME (CAPITAL LETTERS): -----

OCCUPATION -----

ADDRESS -----

SEAL OF TENDERER

MEMORANDUM

Name of Project: "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

NIT No.: **WRO/CON/893/SBM-GOA/333** dtd. **09.02.2024**

S. N O	Description	Cl. No.	Values/Description to be applicable for relevant clause(s)
i.	Name of work	NIT	"Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."
ii.	Client	NIT	Directorate of Panchayat, Govt. of Goa.
iii.	Type of Tender	NIT	Item rate
iv.	Earnest Money Deposit	NIT	Earnest Money Deposit (EMD) of amount Rs. 49,86,415/- (Rupees Forty-Nine lacs Eighty-Six Thousand Four Fifteen) (only scan copy should be submitted in online bid submission) along with the tender and shall be in the form of Account payee Demand Draft payable at place as mentioned in "Notice inviting Tender"/"instruction to Tenderers" in the Favor of Engineering Projects (India) Limited or Fixed Deposit Receipt or insurance Surety Bonds or Banker's Cheque or payment online in an acceptable form or in the form of Bank Guarantee from any Nationalized Bank/Scheduled Bank/Commercial Bank as per the enclosed format. The EMD shall be Valid for minimum period of 150 days (One hundred fifty days) from last day of submission of tender. The EMD in physical has to be submitted by bidder only as and when required by EPI.
v.	Estimated Cost	NIT	Rs 39,86,41,491 (Excluding GST).
vi.	Time for completion of work	NIT	9 (Nine) months from the 10 th day of issue of LOI
vii.	Mobilization Advance	10.0 of ACC	10% of Trench Value / Sanction amount from Client value (Against Submission of Bank Guarantee)
viii.	Interest Rate on Mobilization Advance		State Bank of India Base Rate +2% (plus two percentage)
ix.	Number of Instalments for recovery of Mobilization Advance		As per ACC Clause No. 8

x.	Schedule of Rates applicable	69.0 of GCC	Goa Schedule of Rate 2023 for Civil Items and GeM/Prevailing Market Rate.
xi.	Validity of Tender	4.0 of GCC	90 days from the date of opening of Price Bid.
xii.	Security Deposit cum Performance Guarantee	9.0 of GCC 11.0 of ACC	<p>"The successful bidder shall have to submit SDPG equivalent to 5% of the Contract Value within 21 (twenty-one) days from the date of issue of Letter of Intent (LOI). If required, any extension of time beyond 21 days and upto 60 days may be granted by the Competent Authority. However, a penal rate of interest @ 12% per annum shall be charged for the delay in submission of SDPG after 21 (twenty-one) days i.e., from 22nd day to the date of submission of SDPG but within 60 days after the date of issue of LOI. Further, if 60th day happens to be declared holiday in the concerned office of EPI, submission of SDPG can be accepted on the next working day.</p> <p>The SDPG shall be submitted in the form of Bank Guarantee (format enclosed), from any Nationalized bank/ Scheduled Bank / Commercial Bank or in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt or Online Payment in an acceptable form. This SDPG shall be initially remain valid upto 90 (ninety) days after the end of Defect Liability Period (DLP). In case, the time for completion of work gets extended, the contractor shall get the validity of SDPG extended to cover such extended time for completion of work plus DLP plus 90 days.</p> <p>In case, even after 60 days from the date of issue of LOI, the Bidder fails to submit the SDPG of the requisite amount, LOI will stand withdrawn and EMD of the Bidder shall be forfeited.</p>
xiii.	Additional security	11.0 of ACC	<p>The Bidder quoting below the estimated cost put to tender shall submit the additional Performance guarantee of amount equal to the percentage of quoted amount by which the bidder has quoted below the estimated cost.</p> <p>For example: if the bidder quotes -5% of the estimated cost, then no additional performance guarantee is required. If the bidder quotes -6% of the estimated cost, then the bidder has to submit additional performance guarantee equal to 1% of</p>

			the quoted amount. Similarly, if the bidder quotes - 7% of the estimated cost, then the bidder has to submit additional performance guarantee equal to 2% of the quoted amount and so on. The additional performance guarantee shall remain valid till completion of project or taking over by client whichever is later.
xiv.	Retention Money	10.0 of GCC 12.0 of ACC	The Retention Money shall be deducted from each running bill of the Contractor at 5% (five percent only) of the basic value of the Running Account bill. 50% of the Retention Money shall be refunded to the Contractor after completion of respective work or on payment of the amount of the final bill whichever is later and Balance 50 % retention will be released after expiry of defect liability period as mentioned in ACC. If the amount of Retention Money deduction in cash is more than Rs.10.00 lakhs (Rupees Ten lakhs only), the excess amount can be refunded to Contractor against submission of Bank Guarantee of equivalent amount from a Nationalised bank / Scheduled Bank in the prescribed proforma of Performance Guarantee of EPI. For items having service and retrofitting works with supervision, retention money will be released after completion of 3 years of service and retrofitting works with supervision.
xv.	Time allowed for starting the work	43.0 of GCC	10 (Ten) days from the date of issue of LOI.
xvi.	Defect Liability Period	74.0 of GCC 8.0 of ACC	12 months after handing over to client. Refer CI No: 8 of ACC
xvii.	Arbitration	76.0 of GCC & 39.0 of ACC	As per clause no. 76.0 of GCC & 32 of ACC
xviii.	Jurisdiction	76.3 of GCC & 39.0 of ACC	Courts in Mumbai

SIGNATURE OF BIDDER

NAME (CAPITAL LETTERS) :

OCCUPATION

ADDRESS

SEAL OF BIDDER

AFFIDAVIT

(To be submitted by bidder on non-judicial stamp paper of Rs. 100/- (Rupees Hundred only)
duly attested by Notary Public)

Affidavit of Mr.S/o.....
R/o..... I, the deponent above named do hereby solemnly
affirm and declare as under:

1. That I am the Proprietor/Authorized signatory of M/s
..... Having its Head Office/Regd. Office
at.....

2. That the information/documents/Experience certificates submitted by
M/s..... along with the tender for "Implementation of Swachh Bharat
Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa." to EPI
are genuine, true and nothing has been concealed.

3. I shall have no objection in case EPI verifies them from issuing authority(ies). I shall
also have no objection in providing the original copy of the document(s), in case EPI
demand so for verification.

4. I hereby confirm that in case, any document, information & or certificate submitted by
me found to be incorrect / false / fabricated, EPI at its discretion may disqualify / reject /
terminate the bid/contract and also forfeit the EMD / All dues.

5. I shall have no objection in case EPI verifies any or all Bank Guarantee(s) under any of
the clause(s) of Contract including those issued towards EMD and Performance Guarantee
from the Zonal Branch /office issuing Bank and I/We shall have no right or claim on my
submitted EMD before EPI receives said verification.

6. That the Bank Guarantee issued against the EMD issued by (name and address of the
Bank) is genuine and if found at any stage to be incorrect / false / fabricated, EPI shall
reject my bid, cancel pre-qualification and debar me from participating in any future tender
for three years.

I,....., the Proprietor / Authorized signatory of
M/s..... do hereby confirm that the contents of the above Affidavit
are true to my knowledge and nothing has been concealed there from..... and
that no part of it is false.

Verified atthis.....day of.....

DEPONENT

ATTESTED BY (NOTARY PUBLIC)

Site Visit Declaration
(To be submitted by Bidder on its company Letter Head)

To,
General Manager (Contract Division)
Engineering Projects (India) Ltd.
6A, Bakhtawar, Nariman Point,
Mumbai 400021

Ref: NIT No. WRO/CON/893/SBM-GOA/333 dtd. 09.02.2024

Ref: Tender for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

Dear Sir,

I/We ----- Undersigned visited the project site on ----- and collected all the required information and data regarding availability of material and noted the environmental condition.

Yours faithfully
(Signature of the Tenderer)

Seal of Tenderer
Dated:

Signature of the EPI's site In charge
Date:

INTEGRITY PACT

Between

Engineering Projects (India) Ltd. (EPI) hereinafter referred to as "**The Principal**",
and

..... hereinafter referred to as "**The Bidder/ Contractor**"

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for..... The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(s) and / or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitors (IEMs) , who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- 1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) The Principal will exclude from the process all known prejudiced persons.
- 2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s) / contractor(s)

- 1) The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b) The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non- submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC / PC Act; further the Bidder(s) / Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s) / Contractor(s) of foreign origin shall disclose the name and address of the Agents / representatives in India, If any. Similarly, the Bidder(s) / Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent / representative have to be in Indian Rupees only.
 - e) The Bidder(s) / Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
 - f) The Bidders(s)/ Contractor(s) will, when presenting their bid, disclose any transgressions with any other company that may impinge on the anti-corruption principle.

- g) Bidder(s) / Contactor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.
- 2) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3- Disqualification from tender process and execution from further contracts

- (1) If the Bidder(s) / Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s) / Contractor(s) from the tender process or to terminate the contract, if already signed for such reason.
- (2) If the Bidder/ Contractor has committed a serious transgression through a violation of section – 2 such as to put his reliability or credibility into question, the principal is entitled also to exclude the Bidder/ Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors with the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.
- (3) If the Bidder/ Contractor can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.
- (4) A transgression is considered to have occurred if in light of available evidence, no reasonable doubt is possible.

Section 4 - Compensation for Damages

- 1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit / Bid Security.
- 2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 3 years with any other Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process.

Section 6 - Equal treatment of all Bidders / Contractors / subcontractors

- (1) In case of joint venture, all the partners of the joint venture should sign the Integrity Pact. In case of sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the sub-contractor and submit duly signed Integrity Pact by all the Sub-contractors.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidder(s) / Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitor / Monitors

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman, EPI.

- (3) The Bidder(s) / Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is application to Subcontractors.
- (4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) / Contractor(s) / Subcontractor(s) with confidentiality. The Monitor has also signed declarations on 'Non—Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, EPI and rescues himself / herself from that case.
- (5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the independent External Monitor shall give an opportunity to the Bidder/ Contractor to present its case before making its recommendations to the Principal.
- (7) The Monitor will submit a written report to the Chairman EPI within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.
- (8) Monitor shall be entitled to compensation on the same terms as being extended to / provided to Independent Directors on the EPI Board.
- (9) If the Monitor has reported to the Chairman EPI, a substantiated suspicion of an offence under relevant IPC / PC Act, and the Chairman EPI has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (10) The word "Monitor" would include both singular and plural.
- (11) Independent External Monitor shall be required to maintain confidentiality of the information acquired and gathered during their tenure/ role as independent Monitor. Any breach in this regard would be subject to the legal judicial system of India.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contactor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

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

Section 10 - Other provisions

- 1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e., New Delhi
- 2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.

(For & On behalf of the Principal)

(For & On behalf of Bidder / Contractor)

(Office Seal)

(Office Seal)

Place.....

Date

Witness 1 :

(Name & Address)

.....
.....

Witness 2 :

(Name & Address)

.....
.....

Undertaking
(To be submitted by bidder on its Company Letter Head)

Ref: WRO/CON/893/SBM-GOA/333 dtd. 09.02.2024

Name of tender: "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

This is to confirm that the following persons are the present Directors of the Company/firm:

- 1.
- 2.

It is further confirmed that none of the above Directors is associated with any other company/firm which is quoting for the above referred tender of EPI.

The details of constitution of M/s..... is submitted along with this annexure.

In case, at any later stage the above information is found incorrect, EPI can cancel our Bid/LOI/Contract Agreement and may take any suitable action deemed fit against our company.

Date:

Authorized Signatory
CEO/Proprietor /MD

Name & Seal of the Company

LOCAL CONTENT CERTIFICATE

(From Statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplies other than companies) giving the percentage of local content. For contracts value above Rs.10 Crores).

Ref: NIT No. **WRO/CON/893/SBM-GOA/333** **dtd. 09.02.2024**

Name of Tender: Tender for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

"Wethe statutory auditor (or as the case may be) of M/s. (Name of the bidder) hereby certify that M/s.....(Name of the bidder) meet the mandatory local content requirements of the tender as per Public Procurement (Preference to Make in India) - Local Content policy quoted vide offer no.....dated..... against EPI NIT No..... dated..... by M/s.....(Name of the bidder). The percentage of local content in the bid is.....% and the items offered in the bid meets the minimum local content and party shall give details of the location (s) at which the local value addition is made".

Authorized Signatory

Name & Seal of the Issuing Authority

**PROFORMA OF
BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT**

To
The Chairman & Managing Director,
Engineering Projects (India) Ltd.,
Core-3, Scope Complex,
7, Institutional Area,
Lodhi Road, New Delhi-110 003.

Dear Sir,

In consideration of the Chairman & Managing Director, Engineering Projects (India) Limited, (hereinafter called 'EPI' which expression shall unless repugnant to the subject or context includes its successors and assigns) having agreed under the terms and conditions of contract No..... dated..... made between.....hereinafter called the Contractor and EPI in connection with.....(hereinafter called the 'the said Contract') to accept a Deed of guarantee as herein provided for Rs.....from a Scheduled Bank in lieu of the Security Deposit to be made by the contractor, for the due fulfilment by the said Contractor of the terms and conditions contained in the said Contract, we the.....Bank (hereinafter refer to as 'the said Bank') a Company under the Companies Act 1958 and having our registered office at.....do hereby unconditionally and irrevocably undertake and agree to indemnify and keep indemnified the EPI from time to time to the extent of Rs.....(Rupees.....only) against any loss or damage, costs, charges and expenses caused to or suffered by or that may be caused or suffered by EPI by reason of any breach or breaches by said Contractor of any of the terms and conditions contained in the said Contract and or any amount becoming due for non-performance and/or penalty as assessed by EPI and to unconditionally pay the amount claimed by EPI on demand and without demur.

2. We, the said Bank further agree that EPI shall be sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said Contract and the extent of loss, damage cost, charges and expenses caused to or suffered by or that may be caused to or suffered by the EPI on account thereof and the decision of EPI that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by EPI from time to time shall be final and binding on us.

3. We, the said bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and till all the dues of EPI under the said Contract or by virtue of any of the terms and conditions governing the said contract have been fully paid and its claims satisfied or discharged and till EPI certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Contractor, and accordingly discharge this guarantee subject, however, that EPI shall have no claim under this guarantee after.....years from the date of expiry of the guarantee unless a notice of the claim under

this guarantee has been served on the Bank before the expiry of the said period of.....years in which case the same shall be enforceable against the said Bank notwithstanding the fact, that the same is enforced after the expiry of the said period of.....years.

4. EPI shall have the fullest liberty without affecting in any way the liability to the said Bank under this Guarantee or indemnity from time to time to vary any of the terms and conditions of the said Contract, to extent time of performance by the said Contract or to postpone for any time and from time to time any powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said contract or securities available to EPI and the said Bank shall not be released from its liability under these present by any exercise by EPI of the liberty with reference to the matters aforesaid or by reason of time being given to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of so releasing the said Bank from its such liability.

5. This guarantee/undertaking shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the supplier but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to EPI in terms thereof.

6. The Bank hereby waives all rights at any time in consistent with the terms of this guarantee/undertaking and the obligations of the Bank in terms hereof shall not be anywise affected or suspended by reasons of any dispute or disputes having been raised by the supplier (whether or not pending before any arbitrator, Tribunal or court) of any denial or liability by the supplier stopping or preventing or purporting to stop or prevent any payment by the Bank to the EPI in terms hereof.

7. The amount stated in any notice of demand addressed by EPI to the Bank as liable to be paid to EPI by the supplier or as suffered or incurred by the EPI on account of any losses or damages or costs, charges and/ or expenses shall be conclusive evidence of the amount so liable to be paid to EPI or suffered or incurred by EPI as the case may be and shall be payable by the Bank to EPI in terms hereof.

8. This guarantee/undertaking shall be a continuing guarantee/undertaking and shall remain valid and irrevocable for all claims of EPI and liabilities of the supplier arising upto and until midnight of.....

9. This guarantee/undertaking shall be in addition to any other guarantee or security whatsoever the EPI may now or at any time anywise may have in relation to the Supplier's obligations/liabilities under and/or in connection with the said supply contract, and EPI shall full authority to take recourse to or enforce this security in preference to any other guarantee or security which EPI may have or obtain and there shall be no forbearance on the part of EPI in enforcing or requiring enforcement of any other security and shall not have the effect of releasing the Bank from its full liabilities hereunder.

10. It shall not be necessary for EPI to proceed against the said contractor before proceeding against the bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the EPI may have obtained or obtain

from the contractor, shall at the time when proceedings are taken against the said bank hereunder be outstanding or unrealized.

11. We, the said Bank undertake not to revoke this Guarantee during its currency except with the consent of EPI in writing and agree that any change in the Constitution of the said Contract or the said Bank shall not discharge our liabilities hereunder.

12. We, the said Bank further undertake that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/difference pending between the parties before the arbitrator and/or any dispute is being referred to arbitrator.

13. Notwithstanding anything contained here above, our liability under this guarantee shall be restricted to Rs.....(Rupees..... only) and this guarantee shall remain in force till..... unless a claim is made on us within 3 months from that date i.e. before.....all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities hereunder.

Date.....day of.....20.....

For and on behalf of Bank

ANNEXURE-G**AFFIDAVIT****(To be typed on Rs. 100/- non-judicial stamp paper)**

I / Weagedyears son ofdo hereby solemnly affirm and decleare as follows for and on behalf of the Firm :

LIST OF EXISTING COMMITMENT AND ONGOING WORKS

Sr. No .	Name of Works	Client Name & Addres s	Work Order Value (in Rs)	Work Execute d till Date (Rs)	Balance Amount of work to be complete d (Rs)	Balance period to complete the works (Total Days)	Work to be completed in 6 Months (NIT Completion period) (Rs)
					(4 – 5)		
1	2	3	4	5	6	7	8
		Balance Commitments during 6 Months as per NIT				Rs	

It is certify that the above particulars furnished are true and correct. If any information given is found to be concealed at a later date, the Contract will be terminated forthwith without prejudice to the rights thereon consequent on termination and the bidder will be blacklisted. I/We agree for debarring tendering for one year if any facts are suppressed.

SIGN AND STAMP OF BIDDER

Signature of Notary Public

BANKERS' CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information that M/s./
Sh..... having marginally noted address,as
a Customer of our bank are/ is respectable and can be treated as good for any engagement
upto a limit of
Rs.....(Rupees.....)

This certificate is issued without any guarantee or responsibility on the bank or any of the
officers.

(Signature) For the Bank
NOTE

1. Bankers Certificates should be on letter head of the Bank, addressed to tendering
authority.
2. In case of Partnership firm, certificate should include names of all partners as recorded
with the Bank.

FORM FOR CERTIFICATE OF NET WORTH FROM CHARTERED ACCOUNTANT

"It is to certify that as per the audited balance sheet and profit & loss account during the
financial year
....., the Net Worth of M/s (Name & Registered Address
of
individual/firm/ company), as on (the relevant date) is
Rs..... after considering all liabilities. It is further certified that the Net
Worth of the company has not eroded by more than 30 % in the last three years ending
on (the relevant date)."

Unique Document Identification Number (UDIN)
Signature of Chartered Accountant
Name of Chartered Accountant
Membership No. of ICAI
Date and Seal

**TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)**

Date:

To,

Sub: Acceptance of Terms & Conditions of Tender.

NIT No: WRO/CON/893/SBM-GOA/333 dtd. 09.02.2024

Name of Tender / Work: - "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the state of Goa."

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

as per your advertisement, given in the above-mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)

Special instructions to Bidders for e-Tendering

Some Bidding related Information for this Tender (Sealed Bid)

The entire bid-submission would be online only and submitted in CPP Portal i.e.,
<https://etenders.gov.in/eprocure/app>.

Submission of Bid-Parts/ Envelopes

- Technical-Part
- Financial-Part

Submission of Bid:

The Bidder should upload the scanned copies of all the original documents as mentioned in **NIT Clause No. 39** and Bid-Annexures during Online Bid-Submission in addition to PQ documents listed in **NIT Clause No. 4**

Bidder's guide for CPP Portal:

Please refer

Appendix 1 - Bidder Registration Module &

Appendix 2 - Bid Submission Module for assistance in online bidding procedure.

Please note that at the end the bid must be final submit, otherwise the same will not be considered.

For any assistance regarding the Tender Document and/or term and conditions the bidders may contact at EPIL:

**General Manager (Tech)
Engineering Projects (India) Limited,
6A, Bakhtawar, Nariman Point, Mumbai 400021
wro-contracts@engineeringprojects.com**

For any assistance during bid submission, system settings etc. bidders may contact at CPPP:

**For any technical related queries please call at 24 x 7 Help Desk Number
0120-4001 002, 0120-4001 005, 0120-6277 787**


International Bidders are requested to prefix +91 as country code

Technical - support-eproc@nic.in

Policy Related - cppp-doe@nic.in

Bidder Registration Module

To enroll as a bidder click on the **Online Bidder Enrollment** link.



Government E-PROCUREMENT System (Demo)

02-Apr-2020

[Search](#) | [Active Tenders](#) | [Tenders by Closing Date](#) | [Corrigendum](#) | [Results of Tenders](#) | [Home](#) | [Contact Us](#) | [SiteMap](#)

Government eProcurement System

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Welcome to eProcurement System

The eProcurement System enables the Tenderers to download the Tender Schedule free of cost and then submit the bids online through this portal.

Latest Tenders

Tender Title	Reference No	Closing Date	Bid Opening Date
1. OCB_CKICP_MC_1_EPC_12_01	OCB/ CKICP/ MC-1/EPC-12/01	13-May-2020 02:00 PM	13-May-2020 03:00 PM
2. Triple cell RCC Box culvert	Tender14201920CMDPDODated 03.03.2020	13-Apr-2020 03:00 PM	15-Apr-2020 03:00 PM


Latest Tenders updates every 15 mins.

Latest Corrigendums

Corrigendum Title	Reference No	Closing Date	Bid Opening Date
-------------------	--------------	--------------	------------------


Latest Corrigendum updates every 15 mins.

Certifying Agency



User Login

Login ID *

X7E5AF 

Captcha *


Login

Online Bidder Enrollment

[Generate / Forgot Password?](#)

[Find My Nodal Officer](#)

Search with ID/Title/Reference no

 Tender Search

Go

Advanced Search

[Help For Contractors](#)

[Information About DSC](#)

[FAQ](#)

[Feedback](#)

[Bidders Manual Kit](#)

The system leads to the page where the details of the bidders are to be filled in. There are preferential categories for the preferential bidders who can avail the privileges that are provided. The Preferential categories are Make in India, MSME and STARTUP. The bidders first has to click on the check box of Preferential Bidder to select the Preferential Category.

The screenshot displays the Government E-Procurement System (Demo) interface. The header includes the system name, date (02-Apr-2020), and navigation links. A sidebar on the left contains various menu items. The main content area is titled "Online Enrollment of Corporate/Bidder" and contains a registration form. The form includes fields for Login Id, Correspondence Email, Mobile, Company Name, and BidderType. A dropdown menu for "Preference Category" is open, showing options: Make in India, -Select-, Make in India, MSME, and STARTUP. A "Preferential Bidder" checkbox is checked. A "Name of Partners / Directors" field is also present. A "Send Verification Code" button is visible at the bottom right of the form area.

Government E-PROCUREMENT System (Demo)

02-Apr-2020 | Search | Active Tenders | Tenders by Closing Date | Corrigendum | Results of Tenders | Home | Contact Us | SiteMap

Government eProcurement System

Online Enrollment of Corporate/Bidder

Login Id *

Enter email address for login id. eg: abc@nic.com
(Care may be taken to enter valid e-mail ID. This information will be kept confidential. The login ID cannot be modified once registered.)

Correspondence Email *

(Correspondence Email ID can be same as your Login ID.)

Mobile * -Select-

Email ID and Mobile No Policy

Email and mobile must comply following requisites,

1. As **Mobile** and **Email** are the modes of correspondence, ensure that mobile no and email id provided are correct.
2. The verification codes are valid for **900** seconds from the time **Send Verification Code** is clicked.

Company Details

Company Name *

Preferential Bidder: ☒ Yes

Preference Category *

Registration Number *

Registered Address *

Registered Address *

Name of Partners / Directors

BidderType * ☒ Indian ☐ Foreign

City *

State * -Select-

Postal Code *

The details of the bidder are entered in the Online Enrollment of Corporate/Bidder page. The Correspondence Email id and the Mobile Number should be a valid email id and a valid mobile number because further contacts will be only through this mobile number and correspondence email id.

Online Enrollment of Corporate/Bidder

Login Id *

Enter email address for login id. eg: abc@nic.com
(Care may be taken to enter valid e-mail ID. This information will be kept confidential. The login ID cannot be modified once registered.)

Correspondence Email*

(Correspondence Email ID can be same as your Login ID.)

Mobile*

Email ID and Mobile No Policy

Email and mobile must comply following requisites,

1. As **Mobile** and **Email** are the modes of correspondence, ensure that mobile no and email id provided are correct.
2. The verification codes are valid for **900** seconds from the time **Send Verification Code** is clicked.

Company Details

Company Name *

Preferential Bidder: ☒ Yes

Preference Category*

Registration Number *

Registered Address*

Name of Partners / Directors

BidderType* ☒ Indian ☐ Foreign

City *

State*

Postal Code*

PAN/TAN Number *

PAN/TAN number must have 10 characters. For eg: AESTG2458A

Page
1

Once after filling the details, the bidder enters the Captcha and clicks on the **Submit** Button to submit the provided details.

For Bidders who do not have PAN/TAN number may enter TEMPZ9999Z as the PAN/TAN number.

Establishment Year

Nature of Business*

Legal Status*


Company Category *

Contact Details

Enter Company's Contact Person Details

Title *



Contact Name*

Date Of Birth (DD/MM/YYYY)* 

Designation

Phone Details eg: +91 044 22272449

Phone*

Enter Captcha   Refresh

Page
2

The Bidder enrollment Acknowledgement is displayed on the screen. The bidder Clicks on the **Send Verification Code** button to receive the verification code in the provided mobile number and the correspondence email id.

Bidder Enrollment Acknowledgement		Print
Login ID :	biddertest2@gmail.com	
User Type :	Corporate Tenderer	
Correspondence Email :	biddertest2@gmail.com	
Mobile :	91-9 8888 8888	
Company Details		
Company Name :	Sai Private Limited.	
Preferential Bidder :	Yes	
Preference Category :	Make in India	
Registration Number :	A123456Z	
Registered Address :	Chennai	
Name of Partners / Directors :	Nil	
City :	Chennai	
State :	Tamil Nadu	
Postal Code :	123456	
PAN/TAN Number :	AESTG2458A	
Company's Establishment Year :	2010	
Company's Nature of Business :	Nature of Business	
Company's Legal Status :	Limited Company	
Company Category :	Regd. with District Industries Centre(DIC)	
Contact Details		
Title :	Mr	
Contact Name :	Praveen Rawat	
DOB (Date Of Birth) :	12-Sep-1989	
Designation :	CEO	
Phone :	91 044 2888 8889	
Note: The verification codes are valid for 900 seconds from the time Send Verification code is clicked		
Send Verification Code		

The bidder enters the Mobile Verification Code, Mail Verification Code, enters the New Password, confirms the same, enters the Captcha and clicks on the **Submit** button to submit the entered details.

Generate password

Generate password

Generate password for the login id **biddertest2@gmail.com**

Provide the verification code received through Correspondence Email/
Registered Mobile Number.

Mobile Verification Code *

Mail Verification Code *

New Password *

Confirm Password *

Enter
Captcha AAUDXC
Refresh

New User who have not received Verification code, please click on 'Update Email ID/Mobile No' button provided in 'Generate/Forgot Password' link in the home page and ensure the provided email id and mobile no are correct.

Cancel

Submit

Email ID and Mobile No Policy

Verification code must comply following requisites,

1. Provide verification code sent to mobile in Mobile Verification code.
2. Provide verification code sent to email in Mail Verification code.

Password Policy

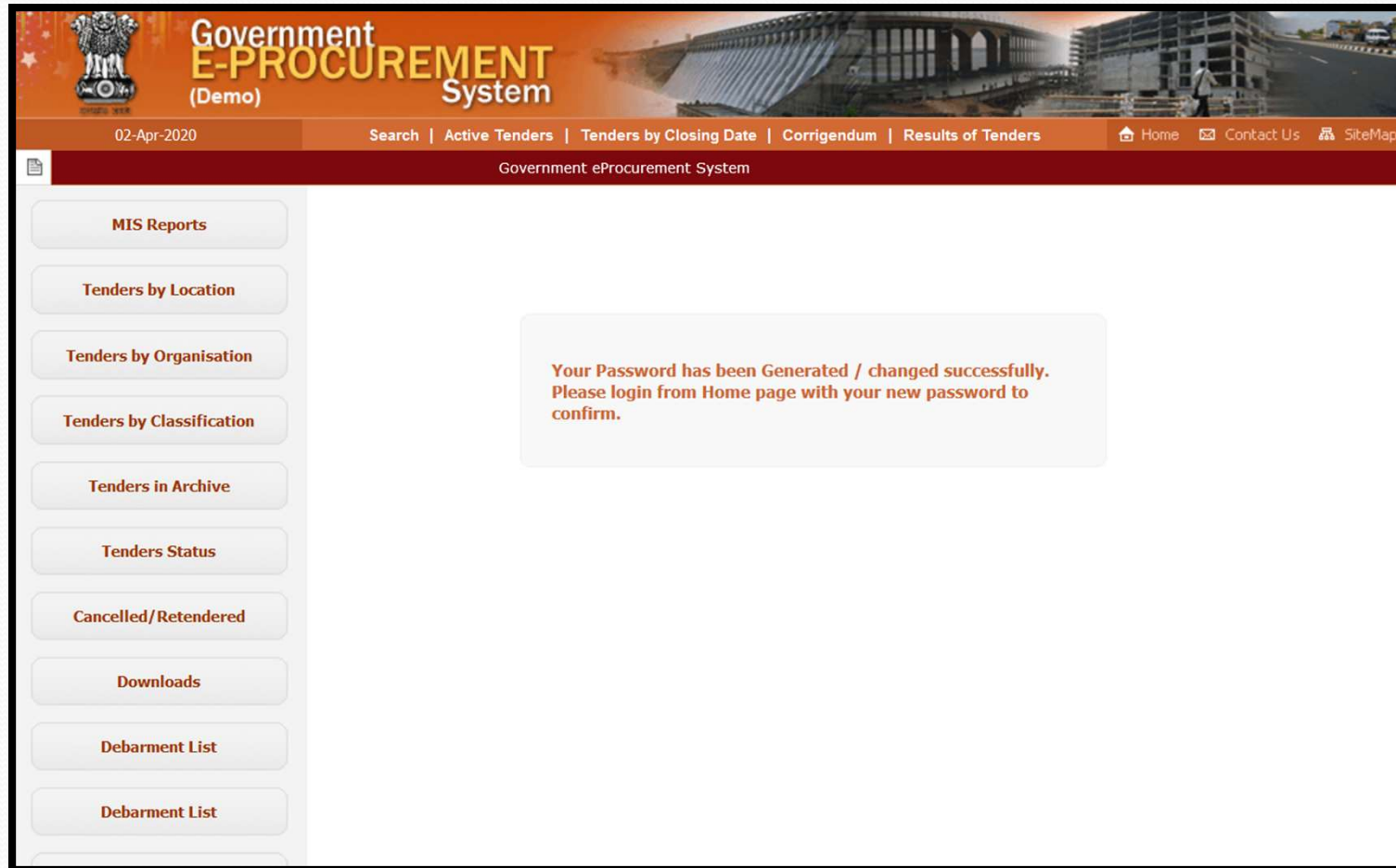
Your password must comply following requisites,

1. Length must be within **8 to 32** characters
2. Any **English lowercase and uppercase (a-z and A-Z)** characters
3. Any numbers between 0-9
4. Any special characters from the bracket [! @ # \$ ^ * _ ~]

Good eg: Cric\$2009

Bad eg: cric2009

The success message is displayed on the screen.



The bidder enters the Login Id, Captcha and clicks on the **Login** button to login to the portal.

02-Apr-2020 Search | Active Tenders | Tenders by Closing Date | Corrigendum | Results of Tenders Home Contact Us SiteMap

it System

MIS Reports

Tenders by Location

Tenders by Organisation

Tenders by Classification

Tenders in Archive

Tenders Status

Cancelled/Retendered

Downloads

Debarment List

Welcome to eProcurement System

The eProcurement System enables the Tenderers to download the Tender Schedule free of cost and then submit the bids online through this portal.

Latest Tenders

Tender Title	Reference No	Closing Date	Bid Opening Date
2. Supply of Computers	03.03.2020	10-Apr-2020 09:00 AM	13-Apr-2020 09:00 AM
3. Supply of Computers	NIT/IT/2020/1234	10-Apr-2020 09:00 AM	13-Apr-2020 09:00 AM

Latest Tenders updates every 15 mins.

Latest Corrigendums

Corrigendum Title	Reference No	Closing Date	Bid Opening Date
No active corrigendums available.			

User Login

Login ID *

Captcha *

Login

Online Bidder Enrollment

Generate / Forgot Password?

Find My Nodal Officer

Search with ID/Title/Reference no

Tender Search

Go

Advanced Search

The bidder enters the password, captcha and clicks on the **Proceed** button to proceed further.

The screenshot shows the Government E-Procurement System (Demo) User Login page. The header features the Government of India emblem, the system name, and a date of 02-Apr-2020. A navigation bar includes links for Search, Active Tenders, Tenders by Closing Date, Corrigendum, Results of Tenders, Home, Contact Us, and SiteMap. A sidebar on the left lists various menu items: MIS Reports, Tenders by Location, Tenders by Organisation, Tenders by Classification, Tenders in Archive, Tenders Status, Cancelled/Retendered, Downloads, and Debarment List. The main content area is titled 'User Login' and displays a welcome message for 'Sai Private Limited,'. It contains a login form with fields for Login ID (biddertest2@gmail.com), Password (masked with dots), and a Captcha (E7S4NS). Below the Captcha field is a text input for 'Captcha Text*' containing 'E7S4NS'. At the bottom of the form are 'Cancel' and 'Proceed' buttons. A link for 'Generate / Forgot Password?' is also present.

Government E-PROCUREMENT System (Demo)

02-Apr-2020

Search | Active Tenders | Tenders by Closing Date | Corrigendum | Results of Tenders

Home | Contact Us | SiteMap

Government eProcurement System

MIS Reports

Tenders by Location

Tenders by Organisation

Tenders by Classification

Tenders in Archive

Tenders Status

Cancelled/Retendered

Downloads

Debarment List

User Login

Welcome Sai Private Limited,,

Login ID biddertest2@gmail.com

Password*


Captcha E7S4NS

Captcha Text* E7S4NS

Cancel Proceed

Generate / Forgot Password?

The Bidder registers the DSC by clicking on the **Signing Certificate** icon to register the signing certificate.

**Government
eProcurement
System**

Welcome : biddertest2@gmail.com
Last login : 02-Apr-2020 02:11 PM

Server Time
02-Apr-2020 14:12:06

[Home](#) [Logout](#)


Government eProcurement System


USER MANAGEMENT

User DSC Enrollment

Login Id : biddertest2@gmail.com
Roles : Tenderer

You have not registered with Digital Signature Certificate yet. Please click on Signing Certificate link below.

 Signing Certificate

 View Existing Certificates

Active Certificates Information

S.No	Certificate	Certificate Type	Type	Validity	Enroll Date	View
No certificates have been enrolled.						


The Bidder selects the Signing certificate and clicks on the **OK** button to map the signing certificate.

USER MANAGEMENT

DSC Enrollment

Login Id : biddertest2@gmail.com
Roles : Tenderer

Please go through the below points before registering the DSC card / e-Token:



1. User needs to properly install drivers for the DSC smart card or USB Token in the system before clicking the DSC enrollment menu (Signing Certificate).
2. DSC once registered to the login cannot be removed or reassigned.
3. User can access the 'Information about DSC' tab on the Homepage of the application to view the DSC certificate issuing authorities.
4. This screen lists the signing certificate available in the inserted DSC card / e-token, user needs to select the relevant DSC to register.
5. DSC registered user only can perform any action in the application.

Please insert your e-Token to read your Digital Signature Certificate information.

Refresh

Digital Certificate : Signing

DSC Enrollment			
Certificate	Issued By	Type	Expiry Date
Praveen Rawat	SafeSign2020	Signing	23-Jan-2022 04:32 PM

Ok

Back

GePNIC
Simplified Procurement

NIC
National
Informatics
Centre


The success message is displayed on the screen.

USER MANAGEMENT

DSC Enrollment

Login Id : biddertest2@gmail.com
Roles : Tenderer

Please go through the below points before registering the DSC card / e-Token:




1. User needs to properly install drivers for the DSC smart card or USB Token in the system before clicking the DSC enrollment menu (Signing Certificate).
2. DSC once registered to the login cannot be removed or reassigned.
3. User can access the 'Information about DSC' tab on the Homepage of the application to view the DSC certificate issuing authorities.
4. This screen lists the signing certificate available in the inserted DSC card / e-token, user needs to select the relevant DSC to register.
5. DSC registered user only can perform any action in the application.

Please insert your e-Token to read your Digital Message

Digital Certificate : Signing

DSC Enrollment			
Certificate	Issued By	Type	Expiry Date
Praveen Rawat	SafeSign2020	Signing	23-Jan-2022 04:32 PM

Ok

 DSC is enrolled successfully.


OK

[Refresh](#)


Back


The successful enrollment of DSC is displayed on the screen. The Bidder clicks on the **Next** button to proceed further.

USER MANAGEMENT


 **User DSC Enrollment**

Login Id : biddertest2@gmail.com
Roles : Tenderer

 **DSC is enrolled successfully.**

 [View Existing Certificates](#)

Active Certificates Information

S.No	Certificate	Certificate Type	Type	Validity	Enroll Date	View
1.	Praveen Rawat	Signing	Class 0	23-Jan-2022 04:32 PM	02-Apr-2020 02:15 PM	

Next >

The Dash Board of the Bidder is loaded where the Bidder can change the Mobile Number, E-Mail Address and clicks on the **Save** button to save the provided details. If the Bidder does not want to change the Mobile Number, E-Mail Address he/she can just click on the **Skip** button to proceed further.

The screenshot shows the 'Government eProcurement System' dashboard. The header includes the system logo, a map of India, and user information: 'Welcome : biddertest2@gmail.com' and 'Last login : 02-Apr-2020 02:16 PM'. The server time is '02-Apr-2020 14:16:30'. Navigation links for 'Home' and 'Logout' are present. The main content area is titled 'DASHBOARD' and welcomes 'Sai Private Limited.' as a 'Tenderer'. It contains instructions to update mobile and email details for SMS alerts. A list of events (User Enrollment, Tender events, Bid submission, Block/Debarred Notification) is shown. Below this are input fields for 'Mobile Number' (country code 'IND (91)' and a masked number) and 'E-Mail Address' ('biddertest2@gmail.com'). A note explains that clicking 'Save' will trigger an OTP via SMS or email. At the bottom right are 'Skip' and 'Save' buttons.

Government eProcurement System

Welcome : biddertest2@gmail.com
Last login : 02-Apr-2020 02:16 PM

Server Time
02-Apr-2020 14:16:30 | Home Logout

Government eProcurement System

DASHBOARD

Welcome Sai Private Limited.,
Roles : Tenderer

In order to enable International SMS alerts facility, the eProcurement Application requires all the users to update their Mobile Number along with the Country Code.

In addition, the users are also required to update their email address

This is a one-time updation only. The benefits for the users include receipt of mobile and email alerts to the events such as;

- User Enrollment / Registration
- Tender related events
- Bid submission events
- Block / Debarred Notification

Mobile Number: * IND (91) 99[REDACTED]

E-Mail Address: * biddertest2@gmail.com

By clicking on "Save" button, you would receive an OTP by SMS / e-mail on above number / e-mail within 10 seconds. If you have not received the messages on time, please recheck your details or contact help desk.


Click on "Skip" button to complete the activity later.

Skip Save

Once the Bidder clicks on the Save button, the system navigates to the page where OTP is to be entered, received through the changed E-Mail Id. The bidder enters the OTP and clicks on the **Verify** button to verify the entered OTP.

DASHBOARD

Welcome Sai Private Limited.,
Roles : Tenderer

 OTP has been sent to the entered Email ID and Mobile No.

Entered Email ID : biddertest2@gmail.com
Entered Mobile No : 91 - 9[REDACTED]8

OTP*

OTP will Expire in 04:44 minutes!

Verify **Resend OTP**

The bidder enters the 15 digit GSTN Number, Name as registered in GSTN Portal and clicks on the **Save** button to save the provided details.

DASHBOARD

Goods and Service Tax Network (GSTN) Registration Information

Welcome Sai Private Limited.,
Roles : Tenderer

Goods and Service Tax Network (GSTN) Registration Information

Do You have a GSTN Registration Number * ☒ Yes ☐ No

GSTN Number eg: 99 AAAA9999A 9 Z Z

Please enter the 15 digit GSTN Number * 37 AAAA9999A 9 Z Z

Name as Registered in GSTN Portal * Praveen Rawat

Clear Save



The bidder clicks on the **Next** button to proceed further

DASHBOARD

Goods and Service Tax Network (GSTN) Registration Information

Welcome Sai Private Limited.,
Roles : Tenderer

Goods and Service Tax Network (GSTN) Registration Information

Do You have a GSTN Registration Number *

YesNo

GSTN Number eg: 99 AAAAAA9999A 9 Z Z

Please enter the 15 digit GSTN Number *

..

Z

Name as Registered in GSTN Portal *

Clear

Save

Bidder GSTN Registration Details

S.No	GSTN Number	GSTN Name	Created Date	Select
1	37AAAAAA9999A9ZZ	Praveen Rawat	02-Apr-2020 02:21 PM	<div></div>

Delete

Next

The system navigates to the page where Startup India Registration Details page, where the bidder can click on the Registered radio button to provide the registration details or click on the Not Registered radio button and click on the **Next** button to proceed further.

DASHBOARD

Startup India Registration Details

Startup India Registration

EProcurement portal is now integrated with Startup India. Bidders are now required to declare themselves, if they are registered/not registered as Startup India. If you are registered as Startup India, provide your Registration number and Mobile number as registered with the Startup India.

Consent from User
EProcurement portal will not share or disclose the Startup India Registration details with third party and will be used solely to establish and authenticate the details received from Startup India portal.

Startup * ☐ Registered ☒ Not Registered

Next

Once the process is over the left Menu for the Bidder is loaded. Click on the **My Accounts** left menu to view the account details.

The screenshot displays the Government eProcurement System interface. The top header includes the system logo, a map of India, and user information: 'Welcome : biddertest2@gmail.com' and 'Last login : 02-Apr-2020 02:11 PM'. The server time is shown as '02-Apr-2020 14:22:39|', with links for 'Home' and 'Logout'. The main navigation menu on the left is categorized into 'User Management' (My Accounts, My Documents), 'Auction Management' (My Auctions, Live Auctions, View Auction History), and 'Bid Management' (Search Active Tenders, My Tenders, Clarification, My Active Bids, Bid Opening (Live), Bidder Turnover Details, Awarded Bid Document, Techno Commercial Query, Confirmatory Documents, Techno Commercial Query History, Short fall Documents). The central 'DASHBOARD' area welcomes 'Sai Private Limited.,' as a 'Tenderer' and features an 'Announcements' section with a megaphone icon.

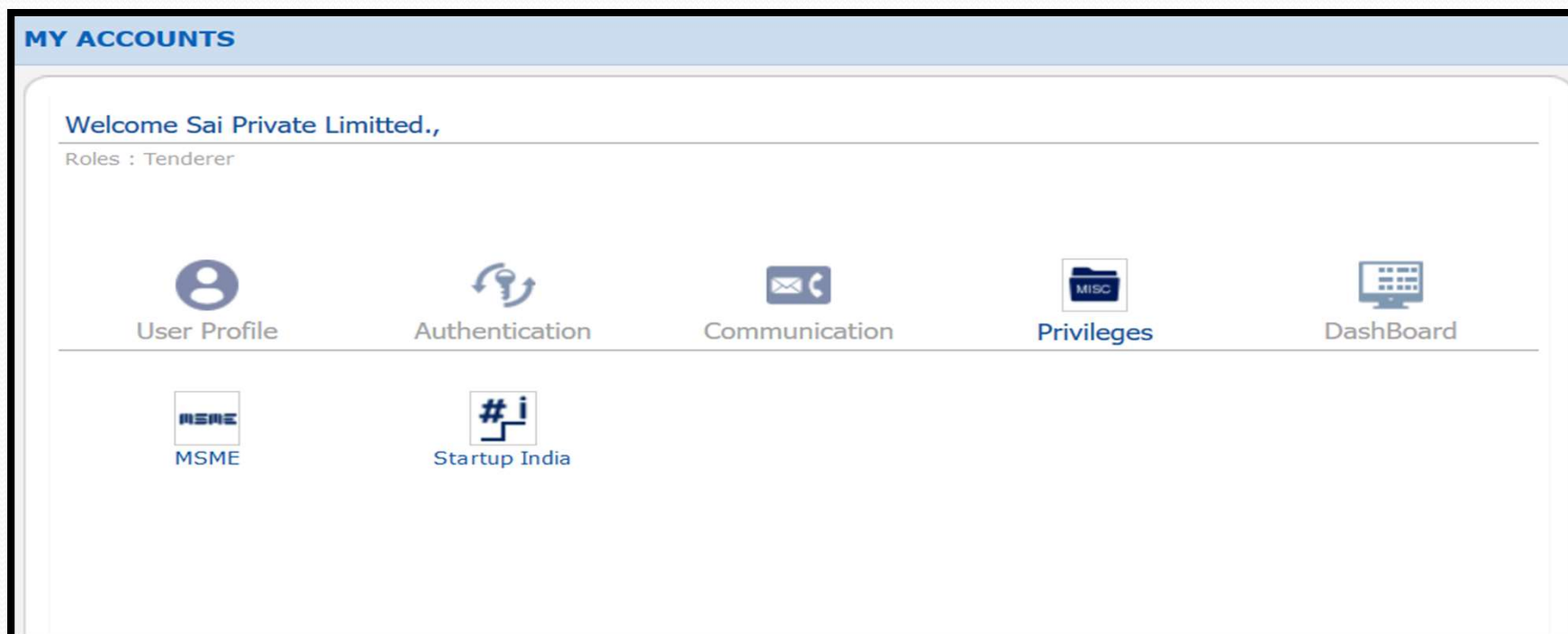
1.By Clicking the **User Profile** icon, The bidder can view the profile, Edit the profile, set the profile password which would be asked for editing the profile, the bidder can change the Email id & Mobile number and change the profile image.

2.By Clicking the **Authentication** icon, the bidder can change the password and activate & inactivate the active DSC.

3.On Clicking the **Communication** Ion, the bidder can select the product category for which the SMS and mail can be triggered if tenders are published under the selected product category and also the SMS and mail Notification can be selected by the bidder.

3.On selecting the **Privileges** icon, a provision for registering MSME and Startup India are provided.

4. On Clicking the **DashBoard**, the bidder can view the User Dash board.



Thank you

Bid Submission Module



Government E-PROCUREMENT (Demo) System

19-Jul-2017

[Search](#) | [Active Tenders](#) | [Tenders by Closing Date](#) | [Corrigendum](#) | [Results of Tenders](#)

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« Web based training on Government eProcurement System is being conducted on various topics on a regular basis. The Web based training will

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The national portal of India
india.gov.in

**MMP on
eProcurement**
(Tender information for States and UT's)

Welcome to eProcurement System

The eProcurement System enables the Tenderers to download the Tender Schedule free of cost and then submit the bids online through this portal.

Latest Tenders

Tender Title	Reference No	Closing Date	Bid Opening Date
8.0m psc poles	08/2017-18		
3. Installation of Minimast Lights	A3-2111/17	20-Jul-2017 03:00 PM	22-Jul-2017 04:00 PM
4. chk flow wilson Service	chk flow wilson		
5. chk flow wilson Service	chk flow wilson		
6. Supply of raw materials	G.2017		

Latest Tenders updates every 15 mins.

Latest Corrigendums

Corrigendum Title	Reference No	Closing Date	Bid Opening Date
3. extention of date	45/17/G3/SN	27-Jul-2017 09:00 AM	01-Aug-2017 09:00 AM

Latest Corrigendum updates every 15 mins.

Certifying Agency



User Login

Login ID *

Password *

Login

[Online Bidder Enrollment](#)
[Generate / Forgot Password?](#)

Enter Login Id & Password
, Click on Login Button

Search with ID/Title/Reference no

Tender Search

Go

Advanced Search

[Help For Contractors](#)

[Information About DSC](#)

[FAQ](#)

[Feedback](#)

[Bidders Manual Kit](#)

Contents owned and maintained by respective tender inviting organisation / department



Government E-PROCUREMENT (Demo) System

18-Jul-2017

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« Web based training on Govern

MIS Reports

Tenders by Location

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Digital Certificate Authentication

Welcome Wipro [rbidder5@nic.in],



1. You have registered with DSC. Please insert your DSC card / e-Token for authentication.
2. Click the 'Login' button to proceed.

S.No	Alias Name	Serial No.	Certificate Type	Expiry Date	Status
1.	M RAMA AMIRTHAM	53 3b 3b 69	Signing	26-Dec-2017 03:29 AM	Live



Logout

If the 'Log' button is not appearing in this screen, perform the following checks:

1. Java on Time Environment (JRE) 1.6 or above should be installed.
2. DSC should be installed from the resource CD.
3. The smart card / e-Token must be plugged in with the system's USB port / smart card reader.

Click on Login Button



Government E-PROCUREMENT (Demo) System

18-Jul-2017

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« Web based training on Government eProcurement System is being conducted on various topics on a re

MIS Reports

Tenders by Location

Tenders by Organisation

Tenders by Classification

Tenders in Archive

Tenders Status

Cancelled/Retendered

Downloads

Announcements

Recognitions

Digital Certificate Authentication

Welcome Wipro [rbid:14450-13]



Authentication

Authenticating... Please wait

Cancel

S.No	Alias Name	Serial No.	Certificate Type	Expiry Date	Status
1.	M RAMA AMIRTHAM	53 3b 3b 69	Signing	26-Dec-2017 03:29 AM	Live



LOGIN

Logout

If the 'Login' button is not appearing in this screen, perform the following steps:

1. Java Run Time Environment (JRE) 1.6 or above should be installed.
2. DSC drivers should be installed from the resource CD.
3. The DSC smart card / e-Token must be inserted into the DSC reader.

Authenticating the DSC pin



Government E-PROCUREMENT (Demo) System

18-Jul-2017

[Search](#) | [Active Tenders](#) | [Tenders by Closing Date](#) | [Corrigendum](#) | [Results of Tenders](#)

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conducted on various topics on a regular basis. The Web based training will be conducted on all Central Government working days from 2.30 PM to 4.30 PM in English only.

MIS Reports

Tenders by Location

Tenders by Organisation

Tenders by Classification

Tenders in Archive

Tenders Status

Cancelled/Retendered

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Recognitions

Digital Certificate Authentication

Welcome Wip



Verify User PIN



Now verify your User PIN:

User PIN:

☐ Enable soft keyboard

Change User PIN

Login

Cancel

Cancel



LOGIN

Logout

If the 'Login' button is not appearing in this screen, please perform the following checks:

1. Java Run Time Environment (JRE) 1.6 or above should be installed.
2. DSC drivers should be installed from the resource.
3. The DSC smart card / e-Token must be plugged into the system's USB port / smart card reader.

Enter DSC Pin and click on
Login Button



DASHBOARD

User Management

- My Accounts
- My Documents

Auction Management

- My Auctions
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- View Auction History

Bid Management

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- Techno Commercial Query History
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- My Bids History
- Confirmatory Documents History
- Short Fall Documents History
- Archived Clarification

Welcome Wipro,

Roles : Tenderer

Dashboard



Announcements

Web based training on Government eProcurement System is being conducted on various topics on a regular basis. The Web based training will be conducted on all Central Government working days from 2.30 PM to 4.30 PM in English only.

Click on Search Active Tenders

- User Management
 - My Accounts
 - My Documents
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 - View Auction History
- Bid Management
 - Search Active Tenders
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 - Archived Clarification
 - Tender Status
 - My Withdrawn Bids

Search Tenders

Search Active Tenders

Organisation	-Select-	Tender ID	
Department	-Select-	Keyword #	surgical
Division	-Select-	Tender Category	-Select-
Sub Division	-Select-	Product Category	-Select-
Org Chain			
Location/City			
Tender Type	-Select-	Form of Contract	-Select-
Value Criteria	-Select-	-Select-	
Date Criteria	-Select-	From	To

#- Keyword finds the match in tender title, work description and technical description

Cancel

Submit

Search Active Tenders from the above given option and click on **Submit**



BID MANAGEMENT

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- Confirmatory Documents History

Active Tenders

Select the check Box

Open Tenders

S.No	Tender ID	Tender Title	Tender Reference Number	Product Category	Value in ₹	Favorite
1.	2017_NIC_49820_1	Tender for supply of surgical disposable and dressing items	XX-97/SO(DO)/Surgical Disposable items/2017-18/St	Medical Equipments/Waste	0	<input checked="" type="checkbox"/>

Back

Set Open Tender as Favorite

Click on **Open Tender as favorite**



[Home](#) [Logout](#)

Government eProcurement System

Tender set as favorite
successfully

 Active Tenders

➔ My Documents

 Tender(s) has been set as your favorite successfully

[→ Live Auctions](#)[View Auction History](#)

Matches found : 0

Active Tenders

No Active Tenders Found.

→ Clarification

[→ My Active Bids](#)

→ Bid Opening (Live)

→ Techno Commercial Query History

→ Confirmatory Documents

→ Short fall Documents

[➔ My Bids History](#)

Confirmatory Documents



DASHBOARD

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- Archived Clarification

Welcome Wipro,

Roles : Tenderer



Announcements

Web based training on Government eProcurement System is being conducted on various topics on a regular basis. The Web based training will be conducted on all Central Government working days from 2.30 PM to 4.30 PM in English only.

Click on My Tenders



BID MANAGEMENT

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My Tenders

Search



Tender ID

Tender Title

Clear

Search

My Tenders

S.No	Tender ID	Tender Reference Number	Tender Title	View
1	2017_NIC_49820_1	XX-97/SO(DO)/Surgical Disposable items/2017-18/St	Tender for supply of surgical disposable and dressing items	
2	2017_NIC_49725_1	chk flow wilson	chk flow wilson Service	

Click on View Icon for bid submission

Bid Submission Start Date


18-Jul-2017 03:00 PM

Bid Submission End Date

18-Jul-2017 04:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf 	Notice Inviting Tender for supply of surgical disposal and dressing items	850.80



Download as zip file

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	BOQ	BOQ_46134.xls	Price Bid	294.00
2	Tender Documents	AIIMSTD.pdf	Tender document for supply of surgical disposable items and dressing items	2773.76

Tender Inviting Authority

Name	Store Officer
Address	Room No. 108,1st Floor, Animal House Building, Near Biotechnology Building, AIIMS, New Delhi-110 029

Click on Proceed For Bid Submission Button

Back

Proceed For Bid Submission



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Terms & Condition

Print

eTender Portal User Agreement

In order to create a user account and use the eTender portal you must read and accept the eTender portal User Agreement.

TERMS AND CONDITIONS OF E-TENDER SERVICES AGREEMENT

YOU MAY NOT MODIFY, COPY, REPRODUCE, REPUBLISH, UPLOAD, POST, TRANSMIT, OR DISTRIBUTE, IN ANY MANNER, THE MATERIAL ON THE SITE, INCLUDING TEXT, GRAPHICS, CODE AND/OR SOFTWARE.

You may print and download portions of material from the different areas of the Site solely for your own non-commercial use provided that you do not remove any copyright or proprietary notices from the materials.

Select the **Check Box** and
Click on **Next Button**

☒ I Agree

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Next

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→ Tender Status
→ My Withdrawn Bids

Login ID	rbidder5@nic.in		
Company Name	Wipro	Registration Number	ASDAS322
Establishment Year	2016	Nature of Business	Software
Legal Status	Limited Company	Company Category	Others
City	Mumbai	State	Maharashtra
Postal Code	4567789	PAN Number	CESTG2458B

Contact Details

Title *

Mrs

Contact Name *

Kaniak Rastogi

Correspondence Email *

shivanigoel.1405@gmail.com

Designation

AGM

Phone *

9101124305770

Mobile *

9717721686

Registered Address *

Mumbai

Name of Partners / Directors

Enter the Contact details
and Click on **Next** Button

- User Management
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- My Withdrawn Bids

My Tenders → Offline Fee Payment

Organisation Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

Fee to be paid (Inclusive of Taxes) in ₹ : 1,000

Specify Instruments for Offline Payment :

Instrument Type	DD - Demand Draft	Amount *	1,000
Instrument Number *	54561265	Issuer Details *	SBI
Issued Date *	18-Jul-2017	Challan Number	
Expiry Date *	21-Sep-2017	Account Number	

Cancel

Save

Fee Details

S.No	Instrument No.	Name	Issued Date	Expiry Date	Acc.No	Amount	Delete

Enter the Instruments details for offline payment and Click on Save Button

Next

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- Tender Status
- My Withdrawn Bids

My Tenders → Offline Fee Payment

Organisation Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

Fee to be paid (Inclusive of Taxes) in ₹ : 1,000

Specify Instruments for Offline Payment :

Instrument Type	DD - Demand Draft	Amount *	
Instrument Number *		Issuer Details *	
Issued Date *		Challan Number	
Expiry Date *		Account Number	

Cancel

Save

After entering details, Click on **Next** Button

Fee Details

S.No	Instrument No.	Name	Issued Date	Expiry Date	Acc.No	Amount	Delete
1	54561265	DD - Demand Draft	18-Jul-2017	21-Sep-2017		1,000	<input type="checkbox"/>

Delete

Next



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1 My Tenders → EMD Offline Payment

If, You are exempted from EMD payment, then select the option to 'Yes' and provide the details.

Are you exempted from EMD payment: ☐ Yes ☒ No

Next

Select the **Radio Button**
for EMD exemption and
then click on **Next**



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My Tenders → EMD Offline Payment

If, You are exempted from EMD payment, then select 'Yes' and provide the details.

Are you exempted from EMD payment: ☒ Yes ☐ No

If yes, Provide the exemption type: ☒ Percentage ☐ Fixed

Percentage/Amount* 100

Actual EMD amount in ₹ : 50,000

Only pdf,jpg files are permitted to upload.

Upload EMD exemption document:*



Next

If EMD percentage amount is 100
then EMD amount to be paid after
exemption is Rs. 0.00



BID SUBMISSION

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My Tenders → EMD Offline Payment

If, You are ex

Are you ex

If yes,

Only pdf,jpg t

Upload

EMD Payment

EMD amount to be paid after exemption: ₹ 0.00



Next

Showing EMD amount is
Rs. 0.00



BID SUBMISSION

User Management

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My Tenders → EMD Offline Payment

If, You are exempted from EMD payment, then select the option to 'Yes' and provide the details.

Are you exempted from EMD payment: ☒ Yes ☐ No

If yes, Provide the exemption type: ☒ Percentage ☐ Fixed

Percentage/Amount* 100

Actual EMD amount in ₹ : 50,000

Only pdf,jpg files are permitted to upload.

Upload EMD exemption document:*



Next

1) Enter EMD payment details and select the icon to upload EMD exemption document.



BID SUBMISSION

User Management

- My Accounts
- My Documents

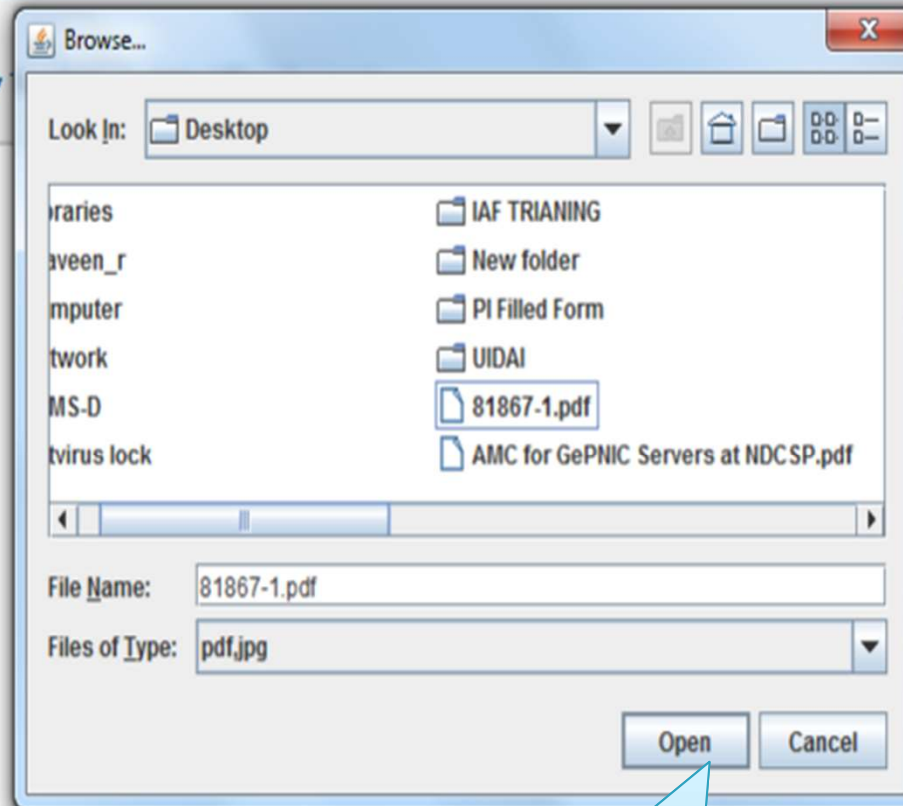
Auction Management

- My Auctions
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Bid Management

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My



Select the EMD exemption document and then click on **Open** Button

the details.

Next



BID SUBMISSION

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My Tenders → EMD Offline Payment

If, You are exempted from EMD payment, then select the option to 'Yes' and provide the details.

Are you exempted from EMD payment: ☒ Yes ☐ No

If yes, Provide the exemption type: ☒ Percentage ☐ Fixed

Percentage/Amount* 100

Actual EMD amount in ₹ : 50,000

Only pdf,jpg files are permitted to upload.

Upload EMD exemption document:*

C:\Users\praveen_r\Desktop\81867-1.pdf



Next

click on this Icon to
digitally sign the document



BID SUBMISSION

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- Short Fall Documents History

My Tenders → EMD Offline Payment

File Signing

Digital signing in progress... Please wait

If, You are ex
Are you e)
If yes,

Actual EMD amount in ₹ : 50,000

Only pdf,jpg files are permitted to upload


Upload EMD exemption doc

C:\Users\praveen_r\Desktop\181867-1.pdf



Digitally signing

Next



**eProcurement
System**

Last login: 10-Jul-2017 03:12 PM10-Jul-2017 13:24:03

Government eProcurement System

BID SUBMISSION

User Management

- My Accounts
- My Documents

Auction Management

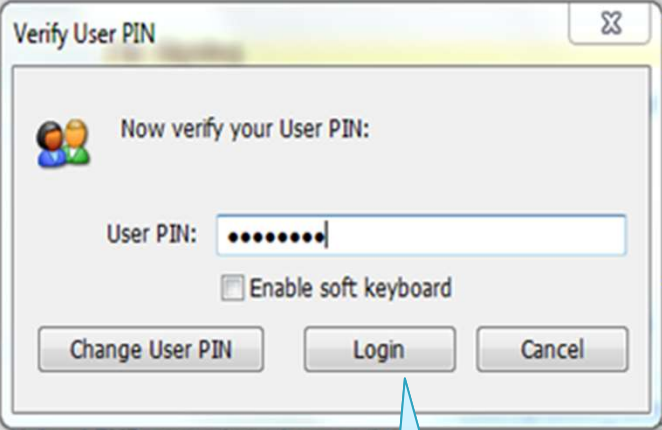
- My Auctions
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- Short Fall Documents History

My Tenders → EMD Offline Payment

Verify User PIN



Now verify your User PIN:

User PIN:

☐ Enable soft keyboard

Upload EMD exemption document:

ktopl81867-1.pdf

Enter the DSC pin and
click **Login** button



BID SUBMISSION

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My Tenders → EMD Offline Payment

Message



File signed successfully.

OK

If, You are ex
Are you ex
If yes,

se wait

Only pdf,jpg files are permitted to upload.

Upload EMD exemption document

C:\Users\praveen_n\Desktop\81867-1.pdf



Click Ok

Next



BID SUBMISSION

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My Tenders → EMD Offline Payment

If, You are exempted from EMD payment, then select the option to 'Yes' and provide the details.

Are you exempted from EMD payment: ☒ Yes ☐ No

If yes, Provide the exemption type: ☒ Percentage ☐ Fixed

Percentage/Amount* 100

Actual EMD amount in ₹ : 50,000

Only pdf,jpg files are permitted to upload.

Upload EMD exemption document:*

C:\Users\praveen_r\Desktop\81867-1.pdf



Next

Click on Next button



BID MANAGEMENT

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My Tenders → 2017_NIC_49820_1 → Transaction Message

Click on **Action** Icon for entering interested items

Organization Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

Bid Process List

S.No	Bid Process	Action
1	ITE Details	
2	Profile	

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee	Edit
1	Tender Fee	1000.00 (INR)	0.00	0.00	1000.00 (INR)	
2	Emd Fee	50000.00 (INR)	50000.00 (INR)	0.00	0.00	

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- Confirmatory Documents
- Short fall Documents
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Bidder Item Wise Evaluation						ed Yes/No
S.No	Item Code	Description				
1		Disposable Syringes with Needle with leur lock (Sterilized) (ISO) *Reuse prevention breakable plunger syringe with possibility of multiple aspirations,				
2	item1	Size: 1 ml (As and when required)	Nos	1.00	Yes	▼
3	item2	Size: 2 ml	Nos	50000.00	Yes	▼
4	item3	Size: 5 ml	Nos	50000.00	Yes	▼
5	item4	Size: 10 ml	Nos	50000.00	Yes	▼
6	item5	Size: 20 ml (As and when required)	Nos	1.00	Yes	▼
7	item6	Size: 50CC	Nos	30000.00	No	▼
8		Disposable Syringes without Needle without leur lock (Sterilized) *Reuse prevention breakable plunger syringe with possibility of multiple aspirations				
9	item7	Size: 2 ml	Nos	50000.00	Yes	▼
10	item8	Size: 5 ml	Nos	50000.00	Yes	▼
11	item9	Size: 10 ml	Nos	50000.00	Yes	▼
12	item10	Size: 20 ml (As and when required)	Nos	1.00	Yes	▼
13	item11	Size: 50 ml	Nos	20000.00	Yes	▼
14	item12	Disposal Syringe with Needle with Leur Lock (Sterlized) (ISI/ISO/CE) Size: 1CC	Nos	20000.00	Yes	▼
15	item13	Auto destructive disposal Syringes with leur lock. The syringe on completing the injection should lock to prevent any reuse. Non reuseable involuntary activated auto disable syringes Size: 1ml	Nos	1.00	Yes	▼

1. Select **Yes/No** against each item to show interest

2. Click on Save

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No of sheets :	1	Total item(s) available in sheet(s) :	13
Eligible item(s) as quoted :	12	Not eligible item(s) as quoted :	1 Click to View

View Bidder Item Wise Evaluation List						
S.No	Sheet Name	Item Code	Description	Units	Quantity	Bidder Value
1	BoQ1	item1	Size: 1 ml (As and when required)	Nos	1.00	Yes
2		item2	Size: 2 ml	Nos	50000.00	Yes
3		item3	Size: 5 ml	Nos	50000.00	Yes
4		item4	Size: 10 ml	Nos	50000.00	Yes
5		item5	Size: 20 ml (As and when required)	Nos	1.00	Yes
6		item6	Size: 50CC	Nos	30000.00	No
7		item7	Size: 2 ml	Nos	50000.00	Yes
8		item8	Size: 5 ml	Nos	50000.00	Yes
9		item9	Size: 10 ml	Nos	50000.00	Yes
10		item10	Size: 20 ml (As and when required)	Nos	1.00	Yes
11		item11	Size: 50 ml	Nos	20000.00	Yes
12		item12	Disposal Syringe with Needle with Leur Lock (Sterlized) (ISI/ISO/CE) Size: 1CC	Nos	20000.00	Yes
13		item13	Auto destructive disposal Syringes with leur lock. The syringe on completing the injection should lock to prevent any reuse. Non reuseable involuntary activated auto disable syringes Size: 1ml	Nos	1.00	Yes

Click on Next Button.

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Organization Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

Bid Process List

S.No	Bid Process	Action
1	ITE Details	
2	Profile	

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee	Edit
1	Tender Fee	1000.00 (INR)	0.00	0.00	1000.00 (INR)	
2	Emd Fee	50000.00 (INR)	50000.00 (INR)	0.00	0.00	

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Organisation Chain : NIC Org||NIC_Dept

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Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

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Tender Title : **Tender for supply of surgical disposable and dressing items**

Tender ID : **2017_NIC_49820_1**

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Tender Title : **Tender for supply of surgical disposable and dressing items**

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.pdf	Scann...	✓	Doc1.pdf	723	C:\Users\praveen_...	06-Jul-2017 03:29 ...	
.pdf	Scann...	✓	oversize_pdf_test_...	99305	C:\Users\praveen_...	07-Jul-2017 11:53 ...	
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.pdf	Scann...	✓	Doc1.pdf	723	C:\Users\praveen_...	06-Jul-2017 03:29 ...	
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Organisation Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_

Tender Title : Tender for

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Tender Title : **Tender for supply of surgical disposable and dressing items**

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.xls	Price Bid	✖	File Not Uploaded				

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Name of the Bidder/ Bidding Firm / Company :	Wipro
----------------------------------------------------	-------

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST Rates in % on Unit Rates	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	14	53	54	55
1	Disposable Syringes with Needle with leur lock (Sterilized) (ISO) *Reuse prevention breakable plunger syringe with possibility of multiple aspirations,							
1.01	Size: 1 ml (As and when required)	1	Nos	31.00	5.00	31.00	32.55	INR Thirty Two and Paise Fifty Five Only
1.02	Size: 2 ml	50000	Nos	32.00	5.00	1600000.00	1680000.00	INR Sixteen Lakh Eighty Thousand Only
1.03	Size: 5 ml	50000	Nos	35.00	5.00	1750000.00	1837500.00	INR Eighteen Lakh Thirty Seven Thousand Five
1.04	Size: 10 ml	50000	Nos	41.00	5.00	2050000.00	2152500.00	INR Twenty One Lakh Fifty Two Thousand Five
1.05	Size: 20 ml (As and when required)	1	Nos	60.00	5.00	60.00	63.00	INR Sixty Three Only
1.06	Size: 50CC	30000	Nos			0.00	0.00	INR Zero Only
2	Disposable Syringes without Needle without leur lock (Sterilized) *Reuse prevention breakable plunger syringe with possibility of multiple aspirations							
2.01	Size: 2 ml	50000	Nos	21.00	5.00	1050000.00	1102500.00	INR Eleven Lakh Two Thousand Five Hundred Only
2.02	Size: 5 ml	50000	Nos	25.00	5.00	1250000.00	1312500.00	INR Thirteen Lakh Twelve Thousand Five Hundred
2.03	Size: 10 ml	50000	Nos	28.00	5.00	1400000.00	1470000.00	INR Fourteen Lakh Seventy Thousand Only
2.04	Size: 20 ml (As and when required)	1	Nos	32.00	5.00	32.00	33.60	INR Thirty Three and Paise Sixty Only
2.05	Size: 50 ml	20000	Nos	35.00	5.00	700000.00	735000.00	INR Seven Lakh Thirty Five Thousand Only
3	Disposal Syringe with Needle with Leur Lock (Sterilized) (IS/ISO/CE) Size: 1CC	20000	Nos	50.00	5.00	1000000.00	1050000.00	INR Ten Lakh Fifty Thousand Only
4	Auto destructive disposal Syringes with leur lock. The syringe on completing the injection should lock to prevent any reuse. Non reuseable involuntary activated auto disable syringes Size: 1ml	1	Nos	65.00	5.00	65.00	68.25	INR Sixty Eight and Paise Twenty Five Only
Total in Figures						3350031.00	3517532.55	INR Thirty Five Lakh Seventeen Thousand Five Hundred & Thirty Two and Paise Fifty Five Only
Quoted Rate in Words			INR Thirty Five Lakh Seventeen Thousand Five Hundred & Thirty Two and Paise Fifty Five Only					

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Tender Title : Tender for supply of surgical disposable and dressing items

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xls	Price Bid	✓	BOQ_46134.xls	296	C:\Users\praveen_...	18-Jul-2017 03:35 ...	

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.xls	Price Bid	✓	BOQ_46134.xls	296	C:\Users\praveen_...	18-Jul-2017 03:35 ...	

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BID SUBMISSION

Bid Submission

Packet Details

Organisation Chain : NIC Org||NIC_Dept

Tender Reference Number : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

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Uploaded Documents

S.No	Packet Type	File Name	Description	File Size (KB)	File Hash
1	Fee/PreQual /Technical	81867-1.pdf	Scanned copy of Tender Fee and EMD	239.00	fPL5m5ErOTCH/y74Cc9IMaTEZZI=
		download.pdf	Scanned copy of Tender form as per section- VII and Documentary evidence form	14416.00	NS2tVnbDwmr2FetPMTabJWYrjc=
		NITRD.pdf	Scanned copy of Manufacturer Authorisation form , Documents with GIT clause 17 and performance certi	452.00	G+pt5LsvmaAYcvyvwY9rf1ob7k=
		NIT.pdf	Scanned copy of checklist as per section VII	838.00	3mBNAYOKG3exNWUVUNbLWOjWU7U=
2	Finance	BOQ_46134.xls	Price Bid	296.00	0DYJ2PgnJ66alNW6zqrRXOv32Co=

Stagewise Bid Status

Tender Stages	Result
ItemWise Technical Evaluation	
ItemWise Technical Evaluation	✓

Click on **Freeze Bid** for bid submission

Freeze Bid



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Bid Acknowledgement

Bid Acknowledgement

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Organisation Chain : NIC Org||NIC_Dept

Tender Ref No. : XX-97/SO(DO)/Surgical Disposable items/2017-18/St

Tender ID : 2017_NIC_49820_1

Tender Title : Tender for supply of surgical disposable and dressing items

Bid Start Date & Time : 18-Jul-2017 03:00 PM

Bid End Date & Time : 18-Jul-2017 04:00 PM

Bid ID : 39190

Bidder Name : Wipro

Bid Submitted Date & Time : 18-Jul-2017 03:38 PM

Bidder IP Address: 10.1.14.149

Bid submitted successfully and bidder **print the bid details** for future reference

Thank you



AN ISO 9001 & 14001 COMPANY

NIT DOCUMENT

WRO/CON/893/SBM-GOA/333

Dated. 09.02.2024

FOR

Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."

VOL II

ACC, TECHNICAL SPECIFICATIONS AND SCOPE OF WORK, GCC, VILLAGE PANCHAYAT REQUIREMENTS FOR SITC OF MRF EQUIPMENT'S, PREFERRED MAKE VENDOR LIST OF EQUIPMENT'S, DRAWINGS FOR SBM-II (G) FOR (FY 23-24).

**ENGINEERING PROJECTS (INDIA) LTD.
WESTERN REGIONAL OFFICE MUMBAI
6A, BAKHTAWAR, NARIMAN POINT
MUMBAI 400021**

ADDITIONAL CONDITIONS OF CONTRACTS

The following Additional Conditions of Contract shall be read in conjunction with General Conditions of Contract of EPI. If there are any provisions in these Additional Conditions of Contract, which are at variance with the provisions of General Conditions of Contract, the provisions in these Additional Conditions of Contract shall take precedence.

INTRODUCTION

Goa State has 12 blocks (Tahsils) i.e., Bardez, Bicholim, Pernem, Sattari, Tiswadi, Mormugao, ponda, Quepem, Salcete, Sanguem, Dharbandora and Canacona. In the present DPR, 79 Panchayats are selected for solid liquid waste management from different blocks of the Goa state.

Solid waste management has become a practical necessity in rural areas too. Next to becoming Open Defecation Free (ODF) villages, the Swachh Bharat commitment demands rural households to dispose of garbage in a scientifically sensible manner. Domestic refuse from individual households should not become a cause for unsightly streets and unhealthy rural environment. An essential requisite for a healthy rural environment and quality living is the Gram Panchayats (GPs) should put in place an arrangement for garbage collection and disposal in a manner that is socially acceptable and technically sound. In the absence of an effective system in place, it is unjust to blame the households of irresponsibility.

Present focuses on achievement of ODF plus status in Goa state. Of the total population of Goa state, around 37.83 percent live in the villages of rural areas. In actual numbers, males and females were 005,436 and 006,295 respectively. Total population of rural areas of Goa state was 551,731. The population growth rate recorded for this decade (2001-2011) was 37.83%. In rural regions of Goa state, female sex ratio per 1000 males was 1003 while same for the child (0-6 age) was 945 girls per 1000 boys. In Goa, 54,014 children (0-6) live in rural areas. This unprecedented growth, along with high economic growth, has resulted in a severe challenge for various states in India, in terms of addressing the incremental infrastructural needs of a fast-growing population.

For implementation of SBM (G) Phase II, the Government of India (GoI) as well as many State governments are looking up to Village Panchayats (VPs) to come up with a working system to manage solid/liquid waste in rural areas. We must admit the fact that 'some' Gram Panchayats have been successful in managing solid waste, while 'many others' have had a short stint and faded away. Engineering Projects India Limited (EPIL) took up the task of collecting and coming up with an array of practicable models of solid and liquid waste management, which VPs can choose from, and take up appropriately for implementation.

APPROACHES TO WORKSITE

The land is made available to the bidder(s)/contractor(s) free from all encumbrances as CLIENT provide to EPI. The contractor shall make his own arrangement for approach to work site including borrow/ disposal area and for movement of men, materials, machineries, other equipment etc. required for carrying out the work under this contract.

The access roads/ path to the work site may not be available at all places and at all time. The contractor shall plan his work as per the availability of access roads/ path at site. All drainage of works area and all-weather truck able haulage roads as required by the contractor shall be constructed and maintained during the construction period by the contractor at his own cost, including portions of the road already existing.

ORDER OF PRECEDENCE:

Clause 42.1 of GCC stands amended as under: In case of difference, contradiction, discrepancy, dispute with regard to Conditions of Contract, Specifications, Drawings, Bill of Quantities and Rates quoted by the Contractor and other documents forming part of the contract, the following shall prevail in order of precedence

1. Contract Agreement which includes NIT, Special Instructions to Tenderer, and Memorandum.
2. Letter of Intent, detailed letter of Work Order
3. Bill of Quantity / Schedule of Quantities
4. Additional Conditions of Contract (ACC)
5. General Conditions of Contract (EPI GCC).
6. Swachh Bharat Mission II (Grameen) guideline
7. Technical specifications & GSR latest edition
8. National Building Code (Latest Edition)
9. BIS specifications
10. Environmental, Social, Health and Safety (ESHS) Manuals & COVID-19 Manuals.

Provisions under General Conditions of Contract of EPI are modified/ amended as under: -

S. No.	GCC Clause No.	Modified/Amended provisions as per Additional Conditions of Contract
1.	1.0	<p>General In addition to Clause no 1.0 of GCC:</p> <p>The Additional Conditions shall be read in conjunction with General Conditions of Contract. Where the provisions of these Additional Conditions are at variance with the provision of the General Conditions of Contract, the provisions of these Additional Conditions shall take precedence</p>
2.		<p>Finalization of Tenders The Competent authority of Client to accept the tender of contractor shall evaluate and shall accept the lowest tendered cost if required. In case the lowest tendered cost is higher than estimated cost, the client to accept the tender with justification. The tender can be accepted only after the receipt of sanction by Client.</p>
3.		<p>Variation: Change of Scope (Variations) and Procedure for change of Scope:</p> <p>1. The Employer may, require the Contractor to make modifications/alterations to the construction works before the issue of the completion certificate either by giving an instruction or by requesting the contractor to submit a proposal for change of scope involving additional cost or reduction in cost. Any such change of scope shall be made and valued in accordance with the provisions of this contract and the contractor, in that event, will have no further claim.</p> <p>2.Change in scope may include: (a) Change in specifications of any item of works (b) omission/ deletion of any item of work from the scope of work (c) any additional work which are not included in the scope of work including any additional test on completion</p> <p>3.In the event of the Employer determining that a change of scope is necessary, it shall issue notice to the contractor a notice specifying in reasonable detail the works contemplated there under ("Change in scope notice")</p> <p>4. The rates of such extra/ similar items in scope of work should be as per approval from Client.</p>

		<p>5. The payment towards this variation shall be released only after the receipt corresponding payment from client.</p> <p>6. In case the finally executed contract value increases above the awarded Contract Value due to quantity variation, there will be no upward revision in the rates for the individual items and also contractor is not eligible for any compensation.</p> <p>7. For individual quantity variation shall be followed as per GCC.</p> <p>For items not covered under any of the specifications mentioned in Tender Documents, the works shall be carried out as per CPWD Specifications / manufacturer's specifications or as per directions of Engineer-in-Charge. The rate for such extra work shall be derived as follows:</p> <p>a) If the item is available in GSR 2023, contractor has to execute the item as per tender percentage.</p> <p>b) If the same item is not available in GSR 2023 and similar item is available, rate for such extra work shall be derived from the similar item.</p> <p>c) If the rate for any item is not possible to derive as mentioned above, the rate shall be derived by analysing as per the prevailing market rates following GSR norms.</p>
4.		<p>Alterations, Additions and Omissions</p> <p>EPI/Client can make any variation of the form, quality or quantity of the works or any part thereof that may, in their opinion be necessary and for that purpose, or if for any other reason it shall in his opinion be desirable, they shall have power to order in writing to the contractor to do and the contractor shall do any of the following:</p> <p>a) Increase or decrease in the quantity of any work included in the contract in which case the value of contract may be increased or decreased.</p> <p>b) Omit any such work.</p> <p>c) Change the levels, lines, position and dimension of any part of the works and</p> <p>d) Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way vitiate or invalidate the contract, but the value, if any of all such variations shall be taken into account to ascertain the amount of the Contract Price.</p> <p>e) The contractor shall not effect any of the aforementioned changes without the written order of EPI / Client</p> <p>f)</p>
5.	69.1	<p>ALTERATION IN SPECIFICATION, DESIGN & DRAWING</p> <p>Clause No. 69.1(IV) of GCC stands modified as under:</p>

		<p>If the rates for the altered, additional or substituted work cannot be determined in the manner specified in sub-clauses (i) to (iii) above, then the Contractor shall, within 7 days of the date of receipt of order to carry out the work, inform the Engineer-In-Charge the rates which he intends to charge for such class of work, supported by analysis of the rate or rates claimed, and the Engineer-In-Charge shall determine the rate or rates on the basis of prevailing market rates of the material, Labour, T&P etc as per CPWD norms and pay the Contractor accordingly. The opinion of the Engineer-In-Charge as to the current market rates of materials and quantum of labour involved per unit of measurements will be final and binding on the Contractor.</p> <p>However, the Engineer-In-Charge, by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the Contractor shall suspend the work on the plea of non-settlement of rates of items falling under the clause.</p>
6.		<ul style="list-style-type: none"> • The Quantities indicated in the BOQ is tentative. However, Contractor has to execute the works as per drawings and site requirement. • Payment will be released for the work executed as per the rates quoted by the contractor even if the quantities increases or decreases. • GCC Cl No: 69 is to be follows for any variation in quantity.
7.	2.2	<p>HANDING OVER & CLEARING OF SITE: In addition to GCC Clause No. 2.2</p> <p>As work in SBM-II (G) is spread all over the goa and also scope of work is different in various panchayats. So once the scope defined in individual panchayat is completed, it will be handed over separately to the village Panchayats or Authority and defect liability period of 12 months will be start from that date for that panchayat separately. In case of items having Annual Maintenance Contract (AMC), AMC will start for those items at respective Village Panchayat (V.P.)</p> <p>All defect notice during the currency of the contract and also during the defect liability period of 12 months after completion of the work except those pertaining to leakage/dampness which are governed by clause mentioned above shall be got completely and satisfactorily rectified by the contractor immediately after notifying the defects without any extra payment for the same. In case the defects are such as cannot be rectified or the contractor fails to rectify these satisfactorily and completely, EPIL/Client reserves his right to accept the work at reduced rates (provided defects are non-structural) or</p>

		<p>to get the rectification work done at the risk and cost of the contractor.</p> <p>The decision of the Client, in this regard, shall be final and binding on the contractor.</p> <p>Note: Defect liability period of 12 months (Refer clause no ACC No: 8)</p>
8.	74.0	<p>DEFECT LIABILITY PERIOD</p> <p>Clause no. 74.0 of GCC shall be read as for Defect Liability period of 12 months from the date of completion & handing over of the works (i.e. respective panchayats) to Client as mentioned in ACC Clause No:6. Other condition of clause 74.0 of GCC will be same</p>
9.		<p>GUARANTEE</p> <p>The Contractor shall be responsible for the rectification of defects in the works for a period of twelve months from the date of taking over of the works by the Owner/ Client. Any defects discovered and brought to the notice of the Contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the Contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by EPI at the cost and expense of the Contractor.</p>
10.	8.0	<p>MOBILIZATION ADVANCE</p> <p>Clause no. 8.2 of GCC is modified and read as under:</p> <p>The release of Mobilization Advance @10% shall be paid in two parts (5%+5%) i.e., 5% and balance 5% will be released after submitting the utilization of the same. Utilization to be certified by EPI.</p> <p>Bank Guarantee to be submitted @ 110%. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first Ten percent (10%) of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent (80%) of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount upto the date of recovery of the instalment.</p> <p>All other terms and conditions of GCC Cl.No.8.0 shall be applicable.</p>
11.	9.0	<p>SECURITY DEPOSIT CUM PERFORMANCE BANK GUARANTEE</p> <p>Reference to General Condition of Contract (GCC) Clause No. 9.0 regarding Security Deposit cum Performance Guarantee (SDPG) is being amended as under:</p>

		<p>"The successful bidder shall have to submit SDPBG equivalent to 5% as mentioned in the tender of the Contract Value within 21 (twenty-one) days from the date of issue of Letter of Intent (LOI). If required, any extension of time beyond 21 days and upto 60 days may be granted by the Competent Authority. However, a penal rate of interest @ 12% per annum shall be charged for the delay in submission of SDPBG after 21 (twenty-one) days i.e., from 22nd day to the date of submission of SDPBG but within 60 days after the date of issue of LOI. Further, if 60th day happens to be declared holiday in the concerned office of EPI, submission of SDPBG can be accepted on the next working day.</p> <p>The SDPBG shall be submitted in the form of Bank Guarantee (format enclosed), from any Nationalized bank/ Scheduled Bank / Commercial Bank or in the form of Insurance Surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt or Online Payment in an acceptable form. This SDPBG shall be initially remain valid upto 90 (ninety) days after the end of Defect Liability Period (DLP). In case, the time for completion of work gets extended, the contractor shall get the validity of SDPBG extended to cover such extended time for completion of work plus DLP plus 90 days.</p> <p>In case, even after 60 days from the date of issue of LOI, the Bidder fails to submit the SDPBG of the requisite amount, LOI will stand withdrawn and EMD of the Bidder shall be forfeited.</p> <p>Additional Security Deposit:</p> <p>The Bidder quoting below the estimated cost put to tender shall submit the additional Performance guarantee of amount equal to the percentage of quoted amount by which the bidder has quoted below the estimated cost.</p> <p>For example: if the bidder quotes -5% of the estimated cost, then no additional performance guarantee is required. If the bidder quotes -6% of the estimated cost, then the bidder has to submit additional performance guarantee equal to 1% of the quoted amount. Similarly, if the bidder quotes - 7% of the estimated cost, then the bidder has to submit additional performance guarantee equal to 2% of the quoted amount and so on. The additional performance guarantee shall remain valid till completion of project or taking over by client whichever is later.</p>
12.	10.0	<p>RETENTION MONEY</p> <p>Clause No. 10.0 of GCC stands modified as under:</p>

		<p>The Retention Money shall be deducted from each running bill of the Contractor at 5% (five percent only) of the basic value of the Running Account bill.</p> <p>50% of the Retention Money shall be refunded to the Contractor after completion of respective work or on payment of the amount of the final bill whichever is later and Balance 50 % retention will be released after expiry of defect liability period as mentioned in ACC.</p> <p>If the amount of Retention Money deduction in cash is more than Rs.10.00 lakhs (Rupees Ten lakhs only), the excess amount can be refunded to Contractor against submission of Bank Guarantee of equivalent amount from a Nationalised bank / Scheduled Bank in the prescribed proforma of Performance Guarantee of EPI.</p> <p>For items having service and retrofitting works with supervision, retention money will be released after completion of 3 years of service and retrofitting works with supervision.</p>
13.	13.0	<p>TAXES & DUTIES</p> <p>Clause no. 13.0 of GCC is amended to the extent as stated under:</p> <p>The following shall be also read with clause no. 13 of GCC:</p> <p>a) The Bidder must be registered with GST and should have valid GST number of Goa.</p> <p>b) The Bidder must submit in compliances of GST Act, the invoices in GST compliant format failing which the GST amount including interest and penalty if any shall be recovered/ adjusted by EPI without any prior notice from the next invoices or available dues with EPI.</p> <p>c) The Bidders are requested to update/ upload the GST/Taxes data periodically in proper format on GST portal so as to avail ITC credit by EPI failing which it shall be recovered / adjusted by EPI without any prior notice from the next invoices or available dues with EPI.</p> <p>d) Rates to be quoted by the bidder in this tender inclusive of all taxes & duties including Labor cess, Excluding GST and all hidden costs like Labor camps with all Health Rules & Facilities, Cost involved in setting up the Site Office, Testing & Lab Charges, Transportation of Labor & Materials, Officials, all types of approvals from local authorities like Electrical, Water & Sewage disposals etc. GST to be disclosed separately in Price Bid /BOQ.</p>

		<p>e) Bidder while quoting the rates in the tender must also consider the ITC credit applicable for the works, if any.</p> <p>f) Royalty, ESI, EPF Labour cess challans to be submitted along with running bills. Otherwise recovery will be done from respected RA Bills at applicable rates.</p> <p>g) Price bid formats shall indicate "inclusive of all taxes and duties.</p> <p>h) Seigniorage Charges: The rate quoted by bidder inclusive of all signorages if required. The Seigniorage charges will be recovered as per rules from the work bills of the contract or based on the theoretical requirement of material as per GO Ms. No 198 of Industries and commerce (MI) Dept. dated 13-08-2009 at the rates decided by Govt. from time to time</p> <p>i) The contractor shall keep necessary books of accounts and other documents as per Govt. of India Guidelines for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of EPI and shall also furnish such other information/document as EPI may require from time to time.</p> <p>In addition to the price bid format, an Annexure to indicate the "breakup of cost and levies such as GST and other taxes" considered in the quoted prices shall be annexed. This Annexure shall have breakup of all taxes/ duties relevant to the contract.</p>
14.		<p>VARIATION IN TAXES, DUTIES, LEVIES AND IMPOSITION OF NEW TAXES ETC.</p> <p>In case of any reduction in rate of GST or other taxes in future or the project getting exemption status prior to the last date of bid submission or afterwards, the contractor shall pass on the benefit to EPI immediately, failing which EPI shall have the right to recover the differential amount from the amounts due to the agency. Further, in case of any increase in rate of GST or other taxes in future or the project losing exemption status prior to last date of bid submission or afterwards, the said increase of taxes shall be paid / reimbursed to the sub- contractor, subject to the condition that the Directorate of Panchayat reimburses the said increased taxes to EPI".</p>
15.	28.1	<p>LAND FOR LABOUR HUTS/ SITE OFFICE AND STORAGE ACCOMMODATION</p> <p>In addition to GCC Clause no 28.1,</p>

		<p>It is bidder responsibility to acquire the land for on its own cost of following</p> <ol style="list-style-type: none"> 1. Labour Hutment 2. Cement Godown 3. Storage unit 4. Site Establishment along with one sedan vehicle to be available at site for emergency (24x7) for use of Client / Implementing Agency.
16.	28.3	<p>FACILITIES: GCC clause no. 28.3:</p> <p>The Agency shall make all arrangements for ground breaking ceremony/inaugural functions (if any) etc. as required and the cost towards it is deemed to be included in his rates/offer.</p> <p>For Proper Coordination the successful agency has to set up furnished site office including conference room for regular review meeting with Client/Consultant/Local Authorities /Secretary etc. in Panaji, Goa with screen & Projector for presentation, internet, photocopier machine, one computer & printer along with one operator, regular electricity & drinking water supply and one vehicle 24X7 as per the requirement of the project.</p>
17.		<p>FACILITIES TO BE PROVIDED AT SITE FOR LABOUR WELFARE</p> <p>All facilities to be provided at site for fulfilling all statutory labour welfare schemes are included in contractor's scope which shall include the following but not limited to the same.</p> <p>Separate provision / rooms for First Aid Centre & Reset room and for the safety officer, safety supervisors and other personnel to be engaged by the contractor for H.S.E aspects of the project</p> <ul style="list-style-type: none"> • Erecting sufficient numbers of Urinals, WC's, drinking water, water supply and sanitary arrangements to the supervisory personnel and workmen engaged by them. • Canteen facility to workmen engaged by the contractor.
18.	44.0	<p>WATER AND ELECTRICITY</p> <p>The Contractor shall make his own arrangement for Water & Electrical power for construction and other purposes at his own cost and if EPIL is providing necessary charges shall be deducted towards electricity and water. The Contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.</p>
19.	35.0	<p>Secured Advance against Non-Perishable items: -</p> <p>Deleted.</p>
20.	17.0 & 18.0	<p>INSURANCE OF WORKS</p>

		<p>In addition to clause No.17: - Contractor is required to take Insurance coverage as stipulated in General Conditions of Contract (GCC) clause no. 17 (Insurance of works), clause no. 18 (Insurance under WCA) and clause no. 19 (Third Party Insurance) and CAR policy and it shall be in the joint name of Directorate of Panchayat, EPI and the Contractor for the contract period including extended period and DLP after Successful completion / handling over of work. The Insurance coverage shall be on the total value of work awarded to contractor by EPI. In case any delay in the work insurance should be extended time to time at his own cost.</p> <p>INSURANCE UNDER WORKMEN COMPENSATION ACT</p> <p>The clause '18.0' (Insurance Under WCA) at page 26 of General Conditions of Contract (GCC) shall be replaced and read as under: Contractor is required to take insurance cover under the workmen compensation Act, 1923 amended from time to time from an approved insurance company and pay premium charges thereof. Wherever required by EPI, the contractor shall produce the policy or the policies of Insurance and the receipt of payment of current premium. In the event of an accident, any workmen employed by the contractor for execution of the works, suffers an injury or death and is to be compensated under the provisions sub-section (1) of section 12, of the workmen's Compensation Act, 1923 by the contractor and if the contractor fails to compensate, the EPI, shall be entitled to recover from the contractor the amount of the compensation so paid, without prejudice to the rights of the EPI under section 12, sub-section (2), of the said Act.</p> <p>EPI / Directorate of Panchayat shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the Contractor whether under this contract or otherwise. EPI / Directorate of Panchayat shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except security for all cost for which EPI / Directorate of Panchayat might become liable in consequence of contesting such claim.</p>
21.	21.0	<p>LABOUR LAWS TO BE COMPLIED WITH BY THE CONTRACTOR:</p> <p>GCC Clause 21 is modified as under</p> <p>The Contractor shall obtain a valid license under the Contract Labour (Regulation & Abolition) Act 1970 and the Contract Labour Act (R&A) Central Rules 1971 and amended from time to time, and continue to have a valid license until the completion of the work including defect liability period. The Contractor shall also abide by the</p>

		<p>provision of the Child Labour (Prohibition and Regulation) Act, 1986 and as amended from time to time. Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.</p> <p>The Contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, Employees Compensation Act, 1923, Maternity Benefit Act, 1961 and Mines Act, 1952, Industrial Disputes Act, 1947, Wages Code 2019 or any modifications thereof or any other law relating thereto and rules made there under from, time to time.</p>
22.		<p>COMPLIANCE WITH LABOUR REGULATIONS:</p> <p>During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and by e laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye-laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.</p> <p>INBUILDING AND OTHER CONSTRUCTION WORK.</p> <p>SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS</p> <p>ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.</p>

		<p>a) Workmen Compensation Act 1923: - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.</p> <p>b) Payment of Gratuity Act 1972: - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.</p> <p>c) Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ The benefits payable under the Act are (As per applicable rates):</p> <p>(i) Pension or family pension on retirement or death, as the case may be.</p> <p>(ii) Deposit linked insurance on the death in harness of the worker.</p> <p>(iii) Payment of P.F. accumulation on retirement/death etc.</p> <p>(iv) Contractors are assigned to submit copy of "ECR" Electronic challan fees of the PF Deposited by 20th of next month.</p> <p>d) Maternity Benefit Act 1951: - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.</p> <p>e) Contract Labour (Regulation & Abolition) Act 1970: - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.</p> <p>f) Minimum Wages Act 1948: - The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, and Runways are scheduled employments.</p> <p>g) Payment of Wages Act 1936: - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.</p> <p>h) Equal Remuneration Act 1979: - The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.</p> <p>i) Payment of Bonus Act 1965: - The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus as applicable.</p> <p>j) Industrial Disputes Act 1947: - The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the</p>
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23.	37.0	<p>In Addition to Clause no 37 of GCC</p> <p>The Contractor shall periodically submit Running Account (RA) bills in the prescribed Performa for the work done. All running bills shall be accompanied with the photographs in sufficient nos. and angles illustrating the progress of work and for which claims raised in RA bill is evident. The photographs shall be duly signed by the contractor. The RA bill shall also accompany the progress chart showing status of work against agreed schedule, delays and way to mitigate such delays. The payment against each RA-Bill shall only be released only on receipt of corresponding bill payment from Directorate of Panchayat to EPI only.</p> <p>The bills not submitted on the prescribed format may not be considered for payment. TDS shall be deducted on prescribed norms of the Govt. enforce time to time from the bills.</p> <p>PAYMENT BREAKUP:</p> <p>Following breakup of payment shall be followed as per Billing Schedule</p> <p>3.0.1: Billing schedule for works (Bio gas plant, GOBARDHAN with ETP, STP and FSTP)</p> <p>I) For Structural Steel & Sheetting Works including Painting (30%)-</p> <ol style="list-style-type: none"> 10% Payment Progressively on Procurement & Delivery of material (Structural Steel) and unloading of material at site with submission of delivery documents of Supplier/Manufacturer (Invoice (DFT) Copies along with Material Test Certificates) to be submitted by the bidder duly inspected by the Client/EPI. 10% Payment Progressively on completion of satisfactory Structural Fabrication, Erection & Painting works (1 Coat Primer & 1 Coat Finish Paint) complete in all respect. Detail specification of Paint as per CPWD 10% Payment Progressively on Supply & Erection of Sheetting work over Structural/RCC Building complete in all respect. Detail specification of Sheetting, Ridge, Flashing as per DPR. <p>II) For Electro-Mechanical Works (40%)–</p>

		<p>a) 20 % Payment Progressively on delivery and unloading of Equipment at site with submission of delivery documents of Supplier/Manufacturer (Invoice Copy, LR Copy, Delivery Challan & Packing List along with Manufacturer Test Certificates) to be submitted by the bidder duly inspected by EPI/ Client.</p> <p>b) 15% Payment Progressively on Completion of Installation and Trial run of Electro-Mechanical Equipment's in phase manner for Biogas Plant, STP, FSTP & ETP.</p> <p>c) 5% Payment Progressively on Commissioning of Electromechanical equipment's for Biogas Plant, STP, FSTP & ETP and Successfully handed over by the party to Operating Authority/Client.</p> <p>III) For Civil Works (30%)–</p> <p>a) Excavation and PCC: 5%</p> <p>b) RCC of Raft:10%</p> <p>c) RCC work up to plinth level: 5%</p> <p>d) Civil work complete up to FL:10%</p> <p>3.0.2: Billing schedule for supply and installation of Electromechanical Equipment for MRF and PMU shed</p> <p>a)75 % Payment Progressively on delivery and unloading of Equipment at site with submission of delivery documents of Supplier/Manufacturer (Invoice Copy, LR Copy, Delivery Challan & Packing List along with Manufacturer Test Certificates) to be submitted by the bidder duly inspected by EPI/ Client.</p> <p>b) 15% Payment Progressively on Completion of Installation and Trial run of Electro-Mechanical Equipment's in phase manner and successfully handed over by the party to Operating Authority/Client.</p> <p>c) 10% Payment Progressively on Commissioning of Electromechanical equipment's for MRF Shed & PMU Shed.</p> <p>3.0.3: Execution and billing of all other items as per BOQ.</p> <p>Note: Retention money will be deducted as per details specified in ACC CI No: 10 Payment as per billing schedule will be released on receipt of same from client (DoP, Goa).</p>
24.	53.2	<p>Works to Be Open to Inspection:</p> <p>The work executed by the CONTRACTOR shall be subject to audit</p>

		<p>and quality control checks from Quality Control Division & Technical audit of EPI/Client third party inspecting Agency of the Client and Chief Technical Examiner of Central Vigilance Commission, Govt. of India. In the eventuality of any defect/sub-standard works as brought out in the report or noticed otherwise at any time during execution, maintenance period etc., the same shall be made good by the CONTRACTOR without any extra cost.</p> <p>In case the CONTRACTOR fails to rectify the defect/sub- standard work within the time period stipulated by EPI/Client, necessary action as deemed fit shall be taken by EPI/Client and decision of EPI/Client, shall be final and binding on the contractor.</p> <p>Any recovery, penalty imposed by CTE due to non-performance, non-compliance of agreed condition or otherwise whatsoever the same shall be recovered from RA Bill of contractor.</p> <p>The contractor shall make necessary safety arrangement at site including as mentioned in GCC and indemnify EPI against any consequence of accident at site.</p>
25.		<p>Client's authorized Representative, Third party inspection EPI/Client at his discretion may authorize their representative or appoint agency on behalf of them to supervise and monitor project related all activities. Contractor will extend all necessary assistance required and cooperate.</p> <p>The Third-Party Quality Assurance will be conducted by Client as per agreed plan with client & contractor has to submit the reports at regular intervals along with RA bill to EPIL.</p> <p>Contractor will extend all necessary assistance required and cooperate.</p> <p>Contractor will make sitting arrangements for owner's representative & third-party inspector & for their staff if any.</p>
26.		<p>INSPECTION AT MANUFACTURER'S WORK:</p> <p>The bidder shall arrange at his own cost as will be necessary for inspection of the material/equipment as per vendor manufacturing drawings before dispatch at his or his associate's works and also for witnessing such tests as per technical specifications, as are done at the works if so required by EPI/Client. The bidder has to submit the relevant test reports of equipment's along with warranty test reports to EPI required for further submission to Client, Govt. of Goa.</p>

		<p>The inspection of similar items shall be initially inspected by EPI/Client shall be treated as Prototype Inspection before dispatching the equipment at site.</p> <p>If the manufacturer/supplier of the equipment is an approved vendor registered with State/Central Govt. or supplied similar equipment to State/Central Govt. or State/Central Department having manufacturing unit in the state of Goa, then the inspection shall be carried out in the plant premises within the state of Goa with prior intimation by the bidder to EPI for inspection.</p> <p>If the manufacturer/supplier of the equipment is an approved vendor registered with State/Central Govt./Departments in states other than Goa, then bidder has to raise the inspection call to EPI & dispatch the equipment after inspection only at respective site before installation 75 and commissioning of Equipment's. If required then inspection will be done at plant/ factory by EPIL before delivery.</p>
27.		<p>PERMITS AND INSPECTIONS</p> <p>The bidder shall obtain all necessary permits from local bodies, provincial or central authorities and shall make arrangement for inspection and tests etc. as required at his own cost.</p>
28.		<p>LICENCES</p> <p>The bidder shall arrange for obtaining the license for the operation of the equipment's etc. as required from the local Government/authorities at his own cost & nothing extra shall be payable.</p>
29.		<p>The work shall be carried out in accordance with the drawings approved by the EPI/Client. Before the commencement of any item of work, the bidder shall correlate all the relevant drawings/documents/specification issued for the work and satisfy himself that the information available there from is complete and unambiguous. The discrepancy, if any, shall be brought to the notice of Engineer-In-Charge before the execution of work. The bidder alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and/or incomplete information. Nothing extra shall be paid on this account.</p>
30.		<p>The bidder has to arrange for inspection of Equipment's and shall submit internal inspection certificate/document and nothing extra shall be paid.</p>
31.		<p>The Client/EPI reserves the right to inspect the work through its Engineers/Officers of any other agency authorized by the Client from time to time. The Client shall communicate such observations, if any, for compliance by the Contractor.</p>

32.		The Client/EPI reserves the right to get the work including measurement etc. checked with reference to the bills and accounts of contractor audited by its own officers or any other agency appointed by the Client for this purpose. Results/findings of Client on such checking shall be final and binding upon the contractor.
33.		If any tenderer withdraws his tender before the said period or issue of letter of acceptance/intent, whichever is earlier, or makes any modifications in the terms and conditions of the downloaded tender which are not acceptable to the EPIL, then the EPIL shall, without prejudice to any other right or remedy, be at liberty to forfeit entire amount of Earnest Money as aforesaid.
34.		List of preferred makes are included in tender. The same would be analysed and accepted and shall be used in work after obtaining the prior approval of Engineer in-charge.
35.		<p>In the event, this agreement with the Client is terminated, the agreement between EPIL and Contractor will automatically stand terminated and that he should take away T&P and surplus materials from site of work after the joint measurements are taken of the same.</p> <p>Amount will be released Trench wise (i.e., Trench-I, Trench-II etc) from Directorate of Panchayats, Govt of Goa. Payment to the contractor will be made accordingly. In case if trench amount is not released by Directorate of Panchayats, Govt. of Goa and work is foreclosed or does not require the whole work, as specified in the tender document, is to be carried out then contractor will have no claim to any payment of compensation in this regard. Any type of claim will not be accepted and entertained.</p>
36.		The contractor shall be fully responsible for quality technical/structural soundness and effective & efficient construction management of the work and SITC of equipments. It shall ensure that all drawings issued by EPIL/Client are thoroughly examined as per the prevailing site conditions before actual execution and any deficiency /defect and/ or suggestions for improvement to suit the local conditions may be brought to the notice of EPIL/Client in writing and his approval shall be obtained before execution. No deviation from approved drawings/designs, specifications etc. shall be carried out without written approval of the EPIL.
37.		The CONTRACTOR shall be fully responsible to complete the "Works" in workmen like manner to the satisfaction of the Client and EPI by maintaining high standard of quality and precision as per 'Tender Documents,' Agreements, Terms & Conditions, Specifications, Drawings etc. within contractual completion period and within their quoted rates/ amount. The rates quoted/finalized

		shall remain firm throughout till completion of works including the extend period for which Extension shall be granted by EPI & in no case rate shall be revised.
38.		The CONTRACTOR will not deal directly with Client and all the correspondence in matters regarding bills, claims, interpretation of the specifications, conditions and all matters related to the contract with Client, Client's Consultants, all other agencies including Government and Statutory bodies etc. shall be done through EPI only. CONTRACTOR shall prepare and submit expeditiously all bills, claims, details, clarifications, documents, information, etc. as required by EPI /Client for proper execution and successful completion of the "Works"
39.	76.0	<p>ARBITRATION: Modification of arbitration's clause no. 76.0 of GCC GCC sub clause no. 76.1, 76.2 and 76.3 of Arbitration clause no. 76.0 are amended as given below.</p> <p>76.1 Before resorting to arbitration as per the clause given below, the parties if they so agree may explore the possibility of conciliation as per the provisions of Part III of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015. When such conciliation has failed, the parties shall adopt the following procedure for arbitration:</p> <p>i) Except where otherwise provided for in the contract, any disputes and differences relating to the meaning of the Specifications, Design, Drawing and Instructions herein before mentioned and as to the quality of workmanship or materials used in the work or as to any other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the Contract, Designs, Drawings, Specifications, Estimates, Instructions, or these conditions or otherwise concerning the works of the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment there of shall be referred to the Sole Arbitrator appointed mutually by both the parties as per the provision of Arbitration & Conciliation Act (as amended in 2015& 2019).</p> <p>The Arbitrator shall be appointed within 30 days of the receipt of letter of invocation of arbitration duly satisfying the requirements of this clause.</p> <p>GCC Clause No. 76.2 is further amended as: - If the Client or the Contractor engaged is a CPSU/CPSE Organization/ Govt. of India Department, it would be essential for the EPI/ CPSU/ Govt. of India Department to get AMRCD (Administrative Mechanism for Resolution of CPSE's Disputes) clause included in the Contract itself as per the DPE OM No.F.N.4(1)/ 2013-DPE(GM)/ FTS-1835 dated 22.05.2018 as amended by OM No. DPE-GM-05/ 0003/ 2019-FTS-10937 dated 20.02.2020 or any other latest amendments, as</p>

		<p>circulated to all Ministries by Department of Public Enterprises (DPE).</p> <p>Further, vide OM No. 334774/DoLA/AMRD/2019 dated 30.03.2020, the scope & reach of Administrative Mechanism for Resolution of Disputes (AMRD) is extended for Resolution of Disputes other than those related to taxation not only between CPSE's inter se and between CPSE's and Government Departments but also between Central Government Ministries/ Departments inter se and between Central Government Ministries/ Subordinate bodies under their Administrative control (i.e. CPSEs) and Other (i.e. State) Government Ministries/ Departments/ Subordinates/ Attached offices/ Autonomous (i.e. Municipal) bodies/ Statutory bodies under their Administrative supervision/ control (i.e. including State Corporations/PSUs)</p> <p>76.3 JURISDICTION:</p> <p>The courts in Mumbai alone will have jurisdiction to deal with matters arising from the contract.</p> <p>Any amounts payable under arbitration award shall be paid on receipt of the same claims from client.</p>
40.		<p>STATUTORY REQUIRMENTS</p> <p>It is the responsibility of the contractor for getting the all approval from the local statutory authorities such as town planning / municipal authorities / electricity board / fire / forest department etc. and other department for the total / entire works executed at site / Village premises as per the approved plans and designs etc. The statutory fees payable for approval shall be made directly to the local government department / state authorities by the Contractor. Other incidental expenditure if any shall be borne by the contractor and no reimbursement will be made for the same.</p> <p>The contractor is responsible for Liaison & obtaining the connection for water supply, sewer connection, electric connection and other connections if any from local authorities/state Electricity board. The statutory official payments payable to Govt. department shall be paid by CONTRACTOR.</p> <p>The contractor shall have to obtain all Approvals including excavation by blasting, Connections/ NOCs/Completion Certificates/ Occupancy Certificate, etc from the concerned Local/Statutory authorities for civil & electrical works, Sewerage works, Water Supply works, Fire Fighting work, Fire Alarm system work, DG set, pollution control board, Passenger / Goods lifts etc. at his own cost and nothing extra fee/charges shall be payable on this account to the contractor. However, the letters required from the client for the needful stated purposes will be arranged by EPIL from the client as per the request of contractor.</p>

		The contractor is advised to quote his rates for different works considering the above factors and all conditions given in NIT and ACC, GCC.
41.		It will be the sole responsibility of bidder to obtain all statutory approvals and completion clearance from the all relevant statutory bodies and for all other services as included in the scope of contract etc. from the concerned department as required within the stipulated time frame. Liaison work on behalf of EPI with the local bodies will also have to be done by the bidder. Nothing extra shall be payable to bidder on this account. No claim whatsoever in this regard shall be entertained.
42.		<p>The contractor shall comply with legal orders, directions and by laws of local bodies / authorities. The contractor shall give to the Municipality, Police, Local Bodies and concerned Governmental authorities all necessary notices relating to works that may be required under the law and obtain all requisite licenses, permissions for temporary obstructions, enclosures, collection and stacking of materials, etc.</p> <p>The contractor shall pay at his own cost all fees, taxes and charges that may be liable on account of these operations in executing the contract. Nothing extra shall be paid by EPI on this account.</p> <p>The contractor shall be bound to follow the instructions and restrictions imposed by the administration / Police authorities on the working and / or movement of labour, materials etc. nothing extra shall be payable due to less / restricted working hours at site or any detours in movement of vehicles.</p>
43.		<p>SITE LABORATORY</p> <p>As part of the contract the contractor shall provide and maintain a site laboratory for the routine testing of construction material under the direction and general supervision of Engineer-in-charge. The laboratory room shall be constructed and installed with the appropriate facilities. Temperature and humidity controls shall be made available wherever necessary during the testing of samples. All equipment's shall be provided by the contractor so as to be compatible with the specified testing requirements. The contractor shall maintain the equipment in good working conditions for the duration of the contract.</p> <p>The Contractor shall provide approved qualified personnel to run the laboratory for the duration of the contract. The number of staff and equipment available must at all times be sufficient to keep pace with the sampling and testing programme as required by Engineer-in-charge. The laboratory Incharge of the contractor shall report to Engineer-in-charge.</p>

		<p>The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the site etc.</p> <p>The Contractor shall re – calibrate all measuring devices whenever so required by the Engineer-in-charge and shall submit the results of such measurements without delay.</p> <p>For all other tests as required by Engineer-in-charge, the Contractor shall get the same carried out / conducted by approved testing Laboratory. In addition, if EPI / Client feels, may direct the Contractor to conduct the tests in the presence of EPI / Client representative at site lab / outside labs. All expenses payable for transport of samples and conduction of tests shall be borne by the contractor.</p>
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44.	<p>PLANT AND MACHINERY:</p> <p>All plant & machinery required for execution of work shall have to be arranged by the contractor at his own cost. It is desired that the contractor has to deploy following minimum plant & machinery in good condition as and when required at each site location immediately after award of work.</p> <table><tr><th>S. No.</th><th>Description</th><th>Minimum Number Required</th></tr><tr><td>1</td><td>Self-Loading Concrete Mixer Machine (4.00 Cum capacity)</td><td>02 No</td></tr><tr><td>2</td><td>Total station for surveying work.</td><td>01 No.</td></tr><tr><td>3</td><td>Vibrators (Petrol / Electrical)</td><td>04 Nos</td></tr><tr><td>4</td><td>Needles of Vibrator</td><td>8 Nos.</td></tr><tr><td>5</td><td>Excavator/Poclain</td><td>01 No.</td></tr><tr><td>6</td><td>Tipper / Dumper (15 cum.)</td><td>02 Nos.</td></tr><tr><td>7</td><td>DG Set (63 KVA & 125 KVA)</td><td>01 No Each</td></tr><tr><td>8</td><td>Leveling Instruments</td><td>01 No.</td></tr><tr><td>9</td><td>Bar Cutting and Bending Machine</td><td>01 No (Each)</td></tr><tr><td>10</td><td>Welding Machine</td><td>02 No</td></tr><tr><td>11</td><td>Water Tanker with Sprinkler</td><td>01 No.</td></tr><tr><td>12</td><td>Roller/ Compactor</td><td>01 No</td></tr><tr><td>13</td><td>Tractor with trolley for transportation of material</td><td>01 No</td></tr><tr><td>14</td><td>Core Cutting Machine</td><td>1 Set</td></tr><tr><td>15</td><td>The contractor shall provide sufficient area lighting for the safe execution of works during night hours through static / mobile arrangements.</td><td>As per requirement of site</td></tr><tr><td>16</td><td>Laboratory equipment's</td><td>As required</td></tr></table> <p>Note:</p>	S. No.	Description	Minimum Number Required	1	Self-Loading Concrete Mixer Machine (4.00 Cum capacity)	02 No	2	Total station for surveying work.	01 No.	3	Vibrators (Petrol / Electrical)	04 Nos	4	Needles of Vibrator	8 Nos.	5	Excavator/Poclain	01 No.	6	Tipper / Dumper (15 cum.)	02 Nos.	7	DG Set (63 KVA & 125 KVA)	01 No Each	8	Leveling Instruments	01 No.	9	Bar Cutting and Bending Machine	01 No (Each)	10	Welding Machine	02 No	11	Water Tanker with Sprinkler	01 No.	12	Roller/ Compactor	01 No	13	Tractor with trolley for transportation of material	01 No	14	Core Cutting Machine	1 Set	15	The contractor shall provide sufficient area lighting for the safe execution of works during night hours through static / mobile arrangements.	As per requirement of site	16	Laboratory equipment's	As required
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		<div>a) In addition to above contractor has to arrange sufficient plant & machineries to complete the work as per completion schedule.</div> <div>b) Any other equipment for site test as outlined in CPWD / BIS specification and as directed by the Engineer-in-charge.</div> <div>c) The quantities of equipment mentioned above are indicative only and can be increased as per the requirement of quantum work OR as per the direction of Engineer-in-Charge. The above equipment list is indicative and not complete. The contractor has to deploy all the required equipment to complete all the works within stipulated specifications and time period as per contract documents.</div> <div>d) The contractor will not be allowed to take out equipment from the site without the written permission of Engineer-in-charge.</div> <div>e) In the event of breakdown of any equipment the contractor should immediately mobilize replacement of the said equipment.</div>																
45.		<div>COMPLETION SCHEDULE:</div> <table><tr><th>S. No</th><th>Item</th><th>Duration</th><th>Miles Stone</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>1.</td><td>25% physical progress</td><td>3 Months</td><td>Completion of solid waste work in first 18 Panchayat in all respects including IEC component for respective Panchayats which includes 1. Completion of Civil & Structural works for MRF/PWMU shed and SITC of Electromechanical Equipment's for MRF/PWMU shed. 2. Completion of Civil works up to plinth level for FSTP & Biogas Plant/GOBARDHAN with ETP</td></tr><tr><td>2.</td><td>50% physical progress.</td><td>2 Months</td><td>Completion of solid waste work in 16 Panchayat in all respects including IEC component for respective Panchayats which includes 1. SITC of Electromechanical Equipments for MRF/PWMU shed. 2. Completion of Civil & Structural Works up to finish level for FSTP &</td></tr></table>	S. No	Item	Duration	Miles Stone	1	2	3	4	1.	25% physical progress	3 Months	Completion of solid waste work in first 18 Panchayat in all respects including IEC component for respective Panchayats which includes 1. Completion of Civil & Structural works for MRF/PWMU shed and SITC of Electromechanical Equipment's for MRF/PWMU shed. 2. Completion of Civil works up to plinth level for FSTP & Biogas Plant/GOBARDHAN with ETP	2.	50% physical progress.	2 Months	Completion of solid waste work in 16 Panchayat in all respects including IEC component for respective Panchayats which includes 1. SITC of Electromechanical Equipments for MRF/PWMU shed. 2. Completion of Civil & Structural Works up to finish level for FSTP &
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					Biogas Plant /GOBARDHAN with ETP
		3.	80% physical progress.	2 Months	<p>Completion of solid waste work in 09 Panchayat in all respects including IEC component for respective Panchayats which includes</p> <ol style="list-style-type: none"> 1. SITC of Electromechanical Equipments for MRF/PWMU shed. 2. Supply & Installation of Electromechanical Equipment's for FSTP & Biogas Plant/GOBARDHAN with ETP <p>Completion of Civil works up to plinth level for STP & ETP</p>
		4	100% physical progress including handing over of project.	2 Months	<p>Completion of Biogas Plant/GOBARDHAN with ETP & FSTP work which includes STP & ETP work which includes</p> <ol style="list-style-type: none"> 1. Trial Run, Testing & Commissioning of Electromechanical Equipment's for Biogas Plant/GOBARDHAN with ETP & FSTP and Handing over of all the works (SWM& LWM) in all respect to client.
		<p>Note: In case of mismatch in financial and physical progress as above at any milestone stage, the financial progress shall be considered for levy of compensation of delay, if any. All infrastructural development works shall be completed within the stipulated time frame.</p>			

46.		<p>USE OF STEEL FOR STRUCTURAL & CIVIL WORKS:</p> <p>The contractor shall have to use such items of steel for procurement as manufactured by integrated steel manufacturers like TATA, JSW, JSPL, ESSAR, RINL (VIZAG) & SAIL only for Execution of Structural and Civil (RCC) Works conforming to BIS standards as per code IS:2062-2011 for Structural Steel Rolled Section & Plate Work and IS:1786 (2008), Fe 500D for RCC Structures.</p>
47.		<p>For Dispatch of materials to Site, the bidder shall mark consignee as "Directorate of Panchayats, Govt. of Goa A/c EPIL, Goa" and follow dispatch instruction to be given by EPI. Delivery of material (Reinforcement Steel) & (Structural Steel) and electromechanical equipment at site with submission of delivery documents of Supplier/Manufacturer (LR, packing list, Delivery Challan, Invoice (DFT) Copies along with Material Test Certificates) to be submitted by the bidder duly inspected by the Client/EPI. The bidder has to submit the Performance Guarantee certificate of the said equipment also</p>
48.		<p>TEST CERTIFICATE</p> <p>All manufacturer's certificates of test/warranty test certificates showing that the materials have been tested in accordance with the requirements of the relevant standard specification and the copy of the test certificate as well as standard shall be supplied free of cost to EPI for onward submission to Client (M/s DoP, Govt. of Goa).</p>
49.		<p>LICENSES</p> <p>The contractor shall arrange for obtaining the license and clearances for the operation (If required) from the local authorities and statutory bodies at his own cost & nothing extra shall be payable. Certification of various equipment / installations from statutory bodies other agencies as required as per technical specifications, shall be arranged by contractor at his own cost before handing over.</p>
50.		<p>SITE ENGINEER OF CONTRACTOR AT EACH SITE LOCATION</p> <p>The Contractor shall employ at his cost the adequate number of technical staff during the execution of this work depending upon the requirement of work. For this purpose, the number of staff to be deployed, their qualification, experience as decided by EPI shall be final and binding on Contractor. The Contractor shall not be entitled for any extra payment in this regard. The technical staff should be deployed on full time basis & available at Site, whenever required by EPI to take instructions. If contractors fails to appoint technical staff as mentioned below, the EPI shall deploy staff as per requirement and same shall be recovered from contractor.</p>

		However, Minimum qualifications and experience required for principal technical rep. and other minimum technical staff other than supervisor is given below:																												
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52.		COMPLIANCE OF CONSTRUCTION & DEMOLITION WASTES MANAGEMENT RULES 2016. The contractor shall comply all the rules & regulation of Construction & Demolition waste Management Rules 2016 as notified by the Government of India as applicable for the said work and subsequent amendment if any, in the said act notified by the Government time to time. Nothing shall be paid extra.																												

53.		<p>Final Bill: - The final bill will be submitted by the contractor within 60 days from the date of acceptance of completion of work accompanied by the following documents:</p> <ul style="list-style-type: none"> a) Completion certificate issued by the Engineer-in-Charge specifying the handing over of the work including list of inventories (fittings & fixtures) b) Computerized stage wise payment schedule. c) No claim certificate by the contractor. (If any) d) Undertaking may submitted for no any market liabilities are pending e) As built' drawings. f) Periodical services and measurement books. g) Drawings for layout of underground cables and details showing location of sluice valves, electric cable joints etc. h) All operation and maintenance manuals. i) All statutory approvals from various state / central govt. local bodies, if required for completion & handing over of the work as included in scope of Contractor. j) Manufacture's guarantee of various machines / equipment's installed as part of works. k) NOC from labour department and other statutory authorities as applicable.
54.		<p>Barricading The height of barricading should be mini. 2.0 M or more as per SPCB rules from the EGL on MS frame with G.I Sheet.</p>
55.		<p>Provisions under Integrity Pact of EPI are modified/ amended as under: - Section 8 - Independent External Monitor / Monitors In addition to GCC clause-section-8, Following sub clause shall be added to the said Section: (11) Notwithstanding to anything contained in sub clause (1) to (10), the CLIENT at its sole discretion and without assigning any reasons whatsoever, shall have the right to appoint any individual and/or organization as it may deem fit to carry out Third Party Quality Assurance check to assess the quality of the construction works carried out the Bidder(s)/ Contractor(s) at the Cost and Expenses of the Contractor(s).</p>
56.		<p>Provisions under Model Rules for the Protection of Health and Sanitary Arrangements for Workers of EPI are modified/ amended as under: - Following clause shall be added in the Model Rules:</p>

		11. Precautionary/Preventive Measures against dissemination/spread of COVID-19
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| | | <ul style="list-style-type: none">A. Mandatory for every labourer/worker to undergo a health checkup and remain quarantined for a fortnight before beginning work at the site.B. All construction material entering the site would be left undisturbed for three days to eliminate the threat of COVID-19 Contamination.C. Keep in-person meetings (including toolbox talks and safety meetings) as short as possible, limit the number of workers in attendance, and use social distancing practices.D. Provide employees with access to soap, clean running water, and materials for drying their hands, or if soap and water are not readily available provide alcohol-based hand sanitizers containing at least 60% alcohol at stations around the establishment for use by workers.E. Coordinate site deliveries in line with the employer's minimal contact and cleaning protocols. Delivery personnel should remain in their vehicles if at all possible.F. Adopt staggered work schedules, e.g., provide alternating workdays or extra shifts, to reduce the total number of employees on a job site at any given time and to ensure physical distancing.G. Train construction workers on:<ul style="list-style-type: none">I. The signs and symptoms of COVID-19 and an explanation of how the disease is potentially spread, including the fact that infected people can spread the virus even if they do not have symptoms.II. All policies and procedures that are applicable to the employee's duties as they relate to potential exposures to COVID-19. It is helpful to provide employees with a written copy of those standard operating procedures.III. Information on appropriate social distancing and hygiene practices, including:<ul style="list-style-type: none">a. Avoiding physical contact with others and maintaining a distance of at least 6 feet from customers and other individuals, whenever possible, including inside work trailers.b. Appropriate cleaning practices (i.e., washing hands frequently with soap and water for at least 20 seconds, or, if soap and water are not immediately available, using alcohol-based hand sanitizer that contains at least 60% alcohol and rubbing hands until they are dry; sanitizing all surfaces workers will touch).c. The proper way to cover coughs and sneezes (i.e., sneezing or coughing into a tissue or into the upper sleeve). |
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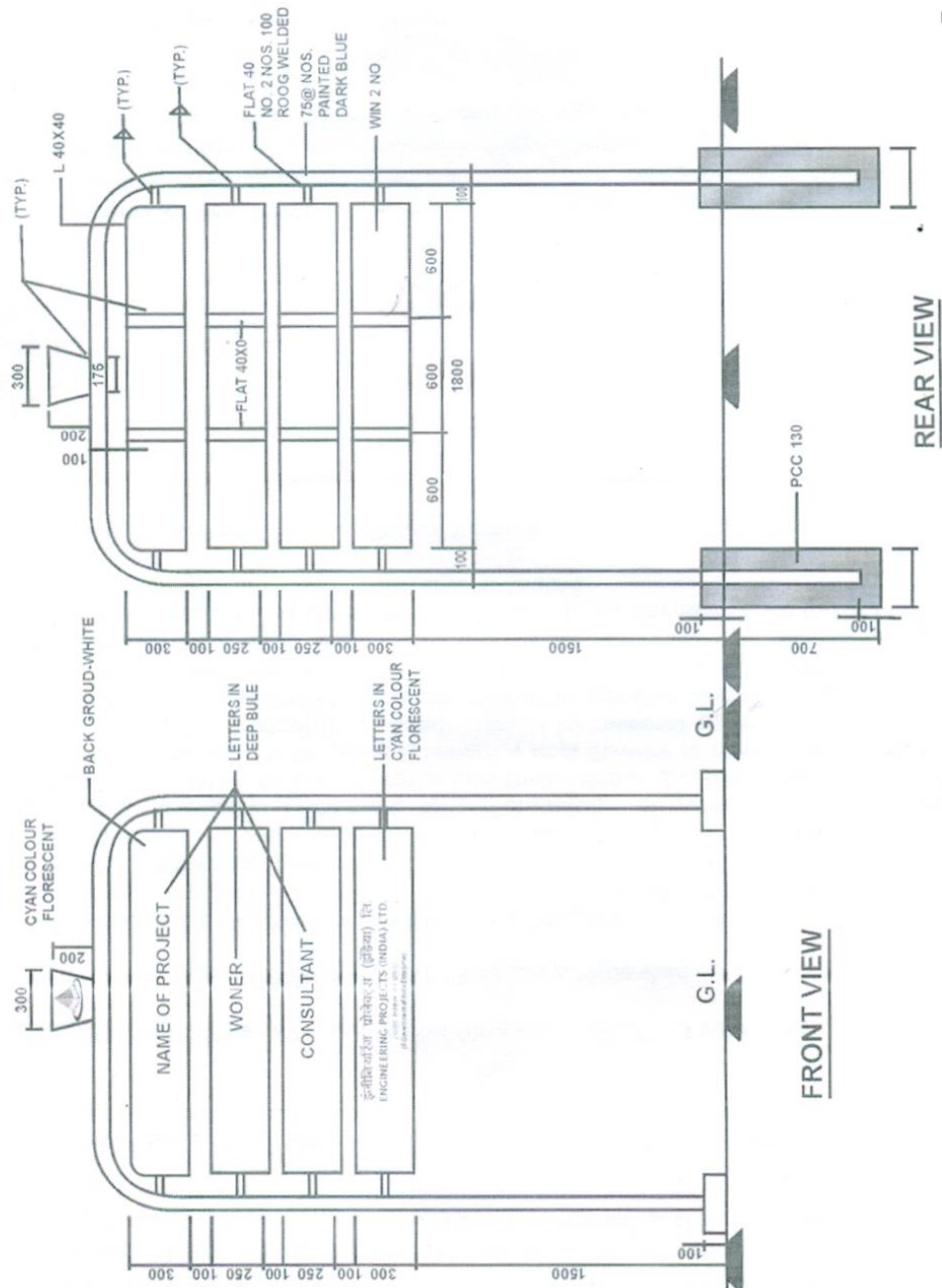
		<p>d. Importance of workers not touching their own faces (mouth, nose, eyes).</p> <p>e. The benefits of driving to work sites or parking areas individually, when possible, without passengers or carpools.</p> <p>IV. The importance of staying home if they are sick.</p> <p>V. Wearing masks over their noses and mouths to prevent them from spreading the virus.</p> <p>H. Ensure clean toilet and hand washing facilities. Clean and disinfect portable job site toilets regularly. Fill hand sanitizer dispensers regularly. Disinfect frequently touched items (i.e., door pulls and toilet seats) regularly.</p> <p>I. Persons having flu-like symptoms should not come to work site and should seek medical attention from local health authorities. If they test positive for Covid-19, they should inform the authorities concerned in the office immediately.</p> <p>J. If one or two cases are reported in the office, places visited by the patient over the last 48 hours will be disinfected. Work will only be resumed after disinfection.</p> <p>Every construction site would have weekly doctor visits. An isolation facility would also be created at the work site in case a labourer develops cough, cold or other symptoms.</p>
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Provisions under General Conditions of Contract of EPI are modified/ amended as under: -



EPI WORKS MANUAL-FORMATS

re-IV



TECHNICAL SPECIFICATIONS AND SCOPE OF WORK

1. BRIEF ABOUT PROJECT

1.1 Swachh Bharat Mission II (Grameen):

Safe sanitation means promotion of safe disposal of human excreta, right use of toilet and avoiding open defecation as well as management of solid and liquid waste. Poor sanitation is a primary cause for many deadly diseases, deaths among children under age five, contamination of ground water sources, loss of family income on the account of increased health costs, and compromised human dignity.

In managing safe sanitation at each level - household, community, and governments, understanding impacts of poor sanitation, contribution of all key stakeholders including communities, implementation of safe sanitation processes is considered crucial.

To accelerate the efforts to achieve universal sanitation coverage and to put focus on safe sanitation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October 2014. Two sub missions, the Swachh Bharat Mission (Grameen) and the Swachh Bharat Mission (Urban), which aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of Mahatma Gandhi, which in rural areas shall mean improving the levels of cleanliness in rural areas through Solid and Liquid Waste Management activities and making Gram Panchayats Open Defecation Free (ODF), clean and sanitised. ODF would mean the termination of faecal-oral transmission, defined by, a) no visible faeces found in the environment/village and, b) every household as well as public/community institution using safe technology option for disposal of faeces as defined by ministry. The Mission shall strive for this by removing the bottlenecks that were hindering the progress, including partial funding for Individual Household Latrines from MGNREGS, and focusing on critical issues affecting outcomes.

The Government of India approved Phase-II of the SBM (G) on 19th February, 2020, to be implemented during 2020-21 to 2024-25, with the focus on the creating ODF Plus villages that includes sustainability of ODF status and Solid and Liquid Waste Management (SLWM) in the rural areas of the country.

1.2 Objectives of SBM (Grameen):

The broad objectives of Swachh Bharat Mission (Grameen) are:

- 1) Sustaining the Open Defecation Free (ODF) status of the villages, Gram Panchayats, Blocks and Districts by ensuring that no one is left behind in having access to toilets and everyone uses a toilet.

- 2) Ensuring that villages have access to Solid and Liquid Waste management (SLWM) arrangements for overall cleanliness in rural areas.
- 3) Generating awareness among rural population on hygiene behaviour and waste management.

1.3 Problems due to Solid and Liquid Waste:

In India especially in rural areas, waste is a severe threat to the public health concern and cleanliness. Though, the form of waste (both solid and liquid) generated in rural areas is predominantly organic and biodegradable yet becoming a major problem to the overall sustainability of the ecological balance. For e.g., it is estimated that rural people in India are generating liquid waste (greywater) of the order of 15,000 to 18,000 million liters and solid waste (organic/recyclable) 0.3 to 0.4 million metric tons per day respectively. As a result, in the absence of proper disposal of solid and liquid waste (greywater and waste water from the hand pump), they are leading to vector borne diseases such as diarrhea, Malaria, Polio, Dengue, Cholera, Typhoid, and other water borne infections such as schistosomiasis.

Improper and unorganised disposal of Solid Waste in open areas and landfills have a negative impact on the living conditions of human beings as well as the overall environment. It results in spread of communicable and non-communicable diseases among human beings and animals, thus affecting the welfare, livelihood, and economic productivity. In addition, it causes contamination of soil, surface water, ground water and generation of toxic and greenhouse gases. However, using adequate information, resources, and efficient management practices, one can turn solid waste into a useful resource.

2. BRIEF ABOUT PROJECT AREA

1.1 Brief About Project Area:

Goa is a state on the southwestern coast of India within the Konkan Region, geographically separated from the Deccan Highlands by Western Ghats. It is located between the Indian States of Maharashtra to the North and Karnataka to the East and South, with the Arabian Sea forming its Western Coast.

It is India's Smallest State by area and it's fourth smallest by population. Goa has the highest GDP per capita among all Indian States, two and a half times as high as the GDP per capita of the country as a whole. The Eleventh Finance Commission of India named Goa the best placed state because of its infrastructure, and India's National Commission on Population rated it as having the best quality of life in India (based on the Commission's '12 Indicators'). It is the third-highest ranking among Indian States in the Human Development Index. Panjim is the State's capital, while Vasco da Gama is its Largest City. The historic city of Margao in Goa still exhibits cultural influence of the Portuguese. The state's official language which is spoken by majority of its inhabitants is KONKANI. Goa encompasses an area of 3,702 Sq. Km. It lies between the Latitudes 14°53'54" N and

15°40'00" N and Longitudes 73°40'33" E and 74°20'13" E. Goa is divided into Two Districts, North Goa and South Goa, which are further divided into 12 Talukas.

Talukas in North Goa: Bardez, Bicholim, Pernem, Sattari, Tiswadi

Talukas in South Goa: Canacona, Mormugao, Salcette, Sanguem, Quepem, Dharbandora, Ponda

2. PROPOSED TECHNOLOGIES/SOLUTIONS FOR SOLID AND LIQUID WASTE MANAGEMENT AND ITS SPECIFICATIONS

Introduction:

Swachh Bharat Mission (Grameen) (SBMG) Phase II aims at sustaining the open defecation free (ODF) status of villages and improve the overall cleanliness in rural areas through the implementation of solid and liquid waste management activities.

Solid and liquid waste management comprises four components: (i) biodegradable waste-management, (ii) plastic waste management, (iii) grey water management and, (iv) faecal sludge management.

In rural areas, the generated waste poses a severe threat to public health and cleanliness. Especially for organic waste, incorrect disposal practices lead to serious problems such as causing water-borne and vector-borne diseases such as diarrhea, malaria, dengue, cholera and typhoid. Improper management of solid waste may also lead to environmental pollution and contamination of water bodies, particularly in the monsoon season.

Rural India faces several challenges in both solid and liquid waste management. The ground challenges in rural waste management such as the following need to be focused upon:

- Low awareness on segregation at source
- Gaps in waste management assets
- Non-availability of technologies suitable for rural areas.
- Lack of involvement of community in planning/decision making process which results in low accountability of the community.
- The low involvement of school students and youth in IEC activities.

ODF Plus primarily focuses on visual cleanliness in rural areas, sustaining ODF status and proper management of solid and liquid waste, as represented in the accompanying infographic.

3.1 Waste Collection:

All unwanted waste which cannot be managed at home must not be thrown outside onto the road or vacant plots. Doorstep collection of waste is the best way to keep waste off the road, to provide waste pickup services to all and to keep Wet and Dry wastes unmixed. Doorstep collection really means gate-to-gate collection at the main property entrance and

not every door in every floor for every family. Each Village Panchayat should fix its own doorstep 5 collection target of 150 households per team.

3.1.1 Diesel Vehicle



Garbage Diesel Vehicle TATA Intra Model V30	
Generic Parameters	
Vehicle Category	N
Vehicle Engine Cubic Capacity (cc)	1496
Type of Fuel	Diesel
Vehicle Emission Compliance	BS VI (OBD2)
Number of Cylinder in Engine (Nos.)	4
Vehicle Mileage (declared by OEM as certified by Test Agency under Rule 115 of CMVR 1989) (Kmpl)	17.46
Gradeability of Vehicle (Degree in first gear)	37 degree
Maximum Engine Power Range (in KW)	≤100
Max Engine Power (KW@RPM)	52 kW @4000 r/min
Max Engine Torque (Nm @RPM)	140 Nm @1800 - 3000 r/min
Fuel Tank Capacity (liter)	35 liter
Category of Vehicle for which Chassis to be used	Light Commercial Vehicle
Overall Length of Vehicle (mm)	4460 millimeter
Overall Width of Vehicle (mm)	1692 millimeter

Overall Height of Vehicle (mm)	1945 millimeter
Ground Clearance (mm)	175 millimeter
Minimum Wheel Base (mm)	2450 millimeter
Type of Tyre and Tube (for both front and rear)	BIS marked Pneumatic Tyres and Tubes
Front Vehicle Brake	Disc Brake
Rear Vehicle Brake	Drum Brake
Vehicle Transmission System	Manual
Type of Steering	Power
Turning Radius (mm)	5250 millimeter
Nos. of Forward Gears	5
Vehicle Air Intake System	Turbocharge
Type of Clutch	SINGLE PLATE DRY
Axle Configuration	4 X 2
Front Axle Suspension System	Semi-elliptical leaf spring
Rear Axle Suspension System	Semi-elliptical leaf spring
Air Conditioning	No
Standard Spare Wheel and Tool Kit	Yes
Warranty Period	1 Year or 1 lakh kms, whichever is earlier
Battery Warranty (Month)	12 month
Number Of Free Service (Nos.)	3
Weight Calculations	
Kerb Weight (Kg) (Weight of cabin and chassis as per CMVR type approval certificate)	1265 kilogram
Gross Vehicle Weight (Kg) (Kerb Weight of the Vehicle + Payload)	2565 kilogram
Payload Capacity (Fabricated Body/Empty Container Weight + Weight of Materials to be Carried)	1300 kilogram
Fabricated Body/Empty Container Weight (Kg)	460 kilogram
Weight of Materials to be Carried/Container Weight Carrying Capacity (Kg)	805 kilogram
Fabrication And Designing	

Fabrication Description	AS PER BUYER REQUIREMENT
Type of Tipper	Garbage Tipper
Define Type of Tipper	DOOR TO DOOR COLLECTION GARBAGE TIPPER
Tipping Angle (Degree)	45
Hopper Tipper Dumper Container Capacity/Volume (cubic meters)	3.3 cubic meter
Tipper Body Pivot Length (mm)	2400 millimeter
Tipper Body Length (mm)	2700 millimeter
Tipper Body Height (mm)	850 Millimeter
Overall Height of Tipper from Ground (mm)	1850 millimeter
Dumping Height (mm)	750 Millimeter
Body Plate Thickness (mm)	1.6 millimeter
Tipper Sub Frame Thickness (mm)	3 Millimeter
Hydraulic System	Yes
Tipping Hydraulic Cylinders(Make)	REPUTED
Hydraulic System Driven by	Power Pack Unit
Tipper Container Material	Mild Steel
Engine Oil Pressure Level Indicator in Control Panel	Yes
Fuel Gauge Indicator in Control Panel	Yes
Engine Cooling Liquid Temperature Indicator in Control Panel	Yes
Operating Hour Meter	No
Locking/Unlocking of Tipper Discharge Container	Yes
Lowering/Lifting of Tipper Discharge Container	Yes
Counter Weight	No
If yes Counter Weight (kg)	0 kilogram
Paint	Automotive Paint
GPS Based Navigation System	No
Public Address System	Yes
Suitable Fire Extinguisher	Yes

TECHNICAL SPECIFICATIONS:

Garbage Vehicle - 2 Cum Capacity	
Generic Parameters	
Vehicle Category	N
Vehicle Engine CubicCapacity (cc)	702
Type of Fuel	Diesel
Vehicle Emission Compliance	BS VI (OBD2)
Number of Cylinder in Engine (Nos.)	2
Vehicle Mileage (declared by OEM as certified by Test Agency under Rule 115 of CMVR 1989) (Kmpl)	17.46
Gradeability of Vehicle (Degree in first gear)	14.5 degree
Maximum Engine Power Range (in KW)	≤100
Max Engine Power (KW@RPM)	16.17
Max Engine Torque (Nm@RPM)	55
Fuel Tank Capacity (liter)	30 liter
Category of Vehicle for which Chassis to be used	Light Commercial Vehicle
Overall Length of Vehicle (mm)	3800 millimeter
Overall Width of Vehicle (mm)	1500 millimeter
Overall Height of Vehicle (mm)	1845 millimeter
Ground Clearance (mm)	160 millimeter

Minimum Wheel Base (mm)	2100 millimeter
Type of Tyre and Tube (for both front and rear)	BIS marked Pneumatic Tyres and Tubes
Front Vehicle Brake	Disc Brake
Rear Vehicle Brake	Drum Brake
Vehicle Transmission System	Manual
Type of Steering	Manual
Turning Radius (mm)	4300 millimeter
Nos. of Forward Gears	4
Vehicle Air Intake System	Natural
Type of Clutch	Single Plate Dry
Axle Configuration	4 X 2
Front Axle Suspension System	Semi-elliptical leaf spring
Rear Axle Suspension System	Semi-elliptical leaf spring
Air Conditioning	No
Standard Spare Wheel and Tool Kit	Yes
Warranty Period	1 Year or 1 lakh kms , whichever is earlier
Battery Warranty (Month)	12 month
Number Of Free Service (Nos)	3
Weight Calculations	
Kerb Weight (Kg) (Weight of cabin and chassis as per CMVR type approval certificate)	935 kilogram
Gross Vehicle Weight (Kg) (Kerb Weight of the Vehicle + Payload)	1685 kilogram
Payload Capacity (Fabricated Body/Empty Container Weight + Weight of Materials to be Carried)	750 kilogram
Fabricated Body/Empty Container Weight (Kg)	450 kilogram

Weight of Materials to be Carried/Container Weight Carrying Capacity (Kg)	1500 kilogram
Fabrication And Designing	
Fabrication Description	AS PER BUYER REQUIREMENT
Type of Tipper	Garbage Tipper
Define Type of Tipper	DOOR TO DOORCOLLECTION GARBAGE TIPPER
Tipping Angle (Degree)	40
Hopper Tipper Dumper Container Capacity/Volume(cubic metres)	2 cubic meter
Tipper Body Pivot Length (mm)	1541 millimeter
Tipper Body Length (mm)	2500 millimeter
Tipper Body Height (mm)	800 millimeter
Overall Height of Tipper from Ground (mm)	1845 millimeter
Dumping Height (mm)	700 millimeter

3.2 Biodegradable Waste Processing

Presently, much of the biodegradable waste are disposed off in unsafe ways – burning, unscientific dumping or discharging into water bodies. Moreover, bio-resources such as animal dung cakes, crop residue and firewood are commonly burned as cooking fuel, causing indoor air pollution.

Bio-waste has the potential to be harnessed as energy, fuel and fertilizer. Organic wastes such as cattle dung, kitchen waste, poultry droppings, pig excreta, human excreta and crop residues can be converted to organic manure and biogas through aerobic and anaerobic digestion. By aerobic fermentation, biodegradable waste is converted to compost which can be used for farming and gardening. By anaerobic fermentation process i.e., biomethanation process, this form of bio-waste can be used to generate biogas, which can be used as a clean fuel for cooking, lighting, running biogas-based engines and generate compressed biogas (CBG).

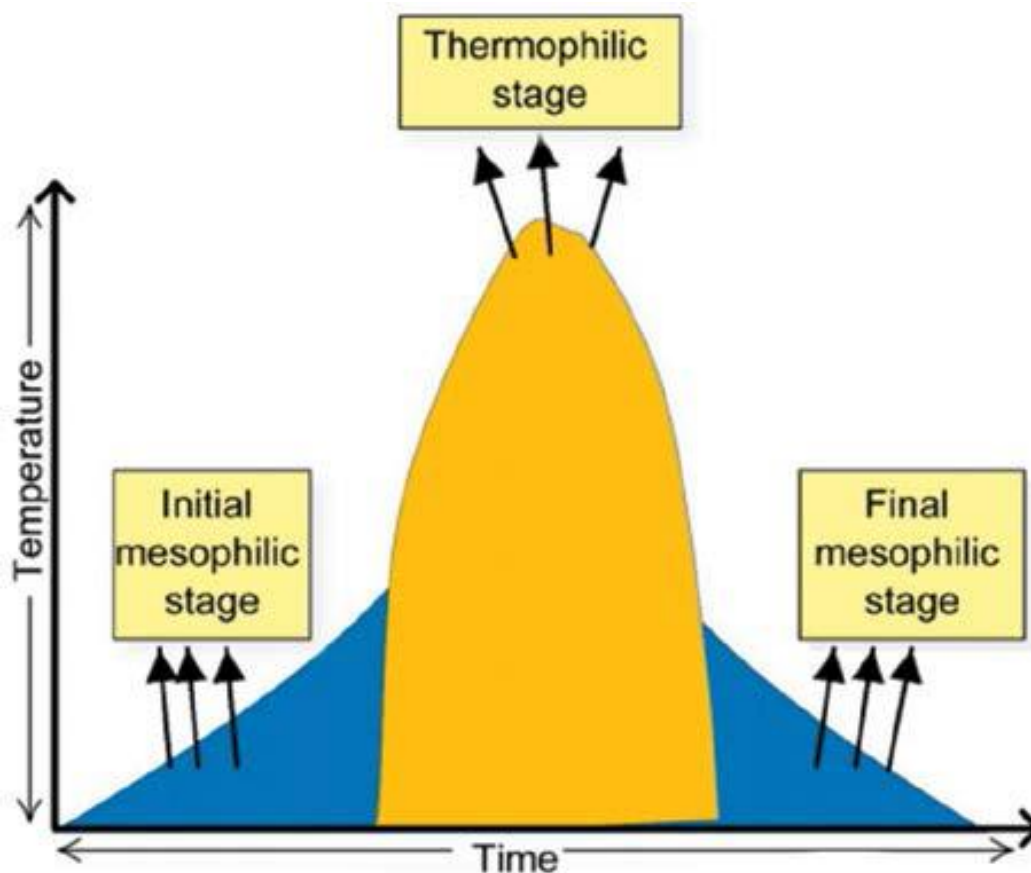
3.2.1 Mechanical Composter (Without heater) / OWC

Composting is a process of controlled decomposition of the organic waste in which the organic matter breaks down under bacterial action, resulting in the formation of humus-like material called compost.

Advantages of composting

- Composting minimizes or avoids greenhouse gas (GHG) emissions.
- By proper decomposition, biodegradable waste gets converted into good quality organic manure.
- Composting also prevents vector breeding and breeding of rodents.
- In the aerobic composting process, considerable heat is generated, destroying pathogens and weed seeds.
- Insanitary conditions arising out of solid waste are removed and the environment looks neat and clean.
- The economic benefits of the use of composts include improved soil quality, enhanced water retention capacity of the soil, increased biological activity, micronutrient content and improved pest resistance of crops.

The process of aerobic composting involves two stages: **thermophilic and mesophilic**. Various organisms are known to play a predominant role in the decomposition of organic waste. Different types of microorganisms are therefore active at different times and locations within the mass of organic matter depending upon the availability of substrate, oxygen supply and moisture content.



(i) Thermophilic stage

This is the first stage of composting wherein microorganisms decompose the easily degradable organic substances, resulting in the production of heat due to intense metabolic activity. In most of the cases, temperature rise from 35°C to 55–65°C is achieved within 2–3 days. Typically, thermotolerant fungi, thermophilic bacteria and actinomycetes are the predominantly active microorganisms at this stage. With the help of Mechanical Composter, waste is flipped at regular intervals to expose the material in the inner core to air so that temperature in these fresh sections rises again, and gradually the whole waste is sanitized from pathogens.

(ii) Mesophilic stage

This is the second stage in the biological process of composting. Due to the reduction in available nutrients and readily available carbon, the microbial activity reduces, causing a decline in the temperature of the heap. There is a shift in the type of active microbial species in the compost heaps. The composted material turns dark brown during this stage due to humus formation and starts to stabilize.

About Mechanical Composter (without heat)

Mechanical composter maintained favourable condition to microorganisms for rapid composting of any kind organic waste.

The stabilized compost is achieved within 12–14 days. The mechanical composter can be successfully applied in village panchayats area for rapid composting of all kinds of organic waste (kitchen, dry leaves, etc.,) generated from households, commercial establishment, institutions etc.

The inner drum should be anticorrosive Stainless-Steel Material. To provide the appropriate mixing of wastes, baffles and obstacles should be welded longitudinally inside the drum. The waste can be filled in the drum up to 70 per cent capacity to provide sufficient space for proper mixing. For mixing suitable capacity gearbox and motor arrangement should be there. Aerobic conditions have to be maintained with the help of aeration arrangement with the help of blower. Both rotations and aeration are controlled with the help of PLC based control panel. The composter must have provision of HMI system for easy operation and maintenance. The main function of rotation is to expose the material to air, add oxygen and release the heat and gaseous products of decomposition.

Mechanical Composter provides agitation, aeration and mixing of the compost to produce a consistent and uniform end product without any odor or leachate related problems.

The shredded organic waste mixed with sawdust and composting culture is loaded into the composter on a daily basis. Once waste is loaded, rotation and aeration is done automatically to get compost in 12-14 days.

TECHNICAL SPECIFICATIONS:

3.2.1.1 500 Kg Per Day Processing Capacity



ORGANIC WASTE COMPOSTER (OWC)

Generic Parameters	OWC 500 KGS
Type of Plant	Fully Automatic, Aerobic
Type of Waste	Domestic Food waste + horticulturewaste
Type of machine	Fully Automatic (PLC Based)
Reprocessing Capacity of Machine (Kgs)	500
Process	Continuous (operation 24x7hrs)
Chamber volume (approx Six times to reprocessing capacity of machine) (ltrs)	3250 for 500 kgs reprocessing capacity
Material of vessel and shaft	SS – 304 of suitable thickness
Material of body cover	Fibre/MS as per IS2062 grade A with epoxy coating
Machine should have no sharp edges, welds/ joints should not be visible outside	Yes
Gear Motor (BEE star rated)	Yes
Gear Motor (BEE star rating)	3
Gear Motor	Planetary Gear (Direct drive)
Gear Motor of reputed make / BIS/ ISO quality parts should be used	Yes
Heating System	Thermic Oil
Dimension of Machine	2774x1432x1600 mm
Power Consumption (KW)	Max 15 for 500 kgs reprocessing capacity
Power requirement	440 V, 3-phase, above 100kg
Waste Shredder	Shred waste up to 25mm. Output 0.5mm,
Twin Shaft Shredder	Yes
Capacity Twin Shaft Shredder (Kg/hr)	350

Material of Blade of Twin ShaftShredder	EN-08
Blade Thickness of Twin Shaft Shredder	5 millimeter
Material of Hopper of Twin ShaftShredder	SS-304
Sheet thickness of Hoper of Twin ShaftShredder	2 millimeter
Motor of Twin Shaft Shredder	Yes
Feeding into Shredder	Manual
Electric Motor Power Rating for TwinShaft Shredder confirming to IS:325 latest revision	2 horsepower
Stand Alone Control Panel withminimum degree of protection IP - 53 conforming to IS-2147	Yes
All control panel parts should be ofstandard brands quality parts should be used	Yes
Material of Canopy of control panelconfirming to IS:2062 latest	Powder coated mild steel
ISI Marked MCB/Relay	Yes
Standard ISI Marked Air Blower	Yes
Air Blower with damper control	Yes
Air flow capacity of Air Blower (Cubic ft.)	200
Motor of Air Blower	Yes
Electric Motor Power Rating for Air Blower confirming to IS:325 latest revision	1 horsepower
Motor and Blower have overload and current protection	Yes
All control panel parts should be of standard brands Quality parts should be used	Yes

3.2.2 Biomethanation Plant

PRINCIPLE

The basic principle is based on a process known as Up-flow Anaerobic Sludge Blanket (UASB) for the waste containing high suspended solids.

The organic waste at plant is made into slurry using agitation mechanism, with the help of suitable quantity of fresh or recycled waster and collected in the inlet chamber. The slurry from the inlet chamber is then fed to the Anaerobic Digester. The Anaerobic Digester is specially designed to have internal baffles, partitions and launders for anaerobic treatment. In the Anaerobic Digester, the organic waste is converted to Biogas, Digested

bio-manure and Digested liquid overflow. The Biogas generated from the Anaerobic Digester is collected in biogas holder. The same can be further suitably scrubbed the biogas in Scrubbing unit consist of H₂S and CO₂ Emission Filters. After Scrubbing the filtered biogas consist of 90-95 % Methane is to be collected in the biogas balloon for storage and further to be utilized for power generation through bio genset. The digested slurry which is the outcome overflow from main digester is to be treated with solid liquid separator to separate the dry manure from the digested slurry. The Liquid which contains high nutrients and nitrogen can be utilized as a manure for irrigation purpose and it can also be used as for recirculation after treatment from STP/ETP and 50 % to be utilized for preparation of organic slurry in processing unit. The digested bio-manure is removed periodically from the bottom of the digester and can be used by client as good soil- enricher or dried after passing through a suitable Solid Liquid Separation (SLS) unit and send for utilization/ disposal. If the Biogas is not in use, it is necessary to burnout / flare the same prior to letting out to the atmosphere.

TECHNICAL SPECIFICATIONS:

3.2.2.1 - 1 TPD Pre-Fabricated Bio-Methanation Plant with Power Generation



Sr. No.	Item No	Particulars of Major Equipment	Specifications	No s.
	1.	Shredder/Crusher	400-450 kg/hr – 3HP, 440V Make: IWAM	1
	2.	Sorting Table	SS Tray, MS Frame	1

1	3.	Inlet Chamber (Slurry preparation Tank)	MS + FRP, 0.6 m ³	1
	4.	Recycle Chamber	MS + FRP, 0.6 m ³	1
	5.	Feed Pump	3-phase, 1 HP Submersible pump Make: Kirloskar /Crompton/Wilo	1
	6.	Anaerobic Digester (UASB)	MS + FRP tank with fixed dome	1
	7.	Anaerobic Digester Internal Proprietary Modules	MS + FRP	1
	8.	Scum Breaker Gearbox	Planetary Speed reduction Gearbox	1
	9.	Scum Breaker Motor	0.5 HP, 3-phase, IP 55 Make: Crompton/Kirloskar	1
	10.	Water Seal box	MS + FRP	1
	11.	Biogas Balloon & enclosure	Neoprene, 30 m ³ with enclosure having MS structures with pre-coated GI sheeting	1 Set
	12.	Biogas level measurement - mechanical	Manual scale	1
	13.	Leak Detection system	Sensor, Siren / hooter	1
	14.	Moisture Trap	MS + FRP	2
	15.	Compressor with storage tank	High speed single stage Biogas Compressor, 5L capacity, pressure upto 1 bar	1
	16.	Fire extinguishers	Class ABC type	1 Set
	17.	Biogas Flare (manual)	MS with Burner tip	1
	18.	Control Panel	Powder Coated 16 gauge MS Box panel	1
	19.	Electrical Works	As per ISI	1 Lot
	20.	Piping Works	GI / MS / UPVC	1 Lot
2		Installation and Commissioning		1 Lot
3		Civil Platform to be in RCC/PCC as required having dimensions of -14 m(L) x 5 m (W) x 0.200m (H) The equipments is to be covered up with proper shed arrangement.		1 Lot
4		Power Generator of 12.5KVA Make :Kirloskar/Cooper		1

3.2.2.2 - 5 TPD Bio-Methanation Plant with Power Generation with 15 KLD ETP



Sr. No.	Description	Specification and General Requirements
1.	Waste Grinder/ Shredder	<ul style="list-style-type: none"> ➤ Size reduction will be < 5mm. ➤ Motor of Crompton Greaves/Havel/Kirloskar/ISB/Bosch and Grindercutter will be of SS and body in CI. ➤ The Grid size will be in accordance with the size reduction requirement(5 mm). ➤ Shredder with a conveyer belt & Magnetic separator will be used. ➤ Motor of Shredder will be 5 HP/7.5 HP/10HP. ➤ Capacity of shredder /Crusher will be min. 750 kg/ltr. ➤ Quantity: 2 Nos.(1 Working + 1 Standby) ➤ Power consumption of grinding will be as low as possible. ➤ Make :IWAM
2.	Conveyor Belt (Optional)	<ul style="list-style-type: none"> ➤ Capacity 1 Ton/hr ➤ Quantity: 1 Nos. ➤ Type: Through Belt conveyor fixed. ➤ Belt Width: 0.6 m. ➤ M.O.C = M.S. ➤ Length of conveyor: min-5 m, max 10-m (depending on the site). ➤ Conveyor height: 650 mm. ➤ Belt type: M24 Grade Rubber belt. ➤ Conveyor speed: 0.1 m/s. ➤ Power: 3 Phase Crompton Greaves make, 420 V AC. ➤ Geared Motor: Premium / Crompton Greaves. ➤ VFD Drive: Delta/Reputed make 3 Phase with control panel ➤ Magnetic metal trapper will be included. ➤ Emergency stopover provision will be given, adequate safety provisions for auto stoppage will be part of design.
3.	Feeding Pump	<ul style="list-style-type: none"> ➤ Pump of Crompton Greaves/ Kirloskar/Lubi/Bosch ➤ Quantity: 1 Working + 1 standby. ➤ At 10-20% TS handling capacity equivalent torque will be provide. ➤ One standby pump of min. 2 HP will be available at plant site. ➤ Capacity: 3 m³/hr to 36 m³/hr. ➤ Head: 10m to 20 meter ➤ Submersible Feed Pump 2HP/3HP

4.	Inlet Chamber with Mixing Mechanism	<ul style="list-style-type: none"> ➤ Volume: 11 m³. (With free board). ➤ MOC: RCC. ➤ Chamber Cover: MS + FRP. ➤ Agitator for mixing, RPM 100, 3HP, Impeller propeller type, MOC SS 304. <p>MAKE : IWAM</p>
5.	Digester/Reactor	<ul style="list-style-type: none"> ➤ Modified UASB Tank in tank digester for separation Hydrolysis and Methanogenesis for better digestion. ➤ Slurry Volume: 300 cum. ➤ Hydraulic Retention Time: 30 Days. ➤ MOC: RCC (M 25/M 30 Grade).
		<ul style="list-style-type: none"> ➤ Internal modules MOC: MS + FRP. ➤ Digester will have safety overflow line. ➤ The thickness of wall will be as per structural details. Prime coat: 2 coats of polyurethane 250-300 micron DFT. Finish Coat: 2 coats of polyurethane 900-1000 micron DFT. ➤ Use of suitable waterproofing chemicals in RCC and RCC design certified by competent engineer. The maintenance mechanism, drain valves, alternate safety valves, feed valves, etc. will be clearly shown in detailed design drawing. ➤ The Digester will have scum Breaker and scum removal system.
6.	Sludge Management system	<ul style="list-style-type: none"> ➤ Sludge collection and management system will be provided. ➤ Digested sludge will take place in closed system without any odour. ➤ Slurry/Digested storage RCC tank will be provided. ➤ Volume: 5.5 m³ (with free board) ➤ MOC: RCC. ➤ Chamber Cover: MS + FRP. ➤ Inclusive of solid liquid separator-screw type, - 1 No. (2-3 Cum. Per Hr.) ➤ Submersible pump for SLS feeding – 2HP/3HP – 1 No. ➤ Structural Shed for storage and curing manure will be provided.
8.	Overflow/Filtrate Chamber	<ul style="list-style-type: none"> ➤ Capacity: 11 m³, MOC: RCC. ➤ Overflow from digester and filtrate from solid liquid separator will be stored and reused for crushing and mixing of waste. ➤ Cover: MS + FRP.
9.	Slurry Pump/ Water re-circulation and feed pump	<ul style="list-style-type: none"> ➤ Pump of Crompton Greaves/Kirloskar/KSB/Bosch ➤ Quantity: 1 No. ➤ Will be suitable to handle minimum 10% Total solids. ➤ Capacity: 3 m³/hr. ➤ Delivery Head: 10 m. ➤ Suction condition: Flooded. ➤ Rated Power: 2 HP.
10.	Gas Balloon	<p>Balloon specifications:</p> <ul style="list-style-type: none"> ➤ Balloon of 120 cum capacity ➤ Specialized Neoprene balloon. ➤ Light in weight, fire retardant fabric based balloon. ➤ Sustainable utilization of 100% generated biogas will be ensured. ➤ Flaring to be done only in emergency situations. ➤ Gas utilization measuring device will be installed along with the gas balloon. ➤ Structural Shed/Enclosure of solid blocks and roof top will be ensured to control rodents and human interface from destroying balloon membrane.

		<ul style="list-style-type: none"> ➤ Leakage detection system to be provided along with alarm. ➤ MAKE: IWAM
11.	Digital online Gas flow meter	<ul style="list-style-type: none"> ➤ Will be provided as per the design with display in cubic meter/hour. ➤ Quantity: 1 No. ➤ The minimum flow rate measurement will be 5 m³/hr and maximum will be 25 m³/hr. ➤ Non Corrosive, Vortex flow type will be provided. ➤ Make: Inconel/Burak
12.	Biogas Gas Blower	<ul style="list-style-type: none"> ➤ Will be provided as per design for gas flaring. ➤ Make :Kirloskar/Akash ➤ Model:KV-20 Monoblock ➤ Max Vacuum: Upto 600 mm of Hg ➤ Motor: 1HP. 3 Phase, RPM- 2840,415 Volts
13.	Gas pipeline and plumbing lines	<ul style="list-style-type: none"> ➤ All pipeline will be corrosion free UPVC/GI. ➤ Colour coding of pipes and MOC as per prevailing standards.
14.	Scum breaker	<ul style="list-style-type: none"> ➤ Quantity: 1 No. ➤ Will be of flat blade type of foam breaker ➤ MS with FRP coating. ➤ Make: IWAM
16.	Electrical Connections	<ul style="list-style-type: none"> ➤ All starters will be of Siemens/L&T and 4 core single wire will be used for wiring.
17.	Power generation	<ul style="list-style-type: none"> ➤ Minimum 350 units/day electricity generation using the biogas. (350 KWH/DAY)
18.	Moisture Trap	<ul style="list-style-type: none"> ➤ Quantity: 2 Nos. ➤ MOC: SS 304/MS + FRP. ➤ Make : IWAM
19.	Scrubber Hydrogen Sulphide	<ul style="list-style-type: none"> ➤ Quantity: 2 Nos. ➤ MOC: SS 304/MS + FRP Lining. ➤ Dimensions: Dia: 0.48m, height: 0.71m, Vol: 0.250m³. ➤ Paint thickness: 50-60 micron, powder coated. ➤ Scrubbing mechanism for H₂S using iron filings/Activated carbon with one backup. ➤ Make : IWAM
20.	Flaring unit	<ul style="list-style-type: none"> ➤ MOC: MS + CI ➤ Quantity: 1 No. ➤ Capacity> 10 cum/Hr. ➤ Control box, ionizer, Spark sensor etc.
21.	Captive Power Backup Generator (Biogas Genset)	<ul style="list-style-type: none"> ➤ Quantity: 1 Nos. ➤ Make: Ashok Leyland/Kirloskar/Prakash/Koel ➤ Output Power: 50-60 KVA. ➤ Rated speed: 1500 RPM. ➤ Rated Frequency: 50 Hz ➤ Rated Voltage: 410/230 V ➤ Phase: AC 3 Phase, 4 wire ➤ Voltage Stability:<+- 2% ➤ Voltage Transient:<+- 10% ➤ Starting System: OC 24V ➤ Electric motor cooling method: water cooler isolation ➤ Protection: IP 23 ➤ Alternator: Siemens ➤ Power Factor: 0.8 lagging ➤ Type: Canopy

22.	ETP/FSTP	<ul style="list-style-type: none"> ➤ 30 KLD capacity ➤ In compliant with GSPCB outlet parameters ➤ 15 KLD ETP plant for 5 TPD Bio Methanation Process Plant. ➤ The Inlet parameter shall be considered as PH – 3.3- 4.5 T.D.S.- <9500 mg/l BOD- <6500 mg/l COD - <30000 mg/l And The Outlet parameter shall be considered as PH – 6.5- 8 T.S.S.- <100 mg/l BOD- <30 mg/l COD - <250 mg/l
23.	Civil works	<ul style="list-style-type: none"> ➤ RCC Tank in Tank Digester: Dia 10 m x ht 4.5 m Ht. ➤ RCC platform & BM shed for feeding unit (12 m x 6 m x 4.5 m). ➤ RCC mixing Chamber tank (2 m x 2 m x 2.8 m) ➤ RCC Overflow/Recycle Chamber tank (2 m x 2 m x 2.8m) ➤ RCC Sludge Chamber tank (2 m x 1 m x 2.8 m) ➤ RCC platform & BM shed for dewatering system (5 m x 4 m x 4.5 m) ➤ RCC platform/shed for control room (3 m x 4 m x 3 m) ➤ RCC platform & BM shed for Balloon (6 m x 6.2 m x 6 m) ➤ RCC platform & fabrication shed for genset (3 m x 5 m) ➤ REINFORCEMENT STEEL & Structural steel MAKE(SAIL/TATA/JSW/JSPL/RINL) ➤ CEMENT : OPC/PPC/PSC GRADE 53 MAKE ACC/ULTRATECH / ZUARI/DALMIA/BIRLA GALVALUME SHEETS (0.5 mm Thick) Make :TATA/JSW/APOLLO/BHUSHAN
24.	Health Monitoring unit	<ul style="list-style-type: none"> ➤ To track and analyse health of the anaerobic system and will be based on advanced techniques in addition to pH monitoring and methane analyser.

15 KLD Biogas Effluent Treatment Plant

PROCESS DESCRIPTION

WASTE WATER TREATMENT SCHEME

Following Treatment scheme shall be employed for production of quality water for irrigation/flushing discharge or recycling.

BRIEF PROCESS DESCRIPTION

COLLECTION CUM EQUALIZATION: The wastewater shall be collected in a collection cum equalization tank to meet the peak hours requirement and to get a homogenous mixture.

Equalization tank will help in sedimentation of grit in the absence of grit chamber.

PRIMARY CLARIFIER: The waste water from the collection tank will be pumped to a primary clarifier so as to settle out the solids. A chemical dosing system will be provided

before the clarifier to aid in solid settling and maintain the PH value where as the sludge will be sent to drying bed.

EFFLUENT TREATMENT PLANT: The effluent from the primary clarifier to feed by gravitational force in the system.

FLASH MIXING: After Primary treatment collection tank water is directed to flash mixing tanks. The treatment occurs in chambers provided in the system by dosing of chemicals to maintain PH. The system shall be flexibility of varying the sequence of aerobic chambers depending upon flow rates.

FLOCCULATION: Water is then fed to flocculation Chamber which is dosed with alum on a continuous basis at a proportional flow rate (Sized to the capacity of the plant) for solids removal by sedimentation in the clarifier. Generally these chemicals are required during the initial phase and once a good quality bio growth is achieved this dosing can be reduced or eliminated in some cases.

CLARIFIER: The wastewater from bioreactors (FM/FT) will be pumped to a secondary clarifier so as to settle out the solids. A chemical dosing system will be provided before the clarifier to aid solid settling. The supernatant from the clarifier will be fed to the surge tank whereas the sludge will be sent to the sludge drying bed /filter press. A part of water is re- circulated collection tank.

MULTI MEDIA FILTER (MMF): The disinfected water will be then passed through multimedia filter (s) to reduce suspended load and turbidity, BOD, colours, odour and fine particles. It finally polishes the treated water and also reduces the residual chlorine. The wastewater so treated can be utilized for gardening or for flushing recycling. The backwash from the MMF units will be fed back into the collection tank.

Principle Of Operation For E.T.P.

The Initial Characteristics of wastewater normally contains the following parameter.

PH - 6.5 8.5

T.S.S. - 300 – 400 mg/Lts.

BOD – 200 – 250 mg/Lts.

COD – 400 – 600 mg/Lts.

The Treatment of sewage generated will be done in three steps. Mainly known as Primary, Secondary and Tertiary Treatment.

Discharged water should confirm to the following limits:

PH- 6.5 8.0

T.S.S. - < 50 mg/Lts.

BOD – < 20 mg/Lts.

COD – < 50 mg/Lts.

Bio- assay test – 90 % survival of fish after 96 hours in 100 % effluent.

These limits are applicable to those establishments which are either connected with sewers without terminal sewage treatment plant or not connected to public sewers, for discharge into public sewers with Terminal facilities, the general standards as notified under the Environment (Protection) Act, 1986 shall be applicable.

Electromechanical Type

1. Bar screen:

Quantity: 1 No.

Size: 500 x500 mm

MOC: SS304

Purpose: For Solid Separation

2. Packed Effluent Treatment Plant

Capacity: 15 KLD

MOC: MSEP

Comprises Of:

Reactor Tank (FM/FT): 2 Nos.

Aeration Tank : 1 Nos.

Tube Settler: 2 Nos.

Clear Water Tank: 1 No.

Make: Cecon

3. Chlorination system

Dosing Pump Quantity: 1 Nos

Capacity: 0-6 LPH

Dosing Pump Make: E- Dose

Dosing Tank Quantity : 1 No

Dosing Tank MOC: PVC/HDPE

Dosing Tank Capacity: 100 Ltr

4. Chemical Dosing System

Dosing Pump Quantity: 2 Nos

Capacity: 0-6 LPH

Dosing Pump Make: E- Dose Dosing Tank

Quantity: 1 No Dosing Tank

MOC: PVC/ HDPE Dosing

Tank Capacity: 100 Ltr

5. Effluent Transfer Pumps

Quantity: 2 Nos (1 working + 1 Standby)

Capacity: 0.75 M3/Hr.

Head: 10-12 Mtr.

Type: End Suction Self Priming.

Make: Kirloskar/Lubi

6. Air Blower

Quantity : 2 Nos. (1 working + 1 Standby)

Capacity : 20 M3/Hr.

Pressure : 0.4 Kg/cm²

Make : A1/Airwac

7. Filter Feed Pump

Quantity : 2 Nos(1 Working + 1 Standby)

Capacity : 0.75 m³/Hr.

Head : 15- 20 Mtr.

Type : Monoblock Pump

Make : Kirloskar/ Lubi

8. Pressure Sand Filter

Quantity: 1 No

Dia: 330 mm

Height : 1374 mm

MOC: FRP

Media: Coarse Sand, Fine Sand

9. Activated Carbon Filter

Quantity: 1 No

Dia: 500 mm

Height : 1550 mm

MOC: FRP

Media: Carbon IV

10. Tube Set Media

Purpose : For Settling of suspended solids

Quantity : 1 Lot

Make : Enviro/Pharmatec

11. Air Diffusers

Quantity : 1 Lot

Make : Enviro/ Pharmatec

12. Agitator For Equalization Tank Quantity : 1 No

Motor Capacity : 5 HP

Make : Cecon

13. Pipes Valves & Fittings

MOC : CPVC/PVC/MS

Quantity : 1 Lot

Make : Astral/JINDAL

14. Electrical Panel

Distriution Board (suitable for 415V 50 Hz), DOL Starters, cabliling will be provided as per Is Standards. Incomer to the electrical panel will provide and terminated by client.

(Panel Accessories Make : L&T/Siemens/SCHNEIDER) (Electrical Cables Make: Polycab /National)

TOTAL LOAD CONNECTED INCLUDING STANDBY UNIT = 8 KW (Approx)

TOTAL OPERATING LOAD = 5 KW (Approx)

Schedule of Exclusion:

- All consumable chemicals, Excluding the first charge during Commisioning.
- Unloading facility at site.
- Piping beyond battery limits.
- Electrical Power Supply & clear water at site.
- Earthing for electrical panel.
- Levelled site.
- Approach road at site.

- Any Other item or service not specifically mentioned in our proposal.

CIVIL WORK:

Sr. No.	Description of Unit	Qty.
1.	Bar Screen Chamber/ OGT	01 No
2.	Equalization Tank	01 No
3.	Foundation for Pumps	01 Lot
4.	Plant Room/ Shed	01 No

3.2.3 Segregation Table

As far as possible, segregation of solid waste into wet and dry waste should be managed at the household level. But if not achieved 100% at the household level, then segregation table makes easier to segregate the waste.

Segregation table is made up of SS 304 material with appropriate drain arrangement for excess water content of wet waste.

Segregation of Waste helps in more effective and efficient waste management.



SPECIFICATIONS:

Sr. No.	Particular	Specification
1	Overall Dimensions	2000mm X 1000mm X 1000mm
2	MOC of Platform	SS 304
3	Structure	MS Galvanized
4	Drain Facility	2 Drain Points Minimum

3.2.4 Compost Sieving Machine

Compost Sieving Machine is useful for separating compost into the finer grade and coarse grade. Composting sieving machine is composed of mesh, frame, hopper, reducer, drive motor, shaft and auxiliary structure.

In the process of rotating, compost can be separated into fine grade and coarse grade.



Technical Specifications:

Sr. No.	Particular	Specification
1	Overall Dimensions	1800mm X 700mm X 1500mm
2	Sieve Size	Diameter 600mm X Length 1500mm
2	MOC of Sieve	SS 304
3	MOC Structure	MS Powder coated
4	Loading and reject facility	Loading Hopper and Reject Tray

3.2.5 Weighing Scale

A weighing Scale is a device that is used to determine weight. It is basically used for weighing the dry waste (bailed plastic waste) at the MRF facility & also for weighing the incoming wet waste at the facility.



Specifications:

PERFORMANCE PARAMETERS	Battery Operated Electronic weighing scale - 500 Kgs
Type of Electronic Weighing Machine	electronic weighing scale
Rated Load/ Capacity(kg)	500 kg
Resolution(gms)	50 gm
Class type	Class-III
Display	led
Number of Display	single
Speed of measurement	5 second
Internal calibration	Yes
Number of scale division	NA
Tare provision	Manual
Connectivity to Computer	No
Number of USB ports	NA
Number of RS232 ports	1
Power Requirement	mains operated battery operated
Power Supply	Single Phase
DC Operating voltage in Volts	6 Volt
Battery Backup	Yes
Backup time(hour)	12
Battery type	rechargeable
Battery rating	6
Type of Sensing Element	Load Cell
Number of load cell/ EMFC	1
Class of Protection	IP 65

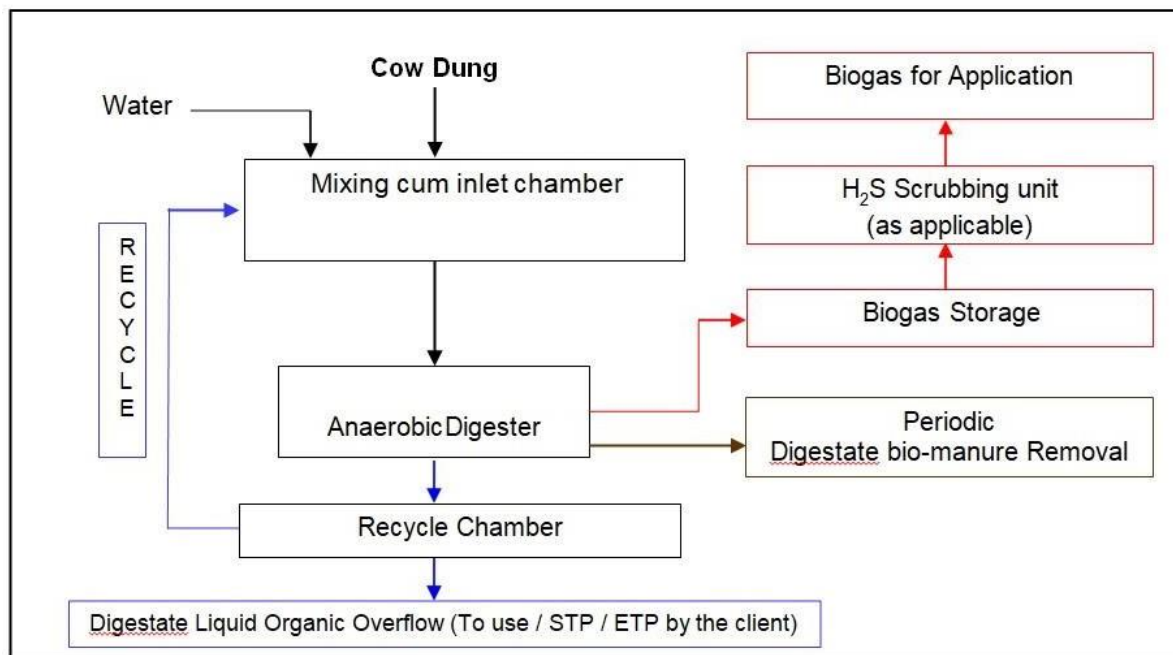
Warranty in Years	1
STANDARDS	
an Standrad,IS:9281-3 (1981) part I,II,II	Yes
BIS Marked	No
CM/L No if Yes otherwise Put NA	NA
CE Certified	Yes
ertified then provide no and date, otherwise	CE-SETY-20-051798, DT-5-2-2020
IMENSIONAL & MATERIAL PARAMETERS	
Material of platform	SS&MSPIPEFABRICATION
Pan/ Platform Shape	Square
Pan/ Platform Size	600 mm x 600 mm
s of weighing machine (L X W X H) in mm x	NA
Weight of Weighing Machine	18 kilogram
ADDITIONAL FEATURES	
Overcharging protection	Yes
Alarm for overload & Malfunctioning	Yes
Operating Temperature Range	0 TO 50C
Relative Humidity	80%
GPRS Module facility	No
RFID Module	No
RFID Wrist Band	No
Bluetooth Module	No
Back Grill	No
the optional Accessories provided with weigh	NA
Dust Proof Cover	Yes

3.2.6 GOBAR DHAN

PRINCIPLE

The basic concept of our design is based on a process known as Up-flow Anaerobic Sludge Blanket (UASB) which is specifically modified for the waste containing high suspended solids.

Block Diagram for the Typical Biogas Plant



Biogas Plant Process

- The Cow Dung at plant is made into a slurry using agitation mechanism, with the help of suitable quantity of fresh or recycled water and collected in the inlet chamber.
- The slurry from the inlet chamber is then fed to the Anaerobic Digester.
- The Anaerobic Digester is specially designed to save land space. It has internal baffles, partitions and launders for anaerobic treatment.
- In the Anaerobic Digester, the Cow Dung is converted to Biogas, Digestate bio- manure and Digestate liquid overflow.
- The Biogas generated from the Anaerobic Digester is collected in biogas holder. The same can be further suitably scrubbed for H₂S and can be sent to 100% biogas genset for power generation.
- Part of the digestate liquid overflow is recycled for slurry preparation to save on fresh water use. Balance liquid overflow can be utilized as liquid soil enricher after suitable dilution or connected to existing STP / ETP.
- The digestate bio-manure is removed periodically from the bottom of the digester and can be used by client as good soil-enricher or dried after passing through a suitable Solid Liquid Separation (SLS) unit and send for utilization / disposal by client.

- If the Biogas is not in use, it is necessary to burnout / flare the same prior to letting it out to the atmosphere

3.2.6.1 - 2 TPD Cowdung Based Bio-Methanation Plant.

Features

Type of Organic Waste	Cow Dung
Feed Input Capacity	2 ton per day (TPD)
Minimum Biogas Generation	Approx. 100 m ³ /day
Digestate Bio-Manure	Approx. 4-4.5 m ³ /day (in thickish slurry form)
Digestate Liquid Overflow	Approx. 3.5 m ³ /day (major part of it is recycled back into the system)
Required Fresh Water	Approx. 2-2.5 m ³ per day
Required Land Area	Approx. 250 m ²

List of Civil Items:

Sr. No.	Particulars	Description	Qty.
1.	Inlet cum Mixing Chamber with bar screens	RCC	01
2.	Sludge Holding Tank	RCC	01
3.	Anaerobic Digester	RCC	01
4.	Earthing pit	Brickwork	04
5.	Biogas Balloon Room	Brick-wall with side and Roof covered in GI sheets	01
6.	Misc. (equipment foundations)	PCC / Brickwork	Set
7.	Painting	As per standards	Set
8.	ETP	RCC	01

List of Major Electromechanical Items

Sr. No.	Particulars	Qty
1.	Agitator	01
2.	Feed pump	01
3.	Sludge / Recycle pump	01
4.	Inlet and Recycle Chamber Top Cover	01
5.	Anaerobic Digester Top Cover	01
6.	Sludge Holding Tank Top Cover	01
7.	Biogas Balloon/Containerized Tank With Baloon/MS Tank	01
9.	Biogas Scrubber	Set
10.	Flame Arrestor	01

11.	Moisture Trap	01
12.	Biogas Flare	01
13.	Firefighting	Set
14.	Control Panel	01
15.	Piping & Fitments	Set
16.	Electrical Works	Set

3.2.6.2 - 5 TPD Cowdung Based Bio-Methanation Plant

Features

Type of Organic Waste	Cow Dung
Feed Input Capacity	5 ton per day (TPD)
Minimum Biogas Generation	Approx. 750 m ³ /day
Digestate Bio-Manure	Approx. 10-10.5 m ³ /day (in thickish slurry form)
Digestate Liquid Overflow	Approx. 8.5 m ³ /day (major part of it is recycled back into the system)
Required Fresh Water	Approx. 5-5.5 m ³ per day
Required Land Area	Approx. 500 m ²

List of Civil Items:

Sr. No.	Particulars	Description	Qty.
1.	Inlet cum Mixing Chamber with bar screens	RCC	01
2.	Sludge Holding Tank	RCC	01
3.	Anaerobic Digester	RCC	01
4.	Earthing pit	Brickwork	04
5.	Biogas Balloon Room	Brick-wall with side and Roof covered in GI sheets	01
6.	Misc. (equipment foundations)	PCC / Brickwork	Set
7.	Painting	As per standards	Set
8.	ETP	RCC	01

List of Major Electromechanical Items

Sr. No.	Particulars	Qty
1.	Agitator	01
2.	Feed pump	01
3.	Sludge / Recycle pump	01
4.	Inlet and Recycle Chamber Top Cover	01
5.	Anaerobic Digester Top Cover	01

6.	Sludge Holding Tank Top Cover	01
7.	Biogas Balloon/Containerised Tank With Baloon	01
9.	Biogas Scrubber	Set
10.	Flame Arrester	01
11.	Moisture Trap	01
12.	Biogas Flare	01
13.	Firefighting	Set
14.	Control Panel	01
15.	Piping & Fitments	Set
16.	Electrical Works	Set

Note: Agency who is executing the Gobardhan Project shall comply the usage of Liquid and Dry manure (Compost pit SLS provision) and is responsible for operating the plant for 3 years.

The Biogas which is generated is to be collected in Storage tank and is to be transferred/utilized for cooking purpose only up to 10 – 15 people nearby the premises area.

3.3 Plastic Waste Management

Plastic products have become an integral part of our daily life which has resulted into increased plastic consumption even in rural areas. Plastic waste has emerged as an important environmental challenge which needs to be addressed on priority. SBM (G) Phase-II strives to improve rural cleanliness through solid and liquid waste management activities plastic waste management is a critical criterion for declaring villages as ODF Plus.

Safe disposal of plastic waste is a serious environmental problem. Being a non-biodegradable material, it does not decay over time and even if dumped in landfills, finds its way back in the environment through air and water erosion. Plastics can contaminate the groundwater, choke the drainage channels and can be eaten by grazing animals causing them illness and death.

Environmental Impact of Plastic Waste:

- Littering of plastic waste is a major environmental issue. It makes the land infertile, choke the drains, causes death of cattle when ingested, and gives an ugly look to the area. Open burning of plastic waste is a major health and environmental issue, as it emits toxic gases such as dioxin, furan and phthalates
- Leaching impact on soil, underground water, etc. due to improper dumping of plastic waste (contains metals and phthalates)

- Release of harmful gases such as carbon monoxide, formaldehyde, etc. during product manufacturing.
- Leaching of toxic metals into underground water such as lead and cadmium pigments due to indiscriminate dumping of plastic waste on land
- Sub-standard plastic carry bags, thin packaging films, etc. pose problem in collection, recycling and reuse.

3.3.1 Plastic Waste Shredder

A plastic shredder is a machine used for cutting the plastic in small pieces to make waste management easier. Shredded plastic can be used in road construction.

The internal mechanical process of shredders includes cutting and is of double shaft jaw type. Plastic shredders are designed for shredding a wide variety of plastics and so, they are from low speed with high torque and come with a double shaft. Output plastic is of size range from 5-10mm.



Plastic Waste Shredder

Performance Parameters	Plastic Waste Shredder
Type of Shredder	Twin Shaft
Application of shredder	Shredder for Municipal Solid Waste containing various objects such as plastic bottles, plastic waste , trash waste, organic waste etc.
Nature of Operation	Heavy Duty

Hooper Loading	Conveyor - (Not Required)
Type of Drive	Electric
Shape of Shaft	Hexagonal Shaped
Input Electrical Supply	Three phase (440 V. 50 Hz)
Motor Power in HP @ 1440 rpm	5 HP
Motor class	IE2
Type of control panel	Manual Based
Independent electrical panel	Yes
Noise level in dB at 1 meter distance while working	55
Capacity of waste bin in liters	50
Auto Reverse System available	Yes
Installation and Demonstration by seller at site before acceptance by buyer	Yes
Warranty (with free spare parts and free service) on machine	1
Number of preventative maintenance visits during warranty (number per annum)	2
Product Instruction Manual, Maintenance Manual and servicing instructions to be supplied	Yes
Tool kit for Repair and maintenance to be supplied	Yes
Availability of base frame with accessories	Yes
Over load protection	Yes
Gear box for speed reduction	Yes
Availability of Door Open Cut off switch	Yes
Capacity of shredder taking 8 hrs per day operation in tonnes (1000 Kg)	3
Material of Housing Enclosure	Mild steel
Dimensional & Material Parameters	
Length of shaft in mm with tolerance ± 10 mm	300
Inside dimension of shredder chamber in mm x mm with tolerance ± 5 mm	300 X 300
Opening of loading hopper in mm x mm with tolerance ± 5 mm	400 x 400
Overall Dimesnion of shredding machine in Length x width x height (mm x mm x mm)	4.0X2.5X4.5
Overall weight of the Machine in Kg	400

Material of Shaft	Alloy Steel
Diameter of Shaft in mm with tolerance ± 5 mm	100
Conveyor Parameters	Not Required
Type of Conveyor provided with Twin shaft shredding machine	Screw Conveyor
Range of Capacity handled by Conveyor in TPD with 8 hour duty	03-May
Width of Belt for slider bed type/trough conveyor in mm	500
Diameter of Driving Pulley for slider bed type conveyor in mm with tolerance ± 5 mm	180
Diameter of Driven Pulley for slider bed type conveyor in mm with tolerance ± 5 mm	50
Type of Screw Conveyor	Spiral Type Screw Conveyor - (NR)
Screw dia or pitch screw conveyor in mm with tolerance ± 5 mm	210
Casing of screw conveyor	Fabricated from 3 mm thick mild steel
Outside Diameter of Screw pipe with Tolerance of ± 3 mm for screw conveyor	50
Supporting Cutter Blades for screw conveyor	Not Applicable for sorting type Conveyor or No conveyor is provided
Motor Rating in HP for Conveyor	1.5 - (NR)
Type of Coating on Conveyor	Enamel Paint of Desired Shade
Additional Parameters	
Material of Base Frame	MS
Machine should be painted with enamel paint of buyer desired shade	Yes
Electrical safety requirement as per IS 302-1:2008 latest amendment	Yes
Certificates Parameters	
Availability of ISO Certification for machine	Yes
ISO certification number with details if no ISO certificate available put NA	305021031729Q
Availability of CE Certification for machine	Yes
CE certification number with details if no certificate available put NA	CE-BV-1912-2208

3.3.2 Bailing Machine

Balers are primarily used for compressing plastic materials into small and manageable blocks (bales) thereby reducing transportation and expenses incurred in storage of waste material.

There are two major types of balers based on their motion – vertical and horizontal balers.

The vertical baler is ideal solution for village panchayat. The vertical baler machines use the compressing force of the hydraulic cylinder to reduce the size of various waste materials and turn them into regular shape dense bales. The vertical baler machine can be loaded from the front. They are smaller and manually strapped and compressors from top to down.

Plastic balers can be operated manually or automatically.

BAILING MACHINE

A) Heavy Duty Vertical Baler – Model 1 (10 HP)



TECHNICAL SPECIFICATIONS

Plastic Bailing Machine -10 HP	
Parameters	10 HP Model
Capacity	40 Ton Pressure with Single Chamber Single Cylinder Baler Machine
Bale Size	39(L)x27(W) in Inch
Bale Weight	280 TO 300 KG
Chamber Size	39(L)x27(W)x60(H) In Inch
No. of Cylinder	1 MAIN + 1 PUSHER (2 Nos.)
No. of Tie	4 Nos
No. Of Door	2 Nos
Cylinder Size	160(Bore)*195(Od)*110(Ram)*1300 (Stroke) mm

Bale Eject	By Cylinder Systems
Oil Tank Capacity	150 Liters
Production Rates	15 To 20 Minutes
Hydraulic System	Vane Pump Systems/
Day light Gap	60 Inch
Operation	10 SIZE Hand levers Operate Systems.
Electric Motor	10 HP Motor 3 Phase 1440 RPM 50Hz
For Safety	PROVIDED Pressure & Limit Switch
Overall Dimension	100 (L) x 60 (W) x 140(H) In Inch
Body Plate	8mm,12mm,30mm

B) Heavy Duty Vertical Baler –Model 2(20Hp)



TECHNICAL SPECIFICATIONS

Plastic Bailing Machine – 20 HP	
Parameters	20 HP Model
Capacity	100 Ton Pressure Capacity with Single Chamber Single Cylinder Baler Machine

Bale Size	42(L)x30(W) in Inch
Bale Weight	400 to 430 Kg
Chamber Size	42(L)x30(W)x70(H) In Inch
No. of Cylinder	1 Nos
No. of Tie	4 Nos
No. Of Door	2 Nos
Cylinder Size	220(Bore)*270(Od)*150(Ram)*1400 (Stroke) mm
Bale Eject	By Wire Rope Systems
Oil Tank Capacity	300 Liters
Production Rates	15 To 20 Minutes
Hydraulic System	Double Pump Systems
Day light Gap	70 Inch
Operation	20 Size Hand levers Operate Systems.
Electric Motor	20 HP Motor 3 Phase 1440 RPM 50Hz
For Safety	PROVIDED Pressure & Limit Switch
Overall Dimension	100 (L) x 40 (W) x 160(H) In Inch
Body Plate	8mm,12mm,30mm

3.3.3 Battery Operated - Automated Forklift

Battery Operated Forklift is a power propelled device for lifting and loading bailed plastic waste. Primary, A forklift is a large machine used in bulk material handling. A forklift uses motors and hydraulics for storing and loading bailed waste for transportation with ease.



Sr. No.	Particulars	Specification	Unit
---------	-------------	---------------	------

1	Capacity	1500kg	kg
2	Lift Height	4500	mm
3	Capacity at 4500 (LC-600mm)	1000	Kg
4	Free Lift	1640	mm
5	Closed Mast Height (lowered)	2150	mm
6	Extended Mast Height	4970	mm
7	Width Across the Forks	570	mm
8	Travel Speed loaded/ unloaded	06/06	Km/h
9	Lifting Speed loaded/unloaded	0.10/0.15	m/s
10	Lowering Speed loaded/unloaded	0.25/0.11	%
11	Gradability loaded/unloaded	08/10	%
12	Height of Fork Lowered	85	mm
13	Ground Clearance	30	mm
14	Fork Dimension	75x176x1200	mm
15	Minimum Turning Radius (PlatformClosed/Open)	1750/2250	mm
16	90 degree Stacking Aisle (PlatformClosed)	2550	mm
17	Overall Width	850	mm
18	Drive Motor Ratings	1.5	Kw
19	Lift Motor Ratings	3	Kw
20	Traction Battery	V/Ah	24/345

Make: PUMA/GODREJ

3.4 Household Hazardous Waste

3.4.1 Incinerator

10 Kg Vol. Capacity Sanitary Waste (Diaper + Pads combo) Incinerator:



TECHNICAL SPECIFICATIONS

Sr. No.	Particulars	Specifications
1	Model No	HH-SWI
2	Burning Capacity	0-10 Kg/PH
3	Waste Type	PPE Kit, Used Cotton, Used/Unused Paper/Plastic/Used Diaper/Sanitary Pads/faceMask/Hand Gloves etc.
4	Heating	Electric
5	Technology	Auto Destroyer

6	Ash Collection Tray	Available
7	Low Heat	Ceramic Board Insulation
8	Body Type	Mild Steel with Powder Coated Finishing
9	Heater Power	3000 Watt
10	Timer Controller	Available
11	Temp Controller	Available
12	Power Input	230 V
13	Dimension	36 x 24 x 24 inches (H*B*L)

25 Kg Vol. Capacity Sanitary Waste (Diaper + Pads combo) Incinerator:



TECHNICAL SPECIFICATIONS

Sr. No.	Particulars	Specifications
1.	Model No	HH-SWI
2.	Burning Capacity	25 KG/PH
3.	Waste Type	PPE Kit, Used Cotton, Used/Unused Paper/Plastic/Used Diaper/Sanitary Pads/faceMask/Hand Gloves etc.
4.	Heating	Electric
5.	Burning Chamber	Stainless Steel
6.	Thickness of Chamber	2mm
7.	Technology	Auto Destroyer
8.	Insulation Type	Thermal Insulation
9.	Internal Burning chamber	Shape – Vertical Conical
10.	No of Chambers	2
11.	Operating Mode	Automatic
12.	Burning Time	15-20 Mins
13.	Material Of Body	Mild Steel
14.	Size In mm	1220*1220*1070 mm
15.	Mounting	Floor Mounted
16.	Loading Type	Front Loading
17.	Weight of Machine	100 – 150 Kg

18.	Dimension Of Door	250*200 mm
19.	Detachable Ash Tray Dimension	50*150*30 mm
20.	Temperature Indicators	Yes
21.	Burning Temperature	300-800 Degrees
22.	RPM of Blower	800 RPM
23.	Height Of Chimney	6 ft.
24.	MCB Protection	Yes
25.	Shall Have Activated Charcoal Filterfor pollution Control	Yes
26.	Auto Switch Off After Cycle Operation	Yes
27.	Power Input	440 V

3.5 Liquid Waste Management

The Government of India launched Swacch Bharat Mission (Grameen) Phase-II to sustain the gains that SBM had made during the previous five years. The aim was to achieve sustainability of ODF status and creation of solid and liquid waste management services in rural areas. Grey water and Faecal Sludge Management (FSM) are one of the key components to be implemented under SBM (G) Phase-II.

As per the Guidelines of SBM (G) Phase II, The following technology is Proposed:

1) MBBR (Moving Bed Biofilm Reactor)

3.5.1 MBBR (Moving Bed Biofilm Reactor):

Moving bed biofilm reactor (MBBR) is a biological technology used for wastewater treatment process suitable for municipal and industrial application. Another common name is moving bed film reactor. It was invented in the 1980s. MBBR offer an economical solution

for wastewater treatment. STP MBBR technology is the use of a moving bed biofilm reactor in sewage treatment plants.

MBBR wastewater treatment system enables efficient results of the disposal using low energy. The technology is used to separate organic substances, nitrification and denitrification. MBBR design is made of an activated sludge aeration system. The sludge is collected on the plastic carriers which have a large internal surface area. The surface area in the carriers optimizes the contact of water, air, and the bacteria.

MBBR activated sludge is the application of MBBR media to an overloaded treatment plant when upgrading.

MBBR is applicable to the different quality of wastewater treatment. The application is determined by the desired results and regulations controlling discharge. The system can be of more than one stage depending on specific needs. The stages are made of individual tanks separated by screens to ensure that bacteria remain in their specific tank.

MBBR Media Used in Wastewater Treatment

Aeration tank: The tank is similar to an activated sludge tank. The aeration is used to keep in motion the activated sludge and carriers. The MBBR system separates the excess bacteria and sludge which are directed to the final separator.

Special plastic carriers: They provide a surface for biofilm growth. Carrier materials are made of materials with a density close to that of water (1g/cm^3) an example is high-density polyethylene (HDPE) with a density of 0.9g/cm^3 . These carriers are moved in the tank through the aeration system. This ensures good contact between the wastewater and the biomass on the carriers.

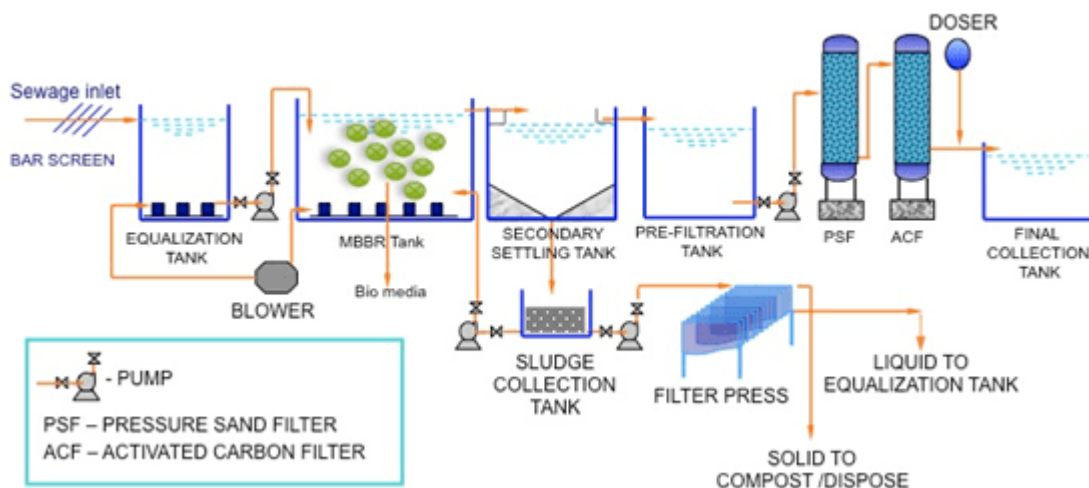
Benefits of MBBR Technology

- Saving of space due to its compactness
- Easy to maintain
- Good for a high volume of load
- Extension and expanding are easy. This made possible by increasing the filling degree of carriers.
- Lower discharge costs
- MBBR is not affected by toxic shock
- Independent process performance because there is no return line for sludge; the MBBR eliminates the return activated sludge (RAS)
- It has high effectiveness of sludge retention time (SRT) which enhances the nitrification process
- Production of sludge is lower
- It does not need recycling of the sludge-like activated sludge system
- MBBR media is installed to retrofit existing activated sludge tanks in order to increase its capacity

Design of MBBR Systems

It uses a combination of activated sludge process i.e. suspended growth and biofilter i.e. attached growth. It uses the entire tank volume for biomass growth by implementing the carriers for attached growth of biofilm. Movement of carriers is enabled by air bubbles through agitation.

The reactor can be in any shape and support different load depending on carrier filling. MBBR design of reactor depended on the actual wastewater characteristics and locality. The plants come either with vertical or horizontal mounted rectangular mesh sieves. The reactor can also be fitted with cylindrical bar sieves.



MBBR carriers are cylinders having a cross inside and fins outside to increase the surface area. The standard used is below 70% of carriers in an area of not more than 465m² per m³. MBBR is used together with a septic tank or a pre-coagulation step for pre-treatment. MBBR technology can be designed with additional non-mechanical or mechanical system to enhance phosphorus and fecal coliform reduction.

Application of MBBR

Biological Oxygen Demand (BOD) removal – It requires only one wastewater tank with the MBBR and clarification.

Nitrification – It uses two tanks one for BOD removal and the other for nitrification.

Denitrification – It uses four aeration tanks in this order before emptying in the clarification with pre denitrification, BOD reduction, nitrification and post denitrification.

MBBR technology is applicable in industries, marine and for municipal wastewater treatment.

PARAMETERS AT THE INLET AND OUTLET OF FSTP

Sr. No.	Parameters	At the Inlet Of FSTP	At the Outlet Of FSTP
1.	PH	-	6-8
2.	COD, mg/l	30000	Less than 250
3.	BOD, 5 days @ 20 deg.C, mg/l	6000	Less than 30
4.	Suspended solids, mg/l	12000	Less than 100
5.	Coliform Bacteria	Present	Less than 1000/ 100 ml

3.5.1.1 - 40 KLD FAECAL SLUDGE TREATMENT PLANT.



TECHNICAL SPECIFICATIONS

Plant Details	Parameters/specification	FOR 40 M3/DAY
1. Bar Screen		
	Qty. (No.)	01 no.
	Size	400 mm X 600 mm
	Material Of Construction	MSEP
	Type	Manual operated coarse bar screen
	Make	IWAM
2. Sewage Feed Pumps		
	Type	Self-priming, Monoblock pump
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Capacity (m3/hr)	2 m3/hr
	Head (m)	10-12 m
	Selected model power	0.75 KW
	Make	Kirloskar
3. Air Blower for Collection, MBBR Tank		
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Make	AKASH/EVEREST/USHA/Equivalent
	Capacity	40 m3/hr
	Head	4 MWC
	Power	2.2 kw

4. Fine Bubble air diffusers (Retrieval type) for MBBR Tank		
	Qty.	1 Lot as required
	Type	Fine Bubble Diffuser
	Size	90 mm OD x 1000 mm Length
	Make	SCI
5. MBBR Media		
	Qty.	1 Lot as required
	MOC	PP
	Surface area	400m ² /m ³
	Make	GFT/Cooldeck
6. Tube Pack Media 1 & 2		
	Qty.	1 Lot as required
	Type	Square Tube Type
	MOC	PVC
	Make	GFT/Cooldeck
7. Ozone System		
	Qty	01 No.
	Capacity	10 gm
	Make	Powertech/Sytron
8. Filter Feed Pump		
	Type	Horizontal, Self-priming, Monoblock pump
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Capacity (m ³ /hr)	2 m ³ /hr
	Head (m)	24-25 m
	Selected model power	0.75 KW
	Make	Kirloskar
9. Sand filter		
	Quantity	01 no.
	Type	Vertical Down flow
	Valve	Manual Operated
	Diameter	400 mm
	HOS	1500 mm
	Shell Thickness	5 mm
	Dish End	6 mm
	Filter Material	MSEP

	Frontal piping	In UPVC
	Valve	Multiport
	Accessories	Pebbles, Gravels and Graded Quartz Sand
10. Activated Carbon Filter		
	Quantity	01 no.
	Type	Vertical Down flow
	Valve	Manual Operated
	Diameter	400 mm
	HOS	1500 mm
	Shell Thickness	5 mm
	Dish End	6 mm
	Filter Material	MSEP
	Frontal piping	In UPVC
	Valve	Multiport
	Accessories	Pebbles, Gravels, Graded Quartz Sand and Carbon IV 550
11. Sludge Pump		
	Duty	To feed sludge to SHT
	Type	Horizontal, Self-priming, Monoblock pump
	Qty	1 Nos (1 duty)
	Capacity	1 m ³ /hr
	Head	10 m
	Power	0.75 kw
	Make	Kirloskar
12. Interconnected piping (within battery limits)		
	Quantity	1 Lot, As required
	Gravity piping	UPVC,
	Pressure piping	UPVC, sch 40, ASTM D178/ HDPE
	Make	Prince / Finolex
	Fittings	UPVC solvent jointed
	Air Piping	MS
	Make	Tata/Jindal
13. Valves (Manual)		

	Quantity	1 Lot, As required
	Pump Discharge	Gate – CI , Screwed end – Make - Aarko
	Discharge Non return	Wafer – M.S.body, M.S.disc,Nitrile - Make - Marck
	Bypass/ Tank Drain/Sludge drain	Gate – CI , Screwed/Flange end – Make -Aarko
	Sampling valves/Filter pump valves	Ball valve –PVC /PP – Make – Parth /Prince
14. Electrical Control Panel		
	Quantity	01 no.
	Operation	Auto/Manual operation
	Type	Non – Compartmentalized
15. Electrical accessories & cabling		
	Flexible –PVC copper cables	01 Lot
	Make	Polycab
16. Instruments		
	Level Switch	01 Lot, MOC-PP, As required
	Pressure Gauge	01 Lot, As required

List of Prefabricated Tanks

Sr. No	Unit	MOC	Qty.	Water Volume
1	Primary Lamella Clarifier - 1	MSEP	1No	3 m ³ WaterVolume,With3 Meter Total Height
2	Aeration Tank 1	MSEP	1No	6 m ³ WaterVolume,With3 Meter Total Height
3	Aeration Tank 2	MSEP	1No	6 m ³ WaterVolume,With3 Meter Total Height
4	Primary Lamella Clarifier –2	MSEP	1No	3 m ³ WaterVolume,With3 Meter Total Height
5	Holding Tank	MSEP	1No	3m ³ WaterVolume,With 3Meter Total Height

List of Civil Units:

Plant Detail s	Parameters/ specification	FOR FSTP – Civil40 M ³ /DAY	REMARKS
1. Screen Cum O&G Chamber			
	Quantity	01 No.	Total height will depend onyour sewage pipe level
	Size	1.0 m x 0.80 m x 0.5 m water depth	
2. Bio – Digester Tank			
	Quantity	01 No.	Total height will depend onyour sewage pipe level
	Size	1 no, 60 m3 (water volume , 3.0 m water depth)	
3. Anoxic Tank			
	Quantity	01 No.	Total height will depend onyour sewage pipe level
	Size	1 no, 10 m3 (water volume, 3.0 m water depth)	
	Quantity	01 No.	Dimensions will be matchedto your site requirement
	Size	1 no, 5 m3 (water volume , 3m water depth)	
4. Sludge Drying Bed			
	Quantity	01 No.	Total height will depend on your sewage pipe level
	Size	5 no, 1.5 X 1.5 m (water volume , 1 m depth)	
5. Treated Water Tank			
	Quantity	01 No.	Dimensions will be matchedto your site requirement
	Size	1 no, 5 m3 (water volume , 3m water depth)	
6. Plant Room / Shedding for FSTP			
	Quantity	01 No.	If required

3.5.1.2 - 40 KLD SEWAGE TREATMENT PLANT.



Sr. No.	Parameters	At the Inlet Of STP	At the Outlet Of STP
1.	PH	7.5	6.5- 8
2.	COD, mg/l	450-550	Less than 50
3.	BOD, 5 days @ 20 deg.C, mg/l	250-300	Less than 10
4.	Suspended solids, mg/l	150	Less than 10
5.	Oil & grease, mg/l	50	Less than 5

TECHNICAL SPECIFICATIONS

Plant Details	Parameters/specification	FOR 40 M3/DAY
1. Bar Screen		
	Qty (No.)	01 no.
	Size	400 mm X 600 mm
	Material Of Construction	MSEP
	Type	Manual operated coarse bar screen
	Make	IWA
2. Sewage Feed Pumps		
	Type	Non-Clog Submersible
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Capacity (m3/hr)	1.7 m3/hr
	Head (m)	10-12 m
	Selected model power	0.75 KW
	Make	Kirloskar/Equiv.
3. Air Blower For Collection, MBBR, Sludge tank & Treated water tank		
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Make	AKASH/EVEREST/USHA/Equivalent
	Capacity	50 m3/hr

	Head	4 MWC
	Power	2.2 kw
4. Fine Bubble air diffusers (Retrieval type) for MBBR Tank		
	Qty.	1 Lot as required
	Type	Fine Bubble Diffuser
	Size	90 mm OD x 1000 mm Length
	Make	SCI/Equiv.
5. Coarse Bubble air diffusers for Collection, Sludge & Treated water tank		
	Qty.	1 Lot as required
	Type	Coarse Bubble Diffuser
	Size	80 mm Dia
	Make	SCI/Equiv.
6. MBBR Media		
	Qty.	1 Lot as required
	MOC	PP
	Surface area	400m ² /m ³
	Make	GFT/Cooldeck/Equiv.
7. Tube Pack Media		
	Qty.	1 Lot as required
	Type	Square Tube Type
	MOC	PVC
	Make	GFT/Cooldeck/Equiv.
8. Dosing System		
	Dosing pump	01 No.
	Make	0-6 lph, E-Dose/Equiv.
	Dosing Tank	01 No, 100 lit, 0.03 kw
9. Filter Feed Pump		
	Type	Horizontal, Self-priming, Monoblock pump
	Qty. (Nos.)	2 (1 duty+1 Standby)
	Capacity (m ³ /hr)	1.7 m ³ /hr
	Head (m)	24-25 m
	Selected model power	0.75 KW
	Make	Kirloskar/Equiv.
10. Sand filter		
	Quantity	01 no.
	Type	Vertical Down flow
	Valve	Manual Operated
	Diameter	14"
	HOS	65"
	Filter Material	FRP

	Frontal piping	In UPVC
	Valve	Multiport
	Accessories	Pebbles, Gravels and Graded Quartz Sand
11. Activated Carbon Filter		
	Quantity	01 no.
	Type	Vertical Down flow
	Valve	Manual Operated
	Diameter	14"
	HOS	65"
	Filter Material	FRP
	Frontal piping	In UPVC
	Valve	Multiport
	Accessories	Pebbles, Gravels, Graded Quartz Sand and Carbon IV 550
12. Sludge Pump		
	Duty	To feed sludge to SHT
	Type	Horizontal, Self-priming, Monoblock pump
	Qty	2 nos. (1 duty + 1 Standby)
	Capacity	1 m3 /hr
	Head	10 m
	Power	0.75 kw
	Make	Kirloskar/Equiv.
13. Interconnected piping (within battery limits)		
	Quantity	1 Lot, As required
	Gravity piping	UPVC,
	Pressure piping	UPVC, sch 40, ASTM D178/ HDPE
	Make	Prince / Finolex/Eqv.
	Fittings	UPVC solvent jointed
	Air Piping	MS
	Make	Tata/Jindal/Equiv.
14. Valves (Manual)		
	Quantity	1 Lot, As required
	Pump Discharge	Gate – CI, Screwed end – Make – Aarko/Equiv.
	Discharge Non return	Wafer – MS body, MS disc, Nitrile, Make – Marck/Equiv.
	Bypass/ Tank Drain/Sludge drain	Gate – CI, Screwed/Flange end – Make – Aarko/Equiv.
	Sampling valves/Filter pump valves	Ball valve –PVC /PP – Make – Parth/Prince/Equiv.
15. Electrical Control Panel		
	Quantity	01 no.

	Operation	Auto/Manual operation
	Type	Non – Compartmentalized
16. Electrical accessories & cabling		
	Flexible –PVC copper cables	01 Lot
	Make	Polycab/Equiv.
17. Instruments		
	Level Switch	01 Lot, MOC-PP, As required
	Pressure Gauge	01 Lot, As required

List of Civil Units:

Plant Details	Parameters/ specification	FOR STP – Civil 40 M ³ /DAY	REMARKS
1. Screen Cum O&G Chamber			
	Quantity	01 No.	Total height will depend on your sewage pipe level
	Size	1.0 m x 0.80 m x 0.5 m water depth	
2. Equalization / Collection Tank			
	Quantity	01 No.	Total height will depend on your sewage pipe level
	Size	1 no, 10 m3 (water volume , 3.0 m water depth)	
3. Aeration Tank			
	Quantity	01 No.	Dimensions will be matched to your site requirement
	Size	1 no, 10 m3 (water volume , 3.0 m water depth)	
4. Settling Tank			
	Quantity	01 No.	Dimensions will be matched to your site requirement
	Size	1 no, 4 m3 (water volume , 3 m water depth)	
5. Chlorine Contact Tank			
	Quantity	01 No.	Dimensions will be matched to your site requirement
	Size	1 no, 3 m3 (water volume , 3m water depth)	
6. Sludge Holding Tank			
	Quantity	01 No.	Dimensions will be matched to your site requirement
	Size	1 no, 3 m3 (water volume , 2.8 m water depth)	

7. Treated Water Tank			
	Quantity	01 No.	Dimensions will be matched to your site requirement
	Size	1 no, 7 m ³ (water volume , 3 m water depth)	
8. Plant Room / Shedding for STP			
	Quantity	01 No.	If required

Utilities:

Electrical Load	
Connected KW	8.9 kw
Working KW	4.6 kw
Chemicals	10 lit/day
Area Required	9.0 M X 6.0 M X 3.5 METER CLEAR HEIGHT

3.5.1.3 - 30 KLD Biogas Effluent Treatment Plant for treating Digested Slurry



PROCESS DESCRIPTION

WASTE WATER TREATMENT SCHEME

Following Treatment scheme shall be employed for production of quality water for irrigation/flushing discharge or recycling.

BRIEF PROCESS DESCRIPTION

COLLECTION CUM EQUALIZATION: The wastewater shall be collected in a collection cum equalization tank to meet the peak hours requirement and to get a homogenous mixture.

Equalization tank will help in sedimentation of grit in the absence of grit chamber.

PRIMARY CLARIFIER: The waste water from the collection tank will be pumped to a primary clarifier so as to settle out the solids. A chemical dosing system will be provided before the clarifier to aid in solid settling and maintain the PH value where as the sludge will be sent to drying bed.

EFFLUENT TREATMENT PLANT: The effluent from the primary clarifier to feed by gravitational force in the system.

FLASH MIXING: After Primary treatment collection tank water is directed to flash mixing tanks. The treatment occurs in chambers provided in the system by dosing of chemicals to maintain PH. The system shall be flexibility of varying the sequence of aerobic chambers depending upon flow rates.

FLOCCULATION: Water is then fed to flocculation Chamber which is dosed with alum on a continuous basis at a proportional flow rate (Sized to the capacity of the plant) for solids removal by sedimentation in the clarifier. Generally, these chemicals are required during the initial phase and once a good quality bio growth is achieved this dosing can be reduced or eliminated in some cases.

CLARIFIER: The wastewater from bioreactors (FM/FT) will be pumped to a secondary clarifier so as to settle out the solids. A chemical dosing system will be provided before the clarifier to aid solid settling. The supernatant from the clarifier will be fed to the surge tank whereas the sludge will be sent to the sludge drying bed /filter press. A part of water is re- circulated collection tank.

MULTI MEDIA FILTER (MMF): The disinfected water will be then passed through multimedia filter (s) to reduce suspended load and turbidity, BOD, colours, odour and fine particles. It finally polishes the treated water and also reduces the residual chlorine. The wastewater so treated can be utilized for gardening or for flushing recycling. The backwash from the MMF units will be fed back into the collection tank.

Principle Of Operation For 30 KLD Effluent Treatment Plant

The Initial Characteristics of wastewater normally contains the following parameter.

PH - 6.5 8.5

T.S.S. - 300 – 400 mg/Lts.

BOD – 200 – 250 mg/Lts.

COD – 400 – 600 mg/Lts.

The Treatment of sewage generated will be done in three steps. Mainly known as Primary, Secondary and Tertiary Treatment.

Discharged water should confirm to the following limits:

PH - 6.5 8.0

T.S.S. - < 20 mg/Lts.

BOD – < 20 mg/Lts.

COD – < 50 mg/Lts.

Bio- assay test – 90 % survival of fish after 96 hours in 100 % effluent.

These limits are applicable to those establishments which are either connected with sewers without terminal sewage treatment plant or not connected to public sewers, for discharge into public sewers with Terminal facilities, the general standards as notified under the Environment (Protection) Act, 1986 shall be applicable.

Modular Type

1. Bar screen:

Quantity : 1 No.

Size : 500 x 500 mm

MOC : SS304

Purpose : For Solid Separation

2. Packed Effluent Treatment Plant MOC : MSEP

Capacity : 30 KLD

Comprises Of:

Reactor Tank (FM/FT) : 2 Nos

Aeration Tank : 1 Nos

Tube Settler : 2 Nos

Clear Water Tank : 1 Nos

Make : Cecon

3. Chlorination system

Dosing Pump Quantity : 1 Nos

Capacity : 0-6 LPH

Dosing Pump Make : E- Dose/ M- dose

Dosing Tank Quantity : 1 No

Dosing Tank MOC : PVC/HDPE

Dosing Tank Capacity : 50 Ltr

4. Chemical Dosing System

Dosing Pump Quantity : 2 Nos

Capacity : 0-6 LPH

Dosing Pump Make : E- Dose / M- Dose

Dosing Tank Quantity : 1 No Dosing Tank MOC : PVC/ HDPE

Dosing Tank Capacity : 50 Ltr

5. Effluent Transfer Pumps

Quantity : 2 Nos (1 working + 1 Standby)

Capacity : 2 M3/Hr.

Head : 8-10 Mtr.

Type : End Suction Self Priming.

Make : Kirloskar/Lubi

6. Air Blower

Quantity : 1 No

Capacity : 10 M3/Hr.

Pressure : 0.4 Kg/cm²

Make : A1/Airwac/Blowvac

7. Filter Feed Pump

Quantity : 2 Nos(1 Working + 1 Standby)

Capacity : 2 m3/Hr.

Head : 20- 25 Mtr.

Type : Monoblock Pump

Make : Kirloskar/ Lubi

8. Pressure Sand Filter

Quantity : 1 No

Capacity : 4 m3/Hr.

Dia : 500 mm

Height : 1550 mm
MOC : MSEP/FRP
Media : Coarse Sand, Fine Sand

9. Activated Carbon Filter

Quantity : 1 No
Capacity : 4 m3/Hr.
Dia : 500 mm
Height : 1550 mm
MOC : MSEP/FRP
Media : Carbon IV

10. Tube Set Media

Purpose : For Settling of suspended solids
Quantity : 1 Lot
Make : Enviro/MM Aqua

11. Air Diffusers

Quantity : 1 Lot
Make : Enviro/MM Aqua

12. Agitator For Equalization Tank Quantity : 1 No

Motor Capacity : 5 HP
Make : Cecon

13. Pipes Valves & Fittings

MOC : CPVC/PVC/MS
Quantity : 1 Lot
Make : Astral/JINDAL

14. Electrical Panel

Distribution Board (suitable for 415V 50 Hz), DOL Starters, cabling will be provided as per IS Standards. Incomer to the electrical panel will provide and terminated by client.
(Panel Accessories Make: L&T/Siemens/SCHNEIDER) (Electrical Cables Make: Polycab/National)

TOTAL LOAD CONNECTED INCLUDING STANDBY UNIT = 8 KW(Approx)

TOTAL OPERATING LOAD = 5 KW (Approx)

Schedule of Exclusion:

All consumable chemicals, Excluding the first charge during Commissioning.

- Unloading facility at site.
- Piping beyond battery limits.
- Electrical Power Supply & clear water at site.
- Earthing for electrical panel.
- Levelled site.
- Approach road at site.
- Any Other item or service not specifically mentioned in our proposal.

CIVIL WORK: Area required 20 -30 Sq. Mtr. Appox

Sr. No.	Description of Unit	Qty.	SIZE
5.	Bar Screen Chamber/ OGT	01 No	1*1*1 KL Each
6.	Equalization Tank	01 No	12 KL
7.	Foundation for Pumps	01 Lot	As Required
8.	Plant Room/ Shed	01 No	As Required

3.5.1.4 - Sewage Suction Truck

A Sewage Suction Truck is a tank truck that has a pump and a tank. The pump is designed to pneumatically suck liquids, sludges, slurries, or the like from a location (often underground) into the tank of the truck. The objective is to enable transport of the liquid material via road to another location. Suction trucks transport the collected material to a treatment or disposal site, for example a sewage treatment plant.

A common material to be transported is septage (or more broadly: fecal sludge) which is human excreta mixed with water, e.g. from septic tanks and pit latrines. They also transport sewage sludge, industrial liquids, or slurries from animal waste from livestock facilities with pens. Suction trucks can also be used to prepare a site for installation or to access underground utilities. These trucks may use compressed air or water to break up the ground safely, without risk of damage, before installation may begin.



SEWAGE SUCTION TRUCK (8000 Ltr.)

TECHNICAL SPECIFICATIONS

Seawge Suction Tanker – Maniar (8000 Ltr.)	
Generic Parameters	
Make and Model of Vacuum Pump	swamshv35
Make and Model of PTO	vas-tgb-h1c
Make and Model of Hydraulic Motor	eaton
Make and Model of Hydraulic Pump	dowty
Make and Model of Suction Hose	dutronkanaflex

Vehicle Chassis Make and Model	tata1512lpt
Chassis Model Number	1512lpt
Chassis Type	Heavy Motor Vehicle
Type of Fuel	Diesel
Chassis Gross Vehicle Weight	16020 kilogram
Kerb Weight	5820 kilogram
Pay Load Capacity (Tonne Load)	10200
Vehicle Emission Compliance	BS-VI
Max Engine BHP	125 horsepower
Engine Torque Max@rpm	390 Newton
No of Speed/ Forward Gears	6
Gradeability of Vehicle (%)	21.8
Wheel Base	4200 millimeter
Engine Aspiration System	Turbocharged Intercooler
Mount Type	Truck Mounted Unit
Fuel Tank Capacity	160 liter
ConstructionalParameters	
Capacity of Split Shaft PTO of the vehicle (kgm)	400
Overall Length	7510 millimeter
Overall Width	2440 millimeter
Equipment Length	5510 millimeter
Equipment Height	3200 millimeter
Equipment Rear Over Hang	Yes
If Yes, Declare Equipment Rear Over Hang	2110 millimeter
Type of Front Axle and Suspension System	Elliptical leaf
Type of Rear Axle and Suspension System	Elliptical leaf
Derrick Arm Available	Yes
Vacuum Pump - Rotary Vane / Sliding Vane	Yes
Type Of Cooling	Air Cooling

Vacuum Pump Flow (cum/hr) as per IS 13496 to be declared	2500
Vacuum Pump Power (hp@rpm)	90
Vacuum Relief Valve Size	1.5 inch
Vacuum Suction Depth	10 meter

Suction Hose - Lightweight, heavy duty, reinforced, PVC along with quick connect coupling arrangement	Yes
Suction Hose Internal Diameter	80 millimeter
Suction Hose Length	3 meter
Number of Suction Hose (Nos)	5
Safety Equipments	vrv
Silencer/ Filter (Micro Strainer)	Yes
Exhaust Silencer and injection cooling air Inlet Silencer/ Filter	Yes
Blower Outlet and Air-Exhaust Silencer	Yes
Check valve	Yes
Vacuum Limitation Valve	Yes
Drain Off valve	Yes
Total Tank Capacity (sludge tank+water tank)	8000 liter
Water storage Tank Capacity	500 liter
Sludge Storage Tank capacity	7500 liter
Thickness of tank plate	6 millimeter
Material of tank	Mild steel (Grade-A) conforming to IS 2062 latest
Surface preparation and finish of tank's Exterior - sanded prior to spray painting and spray painted with two coats of superior quality anti corrosive primer and two coats of enamel metal paint	Yes
Surface preparation and finish of Tank's Interior - clean water two coats anti corrosive primer & two coats of grey enamel paint & Sludge shall be with two coats of epoxy paint to resist corrosion	Yes
Provision for locking and unlocking arrangement of rear gate of tank, to be operated hydraulically for quick tipping and cleaning	Yes



SEWAGE SUCTION TRUCK (6000 Ltr.)

TECHNICAL SPECIFICATIONS

Sr. No	Category	Component/sub-assemblies	Parameter	Rating/Value/Size
1	features	Vacuum Pump	Type	Rotary Sliding vane
			Cooling	Air cooled
			Drive	Hydraulic
		Jetting Pump	Type	Triplex plunger pump
			Displacement	Reciprocating positive displacement
			Drive	split shaft unit
		Jetting Hose	Dia./Length/Qty./Type	(3/4")/60 mtr/01 nos./Thermoplastic
		Jetting Nozzle	Size/Shape/Qty.	(3/4")/Round/01 nos.
			Size/Shape/Qty.	(3/4")/Conical/01 nos.
		Hose reel	Drive	Low speed high torque hydraulic motor.
			Type	Swivel
		Tank	Tank rear door opening	Hydraulic
			Tank tipping /Angle	NA
			MOC	5 mm/IS:2062 Gr.B
		Suction Hose	Dia./Length/Qty	3"/3 mtr./5 no's
		Sludge Suction & Drain valve	Size	3"
			Type	Knifegate
		Hyd. Pump	Type	Gear type or Axial piston type
		Tank	Volume	6000 ltr
			Fresh water /Sludge water	3500 ltr/2500 ltr
		Vacuum Pump	Flow / Vacuum	(318 cum./hr.) / 90%
		Jetting Pump	Flow / Pressure/Power	122 to 153 LPM/130 to 160

2	Capacity			bar/ 50 hp
		Jetting Hose	Max. Working Pressure	172 bar
			Min. Burst Pressure	430 bar
		Hose reel	Jetting hose storage Capacity	60 mtr
		Split shaft pto	Throughput Torque	400 kgm
			No.of Auxiliary Outputs	2
3	Safety	Water level indicator	Type/Qty	Tube type/02 nos.
		Pressure relief valve	Size/Qty	2"/1 no's
		Vacuum relief valve	Size/Qty	1.5"/1 no's

4	Mounting	Chassis	GVW	12 TON
			Emission Norms	As per local RTO Norms
			Chassis Engine output	Max 150 HP and torque 450 Nm max.
			Driver's Cabin Type	Single (Day) Cabin
			Make/model/wb/hp/Side PTO Provision	Ashok Leyland/1215/4200mm/150hp/Mandatory
			Make/model/wb/hp/Side PTO Provision	Tata/LPT 1212/4200 mm/125 hp /Mandatory.
			Make/model/wb/hp/Side PTO Provision	Any other equivalent model of other chassis manufacturers.
			Chassis Scope	Customer
			Side PTO Scope	Kam-Avida
5	Dimensions	Equipment	Equipment length	5390 mm Approx.
			Equipment height	2110 mm Approx.
			Overall width	2395 mm Approx.
			Overall height	3005 mm Approx.
			Equipment rear over hang	2160 mm Approx.
6	Painting	Surface preparation and finish	Equipment's Exterior	Spray-painted with two coats of superior quality anti-corrosive primer and two coats of enamel metal paint. Colour code will be as per customer / tender requirements.
			Tank's interior	Coated with 2 coats of superior quality anti-corrosive grey epoxy paint.

3.6 Accessories:

3.6.1 Handgloves



Features

- Cut Resistance
- Chemical Resistance
- Inside Cotton Lining

3.6.2 Gumboots



Features

- Cut Resistance
- Chemical Resistance
- Steel Toe

3.6.3 240 Ltr Wheeled Bin



Features

- Capacity: 240 ltr
- MOC: HDPE
- Wheels: 2 Nos.

3.6.4 Uniform

- Cotton Shirt and Pant for male
- Cotton Saree or Salwar Kameez for female
- Apron is must with Uniform

Type A Accessories

Sr. No.	Particulars	Quantity
1.	Hand Gloves	25 Pairs
2.	Gum Boot	10 Pairs
3.	Dustbin	20 Nos.
4.	Uniform	20 Nos.

Type B Accessories

Sr. No.	Particulars	Quantity
1.	Hand Gloves	50 Pairs
2.	Gum Boot	20 Pairs
3.	Dustbin	40 Nos.
4.	Uniform	40 Nos.

3.7 Management Information System (MIS)

Good Municipal Solid Waste management practices is the key to keep a city clean. This requires collection of critical information which is not just for keeping the records up-to-date but used effectively for taking corrective measures as well as proper planning for future. Some information is, therefore, required to be collected to have an overall idea of the prevalent situation, deficiency in the system and likely requirements of the further information which could highlight deficiencies in the system on day-to-day basis and could be used for taking corrective measures has to be collected at regular intervals to monitor the services.

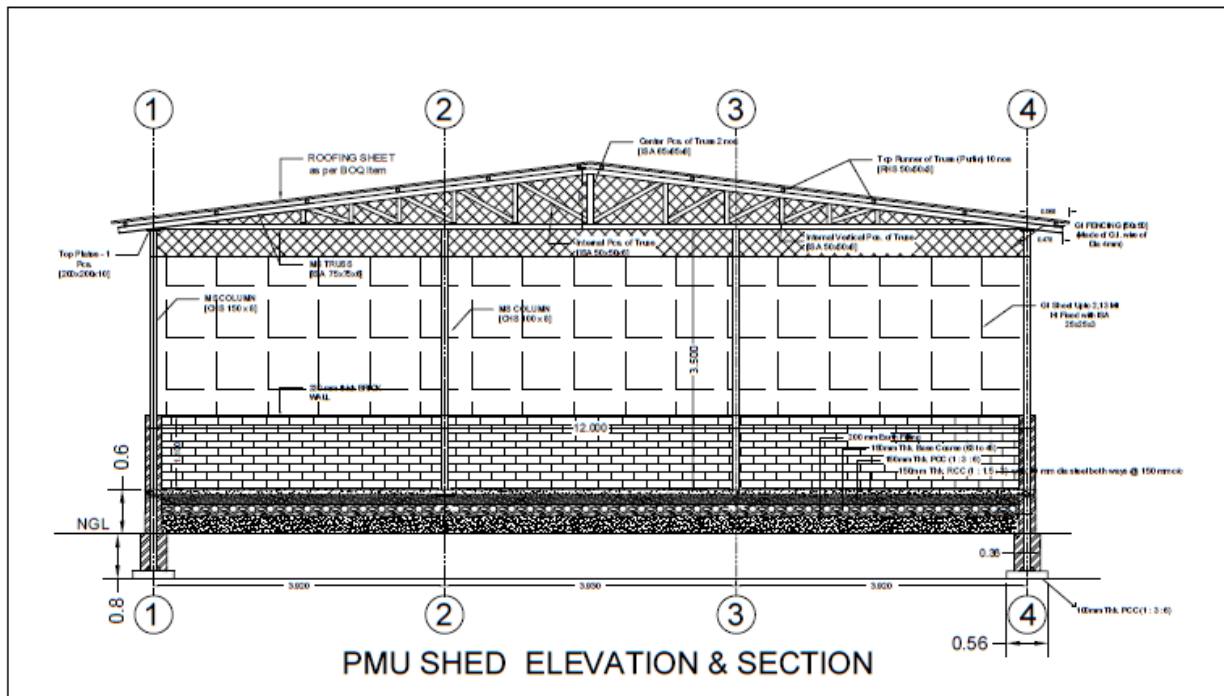
Computerisation of such information helps at all the levels of administration to work not harder but smarter and also to establish strong and reliable information data base necessary to facilitate the decision making and monitoring process for management. With the Management Information System (MIS), this can be done easily.

Here MIS is proposed to 60 Waste Generating Villages for a period of 2 years. The Application is to Manage, Collect, Transfer and Disposal of Waste. The application is designed to Collect data, Volume performance and Scientific Waste Management practice so that Village Panchayat fills the data on daily basis and BDO and Director of Panchayat can easily monitor the progress of project.

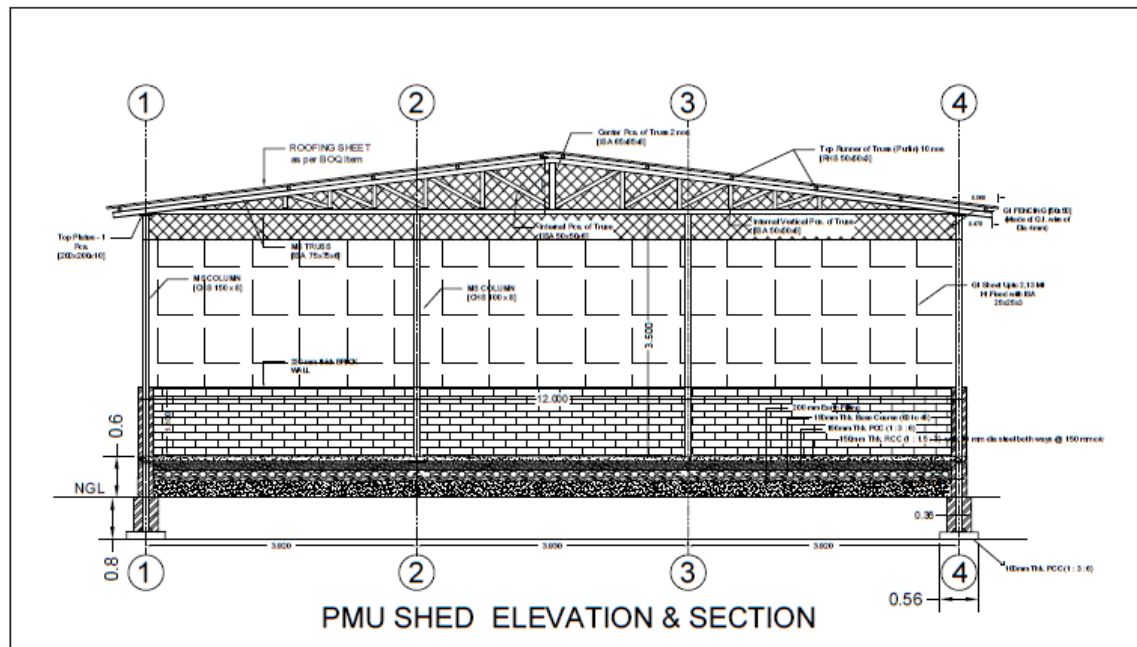
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4. CIVIL WORK

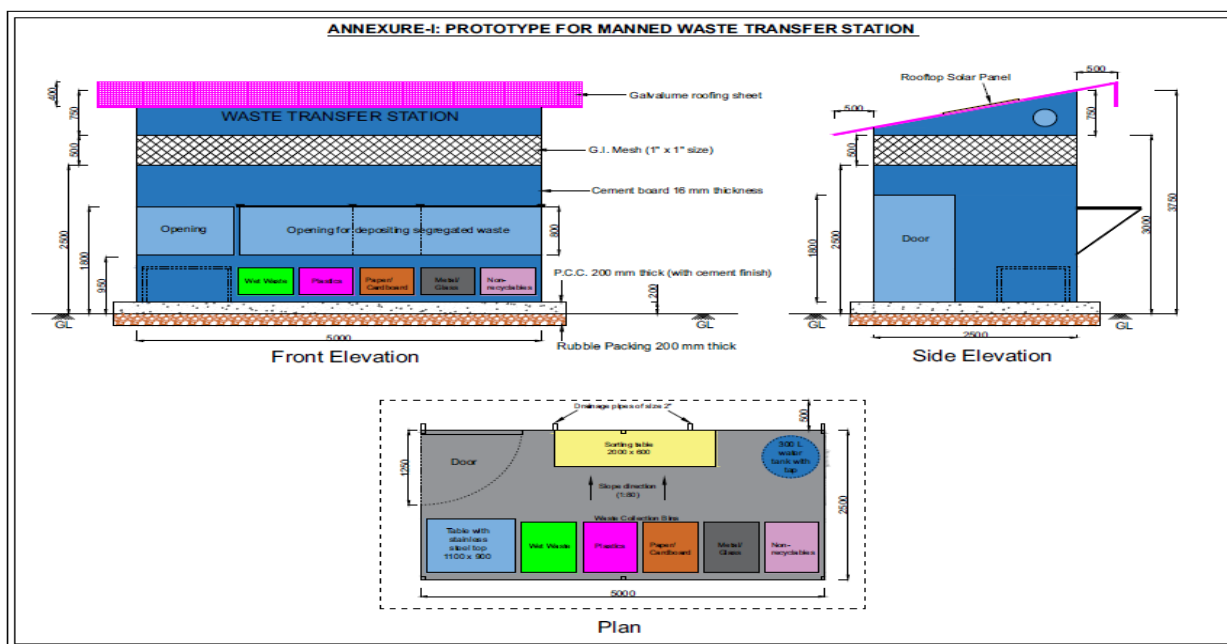
4.1 100 Sq. Mtr. MRF Shed / PMU Shed



4.2 200 Sq. Mtr. MRF Shed



4.3 15 Sq. Mtr. Manned Waste Transfer Station



5. PLASTIC WASTE MANAGEMENT AT BLOCK LEVEL

Introduction:

The overall objective of plastic waste management is to ensure the proper management of the plastic waste generated in the villages to protect both public health and the environment.

For effective management of the plastic waste activities, planning, implementation, O&M and monitoring and evaluation of each step is required.

The proposed district/block level roll out of plastic waste management.

Block level Plastic Waste Management includes:

- Identification of site for setting up of plastic waste management unit
- Ensuring procurement of infrastructure/equipment
- Plan for transportation of plastic waste from the aggregation centres (sheds at village level) to block management units.
- Block to ensure the disposal of aggregated plastics.
- Plan for O&M of the centre
- IEC/IPC plan at block level
- Capacity building plan of key stake holders
- Identification on of plastic scrap dealers/recyclers

Infrastructure:

PWM Unit Shed:

A shed of 200 Sq. Mtr. Is proposed for Plastic Waste Management Unit at each block.

Machineries: Forklift: 2 Nos

6. IEC ACTIVITIES

Information, Education and Communication (IEC):

SBM (G) Phase II is not just about constructing infrastructure for ODF plus villages but aims at behaviour change of the masses to adopt better sanitation and hygiene practices. Therefore, Information, Education and Communication (IEC) strategies, planning and their effective implementation is the key to the success of the mission.

Following activities are listed down in DPR for IEC:

Sr. No.	Activity	Activity Details	Units /Village
1)	Cleanliness/ Awareness drives in Village Areas and unclean sites	<ul style="list-style-type: none"> ➤ Drives in VP's/ unclean sites involving VP staff, school children, Govt. employees, BWG, local community members, local shopkeepers, volunteers, NGOs etc. ➤ Conducted in the form of a lecture/training session with a cleaning drive as directed and on a case to case basis ➤ Requirements include 02 event banners, 10 awareness cloth banners (not flex/PVC) ➤ Organization for lecture/seminar ➤ Cleanliness equipment like brooms, brushes, cleaning materials, bags etc. ➤ Total participation not less than 50 people. ➤ Usage of disposal items of plastic and thermocol is restricted in during the events. ➤ Requisite Resource manpower to execute the activity including emcee and/or staff. 	2
2)	Road show /awareness in Village Panchayat	<ul style="list-style-type: none"> ➤ Road shows and Street play involving staff, students, local community members etc. ➤ Conducted in the form of a lecture/training session with a cleaning drive as directed and on a case to case basis ➤ Audio Video equipment and screens/backdrops to showcase videos and other promotional materials will be required. ➤ 02 event banners, 10 awareness cloth banners (not flex/ PVC) ➤ Total participation not less than 100people ➤ Usage of disposal items of plastic and thermocol is restricted in during the events. ➤ Requisite manpower to execute the activity including emcee and/or staff 	1
3)	Open School painting/ poster, slogan writing	<ul style="list-style-type: none"> ➤ At Village Panchayat and State level open School painting/ poster Competition in two groups i.e., 6 to 8 class and 9 to 12 class (covering all Govt. Middle, Secondary and Sr. Secondary school). 	3

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	and quiz Competition	<ul style="list-style-type: none"> ➤ At District and State level open School Quiz Competition in two groups i.e., 6 to 8 class and 9 to 12 class (covering each Govt. Middle, Secondary and Sr. Secondary school). ➤ At District and State level open School slogan writing Competition in two groups i.e. 6 to 8 class and 9 to 12 class (covering each Govt. Middle, Secondary and Sr. Secondary school). ➤ A special theme on SBM will be advertised in 4 local newspapers (4 Column X Half Page- colored) and paintings on the theme will be invited. ➤ An exhibition of the paintings received will be held and awards will be given under various age groups for best paintings. ➤ The agency will make all the arrangements for the event & for the exhibition. The paintings received by the Dept. will be taken care of by the agency and got evaluated by the agency by a panel of experts nominated by the dept. The ad inviting paintings on SBM will be prepared by the agency and got approved by the dept. ➤ Drawing sheets, stationary will be arranged by the Agency ➤ Trophies/ awards/ certificates and honorarium for judges will be arranged by the agency. ➤ 02 event & 05 awareness cloth banners (not flex/ PVC) size 5 x 3feet. ➤ Refreshment to each participant: (01 Tetra pack of juice 200 ml, 01 Samosa, 02 Bananas/ apple, NOT fast food), usage of disposal items of plastic and thermocol is restricted during the events. ➤ 100-200 students to participate in this event. Being a competition, only selective students may participate in this event. ➤ Requisite manpower to execute the activity including emcee and/or staff. 	
4)	Street plays/Nukkad Nataks	<ul style="list-style-type: none"> ➤ A play of 30 minutes (in Konkani& Hindi mixed) with at least 8-10 characters will be prepared by the agency depicting different components of SBM. ➤ The play will have to be performed in various crowded places of VPs equally by the agency by professional actors. ➤ 02 event banners, 10 awareness cloth banners (not flex/ PVC) 	1
5)	Printing of awareness posters	<ul style="list-style-type: none"> ➤ A3 (Colored) in multiple languages from English/Hindi/Konkani ➤ Designing & Printing 	1

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		<ul style="list-style-type: none"> ➤ Distribution through various media. ➤ Material poster will be finalized by the Agency from the Department. 	
6)	Printing of IEC SBM manual & IEC KIT	<ul style="list-style-type: none"> ➤ (colored)- 8 pages, Executive royal excel bond glazed with photos & text ➤ Designing & Printing Distribution at VP ➤ Material for written will be finalized by the Agency from the Department. ➤ In multiple languages such as English, Hindi, Konkani, etc. 	3
7)	Production of Television spots (Common activity)	<ul style="list-style-type: none"> ➤ 30 second television spots on local channels etc. ➤ Theme/necessary information will be provided by the EPIL and dept. ➤ The ad will be prepared by the agency involving professional local actors. ➤ The approved Ad has to be provided to the dept. assort copy (10 copies). 	2
8)	Production of Audio-visual (success stories on SBM-G and awareness) (Common Activity)	<p>10 minutes Audio-visual</p> <ul style="list-style-type: none"> ➤ Theme/necessary information will be provided by the dept. ➤ The approved A-V has to be provided to the dept. as a soft copy (10 copies). 	1
9)	Wall paintings	<ul style="list-style-type: none"> ➤ Thematic wall paintings on Govt. buildings at prominent places i.e. Bus stand, schools, Anganwadis, Health centers/ hospital, ULB office, police station or other crowded places ➤ Specifications: minimum 6x10 ft. to 10x 15 ft. each, permissions to be taken by the agency from concerned authorities. 	3
10)	Public awareness Dry waste storage bags	<ul style="list-style-type: none"> ➤ Production of public awareness Bags: 150 GSM 1 side print ➤ PP woven bags. Reusable ➤ Heavy duty, 150-200 GSM. 	1
11)	Seminar/ Workshop	<ul style="list-style-type: none"> ➤ VP/ State level seminars/ workshops involving officers concerned, NGOs, CBOs, researchers, academicians and public representatives. ➤ Participation of 60-100 (including host team) may be required. In any case, not below 50 participants exclusively. ➤ Honorarium or a token of appreciation may also be required. ➤ Plastic & Thermopolis disposal items will not be used, plastic wrappers on flowers, gifts/ prizes etc. in any 	1

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		<p>form is prohibited in all events.</p> <p>Requirements:</p> <ul style="list-style-type: none"> ➤ Audio Visual equipment's may be required during the Seminar/Workshop. ➤ Tea/ refreshment/ snacks to be served to the audience. ➤ Requisite manpower to execute the activity including emcee and/or trainer. 	
12)	Social Media Presence on Facebook, Instagram	<ul style="list-style-type: none"> ➤ State level and VP level Post and videos ➤ Preparation artwork, Videos 10 post and 3 videos/reels for a month ➤ Post over 40 stories in a month ➤ Creating post on special occasions, Tagging and resharing of post from prominent stakeholders and informative post. 	1
13)	Uniforms (Printed tee-shirts and hats) for various events	<ul style="list-style-type: none"> ➤ Design and print of tee-shirts and hats with appropriate branding for specific events ➤ Estimate use of 25 of each in every activity 	1
14	District Level Awareness and Capacity Building	<ul style="list-style-type: none"> ➤ District Level Awareness and Capacity Building for North and South District ➤ Celebration Of Swachh Grahni Mela ➤ Food Stalls ➤ Best Performing Village Panchayat. ➤ Competitions Related to waste Painting, Wealth out of Waste, Fancy Dress, Launch. 	4

Note: 1) Number of activities given above are estimates and the actual number may vary by up to (+/-) 10 percent.

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LIST OF PANCHAYATS

Engineering Projects (I) Ltd.					
Swachh Bharat Mission - II (G)					
List of 43 Village Panchayat for SITC of Solid & Liquid Waste Management for FY 2023-24					
S.No.	Block	Village Panchayat	Item Description	Capacity	Qty In Nos.
1	Pernem	Querim Tiracol	MRF Shed	200 Sqm	1
			OWC Composter	500 Kg/day	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
2		Parcem	MRF Shed	200 Sqm	1
			OWC Composter	500 Kg/day	1
			Compost Siever	50 Kgs	1
			Plastic Shredder	5 HP	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Diesel Vehicle	3.3 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
3		Chandel Hasapur	MRF Shed	200 Sqm	1
			OWC Composter	500 Kg/day	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
4	Dharbandora	Dabal - Kirpal	MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 Cum	1
			Weighing Scale	500 Kgs	1
			FSTP	40 KLD	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
			5	Sancordem	MRF Shed

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			Diesel Vehicle	2.0 Cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
6	Sanguem	Neturlim	Accessories	A	1
			Transfer Station	15 Sqm	1
7	Quepem	Naqueri Betul	MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 Cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
8	Sattari	Nagargao	MRF Shed	200 Sqm	1
			Plastic Shredder	5 HP	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
9		Guleli	MRF Shed	200 Sqm	1
			Plastic Shredder	5 HP	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
10		Cotorem	MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
			11	Dongurlim	MRF Shed
Bailing Machine		10 HP			1
Automated Forklift		1.5 Ton			1
Diesel Vehicle		2.0 cum			1
Weighing Scale		500 Kgs			1
Accessories		A			1
Transfer Station		15 Sqm			1
12		Poriem	MRF Shed	200 Sqm	1
			Plastic Shredder	5 HP	1

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			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
13		Sanvordem	MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
14		Bhironda	Transfer Station	15 Sqm	1
			MRF Shed	100 Sqm	1
			Plastic Shredder	5 HP	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
15	Tiswadi	Carambolim	Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
			FSTP	40 KLD	1
			Weighing Scale	500 Kgs	1
			Diesel Vehicle	2.0 cum	1
16		Sao Matias	Automated Forklift	1.5 Ton	1
			Bailing Machine	10 HP	1
			Plastic Shredder	5 HP	1
			Transfer Station	15 Sqm	1
			Accessories	A	1
			Weighing Scale	500 Kgs	1
17	Bicholim	Mencurem - Dhumashe	Diesel Vehicle	2.0 cum	1
			Automated Forklift	1.5 Ton	1
			Bailing Machine	10 HP	1
			Compost Siever	50 Kgs	1
			OWC Composter	500 Kgs	1
			Accessories	A	1

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18		Navelim	Transfer Station	15 Sqm	1
			MRF Shed	200 Sqm	1
			OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	20 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Diesel Vehicle	3.3 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
19		Pale Cothambi	Transfer Station	15 Sqm	1
			MRF Shed	100 Sqm	1
			OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
20		Velguem	MRF Shed	200 Sqm	1
			OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Diesel Vehicle	3.3 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
21		Cudnem	OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Weighing Scale	500 Kgs	1
			FSTP	40 KLD	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
22		Shirgao	MRF Shed	100 Sqm	1
			OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Plastic Shredder	5 HP	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1

**SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE**

23			Weighing Scale	500 Kgs	1	
			Accessories	A	1	
			Transfer Station	15 Sqm	1	
		Ona-Maulinguim	MRF Shed	200 Sqm	1	
			OWC Composter	500 Kgs	1	
			Compost Siever	50 Kgs	1	
			Bailing Machine	10 HP	1	
			Automated Forklift	1.5 Ton	1	
			Diesel Vehicle	2.0 cum	1	
			Diesel Vehicle	3.3 cum	1	
			Weighing Scale	500 Kgs	1	
			Accessories	A	1	
			Transfer Station	15 Sqm	1	
24	Mormugao	Cansaulim	Diesel Vehicle	2.0 Cum	1	
			Diesel Vehicle	3.3 Cum	1	
			Accessories	A	1	
			Transfer Station	15 Sqm	1	
25	Bardez	Vella-Canca	Bailing Machine	10 HP	1	
			Automated Forklift	1.5 Ton	1	
			Diesel Vehicle	2.0 cum	1	
			Weighing Scale	500 Kgs	1	
			Accessories	A	1	
			Transfer Station	15 Sqm	1	
		26	Revora	Bailing Machine	10 HP	1
				Automated Forklift	1.5 Ton	1
				Diesel Vehicle	2.0 cum	1
				Weighing Scale	500 Kgs	1
				Accessories	A	1
				Transfer Station	15 Sqm	1
		27	Nadora	Bailing Machine	10 HP	1
				Automated Forklift	1.5 Ton	1
Diesel Vehicle				2.0 cum	1	
Weighing Scale				500 Kgs	1	
Accessories				A	1	
Transfer Station				15 Sqm	1	
28		Uccasiam	Bailing Machine	10 HP	1	
			Automated Forklift	1.5 Ton	1	
			Diesel Vehicle	2.0 cum	1	
			Weighing Scale	500 Kgs	1	
			Accessories	A	1	
			Transfer Station	15 Sqm	1	
29		Pomburpa	Bailing Machine	10 HP	1	
			Automated Forklift	1.5 Ton	1	
			Diesel Vehicle	2.0 cum	1	
			Weighing Scale	500 Kgs	1	

**SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE**

			Accessories	A	1
			Transfer Station	15 Sqm	1
30		Sircaim	Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
31	Ponda	Marcaim	Accessories	A	1
		Transfer Station	15 Sqm	1	
32		Betqui-Candola	MRF Sheds	200 Sqm	1
			OWC Composter	500 Kgs	2
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	3.3 Cum	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
33		Bhoma - Adcolna	MRF Sheds	200 Sqm	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	3.3 Cum	1
			Diesel Vehicle	2.0 cum	1
			FSTP	40 KLD	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
34		Cundaim	OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	3.3 Cum	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	B	1
			Transfer Station	15 Sqm	1
35		Borim	MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

36		Panchawadi	Bailing Machine	20 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
			Transfer Station	15 Sqm	1
37		Querim	MRF Shed	100 Sqm	1
			OWC Composter	500 Kgs	1
			Compost Siever	50 Kgs	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Weighing Scale	500 Kgs	1
			Accessories	A	1
38	Salcete	Seraulim	Transfer Station	15 Sqm	1
			MRF Shed	100 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 Cum	1
			Diesel Vehicle	3.3 Cum	1
			Accessories	A	1
			Weighing Scale	500 Kg	1
39		Betalbatim	Transfer Station	15 Sqm	1
40			MRF Shed	100 Sqm	1
	Quepem	Barcem	MRF Shed	200 Sqm	1
			Bailing Machine	10 HP	1
			Automated Forklift	1.5 Ton	1
			Diesel Vehicle	2.0 cum	1
			Accessories	A	1
			Weighing Scale	500 Kg	1
41	Bicholim	Amona	Transfer Station	15 Sqm	1
42	Mormugao	Chicalim	MRF Shed	100 Sqm	1
43		Nagao	MRF Shed	100 Sqm	1

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

Preferred Make Vendor List of Equipment's for SBM-II (G) for (FY 23-24)

Sr. No.	Technology for SWM	Vendor/Technology Provider			
A	SOLID WASTE MANAGEMENT				
1	Biomethanation Cum Power Generation Plant of Capacity 1 TPD	Mailhem Environment Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Earth Care Equipments Pvt Ltd	Netelkrishna Eco Projects LLP
2	Biomethanation Cum Power Generation Plant of Capacity 5 TPD	Mailhem Environment Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Earth Care Equipments Pvt Ltd	Netelkrishna Eco Projects LLP
3	Biethanation Plant of Capacity 2 TPD (Gobardhan)	Mailhem Environment Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Earth Care Equipments Pvt Ltd	Netelkrishna Eco Projects LLP
4	Biomethanation Plant of Capacity 5 TPD (Gobardhan)	Mailhem Environment Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Earth Care Equipments Pvt Ltd	Netelkrishna Eco Projects LLP
B	LIQUID WASTE MANAGEMENT	Vendor/Technology Provider			
1	Effluent Treatment Plant -15 KLD	Enversys Greentek Solutions	Prithvi Environment Solutions and Consultants Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	
2	Effluent Treatment Plant -30 KLD	Enversys Greentek Solutions	Prithvi Environment Solutions and Consultants Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	
3	Feacal Sludge Treatment Plant -40 KLD	Enversys Greentek Solutions	Prithvi Environment Solutions and Consultants Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Netelkrishna Eco Projects LLP
4	Sewage Treatment Plant - 40 KLD	Enversys Greentek Solutions	Prithvi Environment Solutions and Consultants Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Netelkrishna Eco Projects LLP

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

C	Equipment & Accessories Details	OEM Vendor/Supplier Make			
1	Organic Waste Converter Machine of Capacity 500 Kg/Day with twin Shaft Shredder	Green Era Engineering	Earth Care Equipments Pvt Ltd	Innovativa Waste Aid and Management Pvt Ltd	Netel India Ltd
2	Plastic Waste Shredder Machine 5 HP	Green Era Engineering	Yimby Treat	Dreamtouch Success System Pvt Ltd	Netel India Ltd
3	Compost Seiving Machine	Infinity Hydraulics	Innovativa Waste Aid and Management Pvt Ltd	Dreamtouch Success System Pvt Ltd	
4	Bailing Machine of Capacity 10 HP	Rameshwar Engineering Works	Infinity Hydraulics	Innovativa Waste Aid and Management Pvt Ltd	
5	Bailing Machine of Capacity 20 HP	Rameshwar Engineering Works	Infinity Hydraulics	Innovativa Waste Aid and Management Pvt Ltd	
6	Automatic Battery Operated Forklift	Josts Engineering Company Ltd	Innovativa Waste Aid and Management Pvt Ltd	Infinity Hydraulics	
7	Garbage Diesel Vehicle - 1496 CC (TATA/Ashok Leyland/Mahindra) with 3.3 Cum Tank Mounted	Beep Jyoti Engineering Pvt Ltd	Mauli Auto Tech	U S Enterprises	
8	Garbage Diesel Vehicle - 702 CC (TATA/Ashok Leyland/Mahindra) with 2.0 Cum Tank Mounted	Beep Jyoti Engineering Pvt Ltd	Mauli Auto Tech	U S Enterprises	
9	Weigh Scale - 500kgs	Sunrise Technology	Innovativa Waste Aid and Management Pvt Ltd	Prithvi Industries	
10	Sewage Suction Tanker	Kam aida	Maniar	Innovativa Waste Aid and Mgt Pvt Ltd	Netelkrishna Eco Projects LLP

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

11	Hand Gloves	Ansell	Honeywell	Alphatech	
12	Mask	Honeywell	Leslico	3M	
13	Gum Boot	Hilson	Karam	Duckback	Bata
14	Uniform	Karam	3M	Raymond	Siyaram
15	Dustbin 240 Ltr	OTTO	Nilkamal	Aristo	Cello
16	Structural Steel /Reinforcement Steel	TATA	SAIL	JSW/JSPL	RINL
17	Cement - OPC/PPC/PSC -53 Grade/ 43 Grade	ACC/Ambuja	Birla/Ultratech	Dalmia	Zuari
18	Acrylic Paint	Asian Paints	Berger	Nerolac	Shalimar
19	Cement Paint	Asian Paints	Berger	Nerolac	Shalimar
20	Roof Sheeting	JSW	Tata	Essar	
21	Hydarulic Cylinder	EN 8			
22	Hydraulic Drive	Dowty	Eaton	Perfect Engineering	
23	Shredder/ Crusher Teeth	EN 8	Stainless Steel 304		
24	Shredder/ Crusher Hopper	Stainless Steel 304			
25	Plastic Crates	OTTO	Nilkamal/Cello	Aristo	
26	Blower for Composting	Phoenix	Havells	Artech/Revolution	
27	Motor	Kiloskar Electric	ABB/Siemens	Bharat Bijlee/Bonfiglioli	
28	Gear Bor/Reducer	Premium/L&T	Elecon/PBL	Shanti Gears/Nord	
29	Geared Motor	ElectroMech Engineers	ABB/Siemens	Bharat Bijlee/Bonfiglioli	
30	Bearings	SKF	NTN	FAG	
31	Electrical Control Panel Parts	Siemens	ABB	L&T	Schneider
32	Electrical Cables	Polycab/KEI	ABB/Siemens/RPG	V-Guard/Havells	National
33	Switches	Schiender	Legrand	Havells	

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

Sr. No.	Equipment Details	Vendor Make			
	Biogas Plant				
1	Biogas Genset	KOEL / Kirloskar	Mahindra Powerol	Ashok Leyland	Prakash
2	Slurry Feed Pump	Green Pumps	Kirloskar	Crompton Greaves	Bosch
3	Mechanical Grinder/Shredder	IWAM			
4	Segregation Table -SS 304 (2.5 mm thk)		Sai Samarth Engineering Works		
5	Sludge Recirculation Pump	Green Pumps	Kirloskar	Crompton Greaves	
6	Biogas Balloons	Urja BioSystem Pvt Ltd.	Green Power Solution	Entremonde Polycoaters Limited	
7	Solid Liquid Separator	SEPCOM	Shree Techno Services		
8	Air Compressor	Atlas Copco	ELGI	Paras Compressor	MK Engineering
9	Biogas Flow Meter	Burak Metering	PS Instruments , Mumbai	Inconel	
10	Scum removal/breaker	Enprotech Solutions or Equivalent	IWAM		
11	Conveyor Belt System	Jyoti Industries, Bhopal	ACME	Dhanvantri Engineers Pvt Ltd.	
12	Mild Steel & Galvanised Pipe	SAIL	JSW/JSPL	APOLLO	TATA
13	Motor for all equipments	Kirloskar Electric/ Crompton	ABB/Siemens	Bharat Bijlee/Bonfiglioli	Bosch
14	Gear Box/Reducer	Premium/L&T	Elecon/PBL	Shanti Gears	
15	Geared Motor	Premium/L&T	ABB/Siemens	Crompton Greaves	
16	Electrical Control Panel Parts	Siemens	ABB	L&T	Schneider
17	Electrical Cables	Polycab/KEI	ABB/Siemens/RPG	V-Guard/Havells	National
18	Switches	Schneider	Legrand	Havells	
19	Valves	Finolex		Astral	
20	Pipes -PVC, C-PVC, U-PVC	Finolex	Prince	Astral	Apollo

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

B	Feecal Sludge Treatment Plant / Sewage Treatment Plant	Vendor Make			
1	Raw Sewage Feed Pump	Green Pumps	Kirloskar	Crompton Greaves	
2	Chlorine Dozing Unit	e Doze	Neo		
3	Filter Feed Pump	Kirloskar	Lubi	Crompton Greaves	Green Pumps
4	Air Blower	Airwac	Akash Blowers	USHA	Everest
5	Air Diffuser	Enviro	Pharmatec	SCI	MM Aqua
6	MBBR Media	GFT	Cooldeck		
7	Tube Pack	GFT	Cooldeck		
8	Ozone System	Powertech	Sytron		
9	Screw Press	Akash Blowers			
10	Pressure sand Filter	Pentair	Starlite		
11	Activated Carbon Filter	Pentair	Starlite		
12	Motor for all equipments	Kiloskar Electric/ Crompton	ABB/Siemens	Bharat Bijlee/Bonfiglioli	Bosch
13	Gear Bor/Reducer	Premium/L&T	Elecon/PBL	Shanti Gears	
14	Geared Motor	Premium/L&T	ABB/Siemens	Crompton Greaves	
15	Coupling (Chain & Lovejoy)				
16	Electrical Control Panel Parts	Siemens	ABB	L&T	Schneider
17	Electrical Cables	Poly cab	National	Havells	
18	Switches	Schiender	Legrand	Havells	
19	Valves	Finolex		Astral	
20	Pipes -PVC, C-PVC, U-PVC	Finolex	Prince	Astral	

SWACHH BHARAT MISSION II (GRAMEEN)
DPR FOR SOLID AND LIQUID WASTE MANAGEMENT IN 79 VILLAGES ACROSS GOA STATE

C	Effluent Treatment Plant	Vendor Make			
1	Effluent Transfer Pump	Kirloskar	Lubi	Crompton Greaves	Green Pumps
2	Air Blower	Airwac	Akash Blowers	USHA	Everest
3	Filter Feed Pump	Kirloskar	Lubi	Crompton Greaves	Green Pumps
4	Tube Set Media	Enviro	Pharmatec		
5	Air Diffuser	Enviro	Pharmatec	SCI	MM Aqua
6	Chlorine Dozing Unit	e Doze	Neo		
7	Pressure sand Filter	Pentair	Starlite		
8	Activated Carbon Filter	Pentair	Starlite		
9	Electrical Control Panel Parts	Siemens	ABB	L&T	Schneider
10	Electrical Cables	Poly cab	National	Havells	
11	Switches	Schiender	Legrand	Havells	
12	Valves	Parth	Prince		
13	Pipes -PVC, C-PVC, U-PVC	Finolex	Prince	Astral	



ENGINEERING PROJECTS (INDIA) LIMITED

(A Govt. of India Enterprise)

INSTRUCTIONS TO TENDERERS AND GENERAL CONDITIONS OF CONTRACT DECEMBER, 2007

VOLUME-I

Issued to : M/s. _____



ENGINEERING PROJECTS (INDIA) LIMITED
(A Govt. of India Enterprise)

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ENGINEERING PROJECTS (INDIA) LIMITED
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INSTRUCTIONS TO TENDERERS

ENGINEERING PROJECTS (INDIA) LIMITED

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INSTRUCTIONS TO TENDERERS

1.0 **MODE OF SUBMISSION**

The Tender is to be submitted in two separate sealed covers marked as under :

ENVELOPE-1 :-

This ENVELOPE shall contain the following :

- i) Earnest Money Deposit as per clause 2.0 of 'Instructions to Tenderers' (ITT).
- ii) Letter of Undertaking for un-conditional acceptance of the tender conditions as per proforma given in ITT.
- iii) Pre-Qualification Documents and Credentials as per clause 19.0 of ITT.
- iv) Volume-I (ITT, General Conditions of Contract),
Volume-II (Notice Inviting Tender, Additional Conditions of Contract, Specifications, Drawings) and Corrigendum/ Addendum, if any, duly filled in, signed and stamped on each page by tenderer. Cutting or over-writing, if any, shall be signed and stamped by the person signing the Tender. All pro-forma forming part of Tender Documents shall be filled in, signed and stamped by the tenderer.
- v) Copy of power of attorney / partnership deed, duly attested by Notary Public authorizing the person who signs the Tender.
- vi) Any other information as required to be submitted along-with the Tender.

This envelope shall be marked as :

ENVELOPE-1 "TECHNO-COMMERCIAL BID" FOR (Name of work as mentioned in "Notice Inviting Tender")

NIT No. : _____
DUE ON : _____
FROM : (Name of the Contractor)

ENVELOPE – 2 :-

This ENVELOPE shall contain only the **Volume-III** comprising of **PRICE-BID**.

This envelope shall be marked as :

ENVELOPE-2 : 'PRICE-BID' FOR (Name of Work as mentioned in "Notice Inviting Tender")

NIT No. : _____
DUE ON : _____
FROM : (Name of the Contractor)

Both the envelopes / packets shall be individually sealed and kept in an outer envelope marked as :

TENDER FOR (Name of Work as mentioned in "Notice Inviting Tender")

NIT No. : _____

DUE ON : _____

FROM : (Name of the Contractor)

The outer envelope shall be duly sealed and shall be delivered at place of submission of Tender by the date and time fixed for receipt of Tender as mentioned in "Notice Inviting Tender". The Tenders received after the date and time of Tender receipt shall not be considered and shall be returned to the tenderer unopened. EPI shall not be responsible for any postal or other delays, whatsoever and tenderer should take care to ensure the submission of Tender at place of receipt of Tender by due date and time fixed for Tender receipt. **All the envelopes shall be addressed to the** authority who has invited the Tender as mentioned in "Notice Inviting Tender".

- 1.1 First the Envelope-1 of the tenderer shall be opened. Tenderers who unconditionally accept the tender conditions, deposit the required Earnest Money and whose Techno-Commercial Bid along with PQ Documents is found suitable shall be considered for the opening of their Price Bid and Envelope-2 of such tenderers shall only be opened. The Tenders not accompanied by requisite Earnest Money and / or not conveying un-conditional acceptance of tender conditions or whose Techno-Commercial Bid and PQ Documents are not found suitable, shall be rejected and such tenderer shall not be allowed to attend Price Bid opening i.e. opening of Envelope-2.
- 1.2 Once the tenderer has given an unconditional acceptance to the tender conditions in its entirety, he is not permitted to put any remark(s) / condition(s) (except unconditional rebate on price, if any) in / along with the 'Price-Bid' / Tender.
- 1.3 In case the condition 1.2 mentioned above is found violated at any time after opening of Tender, the Tender shall be summarily rejected and EPI shall, without prejudice to any other right or remedy, be at liberty to forfeit the full said Earnest Money absolutely.

2.0 **EARNEST MONEY DEPOSIT**

Earnest Money Deposit of amount as mentioned in "NIT/ITT/Memorandum" to "Form of Tender" required to be submitted alongwith the Tender shall be in the form of Demand Draft payable at place as mentioned in "NIT/ITT" in favour of EPI Limited from any Nationalized / Scheduled Bank or in the form of Bank Guarantee from any Nationalized / Scheduled Bank in enclosed format. The EMD Bank Guarantee shall be valid for a minimum period of 150 (One Hundred Fifty) days from last day of submission of Tender. The EMD shall be governed by Clause 7.0 of General Conditions of Contract.

- 3.0 EPI reserves the right to reject any or all the Tenders in part or full without assigning any reason whatsoever thereof. EPI does not bind themselves to

accept the lowest Tender. EPI reserves the right to award the work to a single party or to split the work amongst two or more parties as deemed necessary without assigning any reason thereof. The Contractor is bound to accept the portion of work as offered by EPI after split up at the quoted / negotiated rates.

4.1 FOR ITEM RATE TENDERS

- 4.1.1 The tenderers should quote the rates for items tendered by them in figures as well as in words and the amounts in figures only. The amount for each item should be worked out and the requisite totals and page totals given.
- 4.1.2 All corrections/cuttings should be signed by the tenderer. Each page of the Tender should be signed by the tenderer. In the event of discrepancy between rate in figures and words the rate quoted in words shall be treated as correct. In case there is discrepancy between rate and amount worked out, the rate quoted shall be taken as correct and not the amount.
- 4.1.3 Price shall be entered against each item in Bill of Quantities where quantities or LS (lump-sum) has been mentioned. The cost of item against which the Contractor has failed to enter a rate or price shall be deemed to be covered by rates and prices of other items in the Bill of Quantities and no payment shall be made for the quantities executed for items against which rate has not been quoted by Contractor. No rate is to be quoted against items for which no quantity is given. However, the Contractor has to quote rate against "LS" items.

4.2 FOR PERCENTAGE RATE TENDERS

- 4.2.1. In case of Percentage Rate Tenders, tenderer shall fill up in the Schedule / Bill of Quantities, percentage Below/Above/Par (in figures as well as in words) to total estimated cost given in Schedule / Bill of Quantities, he will be willing to execute the work. The tenderer should quote a unique single percentage plus / minus over the total estimated amount given in Schedule / Bill of Quantities. In case more than one schedule is given, stipulating quoting of separate percentages (plus or minus) over the estimated amount of each schedule, the tenderer can quote separate percentages for each such schedule. Under no circumstances, tenderer is allowed to quote separate percentages for individual items, trades or group of items. In case tenderer quotes separate percentages for individual items, trades or group of items instead of to the total amount of schedule(s), the Tender shall be rejected and earnest money of the tenderer shall be forfeited in totality.
- 4.2.2 In case of Percentage Rate Tenders, the tenderer shall also work out the total amount of his offer after adding percentage (plus or minus) over the total schedule amount and the same should be written in figures as well as in words in such a way that no interpolation is possible.
- 4.2.3 In case of Percentage Rate Tenders, only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the tenderer in Percentage Rate Tender shall be accurately filled in figures and words. All corrections/cuttings should be signed by the tenderer. Each page of the Tender should be signed by the tenderer. In the event of discrepancy between percentage rate in figures and words, the percentage rate

- quoted in words shall be treated as correct. In case there is discrepancy between percentage rate and amount worked out the percentage rate quoted shall be taken as correct and not the amount. For any other discrepancy, the decision of Tender Scrutiny Committee of EPI shall be final & binding on the tenderer including rejection of Tender and forfeiture of EMD.
- 5.0 The Tenders shall be strictly as per the conditions of contract. Tenders with any additional condition(s)/modification(s) shall be rejected.
- 6.0 The witnesses to the Tender / Contract Agreement shall be other than the tenderer / tenderers competing for this work and must indicate full name, address, status/occupation with dated signatures.
- 7.0 The acceptance of Tender will rest with EPI. Tenders in which any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.
- 8.0 Canvassing whether directly or indirectly in connection with Tenders is strictly prohibited and the Tenders submitted by the Contractors who resort to canvassing will be liable to rejection.
- 9.0 On acceptance of Tender, the name of the accredited representative(s) of the Contractor who would be responsible for taking instructions from Engineer-In-Charge or its authorised representative shall be intimated by the Contractor with in 07 days of issue date of telegram / letter / telex / fax of Intent by EPI.
- 10.0 The tenderer shall not be permitted to Tender for works if his near relative is posted as an Assistant Manager or any higher ranks in the concerned Regional Office of EPI. The Contractor shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any of the officers in EPI. Any breach of this condition by the tenderer would render him liable to the withdrawal of the work awarded to him and forfeiture of Earnest Money and Security Deposit. This may also debar the Contractor from tendering for future works under EPI.
- 11.0 No employee of EPI of the rank of Assistant Manager and above is allowed to work as a Contractor or as an employee of a Contractor having interest in EPI for a period of two years after his retirement/relief from the service of EPI, without the prior permission of EPI in writing. This contract is liable to be cancelled if either the Contractor or any of his employee is found at any time to be such a person who had not obtained the permission of EPI as aforesaid before submission of the Tender or engagement in the Contractor's service.
- 12.0 The time of completion of the entire work, as contained in contract shall be as mentioned in "Memorandum" to "Form of Tender", which shall be reckoned from the 10th day from issue of the Letter / Telex / Telegram / Fax of Intent by the EPI.
- 13.0 The Tender award, execution and completion of work shall be governed by Tender Documents consisting of (but not limited to) Letter of Intent / Letter of work Order, Bill of Quantities, Additional Conditions of Contract, General Conditions of Contract, Specifications, Drawings, etc. The tenderers shall be

deemed to have gone through the various conditions and clauses of the Tender and visited the Site and satisfied itself with Site conditions including sub-soil water conditions, topography of the land, drainage and accessibility etc. or any other condition which in the opinion of Contractor will affect his price / rates before quoting their rates. No claim whatsoever against the foregoing shall be entertained by EPI.

- 14.0 The Drawings given with the Tender Documents are TENDER DRAWINGS and are indicative only.
- 15.0 Transfer of bid documents purchased by one intending bidder to another is not permissible.
- 16.0 Tenders must be duly signed with date and sealed. An attested copy of power of attorney/affidavit/Board Resolution executed as under shall accompany the 'Tender Documents'.
- a) In case of Sole Proprietorship, an affidavit of Sole Proprietorship and if the Tender is signed by any other person Power of Attorney by the Sole Proprietor in favour of signatory.
 - b) In case of Partnership firm, if Tender is not signed by all the partners, Power of Attorney in favour of the Partner/person signing the tender/documents by all the partners authorizing him to sign the tender/documents.
 - c) In case of Company, copy of the Board Resolution authorizing the signatory to sign on behalf of the Company.
- 17.0 Tenders with following discrepancies are liable for rejection:-
- a) Tenders with over-written or erased rates, percentages, amounts or rates, percentages not written in both figures and words.
 - b) Tender that is incomplete, ambiguous, and not accompanied by the documents asked for or submitted without EMD or with inadequate EMD.
 - c) Tender received after specified date/time whether due to postal or other delays.
 - d) Tender in respect of which canvassing in any form is resorted to by the tenderer whatsoever.
 - e) If the tenderer deliberately gives wrong information in his tender or resorts to unfair methods in creating circumstances for the acceptance of his tender, EPI reserves the right to reject such tender at any stage.
- 18.0 Submission of a tender by the tenderer implies that he has read the complete contract documents and has made himself aware of the scope, terms & conditions and specifications of the work to be done and of conditions at which stores, tools, plant, etc. will be issued to him by EPI (if any), local conditions and

political situations and other factors having bearing on the execution of the works. No claim of Contractor whatsoever, within the purview of this clause, shall be entertained at any stage of the project.

19.0 Tenderer shall submit the following documents along with their Tenders in the first envelope (Techno-Commercial Bid) :-

- a) List of works executed during the last 5 years indicating name of the Client, value, date of start and completion.
- b) List of works under execution indicating name of the Client, Total Contract Value, Value of balance work in hand, date of start and completion.
- c) Details of similar works executed.
- d) Audited balance sheets and profit and loss accounts alongwith schedules for the last 3 years.
- e) Copy of latest income-tax returns filed along with PAN.
- f) Details of manpower available.
- g) Details of equipments, tools and plant available.
- h) Credentials and completion certificates.
- i) Registration Certificate/Memorandum and Articles of Association/Partnership Deed/ Affidavit.
- j) Copy of Provident Fund Number allotted by PF authorities.
- k) Copy of letters of registration with various authorities like CPWD, State PWD, MES and Public Sector Undertakings, etc.
- l) Latest Solvency certificate from Nationalised/Scheduled Bank.
- m) Latest Sales Tax Registratin and Clearance Certificate.
- n) Any other document as stipulated above and in "Tender Documents"

20. Purchase Preference may be granted to the Central Public Sector Enterprises as per the applicable guidelines in force in this regard issued by the Government of India.

LETTER OF UNDERTAKING

(TO BE ENCLOSED IN ENVELOPE-1 ALONGWITH EMD)

ENGINEERING PROJECTS (INDIA) LIMITED

(Address of submission as mentioned in "Notice Inviting Tender")

REF. : TENDER FOR (Name of Work as mentioned in "Notice Inviting Tender")

NIT No. : _____

Sir,

UNDERTAKING FOR ACCEPTANCE OF TENDER CONDITIONS

1. The Tender Documents for the work as mentioned in "Memorandum" to "Form of Tender" have been issued to me / us by ENGINEERING PROJECTS (INDIA) LIMITED and I / We hereby unconditionally accept the tender conditions and Tender Documents in its entirety for the above work.
2. The contents of clause 1.2 and 1.3 of the Tender Documents (Instructions to Tenderers) have been noted wherein it is clarified that after unconditionally accepting the tender conditions in its entirety, it is not permissible to put any remark(s) / condition(s) (except unconditional rebate on price, if any) in the 'Price-Bid' enclosed in "Envelope-2" and the same has been followed in the present case. In case this provision of the Tender is found violated at any time after opening "Envelope-2", I / We agree that my/our tender shall be summarily rejected and EPI shall, without prejudice to any other right or remedy be at liberty to forfeit the full said Earnest Money absolutely.
3. The required Earnest Money for this work is enclosed herewith.

Yours faithfully,

(Signature of the Tenderer)

Seal of Tenderer

Dated : _____

FORM OF TENDER

To,

Engineering Projects (India) Limited
(Address of submission as mentioned in "Notice Inviting Tender")

REF. : **TENDER FOR** (Name of Work as mentioned in "Notice Inviting Tender")

NIT No. : _____

1. I/We hereby tender for execution of work as mentioned in "Memorandum" to this "Form of Tender" as per Tender Documents within the time schedule of completion of work as per separately signed and accepted rates in the Bill of Quantities quoted by me / us for the whole work in accordance with the Notice Inviting Tender, Conditions of Contract, Specifications of materials and workmanship, Bill of Quantities Drawings, Time Schedule for completion of jobs, and other documents and papers, all as detailed in Tender Documents.
2. It is agreed that the time stipulated for jobs and completion of works in all respects and in different stages mentioned in the "Time Schedule for completion of jobs" and signed and accepted by me/us is the essence of the contract. I/We agree that in case of failure on my/our part to strictly observe the time of completion mentioned for jobs and the final completion of works in all respects according to the schedule set out in the said "Time Schedule for completion of jobs" and stipulations contained in the contract, the recovery shall be made from me/us as specified therein. In exceptional circumstances extension of time which shall always be in writing may, however be granted by EPI at its entire discretion for some items, and I/We agree that such extension of time will not be counted for the final completion of work as stipulated in the said "Time schedule of completion of jobs".
3. I/We agree to pay the Earnest Money, Security Deposit cum Performance Guarantee, Retention Money and accept the terms and conditions as laid down in the "Memorandum" to this "Form of Tender".
4. Should this Tender be accepted, I/We agree to abide by and fulfill all terms and conditions referred to above and as contained in Tender Documents elsewhere and in default thereof, allow EPI to forfeit and pay EPI, or its successors or its authorized nominees such sums of money as are stipulated in the Tender Documents.
5. I/We hereby pay the earnest money amount as mentioned in the "Memorandum" to this "Form of Tender" in favour of Engineering Projects (India) Limited payable at place as mentioned in the "NIT/ITT".

6. If I/we fail to commence the work within 10 days of the date of issue of Letter of Intent and / or I/We fail to sign the agreement as per Clause 84 of General Conditions of Contract and/or I/We fail to submit Security Deposit cum Performance Guarantee as per Clause 9.0 & 9.1 of General Conditions of Contract, I/We agree that EPI shall, without prejudice to any other right or remedy, be at liberty to cancel the Letter of Intent and to forfeit the said earnest money as specified above.
7. I/We are also enclosing herewith the Letter of Undertaking on the prescribed pro-forma as referred to in condition of NIT.

Date the _____ day of _____

SIGNATURE OF TENDERER

NAME (CAPITAL LETTERS) : _____

OCCUPATION _____

ADDRESS _____

SEAL OF TENDERER

MEMORANDUM

(ENCLOSURE TO FORM OF TENDER)

REF. : **TENDER FOR** (Name of Work as mentioned in "Notice Inviting Tender")

NIT No. : _____

Sl. No.	Description	Cl. No.	Values / Description to be applicable for relevant clause(s)
i)	Name of work		_____ _____
ii)	Owner/Client / Employer		_____
iii)	Type of Tender		_____
iv)	Earnest Money Deposit	NIT	Rs. _____ (Rupees _____ only).
v)	Estimated Cost	NIT	Rs. _____ (Rupees _____ only).
vi)	Time for completion of work	NIT	Total work to be completed in _____ (_____) in accordance with the time schedule of completion of work in the Tender Documents.
vii)	Mobilization Advance	8.0	_____ % (_____ Percent) of Contract Value.
viii)	Interest Rate on Mobilization Advance	8.0	Simple Interest Rate of _____ % (_____ percent only) per annum.
ix)	Number of Instalments for recovery of Mobilisation Advance	8.0	_____
x)	Schedule of Rates applicable	69.0	Civil Works : _____ Sanitary Works : _____ Electrical Works : _____
xi)	Validity of Tender	4.0	90 (Ninety) Days
xii)	Security Deposit cum Performance Guarantee	9.0	5.00% (Five Percent only) of Contract Value within 10 days from the date of issue of telegram / letter / telex / FAX of Intent of acceptance of Tender.

- | | | | |
|-------|------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| xiii) | Retention Money | 10.0 | 5.00% (Five percent only) of the contract amount, which shall be deducted in the manner set out in this contract. |
| xiv) | Time allowed for starting the work | 43.0 | The date of start of contract shall be reckoned 10 days from the date of issue of telegram / letter / telex / FAX of Intent of acceptance of Tender. |
| xv) | Defect Liability Period | 74.0 | 12 (Twelve) Months from the date of taking over of works. |
| xvi) | Arbitration | 76 | Arbitration shall be as per provisions of Clause no.76 of GCC. The Venue of Arbitration shall be |
| xvii) | Jurisdiction | 76.3 | Courts in ----- |

SIGNATURE OF TENDERER

NAME (CAPITAL LETTERS) :

OCCUPATION

ADDRESS

SEAL OF TENDERER



ENGINEERING PROJECTS (INDIA) LIMITED
(A Govt. of India Enterprise)

GENERAL CONDITIONS OF CONTRACT
AND
LABOUR SAFETY PROVISIONS, MODEL RULES
CONTRACTOR'S LABOUR REGULATIONS
& PRESCRIBED PROFORMAS

GENERAL CONDITIONS OF CONTRACT

1.0 GENERAL

The Contract means the documents forming the Tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of EPI and the Contractor, together with the documents referred to therein including these conditions, the Specifications, Designs, Drawings and Instructions issued from time to time by the Engineer-In-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

- 1.1 In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them.
- 1.2 Engineering Projects (India) Limited, hereinafter called 'EPI' proposes to get the works executed as mentioned in the Contract on behalf of Owner/ Client.
- 1.3 The work will be executed as per Drawings "GOOD FOR CONSTRUCTION" to be released by EPI unless otherwise specified elsewhere in the Tender Documents.

1.4 OTHER DEFINITIONS

- a) **ENGINEER-IN-CHARGE** means the Regional Office In-Charge of EPI himself or an engineer of EPI nominated by the Regional Office In-Charge for supervision and/or project management of the project from time to time.
- b) **WORKS OR WORK** The expression works or work shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
- c) **CONTRACTOR** The Contractor shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
- d) **DRAWINGS** mean the Drawings referred to in the Bill of Quantities, specifications and any modifications of such Drawings or such other Drawings as may from time to time be approved or furnished by EPI.
- e) **SITE** means the lands and other places on, under, in or through which the works are to be executed or carried out and any other lands or places provided by EPI or used for the purpose of the agreement.
- f) **APPROVAL** means approved in writing including subsequent written confirmation of previous verbal approval.

- g) WRITING means any manuscript typed, written or printed statement under or over signature and/or seal as the case may be.
- h) MONTH means English Calendar month. 'Day' means a Calendar day of 24 Hrs each.
- i) CONTRACT VALUE means the sum for which the Tender is accepted as per the Agreement/ Letter of Acceptance/ Letter of Intent.
- j) LANGUAGE: All documents and correspondence in respect of this contract shall be in English Language. In case of any discrepancy between the English version and the Hindi version of these documents, the provisions contained in the English version shall be applicable.
- k) BILL OF QUANTITIES or SCHEDULE OF QUANTITIES means the priced and completed Bill of Quantities or Schedule of Quantities forming part of the Tender.
- l) OWNER/ CLIENT / EMPLOYER means the Government, Organization, Authority, Company, Ministry, Department, Society, Cooperative etc. who has awarded the work/ project to EPI and/ or appointed EPI as Implementing / Executing Agency/ Project Manager and/ or for whom EPI is acting as an agent and on whose behalf EPI is entering into the contract and getting the work executed.
- m) IMPLEMENTING/ EXECUTING AGENCY means EPI
- n) TENDER means the Contractor's priced offer to EPI for the execution and completion of the work and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Intent or Award letter. The word TENDER is synonymous with Bid and the word TENDER DOCUMENTS with "Bidding Documents" or "offer documents".
- o) The headings in the clauses/ conditions of Tender Documents are for convenience only and shall not be used for interpretation of the clause/ condition.
- p) Words imparting the singular meaning only also include the plurals and vice versa where the context requires. Words imparting persons or parties shall include firms and corporations and organizations having legal capacities.
- q) APPROVED INSURANCE COMPANY means any Insurance Company registered with 'Insurance Regulatory & Development Authority' (IRDA) of India and meeting insurance needs of the projects of EPI.

2.0 SITE VISIT AND COLLECTING LOCAL INFORMATION

Before tendering, the tenderer is advised to visit the Site, its surroundings to assess and satisfy themselves about the local conditions such as the working and other constraints at Site, approach roads to the Site, availability of water & power supply, applicability of taxes, duties and levies etc., nature of ground, soil and sub-soil condition, underground water table level, accommodations they may

require etc., river regime, river water levels, other details of river, streams & any other relevant information required by them to execute the complete scope of work. The tenderer may obtain all necessary information as to risks, weather conditions, contingencies & other circumstances (insurgencies etc.) which may influence or affect their tender prices. Tenderer shall be deemed to have considered Site conditions whether he has inspected it or not and to have satisfied himself in all respects before quoting his rates and no claim or extra charges whatsoever in this regard shall be entertained / payable by EPI at a later date.

2.1 ACCESS BY ROAD

Contractor, if necessary, shall build temporary access roads to the actual Site of construction for the works at his own cost to make the Site accessible. The Contractor shall maintain the same in motorable condition at all times as directed by Engineer-In-Charge at his own cost. The Contractor shall be required to permit the use of any roads so constructed by him for vehicles of EPI or any other agencies/ Contractors who may be engaged on the project Site, free of cost.

Non-availability of access roads or approach to Site, for the use of the Contractor shall in no case condone any delay in the execution of work nor be the cause for any claim for compensation.

2.2 HANDING OVER & CLEARING OF SITE

- 2.2.1 The Contractor should note that area for construction may be made available in phases as per availability and in conjunction with pace of actual progress of work at Site. The work may be required to be carried out in constrained situations. The work is to be carried out in such a way that the traffic, people movement, if any, is kept operative and nothing extra shall be payable to the Contractor due to this phasing / sequencing of the work. The Contractor is required to arrange the resources to complete the entire project within total stipulated time. Traffic diversion, if required, is to be done and maintained as per specification by the Contractor at his own cost and the Contractor shall not be entitled for any extra payment, whatsoever, in this regard.
- 2.2.2 Efforts will be made by EPI to handover the Site to the Contractor free of encumbrances. However, in case of any delay in handing over of the Site to the Contractor, EPI shall only consider suitable extension of time for the execution of the work. It should be clearly understood that EPI shall not consider any revision in contract price or any other compensation whatsoever viz. towards idleness of Contractor's labour, equipment etc.
- 2.2.3 The Contractor shall be responsible for removal of all over-ground and underground structures (permanent, semi-permanent and temporary) and constructions from the Site. The cost to be incurred in this regard shall be deemed to be included in the quoted rates of Bill of Quantities items and Contractor shall not be entitled for any extra payment whatsoever, in this regard. Old structures on the proposed Site, if required, shall be demolished by the Contractor properly. The useful material obtained from demolition of structures &

services shall be the property of the Owner/EPI and these materials shall be stacked in workmanship like manner at the place specified by the Engineer- in-charge.

- 2.2.4 If required, the Contractor has to do site clearance, enabling work, barricading, diversion of Roads, shifting/ realignment of existing utility services, drains, nallahs etc. at his own cost as per direction of Engineer-In-Charge and the Contractor shall not be entitled for any extra payment whatsoever in this regard.
- 2.2.5 Necessary arrangements including its maintenance are to be made by the Contractor for temporary diversion of flow of existing drain and road, as the case may be. The existing drain, road would be demolished, wherever required, with the progress of work under the scope of proposed project. The existing Road and Drain, which are not in the alignment of the said project but are affected and/ or need to be demolished during execution for smooth progress of the project, shall be restored to its original status and condition (including black topping) by the Contractor at his own. The cost to be incurred by Contractor in these regards shall be deemed to be included in the quoted rates of the Bill of Quantities items and Contractor shall not be entitled for any extra payment whatsoever, in these regards.
- 2.2.6 The Contractor shall be responsible to co-ordinate with service provider/ concerned authorities for cutting of trees, shifting of utilities and removal of encroachments etc. and making the Site unhindered for completion of work. This shall include initial and frequent follow up meetings/ actions/ discussions with each involved service provider/ concerned authorities. The Contractor shall not be entitled for any additional compensation for delay in cutting of trees, shifting of utilities and removal of encroachments by the service provider/ concerned authorities.
- 2.2.7 The information about the public utilities (whether over ground or underground) like electrical/ telephone/ water supply lines, OFC Cables, sewer lines, open drains etc. is the responsibility of Contractor who has to ascertain the utilities that are to be affected by the works through the site investigation and collection of information from the concerned utility Owners.
- 2.2.8 The Contractor shall be responsible to obtain necessary approval from the respective authorities for shifting/ re-alignment of existing public utilities. EPI shall only provide necessary letters required for liaisoning by the Contractor in obtaining the approval from the concerned authorities.
- 2.2.9 Any services affected by the works must be temporarily supported by the Contractor who must also take all measures reasonably required by the various bodies to protect their services and property during the progress of works. It shall be deemed to be the part of the contract and no extra payment shall be made to the Contractor for the same. Shifting/ re-alignment of public utilities should be done without disturbing the existing one. New service lines should be laid and connected before dismantling the existing one.
- 2.2.10 Shifting/ re-alignment of existing public utilities shall be done by the Contractor as per technical requirement of respective bodies or as per direction of Engineer-In-Charge. Shifting/ re-alignment of public utilities includes all materials, labours,

tools and plants and any other expenses whatsoever for the same. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the Contractor shall not be entitled for any extra payment, whatsoever, in this regard. In case any of these services are shifted by the State Govt/ local authorities themselves for which deposit as per their estimates is to be made to them, the Contractor shall deposit the same and the Contractor shall be paid only at the rates quoted by him in BOQ for quantity specified in the BOQ, if such items are included in the BOQ irrespective of amount paid by him to the State Govt./ local authorities for execution of these works. In case such provision is not made in the BOQ or the quantity exceeds those specified in the BOQ, the same is deemed to be included in the rates quoted by him for other items in BOQ and nothing extra shall be payable to Contractor on this account.

3.0 SCOPE OF WORK

- 3.1 The scope of work covered in this Tender shall be as per the Bill of Quantities, Specifications, Drawings, Instructions, Orders issued to the Contractor from time to time during the pendency of work. The Drawings for this work, which may be referred for tendering, provide general idea only about the work to be performed under the scope of this contract. These may not be the final drawings and may not indicate the full range of the work under the scope of this contract. The work will be executed according to the Drawings to be released as "GOOD FOR CONSTRUCTION" from time to time by the Engineer-In-Charge of EPI and according to any additions/ modifications/ alterations/deletions made from time to time, as required by any other drawings that would be issued to the Contractor progressively during execution of work. It shall be the responsibility of the Contractor to incorporate the changes that may be in the scope of work, envisaged at the time of tendering and as actually required to be executed.
- 3.2 The quantities of various items as entered in the "BILL OF QUANTITIES" are indicative only and may vary depending upon the actual requirement. The Contractor shall be bound to carry out and complete the stipulated work irrespective of the variation in individual items specified in the Bill of Quantities. The variation of quantities will be governed as per clause No.69 of GCC.

4.0 VALIDITY OF TENDER

The Tender for the works shall remain open for acceptance for a period of ninety days from the date of opening of Price Bid of Tenders. The earnest money will be forfeited without any prejudice to any right or remedy, in case the Contractor withdraws his Tender during the validity period or in case he changes his offer to his benefits, which are not acceptable to EPI. The validity period may be extended on mutual consent.

5.0 ACCEPTANCE OF TENDER

EPI reserves to itself the authority to reject any or all the Tenders received without assigning any reason. The acceptance of a Tender shall be effective w.e.f. the date on which the telegram/ letter of intent or acceptance of the Tender is put in the communication by EPI. EPI also reserves the right to split the work

among two or more parties at lowest negotiated rate without assigning any reason thereof. The Contractor is bound to accept the portion of work as offered by EPI after split up at the quoted/ negotiated rates.

6.0 SET OF TENDER DOCUMENTS:

The following documents will complete a set of Tender Documents.

A) VOLUME I :

- a) Instructions to tenderers
- b) General Conditions of Contract

B) VOLUME II :

- a) Notice Inviting Tenders
- b) Additional Conditions of Contract
- c) Technical Specifications (General, Additional & Technical specifications)
- d) Tender Drawings

C) VOLUME III :

- a) Schedule of Rates/ Bills of quantities (Price-Bid)

7.0 EARNEST MONEY DEPOSIT

Earnest Money Deposit (EMD) of amount as mentioned in “Memorandum” to “Form of Tender” required to be submitted along with the Tender shall be in the form of Demand Draft payable at place as mentioned in “Notice Inviting Tender”/ “Instructions to Tenderers” in favour of ‘Engineering Projects (India) Limited’ from any Nationalised bank / Scheduled Bank or in the form of Bank Guarantee from any Nationalised bank / Scheduled Bank as per the enclosed format. The EMD shall be valid for minimum period of 150 days (One hundred fifty Days) from last day of submission of Tender.

- 7.1 EMD shall accompany the offer and placed in the sealed envelope cover of the offer as detailed in Instructions to Tenderer. Any tender not accompanied with the requisite Earnest Money Deposit alongwith ‘Letter of Undertaking’ shall be rejected and such tenderer(s) will not be allowed to attend the opening of bids.
- 7.2 The EMD of all unsuccessful tenderers (i.e. except evaluated lowest tenderer) shall be returned within Seven (7) days of the opening of price bids by EPI. Subject to clause 7.6 herein below, EMD of successful tenderer shall be refunded after submission of Security Deposit cum Performance Guarantee by him.
- 7.3 Once the tenderer has given an unconditional acceptance to the tender conditions in its entirety, he is not permitted to put any remark(s)/conditions(s) (except unconditional rebate on price, if any) in/ along-with the Tender.
- 7.4 In case the condition 7.3 mentioned above is found violated at any time after opening of Tender, the Tender shall be summarily rejected and EPI shall, without

- prejudice to any other right or remedy, be at liberty to forfeit the full said Earnest Money absolutely.
- 7.5 No interest will be payable by EPI on the said amount covered under EMD/Other security documents.
- 7.6 EMD of successful tenderer, if deposited in the form of Demand Draft, shall be treated as part of Retention Money.
- 7.7 At any time after the due date of the Tender, if any tenderer alters /modifies/withdraws his tender within the validity period (or the extended validity period) of his tender or fails to furnish the "Security Deposit cum Performance Guarantee" or the "Additional Performance Guarantee" or fails to execute the "Contract Agreement" within the prescribed time period after the placement of LOI on him, EPI without prejudice to any other rights or remedies shall be at liberty to forfeit the Earnest Money deposited by the tenderer. In the event of re-tender, such tenderer shall not be allowed to submit tender

8.0 MOBILIZATION ADVANCE

- 8.1 Mobilization advance up to maximum of amount as mentioned in the "Memorandum" to the "Form of Tender" shall be paid to the Contractor on submission of non-revocable and unconditional Bank Guarantee of an equivalent amount in case of interest free Mobilization Advance or for an amount equal to 110% of the Mobilization Advance in case of interest bearing Mobilization Advance, from a Nationalized Bank / Scheduled Bank as per the enclosed Performa subject to conditions given hereunder. The Mobilization Advance shall be at the Interest Rate as mentioned in the "Memorandum" to the "Form of Tender". This advance shall be paid in three installments as follows: -
- i) First Installment of fifty percent of total mobilization advance shall be paid after fulfillment of the following conditions:
 - a) Signing of the agreement.
 - b) Submission of Security Deposit cum Performance Guarantee as per Clause No. 9.
 - ii) Second installment of twenty five percent of total mobilization advance will be paid after the setting up of site office and providing facilities to EPI as per contract, and completion of enabling works required for taking up the construction. These include construction of store, labour hutments, etc.
 - iii) The balance twenty five percent of total mobilization advance shall be paid on mobilization of manpower, plant & equipment etc. to the satisfaction of Engineer-In-Charge of EPI.
- 8.2 The Advance shall be recovered on monthly installment basis. The installments shall commence when 20% of the scheduled contract period has elapsed and fully recovered when 80% of the scheduled contract period is over, both from

date of start. (The month of start & completion of recovery of mobilization advance to be rounded off to nearest full month).

- 8.3 Part 'Bank Guarantees' (BGs) against mobilization advance shall be furnished in as many numbers as the number of recovery installments as given in "Memorandum" to the "Form of Tender" and should be equivalent to the amount of each recovery installment. At any point of time, if the Contractor's payable amount on account of work done is not available with EPI or the amount payable is less than the recovery installment, recovery of such advance shall be effected by encashing the BG of equivalent recovery amount. The decision of EPI in this regard shall be final and binding on the Contractor. The validity period for the part BGs shall be till three months after the end of the month in which instalment is due to be recovered with further three months claim period.
- 8.4 In case recovery of Mobilization Advance is delayed, interest shall be charged @12% (Twelve percent) per annum on delayed recoveries due to late submission of bills by the Contractor or due to delayed encashment of Bank Guarantee, as stated above or due to any other reasons whatsoever.
- 8.5 Contractor is required to furnish the Utilization Certificate for each installment of mobilization advance to the satisfaction of Engineer-In-Charge. Subsequent installments of mobilization advance shall be released only after getting satisfactory utilisation certificate from the Contractor for the earlier released installment.
- 8.6 Notwithstanding what is contained in aforesaid clauses, no mobilization advance whatsoever shall be payable, if payment of mobilization advance is not mentioned in the "Memorandum" to the "Form of Tender".

9.0 SECURITY DEPOSIT CUM PERFORMANCE GUARANTEE

"Within 10 (ten) days from the date of issue of letter of Intent or within such extended time as may be granted by EPI in writing, the Contractor shall submit to EPI a Security Deposit cum Performance Bank Guarantee in the form appended, from any Nationalised bank / Scheduled Bank equivalent to 5% (five percent only) of the Contract Value for the due and proper execution of the contract. This bank guarantee shall remain valid up to 90 (ninety) days after the end of defects liability period.

In case the Contractor fails to submit the Security Deposit cum Performance Guarantee of the requisite amount within the stipulated period or extended period, letter of intent will stand withdrawn and EMD of Contractor shall be forfeited.

9.1 ADDITIONAL PERFORMANCE GUARANTEE FOR EXISTING CONTRACTORS

In case bidder is a working Contractor of EPI at the time of issuance of Letter of Intent (LOI) for the work, the bidder has to furnish an additional Performance Guarantee of 1% (One Percent) of the Contract Value of the work, in case working capacity of the bidder is less than the aggregate of balance work-load of all the works of the bidder with EPI as on date of placement of LOI for this work. The balance workload shall also include the value of work awarded but not yet

started and finally approved value of this work. This additional Performance Guarantee shall be in addition to the Security Deposit cum Performance Guarantee of the works to be furnished by the bidder as specified in the clause no. 9 of General Conditions of Contract. Further, no relaxation in Security Deposit cum Performance Guarantee as in clause no. 9 of General Conditions of Contract shall be made in case working capacity works-out to be more than the balance value of works as mentioned above. The working capacity of the Contractor shall be calculated as under:

WORKING CAPACITY = 2.5 X (Average Turnover of the party as per latest three audited Balance Sheets).

NOTE: The decision of amount of additional Performance Guarantee as above shall be taken by EPI and shall be final & binding to the Contractor.

In case the Contractor fails to submit the additional performance guarantee of the requisite amount within 10 days from the date of issue of letter of Intent or within such extended time as may be granted by EPI in writing, the letter of intent will stand withdrawn and EMD of the Contractor shall be forfeited.

9.2 ABNORMALLY HIGH AND LOW RATED ITEMS

For item rate tenders if, the rates quoted by the lowest bidder for certain items of the Bill of Quantities of the Tender are found to be abnormally high or low in comparison to the Market Rate analysis of the item done by EPI and/or in comparison to EPI's method of working out market rate justification for the items, the same shall be governed as under: -

For Abnormally High Rated items (AHR), the progressive payment shall be 80% (Eighty percent) of the payment due to the Contractor against execution of the AHR items. The balance withheld 20% (twenty percent) payment shall be released after 80% of total value of the original contract is completed in financial terms in order to ensure that the Abnormally Low Rated (ALR) items identified at the time of Award of work have been executed as per requirement of project and as per terms of Contract. Further, deviation limit for AHR items shall be nil on plus side and 100% on minus side. The provision of deviation limit of clause 69.1(v) shall not apply to AHR items. In case of deviation of quantities given in schedule of quantities for AHR items on plus side, the same shall be governed by clause 69.2. The decision of Engineer-In-Charge of EPI in this regard shall be final and binding on the Contractor.

The provision of para 9.2 shall not be applicable on tenders invited on Percentage Rate/lump Sum basis.

The decision of EPI on identification/marketing of AHR and ALR items is final and binding on the Contractor. In case the Contractor does not agree to the identified AHR and ALR items, at the time of award of works, the EMD/Security Deposit cum Performance Guarantee of the Contractor shall be forfeited and decision of EPI in this regard shall be final & binding on the Contractor.

10.0 RETENTION MONEY

The Retention Money shall be deducted from each running bill of the Contractor at 5% (five percent only) of the gross value of the Running Account bill. The Earnest Money Deposited by the tenderer in the form of Demand Draft will be treated as part of the Retention Money. The Retention Money shall be refunded to the Contractor after expiry of defects liability period (referred to in Clause No. 74) or on payment of the amount of the final bill whichever is later. If the amount of Retention Money deduction in cash is more than Rs.10.00 lakhs (Rupees Ten lakhs only), the excess amount can be refunded to Contractor against submission of Bank Guarantee of equivalent amount from a Nationalised bank / Scheduled Bank in the prescribed proforma of Performance Guarantee of EPI.

11.0 MOBILIZATION OF MEN, MATERIALS AND MACHINERY:

- 11.1 All expenses towards mobilization at Site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipments, clearing the Site etc. shall be deemed to be included in prices quoted and no separate payment on account of such expenses shall be entertained.
- 11.2 It shall be entirely the Contractor's responsibility to provide, operate and maintain all necessary construction equipments, scaffoldings and safety gadget, lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all jobs as per the specifications and within the schedule time of completion of work. Further, Contractor shall also be responsible for obtaining temporary electric and water connection for all purposes. The Contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.
- 11.3 It shall be the responsibility of the Contractor to obtain the approval for any revision and/ or modification desired by him from EPI before implementation. Also such revisions and/or modifications if accepted / approved by EPI shall be carried at no extra cost to EPI.
- 11.4 The procurement and supply in sequence and at the appropriate time of all materials and consumable shall be entirely the Contractor's responsibility and his rates for execution of work shall be inclusive of supply of all these items.

- 11.5 It is mandatory for the Contractor to provide safety equipments and gadgets to its all workers, supervisory and Technical staff engaged in the execution of the work while working. The minimum requirement (but not limited to) shall be gumboots, safety helmets, Rubber hand gloves, facemasks, safety nets, belts, goggles etc. as per work requirements. Sufficient nos. of these equipments and gadgets shall also be provided to EPI by the Contractor at his own cost for use of EPI Officials and/ or workforce while working/ supervision at Site. No staff/ worker shall be allowed to enter the Site without these equipments/ gadgets. The cost of the above equipments/ gadgets are deemed to be included in the rates quoted by the Contractor for the items & works as per Bill of Quantities and Contractor shall not be entitled for any extra cost in these regard. The above norm is to be strictly complied with at Site. In case the Contractor is found to be deficient in providing Safety Equipments/ Gadgets in the opinion of Engineer-In-Charge, the Engineer-In-Charge at his option can procure the same at the risk & cost of Contractor and provide the same for the use of worksite and shall make the recoveries from the bills of the Contractor for the same. The decision of the Engineer-In-Charge shall be final and binding on Contractor in this regard.
- 11.6 All Designs, Drawings, Bill of Quantities, etc. (except Bar Bending Schedule, Shop & Fabrication Drawings) for all works shall be supplied to the Contractor for all buildings services and development works by EPI in phased manner as the works progress. However it shall be the duty and responsibility of the Contractor to bring to the notice of EPI in writing as to any variation, discrepancy or any other changes required and to obtain revised drawings and designs and / or approval of EPI in writing for the same.
- 11.7 One copy of contract documents including Drawings furnished to the Contractor shall be kept at the Site and the same shall at all reasonable times be available for inspection.
- 11.8 All materials, construction plants and equipments etc. once brought by the Contractor within the project area, will not be allowed to be removed from the premises without the written permission of EPI. Similarly all enabling works built by the Contractor for the main construction undertaken by him, shall not be dismantled and removed without the written authority of EPI.
- 11.9 Contractor shall have to prepare the Bar Bending Schedule, Shop and Fabrication Drawings free of cost, if required for any of the items of work. Five copies of these Drawings each including for revision will be submitted to EPI for approval. Before executing the item, Bar Bending Schedule, Shop & Fabrication Drawings should be got approved from EPI.

12.0 INCOME TAX DEDUCTION

Income tax deductions shall be made from all payments made to the Contractor including advances against work done, in accordance with the Income Tax act prevailing from time to time.

13.0 TAXES AND DUTIES

- 13.1 The Contractor shall be responsible for the payment, wherever payable, at his own cost of all taxes such as excise duty, custom duty, sales tax, including the purchase tax, consignment tax, work contract tax, service tax, VAT or any other similar tax in the state concerned, turnover tax, toll tax, octroi charges, royalty, cess, levy and other tax (es) or duty (ies) which may be specified by local/ state/ central government from time to time on all materials, articles which may be used for this work. The rates quoted by him in the Tender in Bill of Quantities shall be inclusive of all such taxes, duties, etc. The imposition of any new and/ or increase in the aforesaid taxes, duties, levies (including fresh imposition of Work Contract Tax, Turnover Tax, Sales Tax on Work Contract, VAT or any other similar Tax) etc. during the currency of the contract shall be borne by Contractor and shall not be paid or reimbursed to the Contractor by EPI. In the event of non-payment/default in payment of any octroi, royalty, cess, turnover tax, sales tax, including the purchase tax, consignment tax, work contract tax, VAT, Service Tax or any other similar tax in the state concerned, customs, excise or any other levy/tax including labour dues etc. by Contractor, EPI reserves the right to withhold the dues/ payments of Contractor and make payment to local/state/ Central Government authorities or to labourers as may be applicable. The Contractor should submit along with the Tender Registration Certificates with Sales Tax on works contract authority etc. other wise appropriate recovery shall be made from his bills.
- 13.2 The rate quoted by the Contractor shall be deemed to be inclusive of all Taxes and duties as mentioned in clause no.13.1 given above or any other tax as applicable and the same shall not be reimbursed by EPI. Tax deductions at source shall be made as per laws prevalent in the State.
- 13.3 The stamp duty and registration charges, if any, on the contract agreement levied by the Government or any other statutory body, shall be paid by the Contractor.
- 13.4 It will be incumbent upon the Contractor to obtain a registration certificate as a dealer under the Local Sales Tax Act and the Central Sales Tax Act, Service Tax, etc. and necessary evidence to this effect shall be furnished by the Contractor to EPI. Sales Tax on the transactions between the Contractor and his Sub-Contractor/Vendors etc. shall be borne by the Contractor. The Contractor shall be responsible for any taxes that may be levied hereunder on the transaction between Contractor and EPI.
- 13.5 The bidder shall quote his rates inclusive of Turnover Tax/ Sales Tax on Works Contract payable to State Govt. along-with other taxes, duties, levies etc. in conjunction with other terms and conditions. In case, the Turnover Tax/ Sales Tax on Works Contract on execution of works is waived off by the State Govt. at later stage for this project, the equivalent amount from the date of waiver of such tax (as per prevailing rate as on the date of waiver of Turnover Tax/ Sales Tax on Works Contract) shall be deducted from the amount payable to the Contractor from subsequent RA Bills.

13.6 VALUE ADDED TAX (VAT)

The consideration agreed for the execution of said contract shall include the taxes, duties, cess, etc. such as excise duty, service tax, VAT, which is leviable or may be levied in future under any State Law or the Central Law on execution of said contract, such taxes shall be borne by the Contractor and shall not be reimbursed by EPI. Further, if due to any variance in such tax, duties, cess etc. there is any increase in the taxes, the same shall also be borne by the Contractor. Where under any of the State or the Central Law, there is requirement of deduction of tax at source, the same shall be deducted from the amount paid or payable to the Contractor pursuant to this contract and shall be deposited to the Government authorities by EPI. EPI shall issue the documents/forms/ certificate as prescribed under the relevant law, in respect of the amount so deducted from the amount paid or payable to the Contractor. EPI shall have full rights to withhold the amount payable to the Contractor in pursuant to this contract, if Contractor does not fulfill his obligation under any State or Central Law relating to execution of said contract, in case the amount has already been paid by EPI, EPI has the right to recover such payments from the Contractor.

14.0 ROYALTY ON MATERIALS:

The Contractor shall deposit royalty and obtain necessary permit for supply of bajri, stone, kankar, sand, etc. from the local authorities and quoted rates shall be inclusive of royalty.

15.0 RATES TO BE FIRM

- 15.1 The rates quoted by the tenderer shall be firm and fixed for the entire period of completion and till handing over of the work. No revision to rates or any escalation shall be allowed on account of any increase in prices of materials, labour, POL and Overheads etc or any other statutory increase during the entire contract period or extended contract period.
- 15.2 The Contractor shall be deemed to have inspected the Site, its surrounding and acquainted itself with the nature of the ground, accessibility of the Site and full extent and nature of all operations necessary for the full and proper execution of the contract, space for storage of materials, construction plant, temporary works, restrictions of working time, restrictions on the plying of heavy vehicles in area, supply and use of labour, materials, plant, equipment and laws, rules and regulations, if any, imposed by the local authorities.
- 15.3 The rates and prices to be tendered in the Bill of Quantities are for completed and finished items of works complete in all respects. It will be deemed to include all construction plant, labour, supervision, materials, transport, all temporary works, erection, maintenance, Contractor's profit and establishment/ overheads, together with preparation of designs & drawings pertaining to casting yard, shop drawing, fabrication drawing (if required), staging form work, stacking yard, etc. all general risk, taxes, royalty, duties, cess, octroi and other levies, insurance,

liabilities and obligations set out or implied in the Tender Documents and contract.

- 15.4 Unless otherwise specified in the Bill of Quantities (BOQ), the Contractor has to make his own arrangement for dewatering/ bailing out of water, effluent including strutting, shoring etc at every stage of work wherever required (including Tunnel work) including working under foul condition as per direction of Engineer-In-Charge at his own cost and the Contractor shall not be entitled for any extra payment, whatsoever, in this regard.
- 15.5 If required to make work site suitable for execution, Contractor shall have to clear jungle including of rank vegetation, grass, trees etc., clear & clean existing drains/ canals (including strutting, shoring and packing cavities) and dispose them out of the Site up-to any lead and lift as per direction of Engineer-In-Charge. The Contractor should inspect the Site of work from this point of view. Unless otherwise specified in the Bill of Quantities, the cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the Contractor shall not be entitled for any extra payment in this regard.
- 15.6 If any temporary/ permanent structure is encountered or safety of such structure in the vicinity is endangered due to execution of the project, the Contractor has to protect the structures by any means as per direction of Engineer - in – Charge. If any damage caused to any temporary or permanent structure(s) in the vicinity is caused due to execution of the project, the Contractor has to make good the same by any means as per direction of Engineer - in – Charge. The Contractor should inspect the Site of work from this point of view. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the Contractor shall not be entitled for any extra payment in this regard.

16.0 ESCALATION / PRICE VARIATION

No claim on account of any Price Variation / Escalation on whatsoever ground shall be entertained at any stage of works. All rates as per Bill of Quantities (BOQ)/Price-Bid quoted by Contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation/price variation clause shall be applicable on this contract.

17.0 INSURANCE OF WORKS ETC.

Contractor is required to take Contractor's All Risk Policy or Erection All Risk Policy (as the case may be) including Marine Insurance from an Approved Insurance Company in the joint name with EPI and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss or damage from whatever cause arising for which he is responsible under the terms of the contract and in such manner that EPI and the Contractor are covered during the period of construction of works and/or also covered during the period of defect liability for the loss or damage as under:

- a. The work and the temporary works to the full value of such works.

- b. The materials, construction plant, centering, shuttering and scaffolding materials and other things brought to the Site for their full value. Whenever required by EPI, the Contractor shall produce the policy or the policies of insurance and the receipts for payment of the current premiums.

18.0 INSURANCE UNDER WORKMEN'S COMPENSATION ACT

Contractor is required to take insurance cover as per requirement of the Workmen's Compensation Act, 1923 amended from time to time from an Approved Insurance Company and pay premium charges thereof. Wherever required by EPI the Contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

19.0 THIRD PARTY INSURANCE

Contractor is required to take third party insurance cover for an amount of 5% (five percent) of Contract Value from an Approved Insurance Company for insurance against any damage, injury or loss which may occur to any person or property including that of EPI, arising out of the execution of the works or temporary works. Wherever required by EPI the Contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

In case of failure of the Contractor to obtain insurance for works, insurance under Workman Compensation Act and Third Party insurance as described above within one month from the date of commencement of work, running account payments of the Contractor shall be withheld till such time the aforesaid insurance covers are obtained by the Contractor.

20.0 INDEMNITY AGAINST PATENT RIGHTS

The Contractor shall fully indemnify EPI from and against all claims and proceedings for or on account of any infringement of any patent rights, design, trademark or name or other protected rights in respect of any construction plant, machine, work or material used for in connection with the works or temporary works.

21.0 LABOUR LAWS TO BE COMPLIED WITH BY THE CONTRACTOR

The Contractor shall obtain a valid licence under the contract labour (Regulation & Abolition) Act 1970 and the Contract Labour Act (R&A) Central Rules 1971 and amended from time to time, and continue to have a valid licence until the completion of the work including defect liability period. The Contractor shall also abide by the provision of the child labour (Prohibition and Regulation) Act. 1986 and as amended from time to time. Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

The Contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, Workmen's Compensation Act, 1923, Maternity Benefit Act, 1961 and Mines Act -1932, Industrial Disputes Act, 1947 or any modifications thereof or any other law relating thereto and rules made there under from, time to time.

- 21.1 No labour below the age of 18 years shall be employed on the work.

22.0 LABOUR SAFETY PROVISION

The Contractor shall be fully responsible to observe the labour safety provisions.

23.0 OBSERVANCE OF LABOUR LAWS

- 23.1 The Contractor shall be fully responsible for observance of all labour laws applicable including local laws and other laws applicable in this matter and shall Indemnify and keep indemnified EPI against effect of non observance of any such laws. The Contractor shall be liable to make payment to all its employees, workers and sub-Contractors and make compliance with labour laws. If EPI or the Client/ Owner/ Employer is held liable as "Principal Employer" to pay any amount or contributions etc. under legislation of Govt. or Court decision in respect of the employees of the Contractor, then the Contractor would reimburse the amount of such payments, contribution etc. to EPI and/ or same shall be deducted from the payments, Retention Money etc. of the Contractor.
- 23.2 The Contractor shall submit proof of having valid EPF registration certificate. In absence of the said certificate payment to the extent of 4.70% (four point seven percent) of the value of all the Running Account bills may be withheld by EPI and shall be released only after the production of the EPF registration certificate from the concerned authorities. If it is incumbent upon EPI to deposit withheld amount with EPF authorities, the withheld amount shall be deposited by EPI with EPF authorities. In such a case EPI shall not refund this withheld amount to the Contractor even after the production of EPF registration certificate.
- 23.3 The Contractor shall be liable to pay cess levied under the Building and other Construction Workers Welfare Cess Act, 1996, at such rates as may be notified by the Government from time to time. EPI shall deduct at source from every Running Account Bill of the Contractor, the said cess, at such rates for the time being prevailing, which shall not exceed 2% (two percent) but not be less than 1% (one percent) of the cost of construction incurred by EPI.

24.0 LAWS GOVERNING THE CONTRACT

This contract shall be governed by the Indian Laws for the time being in force and amended from time to time.

25.0 LAWS, BYE LAWS RELATING TO THE WORK

The Contractor shall strictly abide by the provisions, for the time being in force, of law relating to works or any regulations and bye laws made by any local authority or any water & lighting agencies or any undertakings within the limits of the

jurisdiction of which the work is proposed to be executed. The Contractor shall be bound to give to the authorities concerned such notices and take all approvals as may be provided in the law, regulations or bye laws as aforesaid, and to pay all fees and taxes payable to such authorities in respect thereof.

26.0 EMPLOYMENT OF PERSONNEL

- 26.1 The Contractor shall employ only Indian Nationals as his representatives, servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personnel of doubtful antecedents & integrity and any other nationality in any way are associated with the works.
- 26.2 EPI shall have full power to get removed immediately any representative, agent, servant and workmen or employees of the Contractor on account of misconduct, negligence or incompetence or whose continued employment may in the opinion of the Engineer-In-Charge be undesirable without assigning any reason for the removal. The Contractor shall not be allowed any compensation on this account whatsoever.

27.0 TECHNICAL STAFF FOR WORK

- 27.1 The Contractor shall employ at his cost the adequate number of technical staff during the execution of this work depending upon the requirement of work. For this purpose the numbers to be deployed, their qualification, experience as decided by EPI shall be final and binding on Contractor. The Contractor shall not be entitled for any extra payment in this regard. The technical staff should be available at Site, whenever required by EPI to take instructions.
- 27.2 Within 15 days from the date of letter of intent, the Contractor shall submit a site organizational chart and Resume including details of experience of the Project-in-Charge and other staff proposed by him and shall depute them on the Project after getting approval from Engineer-In-Charge. If desired by the Contractor at later date, the Project-in-Charge and other staff whose resume is approved by EPI can be replaced with prior written approval of EPI and replacement shall be with equivalent or superior candidate only. Decision of Engineer-In-Charge shall be final and binding on the Contractor.

Even after approving the site organizational chart, the Engineer-In-Charge due to nature and exigency of work can direct the Contractor to depute such additional staff as in view of Engineer-In-Charge is necessary and having qualification and experience as approved by the Engineer-In-Charge. The removal of such additional staff from the Site shall only be with the prior written approval of Engineer-In-Charge. The Contractor shall not be paid anything extra whatsoever on account of deployment of additional staff and decision of the Engineer-In-Charge shall be final and binding on the Contractor.

- 27.3 In case the Contractor fails to employ the staff as aforesaid, he shall be liable to pay a reasonable amount not exceeding a sum of Rs. 25,000 (Rupees Twenty Five Thousand only) for each month of default in the case of each person. The

decision of the Engineer-In-Charge as to number of Technical Staff to be adequate for the project and the period for which the required technical staff was not employed by the Contractor and as to the reasonableness of the amount to be deducted on this account shall be final and binding on the Contractor.

28.0 LAND FOR LABOUR HUTS/ SITE OFFICE AND STORAGE ACCOMMODATION

28.1 The Contractor shall arrange the land for temporary office, storage accommodation and labour huts at his own cost and get the clearance of local authorities for setting up of labour camp and cost of same is deemed to be included in the rates quoted by the Contractor for the works. The Contractor shall ensure that the area of labour huts is kept clean and sanitary conditions are maintained as laid down by the local authorities controlling the area. The labour huts shall be so placed that it does not hinder the progress of work or access to the worksite. The vacant possession of the land used, for the purpose shall be given back by Contractor after completion of the work. The Retention Money of the Contractor shall be released only after Contractor demolishes all structures including foundations and gives back clear vacant possession of this land.

28.2 In the event the Contractor has to shift his labour camp at any time during execution of the work on the Instructions of local authorities or as per the requirement of the work progress or as may be required by EPI, he shall comply with such instructions at his cost and no claim whatsoever shall be entertained on this account.

28.3 FURNISHED OFFICE ACCOMMODATION & MOBILITY AND COMMUNICATION TO BE PROVIDED BY CONTRACTOR TO EPI

On acceptance of Tender, the Contractor at his own cost will construct a suitable furnished office at Site equipped with basic facilities such as telephone(s), fax, internet, photocopier, computer(s) & printer(s) alongwith operator(s), regular electricity & drinking water supply and vehicles for staff etc. as per the requirement of the project. The Contractor shall provide consumable as required and maintain the aforesaid facilities intact/operational during the currency of the contract including the defects liability period. The Contractor shall also make sufficient arrangement for photography/ videography preferably by maintaining a camera/video camera at Site so that photographs video can be taken of any specific activity at any point of time. The Contractor shall also provide software like MS Project etc. for the purpose of preparing progress report, etc.

28.4 The Contractor shall make all arrangements for ground breaking ceremony/ inaugural function etc for the project as required and the cost towards it is deemed to be included in his rates/offer. Any expenditure already incurred/to be incurred by EPI, shall be recovered from the Contractor.

28.5 PROTECTION OF TREES

Trees designated by the Engineer-In-Charge shall be protected from damage during the course of the works and earth level within one meter of each such tree shall not

be changed. Where necessary, such trees shall be protected by providing temporary fencing.

29.0 WATCH & WARD AND LIGHTING

The Contractor shall at his own cost take all precautions to ensure safety of life and property by providing necessary barriers, lights, watchmen etc. during the progress of work as directed by Engineer-In-Charge.

30.0 HEALTH & SANITARY ARRANGEMENTS

In case of all labour directly or indirectly employed in work for the performance on the Contractor's part of this contract, the Contractor shall comply with all rules and regulations framed by Govt. from time to time for the protection of health and sanitary arrangements for workers.

31.0 WORKMEN'S COMPENSATION ACT

The Contractor shall at all times indemnify EPI and Owner against all claims for compensation under the provision of Workmen's Compensation Act, 1923 or any other law in force, for any workmen employed by the Contractor or his sub-Contractor in carrying out the contract and against all costs and expenses incurred by EPI therewith.

32.0 MINIMUM WAGES ACT

The Contractor shall comply with all the provisions of the Minimum Wages Act, 1948, Contract Labour Act (R&A) 1970, and rules framed thereunder and other labour laws/local laws affecting contract labour that may be brought into force from time to time.

33.0 LABOUR RECORDS

The Contractor shall submit by the 4th & 19th of every month to the Engineer-In-Charge of EPI a true statement, showing in respect of the second half of the preceding month and the first half of the current month, respectively, of the following data :-

- a) The number of the labour employed by him (category-wise).
- b) Their working hours.
- c) The wages paid to them.
- d) The accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused.

- e) The number of female workers who have been allowed Maternity Benefits under the Maternity Benefit Act, 1962 and the amount paid to them.
- f) Any other information required by Engineer-In-Charge.

34.0 RELEASE OF RETENTION MONEY AFTER LABOUR CLEARANCE

Retention Money of the work shall not be refunded till the Contractor produces a clearance certificate from the concerned Labour Officer. As soon as the work is virtually complete, the Contractor shall apply for the clearance certificate to the concerned Labour Officer under intimation to the Engineer-In-Charge. The Engineer-In-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the Contractor in respect of the work. If no complaint is pending, on record till three months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Retention Money will be released if otherwise due.

35.0 SECURED ADVANCE AGAINST NON-PERISHABLE MATERIALS

Interest free secured advance up-to a maximum of 75 % (seventy five percent) of the Market Value of the materials or the cost of materials as derived from the tendered item rate of the Contractor, whichever is less, required for incorporation in the permanent works and brought to Site and duly certified by EPI Site Engineer shall be paid to the Contractor for all non-perishable items as per CPWD/ MORTH (as the case may be) norms. The advance will be paid only on submission of Indemnity Bond in the prescribed pro-forma. The advance shall be recovered in full from next Running Account bill and fresh advance paid for the balance quantities of materials. The Contractor shall construct suitable godown at the Site of work for safe storage of the materials against any possible damages due to sun, rain, dampness, fire, theft etc. at his own cost. He shall also employ necessary watch & ward establishment for the purpose at his costs and risks. Such secured advance shall be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-In-Charge provided the Contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-In-Charge shall be final and binding on the Contractor in this matter. No secured advance shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

36.0 MEASUREMENTS OF WORKS

- 36.1 Unless otherwise mentioned in the Bill of Quantities the measurements of works shall be done as per CPWD/MORTH specifications (as specified in Technical Specification of the Tender) and if the same is not given in the CPWD/MORTH Specifications, the same shall be measured as per latest relevant BIS codes in force. The quantity of steel reinforcement and the structural steel sections incorporated in the work shall be measured & paid on the basis of standard coefficients of sections as per BIS Codes of practice.

- 36.2 The Engineer-In-Charge shall except as otherwise stated ascertain and determine by measurement the value of work done in accordance with the contract.
- 36.3 All items having financial value shall be entered in Measurement Book, level book, etc. prescribed by EPI so that a complete record is obtained of all work performed under the contract. Items of non-financial value (which are not payable) may also be entered in Measurement Book at the sole discretion of the Engineer-In-Charge.
- 36.4 Measurements shall be taken jointly by the Engineer-In-Charge or his authorized representative and by the Contractor or his authorized representative.
- 36.5 Before taking measurements of any work the Engineer-In-Charge or the authorized person deputed by him for the purpose shall give a reasonable notice to the Contractor. If the Contractor fails to attend or send an authorized representative for measurement after such a notice or fails to countersign or to record the objection within a week from the date of measurement, then in any such event measurement taken by the Engineer-In-Charge or by the person deputed by him shall be taken to be correct measurements of the work.
- 36.6 The Contractor shall, without extra charge provide assistance with every appliance, labour and other things necessary for measurement.

Measurements shall be signed and dated by both parties each day on the Site on completion of measurement.

37.0 PAYMENTS

- 37.1 The bill shall be submitted by Contractor each month on or before the date fixed by the ENGINEER-IN-CHARGE for all works executed in previous months. The Contractor shall prepare computerized bills using the program as approved by Engineer-In-Charge as per prescribed format/ pro-forma. The Contractor shall submit five numbers of hard copies and one soft copy of floppy/ CD for all bills. Subject to clause 37.3 herein below, the payment due to the Contractor shall be made within fifteen days of getting the measurements verified from the Engineer-In-Charge or his subordinate/ representative and certification of bill by the Engineer-In-Charge.
- 37.2 All running payments shall be regarded as 'on account' payments against the final payment only and not as payments for work actually done and completed and / or accepted by EPI and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of EPI under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect the contract. The final bill shall be submitted by the Contractor within three months of

- the completion of work, otherwise EPI's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on Contractor. Each Running Bill should be accompanied by two sets of at-least 20 (twenty) photographs as per direction of Engineer-In-Charge taken from various points depicting status of work as on Report/ Bill date along with Monthly Progress Report for the concerned month in the pro-forma to be given/ approved by Engineer-In-Charge. Intermittent progress photographs as and when required shall also be provided by the Contractor at his own cost as per direction of Engineer-In-Charge. No payment of running account bill shall be released unless it is accompanied by progress photographs and Monthly Progress Report as above.
- 37.3 It is clearly agreed and understood by the Contractor that notwithstanding anything to the contrary that may be stated in the agreement between EPI and the Contractor, the Contractor shall become entitled to payment only after EPI has received the corresponding payment(s) from the Client/ Owner for the work done by the Contractor. Any delay in the release of payment by the Client/ Owner to EPI leading to delay in the release of the corresponding payment by EPI to the Contractor shall not entitle the Contractor to any compensation/ interest from EPI.
- 37.4 All payments shall be released by EPI by Account Payee Cheque from any of its offices in India directly at the address notified by the Contractor (Postage charges shall be charged to the Contractor's account). In case of Payments is made by Demand Draft at the request of the Contractor, Bank Commission charges shall be debited to the account of Contractor.

38.0 WORK ON SUNDAYS, HOLIDAYS AND DURING NIGHT

For carrying out work on Sunday and Holidays or during night, the Contractor will approach the Engineer-In-Charge or his representative at least two days in advance and obtain his permission. The Engineer-In-Charge at his discretion can refuse such permission. The Contractor shall have no claim on this account whatsoever. If work demand, the Contractor shall make arrangements to carry out the work on Sundays, Holidays and in two, three shifts with the approval of Engineer-in- Charge at no extra cost to EPI.

39.0 NO IDLE CHARGES TOWARDS LABOUR OR PLANT & MACHINERY ETC.

No idle charges or compensation shall be paid for idling of the Contractor's labour, staff or Plant & Machinery etc. on any ground or due to any reason whatsoever. EPI will not entertain any claim in this respect.

40.0 WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, ORDERS, ETC.

The Contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The Contractor shall also conform exactly, fully and faithfully to the Design, Drawings and Instructions

in writing in respect of the work assigned by the Engineer-In-Charge and the Contractor shall be furnished free of charge one copy of the Contract Documents together with Specifications, Designs, Drawings.

The Contractor shall comply with the provisions of the contract and execute the works with care and diligence and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

41.0 DIRECTION FOR WORKS

- 41.1 All works to be executed under the contract shall be executed under the direction and subject to approval in all respect of the Engineer-In-Charge of EPI who shall be entitled to direct at what point or points and in what manner works are to be commenced and executed.
- 41.2 The Engineer-In-Charge and his representative shall communicate or confirm their instructions to the Contractor in respect of the execution of work during their Site inspection in a 'Works Site Order Book' maintained at the site office of Engineer-In-Charge. The Contractor or his authorized representative shall confirm receipt of such instructions by signing against the relevant orders in the book. The Contractor shall be bound to sign the site order book as and when required by Engineer-In-Charge and carry out compliance of instructions promptly to the satisfaction of Engineer-In-Charge.

42.0 ORDER OF PRECEDENCE OF DOCUMENTS

- 42.1 In case of difference, contradiction, discrepancy, dispute with regard to Conditions of Contract, Specifications, Drawings, Bill of Quantities and Rates quoted by the Contractor and other documents forming part of the contract, the following shall prevail in order of precedence.
- i) Contract Agreement
 - ii) Fax, Telegram or Letter of Intent, detailed letter of Work Order along with statement of agreed variations and its enclosures.
 - iii) Description in Bill of Quantity / Schedule of Quantities
 - iv) Additional Conditions of Contract.
 - v) Technical specifications (General / Special Technical Specification) as given in the Tender Documents.
 - vi) General Conditions of Contract.
 - vii) Drawings
 - viii) CPWD/ MORTH specifications (as specified in Technical Specification of the Tender) update with correction slips issued up to last date of receipt of Tenders.

ix) Relevant B.I.S. Codes.

- 42.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Engineer-In-Charge shall be the deciding authority with regard to the intention of the document which shall be final and binding on the Contractor.
- 42.3 Any error in description, quantity or rate in the Schedule of Quantities/items or Bill of Quantities or any omission there from shall not vitiate the contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to the Drawings and Specifications or from any of his obligations under the contract.

43.0 TIME SCHEDULE & PROGRESS

- 43.1 Time allowed for carrying out all the works as entered in the Tender shall be as mentioned in the "Memorandum" to the "Form of Tender" which shall be reckoned from the 10th day from the date on which the letter/ telegram of Intent is issued to the Contractor. Time shall be the essence of the contract and Contractor shall ensure the completion of the entire work within the stipulated time of completion.
- 43.2 The Contractor shall also furnish within 10 days from the date of letter/ telegram of Intent, a CPM network/ PERT chart/ Bar Chart for completion of work within stipulated time. This will be duly got approved from EPI. This approved Network/ PERT Chart shall form a part of the agreement. Achievement of milestones as well as total completion has to be within the time period allowed.
- 43.3 Contractor shall mobilize and employ sufficient resources for completion of all the works as indicated in the agreed BAR CHART/Network. No additional payment will be made to the Contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the Engineer-In-Charge.
- 43.4 During the currency of the work the Contractor is expected to adhere to the time schedule on miles stone and total completion and this adherence will be a part of Contractor's performance under the contract. During the execution of the work Contractor is expected to participate in the review and updating of the Network/ BAR CHART undertaken by EPI. These reviews may be undertaken at the discretion of EPI either as a periodical appraisal measure or when the quantum of work order on the Contractor is substantially changed through deviation orders or amendments. The review shall be held at Site or any of the offices of EPI/ Owner or Consultant of EPI/ Owner at the sole discretion of EPI.
- 43.5 If at any time, it appears to the Engineer-In-Charge that the actual progress of work does not conform to the approved programme referred above, the Contractor shall produce a revised programme showing the modifications to the approved programme by additional inputs to ensure completion of the work within the stipulated time. The Contractor will adhere to the revised schedule thereafter. The approval to the revised schedule resulting in a completion date beyond the

stipulated date of completion shall not automatically amount to a grant of extension of time to the Contractor.

- 43.6 Contractor shall submit fortnightly/ Monthly (as directed by Engineer-In-Charge) progress reports (5 copies) on a computer based program (program and software to be approved by Engineer-In-Charge) highlighting status of various activities and physical completion of work.
- 43.7 The Contractor shall send completion report along with as built drawings and maintenance schedule to the office of Engineer-In-Charge, of EPI in writing within a period of 30 days of completion of work.

44.0 WATER AND ELECTRICITY

The Contractor shall make his own arrangement for Water & Electrical power for construction and other purposes at his own cost and pay requisite electricity and water charges. The Contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.

45.0 MATERIALS TO BE PROVIDED BY THE CONTRACTOR

The Contractor shall, at his own expense, provide all materials, required including Cement & Steel for the works.

The Contractor shall at his own expense and without delay, supply to the Engineer-in- Charge samples of materials to be used on the work and shall get the same approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The Contractor shall, if requested by the Engineer-in- Charge furnish proof, to the satisfaction of the Engineer-In-Charge that the materials so comply.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-In-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the Contractor shall afford every facility and every assistance and cost in obtaining the right and visit to such access.

The Engineer-In-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-In-Charge shall be at liberty to employ at the expense of the Contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-In-Charge shall also have full power to require other proper materials to be substituted thereof and in case of default, the Engineer-In-Charge may cause the same to the supplies and all

costs which may require such removal and substitution shall be borne by the Contractor.

45.1 CEMENT AND CEMENT GODOWN

Cement shall be procured by Contractor of 43 Grade conforming to BIS : 8112 Specification latest edition or higher Grade as directed by the Engineer-In-Charge. The cement shall be procured directly from the reputed manufacturers/stockist, which will have to be got approved from EPI in advance. Relevant vouchers and test certificates will be produced as and when required. The cement shall be stored by the Contractor in such suitable covered and lockable stores, well protected from climate and atmospheric effect. The cement godown shall be constructed by the Contractor as per CPWD specifications at his own cost. The cement will remain under double lock, one from EPI and other from Contractor. The cement in bags shall be stored in godowns in easy countable position. Cement bags shall be used on first in first out basis. Cement stored for beyond 90 days will be required to be tested at Contractors cost, before use in works.

45.2 STEEL & STEEL STOCKYARD

Steel conforming to BIS specifications (latest edition) shall be procured by the Contractor directly from reputed manufacturers/producers as approved by EPI. The manufacturer has to give a certificate that the material supplied is not a re-rolled product. Relevant vouchers & test certificates will be produced by the Contractor. Re-rolled sections will not be allowed.

Reinforcement steel, structural steel shall be stored and stacked in such manner so as to facilitate easy identification, removal etc. The Contractor shall take proper care to prevent direct contact between the steel and the ground/ water for which he shall provide necessary arrangement at his own cost including ensuring proper drainage of area to prevent water logging as per directions of the Engineer-In-Charge. If required, the reinforcement steel shall also be protected, by applying a coat of neat cement slurry over the bars for which no extra payment shall be made.

Test certificates for each consignment of steel shall be furnished and tests to be got carried out by the Contractor at his own cost from the authorized laboratory as per the directions of Engineer-In-Charge, before incorporating the materials in the work.

46.0 SCHEDULE OF QUANTITIES / BILL OF QUANTITIES

- 46.1 The quantities shown against the various items of work are only approximate quantities, which may vary as per the actual requirement at Site.
- 46.2 All items of work in the Bill of Quantities/ schedule of quantities shall be carried out as per the CPWD/ MORTH (as the case may be) specifications, drawings and instructions of the ENGINEER-IN-CHARGE of EPI and the rates shall include for supply of required materials including proper storage, consumables, skilled & unskilled labour, supervision, tools, tackles, plant & machinery complete

as called for in the detailed specifications and conditions of the contract. No item, which is not covered in the Bill of Quantities, shall be executed by the Contractor without the approval of EPI. In case any Extra/Substituted item is carried out without specific-approval, the same will not be paid.

47.0 ANTI-TERMITE TREATMENT & WATER PROOF TREATMENT

- 47.1 Pre-construction treatment shall be carried out in co-ordination with the building work and shall be executed in such a manner that the civil works are not hampered or delayed by the anti-termite treatment. The treatment shall be carried out as detailed in BIS: 6313 (Part-II) latest revision. The waterproof treatment shall be of type and specifications as given in the schedule of quantities.
- 47.2 The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be and remain fully effective for a period of not less than 10(Ten) years to be reckoned from the date of expiry of the Defect Liability period, prescribed in the contract. At any time during the said guarantee period if EPI finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the Contractor of the same, the Contractor shall be liable to rectify the defect or give re-treatment at his own cost and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If the Contractor fails to commence such work within the stipulated period, EPI may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer-In-Charge of EPI for the cost payable by the Contractor shall be final and binding upon him.
- 47.3 Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from Engineer-In-Charge of EPI.
- 47.4 EPI reserves the right to get the quality of treatment checked in accordance with recognized test methods and in case it is found that the chemicals with the required concentration and rate of application have not been applied, or the water proof treatment is not done as per specifications, the Contractor will be required to do the re-treatment in accordance with the required concentration & specifications at no extra cost failing which no payment for such work will be made. The extent of work thus rejected shall be determined by EPI.
- 47.5 Water proofing and anti-termite treatment shall be got done through approved / specialized agencies only with prior approval of Engineer-In-Charge.
- 47.6 The Contractor shall make such arrangement as may be necessary to safeguard the workers and residents of the building against any poisonous effect of the chemicals used during the execution of the work.
- 47.7 During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of Engineer-In-Charge by the Contractor at his cost.

- 47.8 The Contractor shall make his own arrangement for all equipments required for the execution of the job.
- 47.9 The Contractor shall execute Guarantee Bond in the prescribed form as appended for guaranteeing the anti-termite treatment and waterproof treatment.

48.0 INDIAN STANDARDS

Wherever any reference is made to any IS in any particular specifications, Drawings or Bill of Quantities, it means the Indian Standards editions with the amendments current at the last date of receipt of Tender Documents.

49.0 CENTERING & SHUTTERING

Marine plywood only or steel plates of minimum thickness as approved by Engineer-In-Charge shall be used for formwork. The shuttering plates shall be cleaned and oiled after every repetition and shall be used only after obtaining approval of EPI's Engineers at Site. The number of repetitions allowed for plywood and steel shuttering shall be at the discretion of Engineer-In-Charge of EPI depending upon the condition of shuttering surface after each use and the decision of ENGINEER-IN-CHARGE in this regard shall be final and binding on the Contractor. No claim whatsoever on this account shall be admissible.

50.0 CONTROLLED MATERIALS

- 50.1 The following Controlled materials shall be brought to Site after the approval of EPI.
- a) Water proofing compound.
 - b) Cement
 - c) Steel
 - d) Primer/ Paints/ Varnish etc.
 - e) Bitumen
 - f) Chemical for anti termite treatment
 - g) Any other materials as per discretion of EPI.
- 50.2 The quantity of Controlled materials shall be measured and recorded in the Measurement books and signed by the Contractor and the Engineer-In-Charge as a check to ensure that the required quantities as required for execution of works as per specifications have been brought to Site for incorporation in the work.
- 50.3 Controlled materials brought at Site shall be stored as directed by EPI and those already recorded in Measurement book, shall be suitably marked for identification.
- 50.4 The Contractor shall ensure that the Controlled materials are brought to Site in original sealed containers or packing bearing manufacturer's markings and

brands (except where the quantity required is a fraction of the smallest packing). Materials not complying with this requirement shall be rejected. The empty containers of such Controlled materials shall not be destroyed/ disposed-off without the written permission of EPI.

- 50.5 The Contractor shall produce receipted vouchers showing quantities of the materials to satisfy Engineer-In-Charge that the materials comply with the specifications. These vouchers shall be endorsed, dated and initialed by Engineer-In-Charge giving the contract number and name of work and a certified copy of each such voucher signed both by EPI and the Contractor shall be kept on record.
- 50.6 When the cost of each category of materials is less than Rs.5000/- production of vouchers may not be insisted upon if EPI is otherwise satisfied with the quality and quantity of materials.

51.0 RECORDS OF CONSUMPTION OF CEMENT & STEEL

- 51.1 For the purpose of keeping a record of cement and steel received at Site and consumption in works, the Contractor shall maintain a properly bound register in the form approved by EPI, showing columns like quantity received and used in work and balance in hand etc. This register shall be signed daily by the Contractor's representative and EPI's representative.
- 51.2 The register of cement & steel shall be kept at Site in the safe custody of EPI's Engineer during progress of the work. This provision will not, however, absolve the Contractor from the quality of the final product.
- 51.3 In case cement or steel quantity consumed is lesser as compared to the theoretical requirement of the same as per CPWD/MORTH (as the case may be) specifications/ norms, the work will be devalued and/ or a penal rate (i.e. double the rate at which cement/ steel purchased last) recovery for lesser consumption of cement/ steel shall be made in the item rates of the work done subject to the condition that the tests results fall within the acceptable criteria as per CPWD/MORTH (as the case may be) specifications otherwise the work shall have to be dismantled and redone by the Contractor at no extra cost.

In case of cement, if actual consumption is less than 98% of the theoretical consumption, a recovery shall be effected from the Contractor's dues at the penal rate for the actual quantity that is lower than 98% of theoretical consumption.

52.0 MATERIALS AND SAMPLES

- 52.1 The materials/ products used on the works shall be one of the approved make/ brands out of list of manufacturers/ brands/ makes given in the Tender Documents. The Contractor shall submit samples/ specimens out of approved makes of materials/ products to the Engineer-In-Charge for prior approval. In

exceptional circumstances Engineer-In-Charge may allow alternate equivalent makes/ brands of products/ materials at his sole discretion. The final choice of brand/ make shall remain with the Engineer-In-Charge, whose decision in this matter shall be final and binding and nothing extra on this account shall be payable to the Contractor.

In case single brand/ make is mentioned, other equivalent makes/ brands may be considered by the Engineer-In-Charge with prior approval. In case of variance in CPWD/ IS/BIS Specifications from approved products/ makes specification, the specification of approved product/ make shall prevail for which nothing shall be paid extra to the Contractor.

In case no make or brand of any materials, articles, fittings and accessories etc. is specified, the same shall comply with the relevant Indian Standard Specifications and shall bear the ISI/BIS mark. The Engineer of EPI and the Owner shall have the discretion to check quality of materials and equipments to be incorporated in the work, at source of supply or site of work and even after incorporation in the work. They shall also have the discretion to check the workmanship of various items of work to be executed in this work. The Contractor shall provide the necessary facilities and assistance for this purpose.

- 52.2 The above provisions shall not absolve the Contractor from the quality of final product and in getting the material and workmanship quality checked and approved from the Engineer-In-Charge of EPI.
- 52.3 The Contractor shall well in advance, produce samples of all materials, articles, fittings, accessories etc. that he proposes to use and get them approved in writing by EPI. The materials articles etc. as approved shall be labelled as such and shall be signed by EPI and the Contractor's representative.
- 52.4 The approved samples shall be kept in the custody of the Engineer- in-Charge of EPI till completion of the work. Thereafter the samples except those destroyed during testing shall be returned to the Contractor. No payment will be made to the Contractor for the samples or samples destroyed in testing.
- 52.5 The brands of all materials, articles fittings etc. approved together with the names of the manufacturers and firms from which supplies have been arranged shall be recorded in the Site Order Book.
- 52.6 The Contractor shall set up and maintain at his cost, a field testing laboratory for all day-to-day tests at his own cost to the satisfaction of the Engineer-In-Charge. This field testing laboratory shall be provided with equipment and facilities to carry out all mandatory field tests as per CPWD/MORTH (as the case may be) specifications. The laboratory building shall be constructed and installed with the appropriate facilities; Temperature and humidity controls shall be available wherever necessary during testing of samples.

All equipments shall be provided by the Contractor so as to be compatible with the testing requirements specified. The Contractor shall maintain all the equipments in good working condition for the duration of the contract.

The Contractor shall provide approved qualified personnel to run the laboratory for the duration of the Contract. The number of staff and equipment available must at all times be sufficient to keep pace with the sampling and testing programme as required by the Engineer-In-Charge.

The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the Site, etc.

The Contractor shall re-calibrate all measuring devices whenever so required by the Engineer-In-Charge and shall submit the results of such measurements without delay.

All field tests shall be carried out in the presence of EPI's representative. All costs towards samples, materials, collection, transport, manpower, testing, including concrete mix-design etc. shall be borne by the Contractor and are deemed to be included in the rates quoted by him in the Bill of Quantities.

53.0 TESTS AND INSPECTION

53.1 The Contractor shall carry out the various mandatory tests as per specifications and the technical documents that will be furnished to him during the performance of the work. All the tests on materials, as recommended by CPWD, MORTH (as the case may be) and relevant Indian Standard Codes or other standard specifications (including all amendments current at the last date of submission of Tender Documents) shall be got carried out by the Contractor at the field testing laboratory or any other recognized institution/ laboratory, at the direction of EPI. All testing charges, expenses etc. shall be borne by the Contractor. All the tests, either on the field or outside laboratories concerning the execution of the work and supply of materials shall be got carried out by the Contractor or EPI at the cost of the Contractor.

53.2 WORKS TO BE OPEN TO INSPECTION

All works executed or under the course of execution in pursuance of this contract shall at all times be open to inspection and supervision of EPI. The work during its progress or after its completion may also be inspected, by Chief Technical Examiner of Government of India (CTE) and/ or an inspecting authority of State Government of State in which work is executed and/or by third party checks by Owner/ Clients. The compliance of observations/ improvements as suggested by the inspecting officers of EPI/CTE/ State authorities/ Owners shall be obligatory on the part of the Contractor at the cost of Contractor.

54.0 BORROW AREAS

The Contractor shall make his own arrangements for borrow pits and borrow disposal areas including their approaches and space for movement of men, machinery, other equipments as required for carrying out the works. The Contractor shall be responsible for taking all safety measures, getting approval,

making payment of royalties, charges etc. and nothing extra shall be paid to the Contractor on this account and unit rates quoted by the Contractor for various items of Bill of Quantities shall be deemed to include the same.

55.0 BITUMEN WORK

The Contractor shall be responsible for arranging Bitumen/Tar of required grade from source to be approved by the Engineer-In-Charge. No Bitumen work shall be carried out on wet surface or in rainy conditions.

56.0 CARE OF WORKS

From the commencement to the completion of works and handing over, the Contractor shall take full responsibility for care of all the works and in case of any damage/loss to the works or to any part thereof or to any temporary works due to lack of precautions or due to negligence on part of Contractor, the same shall be made good by the Contractor at his own cost.

57.0 WORK IN MONSOON AND DEWATERING

The execution of the work may entail working in the monsoon also. The Contractor must maintain labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No special/ extra rate will be considered for such work in monsoon. The Contractor's rate shall be considered inclusive of cost of dewatering required, if any and no extra rate shall be payable on this account.

58.0 NO COMPENSATION FOR FORECLOSURE/CANCELLATION/ REDUCTION OF WORKS

If at any time after the commencement of the work EPI shall for any reason whatsoever is required to abandon the work or does not require the whole work thereof as specified in the Tender to be carried out, the Engineer-In-Charge shall give notice in writing of the fact to the Contractor, who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out or on foreclosure, neither shall he have any claim for compensation by reason of any alterations having been made in the original Specifications, Drawings, Designs and Instructions which shall involve any curtailment of the work as originally contemplated.

Provided that the Contractor shall be paid the charges on the cartage only of materials actually and bonafide brought to the Site of the work by the Contractor and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof and then taken back by the Contractor, provided however, that the Engineer-In-Charge shall have in all such cases the option of taking over all or any such materials at their purchase price or at local current rates whichever may be less. In the case of such stores having been issued by EPI

and returned by the Contractor to EPI, credit will be given to him by the Engineer-In-Charge at rates not exceeding those at which they were originally issued to him after taking into consideration any deduction for claims on account of any deterioration or damage while in the custody of the Contractor and in this respect the decision of the Engineer-In-Charge shall be final.

59.0 RESTRICTION ON SUBLETTING

59.1 The Contractor shall not sublet or assign the whole or part of the works except where otherwise provided, by the contract and even then only with the prior written consent of EPI and such consent if given shall not relieve the Contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults or neglects of any sub-Contractor, his agents, servants or workmen as full as if they were the acts, defaults or neglects of the Contractor, his agent, servants or workmen provided always that the provision of labour on piece work basis shall not be deemed to be a subletting under this clause.

59.2 The Contractor may entrust specialist items of works to the agencies specialized in the specific trade. The Contractor shall give the names and details of such firm whom he is going to employ for approval of EPI. These details shall include the expertise, financial status, technical manpower, equipment, resources and list of works executed and on hand of the specialist agency. Specialist agency shall be engaged only after obtaining written approval of the Engineer-In-Charge.

60.0 PROHIBITION OF UNAUTHORISED CONSTRUCTION & OCCUPATION

No unauthorized buildings, structures should be put up by the Contractor anywhere on the project Site, neither any building built by him shall be unauthorizedly occupied by him or his staff.

61.0 CO-ORDINATION WITH OTHER AGENCIES

Work shall be carried out in such a manner that the work of other Agencies operating at the Site is not hampered due to any action of the Contractor. Proper Co-ordination with other Agencies will be Contractor's responsibility. In case of any dispute the decision of EPI shall be final and binding on the Contractor. No claim whatsoever shall be admissible on this account.

62.0 SETTING OUT OF THE WORKS

62.1 The Contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the works. If at any time during the progress of works, shall any error appear or arise in the position, levels, dimensions or alignment of any part of the works, the Contractor shall at his own expenses rectify such error to the satisfaction of Engineer-in-charge. The checking of any setting out or of any line or level by the engineers of EPI shall not in any way relieve the Contractor of his responsibility for the correctness.

- 62.2 Contractor shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural, Plumbing and other services Drawings.

63.0 NOTICE BEFORE COVERING UP THE WORK

The Contractor shall give not less than seven days notice before covering up or otherwise placing beyond the reach of measurement any work, to the Engineer-In-Charge in order that the same may be inspected and measured. If any work is covered up or placed beyond the reach of inspection/ measurement without such notice to the Engineer-In-Charge or his consent being obtained, the same shall be uncovered at the Contractor's expenses and he shall have to make it good at his own expenses.

64.0 SITE CLEARANCE

- 64.1 The Contractor shall ensure that the working Site is kept clean and free of obstructions for easy access to job Site and also from safety point of view. Before handing over the work to EPI the Contractor shall remove all temporary structures like the site offices, cement godown, stores, labour hutments etc., scaffolding rubbish, left over materials tools and plants, equipments etc., clean and grade the Site to the entire satisfaction of the Engineer-In-Charge. If this is not done the same will be got done by EPI at his risk and cost.
- 64.2 The Contractor shall clean all floors, remove cement/ lime/ paint drops and deposits, clean joinery, glass panes etc., touching all painter's works and carry out all other necessary items of works to make the premises clean and tidy before handing over the building, and the rates quoted by the Contractor shall be deemed to have included the same.

65.0 VALUABLE ARTICLES FOUND AT SITE

All gold, silver and other minerals of any description and all precious stones, coins, treasure, relics, antiques and all other similar things which shall be found in, under or upon the Site, shall be the property of the Owner/ Government and the Contractor shall duly preserve the same to the satisfaction of Engineer-In-Charge and shall from time to time deliver the same to such person or persons indicated by EPI.

66.0 MATERIALS OBTAINED FROM DISMANTLEMENT TO BE OWNER'S PROPERTY

All materials like stone, boulders and other materials obtained in the work of dismantling, excavation etc. will be considered Owner/ government property and may be issued to the Contractor by the Owner/ EPI, if required for use in this work at rates approved by EPI or the Contractor may be asked to dispose off these items at his cost.

67.0 SET-OFF OF CONTRACTOR'S LIABILITIES

EPI shall have the right to deduct or set off the expenses incurred or likely to be incurred by it in rectifying the defects and/or any claim under this agreement

against the Contractor from any or against any amount payable to the Contractor under this agreement including Retention Money and proceeds of Security Deposit cum Performance Guarantee and from any other contract being executed by the Contractor for EPI.

68.0 MATERIALS PROCURED WITH THE ASSISTANCE OF EPI

If any material for the execution of this contract is procured with the assistance of EPI either by issue from its stores or purchase made under orders or permits or licences obtained by EPI, the Contractor shall hold and use the said materials economically and solely for the purpose of this contract and shall not dispose them without the written permission of Engineer-In-Charge. The Contractor, if required by EPI, shall return all such surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination on whatsoever reason, on being paid or credited such price as EPI shall determine having due regard to the conditions of materials.

69.0 ALTERATION IN SPECIFICATION, DESIGN & DRAWING

69.1 The Engineer-In-Charge shall have power to make any alterations in, omissions from, additions to or substitutions for, the original Specifications, Drawings, Designs and Instructions that may appear to him to be necessary during the progress of the work, and the Contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-In-Charge and such alterations, omissions, additions, or substitutions shall not invalidate the contract and any altered, additional or substituted work which the Contractor may be directed to do in the manner above specified as part of the work shall be carried out by the Contractor on the same conditions in all respects on which he agreed to do the main work.

The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work price bears to the original contract work price, and the certificate of the Engineer-In-Charge shall be conclusive as to such proportion. Over and above this, a further period to the extent of 25 percent of such extension shall be allowed to the Contractor.

The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order :

- i) If the rates for the additional, altered or substituted work are specified in the contract for the work, the Contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a nearest similar item of work as are specified in the contract for the work. In case of composite tenders where two or more

schedule of quantities/ Bill of Quantities form part of the contract, the rates shall be derived from the nearest similar item in the schedule of quantities/Bill of Quantities of the particular part of work in which the deviation is involved failing that from the lowest of the nearest similar item in other schedule of quantity. The opinion of the Engineer-In-Charge as to whether or not the rate can be reasonably so derived from the item in this contract will be final and binding on the Contractor.

- iii) If the altered, additional or substituted work includes any work for which no rate is specified in the contract for the work and which cannot be derived in the manner specified in sub para (i) and (ii) above from the similar class of work in the contract then such work shall be carried out at the rates entered in the Schedule of Rates (as mentioned in "Memorandum" to the "Form of Tender" for Civil/ Sanitary Works) minus/plus the percentage which the tendered amount of scheduled items bears with the estimated amount of schedule items based on the Schedule of Rates (as mentioned in "Memorandum" to the "Form of Tender" for Civil/ Sanitary Works). The scheduled items mean the items appearing in the Schedule of Rates (as mentioned in "Memorandum" to the "Form of Tender" for Civil/ Sanitary Works), which shall be applicable in this clause. This clause will apply mutatis mutandis to electrical work except that Electrical Schedule of Rates as mentioned in "Memorandum" to the "Form of Tender" will be considered in place of Civil/ Sanitary works Schedule of rates as mentioned in "Memorandum" to the "Form of Tender".
- iv) If the rates for the altered, additional or substituted work cannot be determined in the manner specified in sub-clauses (i) to (iii) above, then the Contractor shall, within 7 days of the date of receipt of order to carry out the work, inform the Engineer-In-Charge the rates which he intends to charge for such class of work, supported by analysis of the rate or rates claimed, and the Engineer-In-Charge shall determine the rate or rates on the basis of prevailing market rates of the material, Labour, T&P etc. plus 10% (Ten percent) to cover the Contractors supervision, overheads and profit and pay the Contractor accordingly. The opinion of the Engineer-In-Charge as to the current market rates of materials and quantum of labour involved per unit of measurements will be final and binding on the Contractor.

However, the Engineer-In-Charge, by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the Contractor shall suspend the work on the plea of non-settlement of rates of items falling under the clause.

- v) Except in case of items relating to foundations, provisions contained in sub clauses (i) to (iv) above shall not apply to contract, altered or substituted items as individually exceed the 'deviation limit' of plus/minus 25% (Twenty Five Percent) subject to the following:-
 - (a) Deviation limit shall apply to individual items.

- (b) The value of additions of items, of any individual trade not already included in the contract, shall not exceed 20% of the Tendered value of work, subject to overall deviation limit as given above.

Provided further that in case where the original item is substituted, the Substituted Item shall be deemed to have replaced the original item in the contract itself to that extent and above provisions pertaining to the deviations shall apply with respect to such Substituted Item and not the original item.

NOTE: Individual trade means the trade section to which Bill of Quantities annexed to the agreement has been divided or in the absence of any such division the individual section of the MORTH/C.P.W.D. (as the case may be) Scheduled of rates specified above, such as excavation and earthwork, Concrete, wood work and joinery, etc.

The rate of any such work except the items relating to foundations which is in excess of the deviation limit and deviation in quantities of AHR items on plus side as contained in Clause 9.2(i) shall be determined in accordance with the provisions contained in Clause 69.2.

69.2 In the case of contract items, substituted items, Contract cum substituted items or additional items which exceed the limits laid down in sub para (v) of condition 69.1 above (except the items relating to foundation work, which the Contractor is required to do under Clause 69.1 above and deviation in quantities of AHR items on plus side as contained in clause 9.2 (i)), the Contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities or those derived in accordance with the provisions of sub para (i) to (iii) of conditions 69.1 by more than five percent, the Engineer-In-Charge shall within three months of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the Contractor, determine the rates on the basis of the market rates and if the rates so determined exceed the rates specified in the schedule of quantities or those derived in accordance with the provisions of sub paras (i) to (iii) of condition 69.1 by more than five percent, the contract shall be paid in accordance with the rates determined. In the event of the Contractor failing to claim revision of rates within the stipulated period, or if the rates determined by the Engineer-In-Charge within the period of three months of receipt of the claims supported by analysis are within five percent of the rates specified in the schedule of quantities or of those determined in accordance with the provisions of sub-para (i) to (iii) of condition 69.1, the Engineer-In-Charge shall make payment at the rates as specified in the schedule of quantities or those already determined under sub para (i) to (iii) of condition 69.1 for the quantities in excess of the limits laid down in sub para (v) of condition 69.1.

69.3 The provisions of the proceeding paragraph shall apply to the decrease in the rates of items for the work in excess of the limits laid down in sub para (v) of

condition 69.1 provided that such decrease is more than five percent of rates specified in the schedule of quantities or those derived in accordance with the provisions of sub para (i) to (iii) of condition 69.1 and the Engineer-In-Charge may after giving notice to the Contractor within two months of receipt of order by the Contractor or occurrence of the excess and after taking into consideration any reply received from him within fifteen days of receipt of the notice revise the rates for the work in question within two months of expiry of the said period of fifteen days having regard to the market rates.

69.4 The Contractor shall send to the Engineer-In-Charge once every three months an up to date account giving complete details of all claims for additional payments to which the Contractor may consider himself entitled and of all additional work ordered by the Engineer-In-Charge which he has executed during the preceding quarter failing which the Contractor shall be deemed to have waived his right.

69.5 For the purpose of operation of clause 69.1 (v) the following works shall be treated as works relating to foundation:-

- i) For buildings, compound walls plinth level or 1.2 meters (4 feet) above ground level whichever is lower excluding items of flooring and D.P.C. but including base concrete below the floors.
- ii) For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs the bed of floor level.
- iii) For retaining walls where floor level is not determinate 1.2 meters above the average ground level or bed level.
- iv) For Roads all items of excavation and filling including treatment of sub base and soiling work.
- v) For water supply lines, sewer lines, under-ground storm water drains and similar works. All items of work below ground level except items of pipe work, masonry work.
- vi) For open storm water drains, all items of work except lining of drains.

70.0 ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK

If it shall appear to the Engineer-In-Charge or his authorized subordinate in charge of the work or to the Chief Technical Examiner or to any other inspecting agency of Government/ State Government/ Owner where the work is being executed, that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the Contractor shall on demand in writing which shall be made within six months of the completion of the work from the ENGINEER-IN-CHARGE specifying the work, materials or articles complained of notwithstanding that the same may have been passed, Certified and paid for forthwith rectify, or remove and

reconstruct the work so specified in whole or in part as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-In-Charge in his demand aforesaid, then the Contractor shall be liable to pay compensation at the rate of one percent of the estimated amount put to tender for every day not exceeding ten days, while his failure to do so shall continue and in the case of any such failure, the Engineer-In-Charge may rectify or remove and re-execute the work or remove and replace with others, the material or articles complained of as the case may be at the risk and expense in all respects of the Contractor.

71.0 POSSESSION PRIOR TO COMPLETION

71.1 EPI shall have the right to take possession of or use any completed or partially completed work or part of the work. Such possession or use shall not be deemed to be any acceptance of any work not completed in accordance with the contract agreement. If such prior possession or use by EPI delays the progress of work an equitable adjustment in the time of completion will be made and the contract agreement shall be deemed to be modified accordingly. The decision of EPI in this case shall be final binding and conclusive.

71.2 When the whole of the works or the items or the groups of items of work for which separate periods of completion have been specified have been completed the Contractor will give a notice to that effect to the Engineer in writing. The Engineer shall within 15 days of the date of receipt of such notice inspect the works and either the Engineer-In-Charge issues to the Contractor a completion certificate stating the date on which in his opinion the works were completed in accordance with the contract or gives instructions in writing to the Contractor specifying the balance items of work which are required to be done by the Contractor before completion certificate could be issued. The Engineer-In-Charge shall also notify the Contractor of any defect in the works affecting completion.

71.3 The Contractor shall during the course of execution prepare and keep updated a complete set of 'as built' drawings to show each and every change from the Contract Drawings, changes recorded shall be countersigned by the Engineer-In-Charge and the Contractor. Four copies of 'as built' drawings shall be supplied to EPI by the Contractor within 30 days of the completion. All costs incurred in this respect shall be borne by the Contractor only.

72.0 COMPENSATION FOR DELAY AND REMEDIES

72.1 If the Contractor fails to maintain the required progress in terms of clause 72.4 or relevant clause of Additional Conditions of Contract, to complete the work and clear the Site on or before the completion date or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to EPI on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below or such smaller amount as the Engineer in charge (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day / week (as

applicable) that the progress remains below that specified in Clause 72.4.1 or the relevant clause in Additional Conditions of Contract or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified.

- i) For works with completion period not exceeding 3 month (as originally stipulated) @ 1% per day
- ii) For works with completion period exceeding 3 months (as originally stipulated) @ 1% per week or part thereof

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with EPI even after completion of the work.

72.2 CANCELLATION / DETERMINATION OF CONTRACT IN FULL OR PART

Subject to other provisions contained in this clause, the Engineer-In-Charge may, without prejudice to his any other rights or remedy against the Contract in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in full or in part in any of the following cases:

- i) If the Contractor having been given by the Engineer-In-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter; or
- ii) If the Contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the ENGINEER-IN-CHARGE (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-In-Charge; or
- iii) If the Contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that respect by the Engineer-In-Charge; or
- iv) If the Contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms

and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that respect by the Engineer-In-Charge; or

- v) If the Contractor shall offer or give or agree to give to any person in EPI service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the obtaining or execution of this or any other contract for EPI; or
- vi) If the Contractor shall enter into a contract with EPI in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-In-Charge; or
- vii) If the Contractor shall obtain a contract with EPI as a result of wrong tendering or other non-bona-fide methods of competitive tendering; or
- viii) If the Contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- ix) If the Contractor being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- x) If the Contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
- xi) If the Contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of the labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer sublet or otherwise parts with the entire works or any portion thereof without and prior written approval of the Engineer-In-Charge.

When the Contractor has made himself liable for action under any of the clauses aforesaid, the Engineer-In-Charge may without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to EPI, by a notice in

writing to cancel the contract as a whole or only such items of work in default from the Contract.

The Engineer-In-Charge shall on such cancellation by EPI have powers to:

- a) Take possession of Site and any materials, Construction Plant & machinery, implements, stores, etc. thereon; and/ or
- b) Carry out the incomplete work by any means at the risk and cost of the Contractor; and/ or
- c) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the Contractor under the hand of the Engineer-In-Charge shall be conclusive evidence). Upon such determination or rescission the full Retention Money recovered by EPI under the contract and Security Deposit cum Performance Guarantee shall be liable to be forfeited and un-used materials, construction plant & machinery, implements, temporary buildings, etc. shall be taken over and shall be absolutely at the disposal of EPI. If any portion of the Retention Money has not been received or recovered by EPI from RA Bills, it would be called for and forfeited; and/ or
- d) To employ labour and to supply materials, equipment to carry out the work or any part of the work debiting the Contractor with the cost of the labour and the price of the materials, equipment rentals (of the amount of which cost and price certified by the Engineer-In-Charge shall be final and conclusive) against the Contractor and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the Contractor under the terms of his contract. The certificate of the Engineer-In-Charge as to the value of the work done shall be final and conclusive against the Contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the Contractor. Provided also that if the expenses incurred by the EPI are less than the amount payable to the Contractor at his agreement rates, the difference shall not be paid to the Contractor; and/ or
- e) After giving notice to the Contractor to measure up the work of the Contractor and to take such whole, or the balance or part thereof as shall be un-executed or delayed with reference to the General Conditions of Contract clause no. 72.4.1 and/ or relevant clause of Additional Conditions of Contract, out of his hands and to give it to another Contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original Contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Engineer-In-Charge shall be final and conclusive) shall be borne and paid by the original Contractor and may be deducted from any money due to him by EPI under his contract or on any other account whatsoever or from his Retention Money, Security Deposit cum Performance Guarantee or the proceeds of sales of unused materials, construction plants & machinery, implements temporary buildings etc. thereof or a sufficient part thereof as

the case may be. If the expenses incurred by EPI are less than the amount payable to the Contractor at his agreement rates, the difference shall not be paid to the Contractor; and/ or

- f) By a notice in writing to withdraw from the Contractor any items or items of work as the Engineer-In-Charge may determine in his absolute discretion and get the same executed at the risk and cost of the Contractor.

Any excess expenditure incurred or to be incurred by EPI in completing the works or part of the works or the excess loss or damages suffered or may be suffered by EPI as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to EPI in law be recovered from any moneys due to the Contractor on any account, and if such moneys are not sufficient the Contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the Contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-In-Charge shall have the right to sell any or all of the Contractor's unused materials, Construction Plant, machinery, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the Contractor under the contract and if thereafter there be any balance outstanding from the Contractor, it shall be recovered in accordance with the provisions of the contract and law.

Any sums in excess of the amounts due to EPI and unsold materials, Construction Plant etc. shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by EPI of the works or part of the works is less than the amount which the Contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the Contractor.

In the event of anyone or more of the above courses being adopted by the Engineer-In-Charge the Contractor shall have no claim to compensation whatsoever for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the Contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-In-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified. Provided further that if any of the recoveries to be made, while taking action as per (d) and/or (e) above, are in excess of the Retention Money & Security Deposit cum Performance Guarantee forfeited, these shall be limited to the amount by which the excess cost incurred by the EPI exceeds the Retention Money & Security Deposit cum Performance Guarantee so forfeited.

72.3 CONTRACTOR LIABLE TO PAY COMPENSATION EVEN IF ACTION NOT TAKEN

In any case in which any of the powers conferred upon the Engineer-In-Charge by relevant clause thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the Contractor and the liability of the Contractor for compensation shall remain unaffected. In the event of the Engineer-In-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the Contractor, take possession of (or at the sole discretion of the Engineer-In-Charge which shall be final and binding on the Contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-In-Charge) all or any tools, plant, machinery, materials and stores, in or upon the works, or the site thereof belonging to the Contractor, or procured by the Contractor and intended to be used for the execution of the work / or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of these not being applicable, at current market rates to be certified by the Engineer-In-Charge, whose certificate thereof shall be final, and binding on the Contractor and/or direct the Contractor, clerk of the works, foreman or other authorized agent to remove such tools, machinery, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the Contractor failing to comply with any such requisition, the Engineer-In-Charge may remove them at the Contractor's expense or sell them by auction or private sale on account of the Contractor and his risk in all respects and the certificate of the Engineer-In-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the Contractor.

72.4 TIME ESSENCE OF CONTRACT & EXTENSION FOR DELAY

The time allowed for execution of the Works as specified in the terms of contract or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from the 10th Day or such time period as mentioned in letter of Intent after the date on which the Engineer-In-Charge issues written orders to commence the work. If the Contractor commits default in commencing the execution of the work as aforesaid, the Executing Agency shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money absolutely.

- 72.4.1 Within 10 (Ten) days of Letter of Intent, the Contractor shall submit a Time and Progress Chart (CPM/ PERT/ Quantified Bar Chart) and get it approved by the Engineer-In-Charge. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate the forecast (mile-stones) of the dates of commencement and completion of various items, trades, sections of the work and may be amended as necessary by agreement between the Engineer-In-Charge and the Contractor within the limitations of time stipulated in the Contract documents, and further to ensure good progress during the execution of the work, the Contractor shall in all cases in which the time allowed for any work exceeds one month (save for

special jobs for which a separate program has been agreed upon) complete 1/8th of the whole of work before 1/4th of the whole time allowed in the contract has elapsed, 3/8th of the work before one half of such time has elapsed and 3/4th of the work before 3/4th of such time has elapsed. The physical report including photographs shall be submitted by the Contractor on the prescribed format & the intervals (not exceeding a month) as decided by the Engineer in Charge. The compensation for delay as per clause 72.1 shall be leviable at intermediate stages also, in case the required progress is not achieved to meet the above time deadlines of the completion period and/ or milestones of time and progress chart, provided always that the total amount of Compensation for delay to be paid under this condition shall not exceed 10% (Ten Percent) of the tendered value of work”.

72.4.2 If the work(s) be delayed by:

- i) force-majeure or
- ii) abnormally bad weather, or
- iii) serious loss or damage by fire, or
- iv) civil commotion of workmen, strike or lockout, affecting any or the trades employed on the work, or
- v) delay on the part of other Contractors or tradesmen engaged by Engineer-In-Charge in executing work not forming part of the Contract, or
- vi) non-availability of stores, which are responsibility of EPI or,
- vii) non-availability or break down of tools and plant to be supplied or supplied by EPI or,
- viii) any other cause which, in the absolute discretion of EPI, is beyond the Contractor's control,

then, upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-In-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-In-Charge to proceed with the works.

72.4.3 Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired. In any such case EPI may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the Contractor by the Engineer-In-Charge in writing, within 3 months of the date of receipt of such request. Non-application by the Contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-In-Charge and the extension of time so given by the Engineer-In-Charge shall be binding on the Contractor.

73.0 WITHHOLDING AND LIEN IN RESPECT OF SUMS DUE FROM CONTRACTOR

73.1 Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the Contractor, EPI shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security,

if any, deposited by the Contractor and for the purpose aforesaid, EPI shall be entitled to withhold the Retention Money, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, EPI shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the Contractor under the same contract or any other contracts pending finalization or adjudication of any such claim.

- 73.2 It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-In-Charge or EPI will be kept withheld or retained as such by the Engineer-In-Charge or EPI till the claim arising out of or under the contract is determined by the Arbitrator / Competent Court and that the Contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the Contractor. For the purpose of this clause, where the Contractor is a sole proprietor or a partnership firm or a limited company, etc. the Engineer-In-Charge or EPI shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to proprietor /partnership firm/limited company, as the case may be whether in his individual capacity or otherwise.

EPI shall have the right to cause an audit and technical examination of the works and the final bills of the Contractor including all supporting vouchers, abstract, etc, to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the Contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the Contractor shall be liable to refund the amount of over-payment and it shall be lawful for EPI to recover the same from him in the manner prescribed in sub-clause (I) of this clause or in any other manner legally permissible; and if it is found that the Contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by EPI to the Contractor, without any interest thereon whatsoever.

73.3 LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

Any sum of money due and payable to the Contractor (including the Retention Money & Security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-In-Charge or by EPI against any claim of the Engineer-In-Charge or EPI in respect of payment of a sum of money arising out of or under any other contract made by the Contractor with the Engineer-In-Charge or EPI.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-In-Charge or EPI will be kept withheld or retained as such by the Engineer-In-Charge or EPI or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the Arbitrator or Competent court as the case may be, and that the Contractor shall have no claim for interest or damages whatsoever on this account or on any

other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the Contractor.

74.0 DEFECTS LIABILITY PERIOD

The Contractor shall be responsible for the rectification of defects in the works for a period of twelve months from the date of taking over of the works by the Owner/ Client. Any defects discovered and brought to the notice of the Contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the Contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by EPI at the cost and expense of the Contractor.

75.0 FORCE MAJEURE

Any delay or failure of the performance of either party hereto shall not constitute default hereunder to give rise to any claims for damages, if any to the Extent such delay or failure of performance is caused by occurrences such as Acts of God or the public enemy, expropriation, compliance with any order or request of Government authorities/ Courts, acts of war, rebellions, sabotage fire, floods, illegal strikes, or riots (other than Contractor's employees). Only extension of time shall be considered for Force Majeure conditions as accepted by EPI. No adjustment in contract price shall be allowed for reasons of force majeure.

76.0 ARBITRATION

76.1 Before resorting to arbitration as per the clause given below, the parties if they so agree may explore the possibility of conciliation as per the provisions of Part-III of the Arbitration and Conciliation Act. 1996. When such conciliation has failed, the parties shall adopt the following procedure for arbitration :

- i) Except where otherwise provided for in the contract, any disputes and differences relating to the meaning of the Specifications, Design, Drawings and Instructions herein before mentioned and as to the quality of workmanship or materials used in the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the Contract, Designs, Drawings, Specifications, Estimates, Instructions, or these conditions, or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the Sole Arbitration of the Chairman and Managing Director (CMD) of Engineering Projects (India) Limited (EPI), or any other person discharging the functions of CMD of EPI and if CMD or such person discharging the functions of CMD of EPI is unable to act, to the sole Arbitration of some other person appointed by CMD of EPI or such other person discharging the functions of CMD of EPI. There will be no objection if the arbitrator so appointed is an employee of Engineering Projects (I) Ltd. However, such an employee shall not have directly dealt with the said Contract or the works there under on behalf of EPI. Such Arbitrator shall be appointed within 30 days of the receipt of letter of invocation of arbitration duly satisfying the requirements of this clause.

- ii) If the arbitrator so appointed resigns or is unable or unwilling to act due to any reason whatsoever, or dies, the Chairman & Managing Director aforesaid or in his absence the person discharging the duties of the CMD of EPI may appoint a new arbitrator in accordance with these terms and conditions of the contract, to act in his place and the new arbitrator so appointed may proceed from the stage at which it was left by his predecessor.
- iii) It is a term of the contract that the party invoking the arbitration shall specify the dispute / differences or questions to be referred to the Arbitrator under this clause together with the amounts claimed in respect of each dispute.
- iv) The Arbitrator may proceed with the arbitration ex-parte, if either party, in spite of a notice from the arbitrator, fails to take part in the proceedings.
- v) The work under the contract shall continue as directed by the Engineer-In-Charge, during the arbitration proceedings.
- vi) Unless otherwise agreed, the venue of arbitration proceedings shall be at the venue given in the 'Memorandum' to the 'Form of Tender'.
- vii) The award of the Arbitrator shall be final, conclusive and binding on both the parties.
- viii) Subject to the aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the Rules made there under and for the time being in force shall apply to the arbitration proceedings and Arbitrator shall publish his Award accordingly.

NOTE

NOTWITHSTANDING ANYTHING CONTAINED HEREINABOVE, THIS CLAUSE SHALL NOT BE APPLICABLE WHERE THE DISPUTE IS BETWEEN EPI AND ANOTHER CENTRAL PUBLIC SECTOR ENTERPRISE OR GOVT. OF INDIA DEPARTMENT, FOR WHICH A SEPARATE ARBITRATION CLAUSE IS PROVIDED VIDE CLAUSE NO. 76.2 GIVEN BELOW :

76.2 ARBITRATION BETWEEN CENTRAL PUBLIC SECTOR ENTERPRISES INTER SE / GOVERNMENT OF INDIA DEPARTMENTS/ MINISTRIES

- i) In the event of any dispute or difference relating to the interpretation and application of the provisions of the contract, such dispute or difference shall be referred by either party to the arbitration as per the instructions (Office Memorandums / Circulars) issued by Govt. of India from time to time with regard to arbitration between one Government Department and another, one Government Department and a Public Sector Enterprise and Public Sector Enterprise inter se.
- ii). Subject to any amendment that may be carried out by the Government of India from to time, the procedure to be followed in the arbitration shall be as is

contained in D.O. No. DPE/4(10)/2001-PMA-GL-I dated 22.01.2004 of Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Government of India or any modification issued in this regard.

76.3 JURISDICTION

The courts mentioned in the 'Memorandum' to the 'Form of Tender' alone will have jurisdiction to deal with matters arising from the contract, to the exclusion of all other courts.

77.0 SUSPENSION OF WORKS

(a) The Contractor shall, on receipt of the order in writing of the Engineer-In-Charge, suspend the progress of the works or any part thereof for such time and in such manner, as the Engineer-In-Charge may consider necessary for any of the following reasons:

- i) On account of any default on part of the Contractor, or
- ii) For proper execution of the works or part thereof for reason other than the default of the Contractor, or
- iii) For safety of the works or part thereof.

The Contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-In-Charge.

- (b) If the suspension is ordered for reasons (ii) and (iii) in sub-para (a) above, the Contractor shall be entitled to an extension of the time equal to the period of every such suspension plus 25%. No adjustment of contract price will be allowed for reasons of such suspension.
- (c) In the event of the Contractor treating the suspension as an abandonment of the contract by EPI, he shall have no claim to payment of any compensation on account of any profit or advantage which he may have derived from the execution of the work in full but which he could not derive in consequence of the abandonment.
- (d) The Contractor shall resume work in all earnestness after suspension has been lifted by EPI.

78.0 TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

If the Contractor is an individual or a proprietorship concern and the individual or the proprietor dies then unless the Engineer-In-Charge is satisfied that the legal representatives of the individual Contractor or of the proprietor of the proprietary concern and in the case of partnership firm, the surviving partners, are capable of carrying out and completing the contract, the Engineer-In-Charge shall be entitled to cancel the contract as to its incompleted part without EPI being in any

way liable to payment of any compensation to the estate of the deceased Contractor and/or to surviving partners of the Contractor's firm on account of cancellation of the contract. Such cancellation of Contract shall be without prejudice to any of the rights & remedies available to the Engineer-In-Charge under the contract. The decision of the Engineer-In-Charge that the legal representatives of the deceased Contractor or the surviving partners of the Contractor's firm cannot carry out and complete the contract shall be final and binding on the parties.

79.0 CLARIFICATION AFTER TENDER SUBMISSION

Tenderer's attention is drawn to the fact that during the period, the bids are under consideration, the bidders are advised to refrain from contacting by any means, EPI and/or his employees/ representatives on matters related to the bid under consideration and that if necessary, EPI will obtain clarifications in writing or as may be necessary. The Tender evaluation and process of award of works is done by duly authorized Tender Scrutiny Committee and this committee is authorized to discuss and get clarification from the tenderers.

80.0 ADDENDA/ CORRIGENDA

Addenda/Corrigenda to the Tender Documents may be issued prior to the date of opening of the Tender to clarify or effect modification in specification and/or contract terms included in various Tender Documents. The tenderer shall suitably take into consideration such Addenda/Corrigenda while submitting his tender. The tenderer shall return such Addenda/ Corrigenda duly signed and stamped as confirmation of its receipt and submit alongwith the Tender Document. All Addenda/ Corrigenda shall be signed and stamped on each page by the tenderer and shall become part of the Tender and contract documents.

81.0 QUALITY ASSURANCE PROGRAMME

To ensure that the works/services under the scope of this contract are in accordance with the specifications, the Contractor shall adopt Quality Assurance Programme to control such activities at the necessary points. The Contractor shall prepare and finalize such Quality Assurance Programme within 15 days from letter of intent. EPI shall also carryout quality audit and quality surveillance of systems and procedures of Contractor's quality control activities. A Quality Assurance Programme of Contractor shall generally cover the following:

- a) His organization structure for the management and implementation of the proposed Quality Assurance Program.
- b) Documentation control system.
- c) The procedure for procurement of materials and source inspection.
- d) System for site controls including process controls.
- e) Control of non-conforming items and systems for corrective actions.
- f) Inspection and test procedure for site activities.
- g) System for indication and appraisal of inspection status.
- h) System for maintenance of records.
- i) System for handling, storage and delivery.

- j) A quality plan detailing out quality practices and procedures, relevant standards and acceptance levels for all types of work under the scope of this contract.

All the quality reports shall be submitted by the Contractors in the formats appended hereto. Checklist enclosed here in this document shall be followed while carrying out Construction activities (items). If any item is not covered by the Checklist/ Formats appended hereto, the Format for the same may be developed and submitted to Engineer-In-Charge for approval and the same shall be adopted. These filled in formats shall be prepared in two copies and duly signed by representatives of Contractor and EPI. All the costs associated with printing of Formats and testing of materials required as per technical specifications or by Engineer-In-Charge shall be deemed to be included in the Contractor's quoted rates of various items of work in the Schedule/ Bill of Quantities.

82.0 APPROVAL OF TEMPORARY / ENABLING WORKS

The setting and nature of all offices, huts, access road to the work areas, and all other temporary works as may be required for the proper execution of the works shall be subject to the approval of the Engineer-In-Charge.

All the equipments, labour, material including cement, reinforcement and the structural steel required for the enabling/ temporary works associated with the entire Contract shall have to be arranged by the Contractor only. Nothing extra shall be paid to the Contractor on this account and the unit rates quoted by the Contractor for various items in the Bill of Quantities shall be deemed to include the cost of enabling works.

83.0 CONTRACT COORDINATION PROCEDURES, COORDINATION MEETINGS AND PROGRESS REPORTING

The Contractor shall prepare and finalize in consultation with EPI, a detailed contract coordination procedure within 15 days from the date of issue of Letter of Intent for the purpose of execution of the Contract.

The Contractor shall have to attend all the meetings at any place in India at his own cost with EPI, Owners/ Clients or Consultants of EPI/ Owner/ Client during the currency of the Contract, as and when required and fully cooperate with such persons and agencies involved during these discussions. The Contractor shall not deal in any way directly with the Clients/ Owners or Consultants of EPI/ Owner/ Clients and any dealing/ correspondence if required at any time with Clients/ Owners/ Consultants shall be through EPI only.

During the execution of the work, Contractor shall submit at his own cost detailed Monthly progress report to the Engineer-In-Charge of EPI by 5th of every month. The format of monthly progress report shall be as approved by Engineer-In-Charge of EPI.

84.0 CONTRACT AGREEMENT

The Contractor shall enter into a Contract Agreement with EPI within 10 days of the date of Letter of Intent or within such extended time, as may be granted by EPI. The cost of stamp papers, stamp duty, registration, if applicable on the contract, shall be borne by the Contractor. In case, the Contractor does not sign the agreement as above or does not start the work within 10 days of the issue of letter/telegram of intent, his earnest money is liable to be forfeited and letter of intent consequently will stand withdrawn.

85.0 MANNER OF EXECUTION OF AGREEMENT

- i. The agreement as per prescribed Performa as enclosed to the Additional Conditions of Contract shall be signed at the office of EPI within 10 days from the date of issue of Letter of Intent. The Contractor shall provide for signing of the Contract, appropriate Power of Attorney in favour of the authorised representative duly attested by notary Public and the requisite documents/materials. Till a formal contract is prepared and executed, the Letter of Intent read in conjunction with the Bidding Documents will constitute a binding contract.
- ii. The agreement will be signed in two originals and three more copies, EPI shall retain the 'Original', the Contractor shall be provided with the other signed original and the remaining three copies will be retained by EPI. In case of a dispute of any kind whatsoever, the 'Original' retained by EPI alone shall be treated as the 'Original Agreement'.
- iii. The Contractor shall provide free of cost to EPI all the Engineering data, drawings and descriptive materials submitted along with the bid, in at least five (5) copies to form an integral part of the Agreement within seven 7 days after issuing of Letter of Intent.
- iv. Subsequent to signing of the Agreement, the Contractor at his own cost shall provide to EPI with at least five (5) true hard bound copies of Agreement alongwith all the enclosures viz. letter of intent, Tender Documents etc. within thirty (30) days of its signing.

86.0 PURCHASE PREFERENCE TO PUBLIC SECTOR ENTERPRISES

EPI reserves its right to extend Purchase Preference to Central Public Sector Enterprises (CPSEs) as per policy of Government of India, if any, as applicable on this work. The tenderers are requested to go through latest instructions of Government of India on its Purchase Preference Policy for CPSEs before quoting for the Tender.

87.0 CHANGE IN FIRM'S CONSTITUTION TO BE INTIMATED

Where the Contractor is a partnership firm, prior approval in writing of EPI shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership agreement whereunder the partnership firm would have the right to carry out the works hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in

contravention of Clause 59.1 hereof and EPI shall be entitled to take action under Clause 72.2 (xi).

88.0 COMPLIANCE WITH ISO PROCEDURES

EPI is an ISO-9001 and ISO-14001 Company. The conditions of the ISO as applicable shall be followed by the Contractor for implementation & maintaining the established procedures of EPI.

LABOUR SAFETY PROVISIONS

- 1.0 Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal and 1 vertical).
- 2.0 Scaffolding or staging more than 3.6m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3.0 Working platforms, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width & should be suitable fastened as described in (2.0) above.
- 4.0 Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).
- 5.0 Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least 1/4" for each additional 30 cm (1 ft.) of length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of the work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defence of every suit, action or other proceeding at law that may be brought by an person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the Contractor, be paid to compensate any claim by any such person.

6.0 EXCAVATION AND TRENCHING

All trenches, 1.2mts.(four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100 feet) in length or fraction thereof, Ladder shall be extended from bottom of the trench to at least 90 cm (3feet) above the surface of the ground. The sides of the trenches, which are 1.5m. (5feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger or sides to collapsing. The excavated materials shall not be placed within 1.5m (5 feet) of the edges of the

- trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
- 7.0 Demolition - Before any demolition work is commenced and also during the progress of the work:
- 7.1 All roads and open areas adjacent to the work Site shall either be closed or suitably protected.
- 7.2 No electric cable or apparatus which is likely to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
- 7.3 All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.
- 8.0 All necessary personal safety equipments as considered adequate by the Engineer-In-Charge should be kept available for the use of persons employed on the Site and maintained in a condition suitable for immediate use, and the Contractor should take adequate step to ensure proper use of equipment by those concerned- The following safety equipment shall be invariably provided.
- 8.1 Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- 8.2 Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eye shall be provided with protective goggles.
- 8.3 Those engaged in welding works shall be provided with welder's protective eye shields.
- 8.4 Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe interval.
- 8.5 When workers are employed in sewers and manholes, which are in active use, the Contractors shall ensure that the manhole covers are opened and ventilated at-least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident the public. In addition, the Contractor shall ensure that the following safety measures are adhered to:
- a. Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer.
 - b. At least 5 to 6 manholes upstream and down stream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manholes for working inside.
 - c. Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
 - d. Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.

- e. Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - f. The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
 - g. No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - h. The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - i. Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer In-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
 - j. Gas masks with Oxygen Cylinder should be kept at Site for use in emergency.
 - k. Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air-blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non-sparking gas engines also could be used but they should be placed at-least 2 meters away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
 - l. The workers engaged for cleaning the manholes/ sewers should be properly trained before allowing them to work in the manhole. m. The workers shall be provided with Gumboots or non-sparking shoes, bump helmets and gloves non-sparking tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - n. Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o. If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p. The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-In-Charge regarding the steps to be taken in this regard in an individual case will be final.
- 8.6 The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting the following precautions should be taken.
- 8.6.1 No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- 8.6.2 Suitable facemasks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.

- 8.6.3 Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
- 8.6.4.1 a. White lead, sulphate or lead work products containing those pigments shall not be used in painting operation except in the form of paste or of paints ready for use.
- b. Measures shall be taken whenever required in order to prevent danger arising from the application of paint in the form of spray.
- c. Measures shall be taken, whenever practicable to prevent danger arising out of dust caused by dry rubbing down and scrapping.
- 8.6.4.2 a. Adequate facilities shall be provided to enable working painter to wash during and on cessation of work.
- b. Suitable arrangements shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- 8.6.4.3 a) Cases of lead poisoning and of suspected lead poisoning shall be notified and shall be subsequently verified by a medical man appointed by the competent authorities of the Consultant.
- b) EPI may require when necessary a medical examination of workers.
- c) Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 9.0 When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
- 10.0 Use of hoisting machines and tackle including their attachment encourage and supports shall conform to the following standard of conditions.
- 10.1 a. These shall be of good mechanical construction, sound material and adequate strength and free from patent, defects and shall be kept required in good working order.
- b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- 10.2 Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding, winch or giving signals to operator.

- 10.3 In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- 10.4 In case of EPI machines, the safe working load shall be notified by the Engineer-In-Charge. As regards Contractor's machines the Contractor shall notify the safe working load of the machine to the Engineer-In-Charge whenever he brings any machinery to Site of work and get verified by the Engineer-In-Charge.
- 11.0 Motors gearing, transmission electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguard, hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary, be provided. The worker should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.
- 12.0 All scaffold, ladders, and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 13.0 These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety codes shall be named therein by the Contractor.
- 14.0 To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the Contractor shall be open to inspection by the or their representatives.
- 15.0 Notwithstanding the above Clauses from (i) to (xiv) there is nothing in these to exempt the Contractor from the operations of any other Act or Rule in force in the Republic of India.

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

1.0 APPLICATION

These rules shall apply to all building and construction works in which 20 (twenty) or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the Contractor work is in progress.

2.0 DEFINITION

Work place means a place where twenty or more workers are ordinarily employed or are proposed to be employed in connection with construction work on any day during the period during which the Contractor work is in progress.

3.0 FIRST-AID FACILITIES

3.1 At every work place first aid facilities shall be provided and maintained, so as to be easily accessible during working hours, First-Aid boxes at the rate of not less than one box per 150 contract labour or part thereof ordinarily employed.

3.2 The First-Aid box shall be distinctly marked with a red cross on white ground and shall contain the following equipments:-

- 3.2.1 a) For work places in which number of contract labour employed does not exceed 50, Each First-Aid box shall contain the following equipments:
- i) 6 small sterilized dressings.
 - ii) 3 medium size sterilized dressings.
 - iii) large size sterilized dressings.
 - iv) 3 large sterilized burn dressings.
 - v) 1 (30 ml) bottle containing a two percent alcoholic solution of iodine.
 - vi) 1(30 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - vii) 1 snake-bite lancet.
 - viii) 1 (30 gms) bottle of potassium permanganate crystals.
 - ix) 1 pair of scissors.
 - x) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advise Service & Labour Institutes, Government of India.
 - xi) 1 bottle containing 100 tablets (each of 5 grams) of aspirin.
 - xii) Ointment for burns.
 - xiii) A bottle of suitable surgical antiseptic solution.

3.2.2 For work places in which the number of contract labour exceed 50. Each First-Aid box shall contain the following equipments:

- i) 12 small sterilized dressings.
- ii) 6 medium size sterilized dressings.
- iii) 6 large size sterilized dressings.
- iv) 6 large size sterilized burn dressings.
- v) 6 (15 gms) packet sterilized cotton wool.
- vi) 1 (60 ml.) bottle containing a two percent iodine alcoholic solution.
- vii) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
- viii) 1 roll of adhesive plaster.
- ix) 1 snake – bite lancet.
- x) 1 (30 gms.) bottle of potassium permanganate crystals.
- xi) 1 pair of scissors.
- xii) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
- xiii) A bottle containing 100 tablets (each of 5 grams) of aspirin.
- xiv) Ointment for burns.
- xv) A bottle of suitable surgical antiseptic solution.

3.3 Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

3.4 Nothing except the prescribed contents shall be kept in the First Aid box.

3.5 The First Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.

3.6 A person in charge of the First-Aid box shall be a person trained in First-Aid treatment, in work places where the number of labour employed is 150 or more.

3.7 In work places where the number of labour employed is 500 or more and hospital facilities are not available within easy distance of the works, first-Aid Posts shall be established and run by a trained Compounder. The Compounder shall be on duty and shall be available at all hours when the workers are at work.

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

4.0 DRINKING WATER

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

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

4.3 Every water supply of storage shall be at a distance of not less than 50 feet from any latrines drain or other source of pollution, Where water has to be drawn from

an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and waterproof.

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

5.0 WASHING FACILITIES

- 5.1 In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of labour employed herein.
- 5.2 Separate and adequate screening facilities shall be provided for the use of male and female workers.
- 5.3 Such facilities shall be conveniently accessible and shall be kept clean and hygienic condition.

6.0 LATRINES AND URINALS

- 6.1 Latrines shall be provided in every work place on the following scale, namely:
- a) Where females are employed there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be, up to the first 100, and one for every 50 thereafter.

- 6.2 Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- 6.3 Construction of Latrines: The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrine shall not be a standard lower than borehole system.
- 6.4 (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women only" as the case may be.
- (b) The notice shall also bear the figure of man or of a woman, as the case may be.

- 6.5 There shall be at least one urinal for male workers up to 50 and one for female workers up to 50 employed at a time. Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereof, thereafter.
- 6.6 a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
- b) Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health Authorities.
- 6.7 Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

6.8 DISPOSAL OF EXCRETA

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

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

7.0 PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost four suitable sheds, two for males and the other two for rest separately for the use of man and women labour. The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm. Per head.

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

8.0 CRECHES

- 8.1 A every work place, at which 20 or more women workers are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a playroom for the children and the other as their bedrooms.

The rooms shall be constructed on standard not lower than the following:

- i) thatched roof
 - ii) mud floor and walls.
 - iii) planks spread over the mud floor and covered with matting
- 8.2 The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- 8.3 The Contractor shall supply adequate number of toys and games in the playroom and sufficient number of cots and beddings in the bedroom.
- 8.4 The Contractor shall provide one Ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- 8.5 The use of the rooms/earmarked as ealize shall be restricted to children, their attendant and mother of the children.

9.0 CANTEENS

- 9.1 In every work place where the work regarding the employment of contract labour is likely to continue for six months and wherein contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the Contractor for the use of such labour.
- 9.2 The canteen shall be maintained by the Contractor in an efficient manner.
- 9.3 The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- 9.4 The canteen shall be sufficiently lighted at all times when any person has access to it.
- 9.5 The floor shall be made of smooth and impervious material and inside walls shall be lime washed or colour washed at least once in each year.
- Provided that the inside walls of the kitchen shall be lime-washed every four months.
- 9.6 The premises of the canteen shall be maintained in a clean and sanitary condition.
- 9.7 Waste Water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- 9.8 Suitable arrangements shall be made for the collection and disposal of garbage.
- 9.9 The dinning hall shall accommodate at a time 30 persons of the labour working at time.

- 9.10 The floor area of the dinning hall, excluding the area occupied by the service counter and any furniture except tables and chair shall not be less than one square meter per dinner to be accommodated.
- 9.11 a) A portion of the dinning hall, and service counter shall be partitioned off and reserved for women workers in proportion to their number.
- b) Washing places for women shall be separate and screened to secure privacy.
- 9.12 Sufficient tables, stool, chairs or benches shall be available for the number of dinners to be accommodated.
- 9.13.1 a) There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment necessary for the efficient running of the canteen.
- b) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition.
- 9.13.2 a) Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
- b) A service counter, if provided, shall have top of smooth and impervious material.
- c) Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.
- 9.14 The foodstuffs and other items to be served in the canteen shall be in conformity with the normal habits of the labour.
- 9.15 The charge for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit No loss' and shall be conspicuously displayed in the canteen.
- 9.16 In arriving at price of foodstuffs, and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely:
- a) The rent of land building.
- b) The depreciation and maintenance charges for the building and equipment provided for the canteen.
- c) The cost of purchase, repair and replacement of equipment including furniture, crockery, cutlery and utensils:
- d) The water charges and other charges incurred for lighting and ventilation:
- e) The interest and amounts spent on the provision and maintenance and equipment provided for in the canteen.

- 9.17 The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10.0 ANTI MALARIAL PRECAUTIONS

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

11.0 AMENDMENTS

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

CONTRACTOR'S LABOUR REGULATIONS

1.0 SHORT TITLE

These regulations may be called the Contractor "Labour Regulations".

2.0 DEFINITIONS

2.1 "Workman" means any person employed by EPI or its Contractor directly or indirectly through a sub-Contractor, with or without the knowledge, of EPI to do any skilled, semi-skilled, unskilled, manual, supervisory, technical or clerical work for hire or reward, whether, the terms of employment are expressed or implied but does not include any person-

- a) Who is employed mainly in a managerial or administrative capacity; or
- b) Who being employed in a supervisory capacity draws wages exceeding Rupees Two thousand Five hundred per person or exercises either by the nature of the duties attached to the office or by reason of powers vested to him, functions mainly of managerial nature.
- c) Who is an out worker, that is to say, a person to whom any articles or materials are given out by or on behalf of the principal Employer to be made up cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purpose of the trade or business of the principal Employer and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal Employer.

2.2 "Fair Wages" means wages whether for time or piecework fixed and notified under the provisions of the minimum Wages Act from time to time.

2.3 "Contractor" shall include every person who undertake to produce a given result other than a mere supply of goods or articles of manufacture through labour or who supplies labour for any work and includes a sub-Contractor.

2.4 "Wages" shall have the same meaning as defined in the Payment of Wages Act.

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

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

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

2.4.3.2 Whether the Minimum Wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same Contractor for a continuous period of not less than 6 days.

2.4.3.3 here a Contractor is permitted by the Engineer-In-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substitute holiday to him for the whole day on one of the five days immediately before or after the normal weekly holidays and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

3.0 DISPLAY OF NOTICE REGARDING-WAGES, ETC.

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

4.0 PAYMENT OF WAGES

4.1 The Contractor shall fix wage periods in respect of which wages shall be payable.

4.2 No wage period shall exceed one month.

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

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

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

- 4.6 Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- 4.7 All wages shall be paid in current coin or currency or in both.
- 4.8 Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- 4.9 A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the Contractor to the Engineer-In-Charge under acknowledgment.
- 4.10 It shall be the duty of the Contractor to ensure the disbursement of wages in the presence of the Engineer or any other authorized representatives of the Engineer-In-Charge who will be required to be present at the place and time of disbursement of wages by the Contractor to workmen.
- 4.11 The Contractor shall obtain from the Engineer or any other authorized representative of the Engineer-In-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form :

"Certified that the amount shown in column No..... has been paid to the workmen concerned in my presence on..... at"

5.0 FINES AND DEDUCTIONS, WHICH MAY BE MADE FROM WAGES

- 5.1 The wages of a worker shall be paid to him without any deduction of any kind except the following :
- a) Fines
 - b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - c) Deduction for damage to or loss of goods expressly entrusted to the employed persons for custody, or from loss of money or any other deduction which he is required to account where such damage or loss is directly attributable to his neglect or default.
 - d) Deduction for recovery of advances or for adjustment of over payment of wages, advances granted shall be entered in a register.
 - e) Any other deduction, which the Central Government may from time to time allow.
- 5.2 No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved by the Chief Labour Commissioner.

NOTE: An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-I.

- 5.3 No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- 5.4 The total amount of fine which may be imposed in any one-wage period on a worker shall not exceed an amount equal to three paise in a Rupee of the total wages, payable to him in respect of that wage period.
- 5.5 No fine imposed on any worker shall be recovered from him in installment, or after the expiry of sixty days from the date on which it was imposed.
- 5.6 Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6.0 LABOUR RECORDS

- 6.1 The Contractor shall maintain a "Register of persons employed" on work on contract in form XIII of the CL (R&A) Central Rules 1971 (Appendix-B).
- 6.2 The Contractor shall maintain a "Muster Roll" register in respect of all workmen employed by him on the work under contract in form XVI of the CL (R&A) Rules 1971 (Appendix-C).
- 6.3 The Contractor shall maintain a "Wage Register" in respect of all workmen employed by him on the work in form (Appendix-D).
- 6.4 Register of accidents – The Contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
 - a) Full particulars of the labourers who met with accident.
 - b) Rate of wages
 - c) Sex
 - d) Age
 - e) Nature of accident and cause of accident.
 - f) Time and date of accident.
 - g) Date and time when he/she admitted in Hospital
 - h) Date of discharge from the Hospital
 - i) Period of treatment and result of treatment
 - j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - k) Claim required to be paid under Workmen's Compensation Act.
 - l) Date of payment of compensation.
 - m) Amount paid with details of the person to whom the same was paid.
 - n) Authority by whom the compensation was assessed.
 - o) Remarks.

- 6.5 Register of Fines – The Contractor shall maintain a “Register of Fines” in the form (Appendix-H).

The Contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts and Omission for which fines can be imposed (Appendix-I).

- 6.6 Register of Deductions-The Contractor shall maintain a “Register of Deductions” for damage or loss in form (Appendix-J).
- 6.7 Register of Advances-The Contractor shall maintain a “Register of Advances” in form (Appendix-K).
- 6.8 Register of Overtime-The Contractor shall maintain a “Register of Overtime” in form (Appendix-L).

7.0 ATTENDANCE CARD-CUM WAGE SLIP:

- 7.1 The Contractor shall issue an attendance card-cum-wage slip to each workman employed by him in the specimen form at (Appendix-E).
- 7.2 The card shall be valid for each wage period.
- 7.3 The Contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- 7.4 The card shall remain in possession of the worker during the wage period under reference.
- 7.5 The Contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- 7.6 The Contractor shall obtain the signature or thump impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

8.0 EMPLOYMENT CARD

The Contractor shall issue an Employment Card in form to each worker within three days of the employment of the worker (Appendix-F).

9.0 SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the Contractor shall issue to the workman whose services have been terminated, a service certificate in from Appendix-G.

10.0 PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 and 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-In-Charge, Labour Officer.

11.0 POWER OF LABOUR OFFICERS TO MAKE INVESTIGATIONS INQUIRY

The Labour Officer or any other person authorized by EPI on its behalf shall have power to make inquiries with a view to ascertaining and enforcing due and proper observance of the Fair Wage Clauses and the Provisions of Regulations. He shall investigate into any complaint regarding the default made by the Contractor or sub-Contractor in regard to such provision.

12.0 INSPECTION OF BOOK AND SLIPS

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

13.0 SUBMISSION OF RETURNS

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

14.0 AMENDMENTS

EPI may from time to time, add or amend the regulations and on any question as to the application, interpretation or effect of these regulations the decision of the Zonal Chief concerned shall be final.

Appendix – ‘A’

LABOUR BOARD

Name of work

Name of Contractor

Address of Contractor

Name and Address of Unit

Name of Labour Enforcement Officer

Address of Labour Enforcement Officer

Date:

S. No.	Category	Minimum wage fixed	Actual wages paid	Number present	Remarks

Weekly Holiday

Wage Period

Date of Payment of wages

Working hours

Rest interval

Appendix – ‘B’

FORM 13

SEE RULE 75

REGISTER OF WORKMEN EMPLOYED BY CONTRACTOR

Name and Address of Contractor

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

Nature and location of work

Name & Address of Principal Employer

Sl. No.	Name and surname of workman	Age & sex	Father's Husbands Name	Nature of employment / designation	Permanent home address of the workman (village and Tehsil Taluk and District)	Local address
1	2	3	4	5	6	7

Date of commencement of employment	Signature or thumb impression of the workman	Date of termination of employment	Reasons for termination	Remarks
8	9	10	11	12

Appendix – 'C'

FORM XVI

(See Rule 78(2) (193))

MUSTER ROLL

Name and address of Contractor

Name and address of establishment in/under
which contract is carried on

Nature and location of work

Name and Address of Principal Employer

For the month / fortnight

S.No.	Name of the workman	Sex	Father's / Husband's Name	Dates					Remarks
1.	2	3	4	5.					
				1	2	3	4	5	

Appendix – 'D'

FORM XVII

[SEE RULE 78(2) (03)]

REGISTER OF WAGES

Name and address of Contractor

Name and address of establishment in/under
which contract is carried on

Nature and location of work

Name and Address of Principal Employer

Wage period: per month/ fortnightly

S. No.	Name of Workman	Serial No. in the register of workman	Designation nature of work done	Nos. of days worked	Units of work done	Daily rate of wages/ piece rate	Basic Wages
1	2	3	4	5	6	7	8

Dearness allowance	Overtime	Other cash payments (Nature of payments to be indicated)	Total	Duration if any (indicate)	Net Amt paid	Signature thumb impression of the workman	Initial Contractor or his representative
9	10	11	12	13	14	15	16

Appendix – 'E'

FORM XIX

[SEE RULE 78 (2) (B)]

W A G E S L I P

Name and address of Contractor

Name and Father's/Husband's Name of workman

Nature and location of work

For the Week/Fortnight/Month ending

1. No. of days worked
2. No. of Units worked in case of piece rate workers
3. Rate of daily wages/piece rate
4. Amount of overtime wages
5. Gross wages payable
6. Deductions if any
7. Net amount of wages paid

Sign of the Contractor

Appendix – 'E'

WAGE CARD

WAGE CARD NO.

NAME AND ADDRESS OF CONTRACTOR

DATE OF ISSUE

NATURE OF WORK WITH LOCATION

DESIGNATION

NAME OF WORKMAN

MONTH/FORTNIGHT

RATE OF WAGES

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

MORNING

RATE

EVENING

AMOUNT

INITIAL

RECEIVED FROM

THE SUM OF RS.

ON ACCOUNT
OF MY WAGON.

SIGNATURE

THE WAGE CARD IS VALID FOR ONE MONTH FROM THE DATE OF ISSUE.

Appendix – 'F'

FORM XIV

(SEE RULE 76)

EMPLOYMENT CARD

Name and address of Contractor

Name and address of establishment under which

The contract is carried out

Nature and location of work

Name and address of Principal Employer

1. Name of the workman
2. S. Name in the register of workman employed
3. Nature of Employment/Designation
4. Wage rate (with particulars of unit in case of piece work)
5. Wage Period
6. Tenure of employment
7. Remarks

Signature of Contractor

Appendix – ‘G’

FORM XV

(SEE RULE 77)

SERVICE CERTIFICATE

Name and address of Contractor

Nature and location of work

Name and address of workman

Age or date of birth

Identification Marks

Father's/Husband's Name

Name and address of establishment in under which
contract is carried on

Name and address of Principal Employer

Total period of which employed

S.No.	From	To	Nature of work	Rate of wages (with particular s of unit In case of piece work)	Remarks
1	2	3	4	5	6

Signature

Appendix – 'H'

FORM XII

[SEE RULE 78 (2) (D)]

REGISTER OF FINES

Name and address of Contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of workman

Name and address of Principal Employer

S.No.	Name of workman	Father's/Husband Name	Designation/nature of employment	Act/Omission for which fine imposed	Date of offence
1	2	3	4	5	6

Whether workman showed causes against fine	Name of person in whose presence employees explanation was heard	Wage period and wages payable	Amount of fine Imposed	Date on which fine realized	Remarks
7	8	9	10	11	12

Appendix – 'I'

**LIST OF ACTS AND OMISSIONS FOR
WHICH FINES CAN BE IMPOSED**

In accordance with rule of Labour Regulations, to be displayed prominently at the Site of work both in English and local language.

1. Willful insubordination or disobedience, whether alone or in combination with other.
2. Theft, fraud or dishonestly in connection with Contractors beside a business or property of EPI.
3. Taking or giving bribes or any illegal gratifications.
4. Habitual late attendance.
5. Drunk-ness fighting riotous or disorderly or indifferent behaviour.
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked.
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of EPI or of the Contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving the false information regarding name, age, fathers name etc.
13. Habitual loss of wage cards supplied by the Employer.
14. Unauthorized use of Employers property or manufacturing or making of unauthorized articles at the work place.
15. Bad workmanship in construction and maintenance by skilled workers, which is not approved by EPI for which the Contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishment.
18. Any unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the Employer.
20. Holding meeting inside the premises without previous sanction of the Employers.
21. Threatening or intimidating any workman or employee during the working hours within the premises.

Appendix – 'J'

FORM XX

[SEE RULE 78 (2) (D)]

REGISTER OF DEDUCTION FOR DAMAGES OR LOSS

Name and address of Contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of Principal Employer

S.No.	Name of workman	Father's/Husband Name	Designation/nature of employment	Particulars of damage or loss	Date of damage/loss
1	2	3	4	5	6

Whether workman showed cause against deductions	Name of person in whose presence employees explanation was heard	Amount of deduction Imposed	No. of installment	<u>Date of recovery</u>		Remarks
				First Installment	Last Installment	
7	8	9	10	11	12	13

FORM XXII

[SEE RULE 78(2)]

REGISTER OF ADVANCES

Name and address of Contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of Principal Employer

S.No.	Name of workman	Father's/Husband Name	Designation/nature of employment	Wages period and wages payable	Date and amount of advance given
1	2	3	4	5	6

Purpose / for which advance made	No. of installments by which advance is to be paid	Date and amount of each installment repaid	Date on which last installment was repaid	Remarks
7	8	9	10	11

Appendix – 'L'

FORM XXIII

[See Rule 78(2) (E)]

REGISTER OF OVERTIME

Name and address of Contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of Principal Employer

S.No.	Name of workman	Father's/Husband Name	Sex	Designation/ nature of employment	Date on which overtime worked
1	2	3	4	5	6

Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earning	Rate on which overtime wages paid	Remarks
7	8	9	10	11	12

APPLICATION FOR EXTENSION OF TIME

(To be completed by the Contractor)

PART –I

1. Name of Contractor
2. Name of the work as given in the Agreement
3. Agreement No.
4. Estimated amount put to Tender
5. Date of commencement work as per agreement
6. Period allowed for completion of work as per agreement
7. Date of completion stipulated as per agreement
8. Period for which extension of time has been given previously
Extension granted
 - a) First extension vide Engineer-in-charge letter No... ..date Months Days
 - b) 2nd extension vide Engineer-in-charge letter No..... date Months Days
 - c) 3rd extension vide Engineer-in-charge letter No..... date Months Days
 - d) 4th extension vide engineer-in-charge letter No..... date Months DaysTotal extension previously given
9. Reasons for which extension have been previously given (copies of the previous application should be attached)
10. Period for which extension is applied for:
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred, and the period for which these are likely to last.
 - a) Serial No.
 - b) Nature of hindrance

- c) Date of Occurrence
- d) Period for which it is likely to last
- e) Period for which extension required for this particular hindrance.
- f) Over lapping period, if any, with reference to item
- g) Net extension applied for
- h) Remarks, if any

Total period for which extension is now applied for on account of hindrances mentioned above Month/ days.

- 12. Extension of time required for extra work.
- 13. Details of extra work and on the amount involved:
 - a) Total value of extra work
 - b) Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
- 14. Total extension of time required for 11 & 12
Submitted to the Engineer-In-Charges office.

SIGNATURE OF CONTRACTOR

DATE

APPLICATION FOR EXTENSION OF TIME

(PART – II)

1. Date of receipt of application from Contractor for the work in the Engineer-In-Charge office.
2. Acknowledgement issued by Engineer-In-Charge vide his letter No dated
3. Engineer-In-Charge remarks regarding hindrances mentioned by the Contractor.
 - i) Serial No.
 - ii) Nature of hindrance
 - iii) Date of occurrence of hindrance
 - iv) Period for which hindrance, is likely to last
 - v) Extension of time period applied for by the Contractor
 - vi) Over lapping period, if any, giving reference to items which over lap
 - vii) Net period for which extension is recommended.
 - viii) Remarks as to why the hindrance occurred and justification for extension recommended.
4. Engineer-In-Charge recommendations.

(The present progress of the work should be stated and whether the work is likely to be completed by the date upto which extension has been applied for. If extension of time is not recommended, what compensation is proposed to be levied under the agreement.

SIGNATURTE OF ENGINEER-IN-CHARGE

APPROVAL OF ZONAL HEAD

PROFORMA FOR EXTENSION OF TIME

P A R T –III

To

NAME

ADDRESS OF THE CONTRACTOR

SUBJECT:

Dear Sir(s)

Reference your letter No _____ dated _____ , in connection with the grant of extension of time for completion of the work.....

The date of completion for the above mentioned work, is as stipulated in the agreement, dated

Extension of time for completion of the above mentioned work is granted upto_____, without prejudice to the right of EPI to recover compensation for delay in accordance with the provision made in the relevant Clause (s) of the said agreement dated the ____/ ____/ _____. It is also clearly understood that EPI shall not consider any revision in contract price or any other compensation whatsoever due to grant of this extension.

Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.

Yours faithfully,

FOR EPI LTD.

**PROFORMA FOR BANK GUARANTEE IN LIEU OF
EARNEST MONEY DEPOSIT**

In consideration of Chairman & managing Director, Engineering Projects (India) Limited, (A Govt. of India Enterprise), Core-3, Scope Complex, Lodhi Road, New Delhi Pin-110003. (hereinafter called the EPI) having agreed to accept bank Guarantee of Rs in lieu of EARNEST MONEY DEPOSIT from (hereinafter called the Supplier/ Contractor/ Sub-Contractor, which expression shall include its heirs, successors and assignees) in respect of the Tender for

We, bank having its registered/head office at (hereinafter referred to as the Bank) do hereby agree and undertake to pay to EPI without demur or protest an amount not exceeding Rs..... on demand by EPI.

We the above said Bank further agree and undertake to pay the said amount of Rs..... without any demur on demand within 48 hours. Any demand made on the Bank by EPI shall be conclusive as regards the amount due and payable by the Bank under this guarantee.

We the above said Bank further agree that the guarantee herein contained shall be in full force and in effect until date

Unless a demand or claim under this guarantee is made on us in writing on or before date , we shall be discharged from all liabilities under this guarantee thereafter.

We, the above said Bank, further agree that EPI shall have full liberty, without our consent and without affecting in any manner our obligation to verify, modify or delete any of the conditions.

We, the above said Bank, lastly undertake not to revoke this guarantee during its currency except with the prior consent of EPI in writing.

Dated.....this day of.....200.

For and on behalf of the Bank

NOTE: on a Non-Judicial stamp paper of Rs. 100/- (Rupees One hundred only)

FORMAT NO. EPI/MMD/F/17

SECURITY DEPOSIT CUM PERFORMANCE BANK GUARANTEE

The Chairman & Managing Director
(A Govt. of India Enterprise),
Engineering Projects (India) Ltd.
Core-3, SCOPE Complex
7, Institutional Area, Lodhi road
New Delhi –110 003

Dear Sir,

In consideration of the Chairman & Managing Director, Engineering Projects (India) Ltd. (A Govt. of India Enterprise), Core-3, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi – 110 003 (hereinafter called 'EPI' which expression shall unless repugnant to the subject or context includes its successors and assigns) having agreed under the terms and conditions of Supply Contract/Contract/Sub-Contract no. _____

_____ Dated _____ made between _____ M/s _____

_____ (hereinafter referred to as the said Supplier/Contractor/Sub-Contractor) which expression shall unless repugnant to the subject or context includes its successors and assigns) and EPI in connection with _____ (hereinafter called 'The said Supply Contract/Contract/Sub-Contract) to accept a Deed Security Deposit-cum-Performance Bank Guarantee as herein provided for _____ in lieu of :

- a) The Security Deposit to be made by the said Supplier/Contractor/Sub-Contractor for the due fulfillment by the said Supplier/Contractor/Sub-Contractor of the terms and conditions contained in the said Supply Contract/Contract/Sub-contract, and
- b) Fulfillment of the conditions of the said Supply Contract /Contract/Sub-Contract by furnishing a security for the performance of the works and/or equipment/materials supplied in accordance with conditions of the said Supply Contract/ Contract/ Sub-Contract.

1. We _____ (hereinafter referred to as "the said bank which expression shall unless repugnant to the subject or context includes its successors and assigns) and having our registered office at _____ do hereby unconditionally and irrevocably undertake and agree to indemnify and keep indemnified EPI from time to time to the extent of (_____) Only against any loss, damages, costs, charges and expenses caused to or suffered by or that may be caused or suffered by EP [I] by reason of any breach or breaches by the said Supplier/Contractor/Sub-Contractor of any of the terms and conditions contained in the said Supply Contract/Contract/Sub-Contract and or any amount becoming due for non-

performance and /or penalty as assessed by EPI and top unconditionally pay the amount claimed by EPI on demand and without demur and protest.

2. We the said Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Supply Contract/Contract/Sub-Contract and till all the dues of EPI under the said Supply Contract/Contract/Sub-Contract or by virtue of any of the terms and conditions governing the said Supply Contract/ Contract/ Sub-Contract have been fully paid and its claims satisfied or discharged and till EPI certifies that the terms and conditions of the said Supply Contract/Contract/Sub-Contract have been fully and properly carried out by the said Supplier/Contractor/Sub-Contractor and accordingly discharge this guarantee subject, however, that EPI shall have no claim under this guarantee after 6 months from the date of expiry of the guarantee unless a notice of the claim under this guarantee has been served on the Bank before the expiry of the said period of 6 months.
3. EPI shall have the fullest liberty without affecting in any way the liability of the said Bank under this Guarantee or indemnity from time to time to vary any of the terms and conditions of the said Supply Contract/Contract/Sub-Contract to extend time of performance of the said Supply Contract/ Contract/ Sub-Contract or to postpone for any time and from time to time any power's exercisable by it against the said Supplier/Contractor/Sub-Contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Supply Contract/ Contract/ Sub-Contract or securities available to EPI and the said Bank shall not be released from its liability under these presents by any exercise by EPI of the liberty with reference to the matters aforesaid or by reason of time being given to the said Supplier/Contractor/Sub-Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the said Bank from its such liability.
4. We, the said Bank, further agree that EPI shall be the sole judge of and as to whether the said Supplier/Contractor/Sub-Contractor has committed any breach or breaches of any of the terms and conditions of the said Supply Contract/Contract/Sub-Contract and the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by EPI on account thereof and the decision of EPI that the said Supplier/Contractor/Sub-Contractor has committed such breach or breaches and as to the amount or amounts of loss, damages, costs, charges and expenses caused to or suffered by EPI from time to time shall be final and binding on the Bank.
5. This guarantee shall be a continuing guarantee and shall remain valid and irrevocable for all claims of EPI and liabilities of the said Supplier/Contractor/Sub-Contractor arising up to and until mid night of _____, subject the claim period as mentioned in para _____.
6. This guarantee shall be in addition to any other guarantee or security whatsoever that EPI may now or at any time anyway may have in relation to the said Supplier/Contractor/Sub-Contractor obligation/liabilities under and/or in connection with the said Supply Contract/Contract/Sub-Contract and EPI shall have full authority to take recourse to or enforce this guarantee in preference to any other guarantee or

security which EPI may have or obtain and there shall be no forbearance on the part of EPI IN ENFORCING OR REQUIRING ENFORCEMENT OF ANY OTHER SECURITY AND shall not have the effect of releasing the said Bank from its full liability hereunder:

7. EPI shall be at liberty without reference to the said Bank and without effecting the full liability of the said Bank hereunder to take any other security in respect of the said supplier's/Contractor's/sub-Contractor's obligations and/or liabilities under or in connection with the said Supply Contract/ Contract/ Sub-Contract.
8. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the said Supplier/Contractor/Sub-Contractor, but shall in all respects and for all purposes be binding and operative until payment of all moneys paid to EPI in terms thereof.
9. The said Bank hereby waives all rights at any time inconsistent with the terms of this guarantee and the obligations of the said Bank in terms hereof shall not be anywise affected or suspended by reasons of any dispute or disputes having been raised by the said Supplier/Contractor/Sub-Contractor (whether or not pending before any arbitrator, tribunal or court) of any denial or liability by the said Supplier/ Contractor/ Sub-Contractor stopping or preventing or purporting to stop or prevent any payment by the said Bank to EPI in terms hereof. The amount stated in any notice of demand addressed by EPI to the Guarantor Bank as liable to be paid to EPI by the Supplier/ Contractor/ Sub-Contractor on account of any losses or damages or costs, charges and /or expenses shall as between the said bank and EPI be conclusive evidence of the amount so liable to be paid to EPI or suffered or incurred by EPI as the case may be and payable by the said Bank to EPI in terms hereof. We, the said Bank further undertake that we shall pay forthwith the amount stated in the notice of demand to EPI without demur and protest.
10. We, the said bank undertake not to revoke this guarantee during its currency except with the consent of EPI in writing and agree that any change in the constitution of the aid Supplier/Contractor/Sub-Contractor or the said Bank shall not discharge our liabilities hereunder.
11. It shall not be necessary for EPI to proceed against the said Supplier/Contractor/Sub-Contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which EPI may have obtained or obtain from the Supplier/Contractor/Sub-Contractor shall at the time when proceedings are taken against the said Bank hereunder be outstanding or unrealized.
12. Our liability under this guarantee shall be restricted to _____ and this guarantee shall remain in force until midnight of _____ unless a claim to enforce this guarantee is filed with us within six months from _____. (which is date of expiry of this guarantee), we shall be discharged from all liabilities under this guarantee thereafter.

DATED ----- THIS day of -----200...

FOR AND ON BEHALF OF BANK

PROFORMA FOR ADVANCE BANK GUARANTEE

To

The Chairman & Managing Director,
Engineering Projects (India) Ltd.,
(A Govt. of India Enterprise),
Core-3, Scope Complex,
7, Institutional Area,
Lodhi Road,
New Delhi—110 003.

Dear Sir,

1. In consideration of the Chairman & Managing Director, Engineering Projects (India) Limited, (A Govt. of India Enterprise), Core-3, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi – 110 003 (hereinafter called 'EPI' which expression shall include its successors and assigns) having agreed under the terms and conditions of Supply Contract/ Contract/ Sub-Contract No.....dated...(hereinafter referred to as the said Supply Contract/ Contract/ Sub-Contract) made between EPI and.....hereinafter called the Supplier/ Contractor/ Sub-Contractor) which expression shall include its successors and assigns to make at the request of the Supplier/ Contractor/ Sub-Contractor a lump sum advance of Rs.....for utilising it only for the purposes of the said Supply Contract/ Contract/ Sub-Contract on his furnishing a guarantee acceptable to EPI.
2. We, the.....Bank (hereinafter referred to as 'the said Bank') a Company under the Companies Act 1956 and having our registered office at.....do hereby guarantee the recovery of the said advance and interest thereon as provided according to the terms and conditions of the said Supply Contract/ Contract/ Sub-Contract. If the Supplier/ Contractor/ Sub-Contractor fails to utilise the said advance for the purposes of the said Supply Contract/ Contract/ Sub-Contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by EPI, we,Bank hereby unconditionally and irrevocably undertake to pay the EPI on demand and without demur or protest to the extent of the said sum of Rs.....any claim made by EPI on us against non-utilisation / misutilisation of the said advance and/or by reason of EPI not being able to recover in full the sum of Rs..... with interest as aforesaid.
3. We.....Bank further agree that EPI shall be the sole judge of and as to whether the said Supplier/ Contractor/ Sub-Contractor has utilised or not utilised the said advance or any part thereof for the purposes of the said Supply Contract/ Contract/ Sub-Contract and/or as to whether the advance or any part thereof with

interest has been recovered or not and the finding of the EPI in this regard- shall be final and binding on us.

4. We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Supply Contract/ Contract/ Sub-Contract and till the said advance with interest has been fully recovered and its claims satisfied or discharged and till EPI certifies that the said advance with interest has been fully recovered from the Supplier/ Contractor/ Sub-Contractor.
5. EPI shall have the fullest liberty without affecting in any way the liability to the said Bank under this guarantee or indemnity from time to time to vary any of the terms and conditions of the said Supply Contract/ Contract/ Sub-Contract, or the advance or to extend time of performance by the said Supplier/ Contractor/ Sub-Contractor or to postpone for any time and from time to time any powers exercisable by it against the said Supplier/ Contractor/ Sub-Contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Supply Contract/ Contract/ Sub-Contract or securities available to EPI and the said Bank shall not be released from its liability under these presents by any exercise by EPI of the liberty with reference to the matters aforesaid or by reason of time being given to the said Supplier/ Contractor/ Sub-Contractor or any other forbearance, act or omission on the part of the EPI or any indulgence by EPI to the said Supplier/ Contractor/ Sub-Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the said Bank from its such liability.
6. The Bank hereby waives all rights at any time inconsistent with the terms of this guarantee/Undertaking and the obligations of the Bank in terms hereof shall not be anyway affected or suspended by reasons of any dispute or disputes having been raised by the Supplier/ Contractor/ Sub-Contractor (whether or not pending before any arbitrator, Tribunal or court) or any denial or liability by the Supplier/ Contractor/ Sub-Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to EPI in terms hereof.
7. The amount stated in any notice of demand addressed by EPI to Bank as liable to be paid to EPI by the Supplier/ Contractor/ Sub-Contractor, shall be conclusive evidence of the amount so liable to be paid to EPI by the Bank.
8. This guarantee/undertaking shall be in addition to any other guarantee or security whatsoever that EPI may now or any time anyway may have in relation to the Supplier's/ Contractor's/ Sub-Contractor's obligations of liabilities under and/or in connection with the said Supply Contract/ Contract/ Sub-Contract, and EPI shall have full authority to take recourse to or enforce this security in preference to any other guarantee or security which EPI may have or obtain and there shall be no forbearance on the part of EPI in enforcing or requiring enforcement of any other security and shall not have the effect of releasing the Bank from its full liability hereunder.
9. It shall not be necessary for EPI to proceed against the said Supplier/ Contractor/ Sub-Contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which EPI may have obtained or obtain from the Supplier/ Contractor/ Sub-Contractor, shall at the time

when proceedings are taken against the said Bank hereunder be outstanding or unrealised.

10. We, the said Bank further undertake that we shall pay forthwith the amount stated in the notice of demand without demur and protest notwithstanding any dispute/difference pending between the parties before the arbitrator Tribunal or Court and/or dispute is being referred to arbitrator.
11. We, the said Bank undertake not to revoke this Guarantee during its currency except with the consent of EPI in writing and agree that any change in the Constitution of the said Supplier/ Contractor/ Sub-Contractor or the said Bank shall not discharge our liability hereunder.
12. This guarantee/undertaking shall be a continuing guarantee/undertaking and shall remain valid and irrevocable for all claims of EPI and liabilities of the Supplier/ Contractor/ Sub-Contractor arising up to and until midnight of.....
13. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs..... (Rs.....) and this guarantee shall remain in full force till..... unless a claim is made on us within 3 months from the date of expiry of this guarantee i.e. before all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities hereunder.

Datedday of200

For and on behalf of Bank

Format No: EPI/MMD/F-16

PROFORMA FOR PERFORMANCE BANK GUARANTEE

To

The Chairman & Managing Director,
Engineering Projects (India) Ltd.,
(A Govt. of India Enterprise),
Core-3, Scope Complex,
7, Institutional Area,
Lodhi Road,
New Delhi—110 003.

Dear Sir,

In consideration of the Chairman & Managing Director, Engineering Projects (India) Limited, (A Govt. of India Enterprise), Core-3, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi – 110 003 (hereinafter called 'EPI' which expression shall include its successors and assigns) having awarded to (hereinafter referred to as 'the Supplier/ Contractor/ Sub-Contractor' which expression shall wherever the subject or context so permits include its successors and assigns) a Supply Contract/Contract / Sub-Contract No. in terms inter alia, of EPI Letter No.dated...and the General Conditions of Contract/ General Purchase Conditions of EPI and upon the condition of the Supplier's/ Contractor's/ Sub-Contractor's furnishing security for the performance of the Supplier's/ Contractor's/ Sub-Contractor's obligations and/or discharge of the Supplier's/ Contractor's/ Sub-Contractor's liability under and/or in connection with the said Supply Contract/ Contract/ Sub-Contract up to a sum of Rs.....(Rupees..... only) amount to.....percent of the total Supply Contract/ Contract/ Sub-Contract Value.

1. We.....(hereinafter called 'the Bank' which expression shall include its successors and assigns) hereby jointly and severally undertake the guarantee to payment to EPI in rupees forthwith on demand in writing and without protest or demur or any and all monies anyway payable by the Supplier/ Contractor/ Sub-Contractor to EPI under in respect of or in connection with the said Supply Contract/ Contract/ Sub-Contract inclusive of all EPI's losses and damages and costs, charges and expenses and other moneys anyway payable in respect to the above as specified in any notice of demand made by the EPI to the Bank with reference to this guarantee up to and aggregate limit of Rs..... (Rupees.....only).

2. We..... Bank further agree that EPI shall be sole judge of and as to whether the said Supplier/ Contractor/ Sub-Contractor has committed any breach or breaches of any of the terms and conditions of the said Supply Contract/ Contract/ Sub-Contract and the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by EPI on account thereof and the decision of EPI that the said Supplier/ Contractor/ Sub-Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by EPI from time to time shall be final and binding on us.
3. EPI shall be at liberty without reference to the Bank and without effecting the full liability of the Bank hereunder to take any other security in respect of the Supplier's/ Contractor's/ Sub-Contractor's obligations and/or liabilities under or in connection with the said Supply Contract/ Contract/ Sub-Contract and to vary the forms vis-à-vis the Supplier/ Contractor/ Sub-Contractor of the said Supply Contract/ Contract/ Sub-Contract or to grant time and/or indulgence to the Supplier/ Contractor/ Sub-Contractor or to reduce or to increase or otherwise vary the prices of the total Supply Contract/ Contract/ Sub-Contract Value or to release or to forbear from enforcement of all or any of the security and/or any other security(ies) now or hereafter held by the EPI and no such dealing(s) reduction(s) increase(s) or other indulgence(s) or arrangements with the Supplier/ Contractor/ Sub-Contractor or release or forbearance whatsoever shall absolve the bank of the full liability to EPI hereunder or prejudice rights of EPI against the bank.
4. The guarantee/undertaking shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Supplier/ Contractor/ Sub-Contractor but shall in all respects and for all purposes be binding and operative until payment of all moneys made to EPI in terms thereof.
5. The Bank hereby waives all rights at any time inconsistent with the terms of this guarantee/undertaking and the obligations of the Bank in terms hereof shall not be anywise affected or suspended by reasons of any dispute or disputes having been raised by the Supplier/ Contractor/ Sub-Contractor (whether or not pending before any arbitrator, Tribunal or Court) of any denial or liability by the Supplier/ Contractor/ Sub-Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to the EPI in terms hereof.
6. The amount stated in any notice of demand addressed by EPI to Bank as liable to be paid to EPI by the Supplier/ Contractor/ Sub-Contractor or as suffered or incurred by the EPI on account of any losses or damages or costs, charges and/or expenses shall be conclusive evidence of the amount so liable to be paid to EPI or suffered or incurred by EPI as the case may be and shall be payable by the Bank to EPI in terms hereof.

7. This guarantee/undertaking shall be a continuing guarantee/undertaking and shall remain valid and irrevocable for all claims of EPI and liabilities of the Supplier/ Contractor/ Sub-Contractor arising up to and until midnight of.....
8. This guarantee/undertaking shall be in addition to any other guarantee or security whatsoever that EPI may now or any time anywise may have in relation to the Supplier's/ Contractor's/ Sub-Contractor's obligations of liabilities under and/or in connection with the said Supply Contract/ Contract/ Sub-Contract, and EPI shall have full authority to take recourse to or enforce this security in preference to any other guarantee of security which EPI may have or obtain and here shall be no forbearance on the part of EPI in enforcing or requiring enforcement of any other security and shall not have the effect of releasing the Bank from its full liability hereunder.
9. It shall not be necessary for EPI to proceed against the said Supplier/ Contractor/ Sub-Contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the EPI may have obtained or obtain from the Supplier/ Contractor/ Sub-Contractor, shall at the time when proceedings are taken against the said Bank hereunder be outstanding or unrealised.
10. We the said Bank undertake not to revoke this guarantee during its currency except with the consent of EPI in writing and agree that any change in the constitution of the said Supplier/ Contractor/ Sub-Contractor or the said bank shall not discharge our liability hereunder.
11. Wethe said Bank further undertake that we shall pay forthwith the amount stated in the notice of demand without demur and protest notwithstanding any dispute/difference pending between the parties before the arbitrator Tribunal or Court and/or any dispute is being referred to arbitrator.
12. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs.....
(Rupees.....) and this guarantee shall remain in force till..... unless a claim is made on us within 3 months from that date, that is before all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities thereunder.

Dated day of 200

For and on behalf of Bank

PROFORMA FOR INDEMNITY BOND TO BE EXECUTED BY
THE CONTRACTOR FOR SECURED ADVANCE
AGAINST MATERIALS SUPPLIED FOR THE PROJECT

(On non-judicial stamp paper of appropriate value)

INDEMNITY BOND

THIS INDEMNITY BOND is made this day of..... 20..... by..... (*Contractor's Name*) a Company registered under the Companies Act, 1956/Partnership firm/Proprietary concern having its Registered Office at (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) in favour of Engineering Projects (India) Limited, a Company incorporated under the Companies Act, 1956 having its Registered Office at Core-3, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi - 110 003 (hereinafter called "EPI" which expression shall include its successors and assigns) :

WHEREAS EPI has awarded to the Contractor a Contract for the work of..... vide its letter of Intent/Work Order No..... dated..... (hereinafter called the "Contract") in terms of which EPI is required to give "Secured Advance" to the Contractor as per Clause no. 35 of the General Conditions of Contract against supply of materials by the Contractor for the project on the security of materials, the quantities, rates and other particulars of which are detailed in the Bill of Quantities for the said Contract.

And WHEREAS by virtue of Clause no. 35 of the General Conditions of Contract of the said Contract, the Contractor is required to execute an Indemnity Bond in favour of EPI for the amount of "Secured Advance" towards the materials actually supplied by the Contractor for the Contract Work from time to time to EPI for the purpose of performance of the Contract. (hereinafter called the "Materials").

"AND WHEREAS the Contractor has applied to EPI that they may be allowed "Secured Advance" on the security of materials absolutely belonging to them and brought by them to the site of the works for use in construction of the work".

NOW THEREFORE, This Indemnity Bond witnesseth as follows:

1. That in consideration of the "Secured Advance" being given to the Contractor as mentioned in the Contract, for the purpose of performance of the Contract, the Contractor hereby undertakes to indemnify and shall keep EPI indemnified, for the Actual Cumulative Amount of the "Secured Advance" given to the Contractor from time to time against the said Contract. The Contractor hereby acknowledges actual receipt of the materials etc. as per despatch title documents being /to be handed over to EPI from time to time. The Contractor shall hold such materials in trust as a "Trustee" for and on behalf of EPI.

2. That the Contractor is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the materials at EPI's project site against all risks whatsoever till the materials are duly used/erected in accordance with the terms of the Contract and the plant/package duly erected and commissioned in accordance with the terms of the Contract is taken over by EPI and the Secured Advance is fully adjusted/recovered as per terms of the Contract. The Contractor undertakes to keep EPI harmless against all losses, damages, deterioration and shortages that may be caused to the materials.
3. The Contractor undertakes that the materials shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the materials shall be utilized for any other work or purpose whatsoever. It is clearly understood by the Contractor that non-observance of the obligations under this Indemnity Bond by the Contractor shall inter-alia constitute a criminal breach of trust on the part of the Contractor for all intents and purposes including legal/penal consequences.
4. That EPI is and shall remain the exclusive owner of the materials free from all encumbrances, charges or liens of any kind, whatsoever. The materials shall at all times be open to inspection and checking by the Engineer – In - Charge or other employees/agents authorized by him in this regard. Further, EPI shall always be free at all times to take possession of the materials in whatever form the materials may be, if in its opinion, the materials are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the Contractor or any other person or on account of any reason whatsoever and the Contractor binds himself and undertakes to comply with the directions of demand of EPI to handover the materials without any demur or reservation.
5. That this Indemnity Bond is irrevocable. If at any time any loss or damage occurs to the materials or the same or any part thereof is mis-utilised in any manner whatsoever, then the Contractor hereby agrees that the decision of the Engineer-In-Charge of EPI as to assessment of loss or damage to the materials shall be final and binding on the Contractor. The Contractor binds itself and undertakes to replace the lost and /or damaged materials at its own cost and/or shall pay the amount of 'Secured Advance' to EPI without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to EPI against the Contractor to recover any amount or all the amounts of this Bond from any dues of the Contractor under the Contract or as per the law.
6. This Bond shall remain in force and effect till the completion of the work as per the aforesaid Contract and till all the amount recoverable under this Bond from the Contractor is fully recovered by EPI. The Bond can not be revoked by the Contractor without the written consent of EPI.
7. That Contractor also agrees that any change in the constitution of the Contractor shall not discharge them from their obligation and liability.
8. This Bond shall be treated as an additional addage to the Contract and nothing herein contained shall be construed to adversely affect the rights of EPI in the Contract.

IN WITNESS WHEREOF, the Contractor has signed this Indemnity Bond through its duly authorized representative on the date and place first above written.

For and on behalf of Contractor

(Contractor's Name)

WITNESS:

- | | | | |
|----|----|-----------------|----------------------------------------------------|
| 1. | 1. | Signature | Signature |
| | 2. | Name | Name (Executant) |
| | 3. | Address | Designation
(Authorised representative) |
| 2. | 1. | Signature | |
| | 2. | Name | |
| | 3. | Address | Seal |

FORM FOR GUARANTEE BOND

FOR ANTI-TERMITE TREATMENT

THIS AGREEMENT made this ____ day of Two thousand ____ between M/s _____ (hereinafter called the guarantor of the one part and M/s Engineering Projects (India) Limited, hereinafter called EPI hereinafter called the OWNER of the other part.

Whereas this agreement is supplementary to the contract hereinafter called the contract dated _____ made between the guarantor of the one part and Engineering Projects (India) Ltd., of the other part whereby the Contractor inter-alia, understood to render the buildings and structures in the said contract recited, completed, termite proof. And whereas the guarantor agreed to give a guarantee to the effect that the said structure will remain termite proof for TEN YEARS to be so reckoned from the date after the maintenance period prescribed in the contract expires.

During this period of guarantee the guarantor shall make good all defects and for that matter shall replace at his risk and cost such wooden member as may be damaged by termite and in case of any other defect being found, he shall render the building termite proof at his cost to the satisfaction of the Engineer-In-Charge and shall commence the works of such rectification within seven days from date of issuing notice from the Engineer-In-Charge calling upon him to rectify the defects falling which the work shall be got done by EPI/ OWNER by some other Contractor at the guarantor's cost and risk and in the later case the decision of the Engineer-In-Charge as to the cost recoverable from the guarantor shall be final and binding.

That if the Guarantor fails to execute the Anti-Termite treatment or commits breaches hereunder then the Guarantor will indemnify EPI against all losses damages, cost expenses or otherwise which may be incurred by him by reasons of any default on the part of the guarantor in performance and observance of this supplemental Agreement. As to the amount of loss and or damage and/or cost incurred by EPI/ OWNER, the decision of the Engineer-In-Charge will be final and binding on the parties.

In witness where of these presents have been executed by the Guarantor _____ and by _____ for and on behalf of EPI on the day of month and year first above written.

Signed sealed and delivered by (Guarantor)

IN THE PRESENCE OF:

1.

2.

Signed for and on behalf of EPI by/ in presence of:

1.

2.

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

The agreement made this day of Two thousand
between (hereinafter called Guarantor of the one part) and EPI
(hereinafter called the Execution Agency of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract), dated and made between the GUARANTOR OF THE ONE part and EPI of the other part, whereby the Contractor, inter-alia, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS the Guarantor agreed to give a guarantee to the effect that the said structures will remain water and leak proof for ten years from the date of handing over of the structure of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date after the maintenance period prescribed in the contract.

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

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

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

That if the Guarantor fails to execute the waterproofing or commits breach thereunder, then the Guarantor will indemnify the principal and his successors against all laws

damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and/ or cost incurred by EPI, the decision of the Engineer-In-Charge will final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligator,,,,,..... and by And for and on behalf of EPI on the day, month and year first above written.

Signed, sealed and delivered by Obligator in the presence of-

- 1.
- 2.

Signed for and on behalf of EPI by _____

In presence of :

- 1.
- 2.

AGREEMENT FORM

This agreement made this day of (Month) (Year), between THE **ENGINEERING PROJECTS (INDIA) LIMITED (EPI)**, (A Govt. of India enterprise) a company incorporated under the Companies Act, 1956 having its Registered and Corporate Office at Core-3, Scope Complex, 7, Institutional area, Lodhi Road, New Delhi – 110003 (hereinafter referred to as the “EPI” which expression shall include its administrators, successors, executors and assigns) of the one part and **M/s (NAME OF CONTRACTOR)** (hereinafter referred to as the ‘Contractor’ which expression shall unless the context requires otherwise include its administrators, successors, executors and permitted assigns) of the other part.

WHEREAS, EPI, is desirous of construction of **(NAME OF WORK)** (hereinafter referred to as the “PROJECT”) on behalf of the **(NAME OF OWNER/MINISTRY)** (hereinafter referred to as “OWNER”), and had invited Tenders as per Tender Documents vide NIT No. _____.

AND WHEREAS **(NAME OF CONTRACTOR)** had participated in the above referred Tender vide their tender dated _____ and EPI has accepted their aforesaid Tender and award the contract for **(NAME OF PROJECT)** on the terms and conditions contained in its Letter of Intent No. _____ and the documents referred to therein, which have been unequivocally and unconditionally accepted by **(NAME OF CONTRACTOR)** vide their Letter of Undertaking dated _____ resulting into a contract.

NOW THEREFORE THIS DEED WITNESSETH AS UNDER:

ARTICLE 1.0 – AWARD OF CONTRACT

1.1 SCOPE OF WORK

EPI has awarded the contract to **(NAME OF CONTRACTOR)** for the work of **(NAME OF WORK)** on the terms and conditions in its Letter of intent No. _____ dated _____ and the documents referred to therein. The award of work has taken effect from **(DATE)** i.e. the date of issue of aforesaid letter of intent. The terms and expressions used in this agreement shall have the same meanings as are assigned to them in the “Contract Documents” referred to in the succeeding Article.

ARTICLE 2.0 – CONTRACT DOCUMENTS

2.1 The contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached herewith (hereinafter referred to as “Contract Documents”).

- a) EPI Notice Inviting Tender vide No. _____ date _____ and EPI's Tender Documents consisting of:
 - i) Instructions to Tenderers and General Conditions of Contract (GCC) alongwith amendments/errata to GCC (if any) issued (Volume-I).

- ii) Additional Conditions of Contract including Appendices & Annexures, Volume-II.
- iii) Bill of Quantities alongwith amendments/corrigendum of schedule items, if any (Volume-III).
- iv) Technical Specifications
- v) Drawings
- vi) _____

b) (NAME OF CONTRACTOR) letter/proposal no._____
dated _____ and their subsequent communication:

- i) Letter of Undertaking of Tender Conditions dated _____
- ii) _____
- iii) _____

2.2 EPI's detailed Letter of Intent No. _____ dated ____ including Bill of Quantities. Agreed time schedule, Contractor's Organisation Chart and list of Plant and Equipments submitted by Contractor.

2.3 All the aforesaid contract documents referred to in Para 2.1 and 2.2 above shall form an integral part of this Agreement, in so far as the same or any part thereof conform, to the Tender Documents and what has been specifically agreed to by EPI in its Letter of Intent. Any matter inconsistent therewith, contrary or repugnant thereto or deviations taken by the Contractor in its "TENDER" but not agreed to specifically by EPI in its Letter of Intent, shall be deemed to have been withdrawn by the Contractor without any cost implication to EPI. For the sake of brevity, this Agreement alongwith its aforesaid contract documents and Letter of Intent shall be referred to as the "Contract".

ARTICLE 3.0 – CONDITIONS & CONVENANTS

3.1 The scope of Contract, Consideration, Terms of Payments, Advance, Retention Moneys, Taxes wherever applicable, Insurance, Agreed Time Schedule, Compensation for delay and all other terms and conditions contained in EPI's Letter of Intent No. _____ dated ____ are to be read in conjunction with other aforesaid Contract Documents. The contract shall be duly performed by the Contractor strictly and faithfully in accordance with the terms of this contract.

3.2 The scope of work shall also include all such items which are not specifically mentioned in the Contract Documents but which are reasonably implied for the satisfactory completion of the entire scope of work envisaged under this contract unless otherwise specifically excluded from the scope of work in the Letter of Intent.

3.3 Contractor shall adhere to all requirements stipulated in the Contract documents.

3.4 Time is the essence of the Contract and it shall be strictly adhered to. The progress of work shall conform to agreed works schedule/contract documents and Letter of Intent.

3.5 This agreement constitutes full and complete understanding between the parties and terms of the presents. It shall supersede all prior correspondence to the extent of inconsistency or repugnancy to the terms and conditions contained in

Agreement. Any modification of the Agreement shall be effected only by a written instrument signed by the authorized representative of both the parties.

- 3.6 The total contract price for the entire scope of this contract as detailed in Letter of Intent is Rs. _____ (Rupees _____ only), which shall be governed by the stipulations of the contract documents.

ARTICLE 4.0 – NO WAIVER OF RIGHTS

- 4.1 Neither the inspection by EPI or the Engineer-In-Charge or Owner or any of their officials, employees or agents nor order by EPI or the Engineer-In-Charge for payment of money or any payment for or acceptance of, the whole or any part of the work by EPI or the Engineer-In-Charge nor any extension of time nor any possession taken by the Engineer-In-Charge shall operate as waiver of any provisions of the contract, or of any power herein reserved to EPI, or any right to damage herein provided, nor shall any waiver of any breach in the contract be held to be a waiver of any other or subsequent breach.

ARTICLE 5.0 – GOVERNING LAWS AND JURISDICTION

- 5.1 The Laws applicable to this contract shall be the laws in force in India and as amended from time to time.

Jurisdiction shall be of the Court (s) stated in the 'Memorandum' to the 'Form of Tender' only.

5.2 Notice of Default

Notice of default given by either party to the other party under the Agreement shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto, if delivered against acknowledgment due or by FAX or by registered mail duly addressed to the signatories at the address mentioned herein above.

IN WITNESS WHEREOF, the parties through their duly authorized representatives have executed these presents (execution whereof has been approved by the Competent Authorities of both the parties) on the day, month and year first above mentioned at New Delhi.

For and on behalf of:

(NAME OF CONTRACTOR)

WITNESS:

1.

2.

For and on behalf of:

M/s. Engineering Projects (I) Ltd.

WITNESS:

1.


2.




ENGINEERING PROJECTS (INDIA) LIMITED **(A Govt. of India Enterprise)**

QUALITY CONTROL FORMATS AND CHECKLISTS


NAME OF PROJECT _____

CONTRACT		CHECK LIST FOR CONCRETING							
CONTRACT No. _____		REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____							
LAYOUT	Alignment Checked	<input type="checkbox"/>	Level of base Checked	<input type="checkbox"/>	Dimensional Check (edges & diagonals)	<input type="checkbox"/>	Starers	<input type="checkbox"/>	Location of cutouts & services
STAGING / SCAFFOLDING	Adequacy & rigidity of Props, stays, bracings, conformity to scheme drgs.	<input type="checkbox"/>		<input type="checkbox"/>					
FORMWORK	Qty. of forms and support Props adequate	<input type="checkbox"/>	Vertical form surface in alignment & plumb	<input type="checkbox"/>	Even Surface Oil sprayed	<input type="checkbox"/>	Gaps btwn shuttering are properly closed	<input type="checkbox"/>	No space for sagging of Form work
REINFORCEMENT	Cutting & bending as per Bar bending schedule (Schedules attached)	<input type="checkbox"/>	Adequate laps welds	<input type="checkbox"/>	Chair / cover blocks Placed as per scheme	<input type="checkbox"/>	Binding wire not Touching shuttering	<input type="checkbox"/>	Fixtures, Inserts Cunduits in position
	Dowels & positioning Provided as per drg.	<input type="checkbox"/>	Walkway for Labour provided	<input type="checkbox"/>					
							CLEARANCE from Elect. In-charge _____		
PRE-CONCRETING	Concreting Arrangements	<input type="checkbox"/>	Approval of Construction joint	<input type="checkbox"/>	Mixer / vibrator Condition & mixing	<input type="checkbox"/>	Top level of Concrete marked	<input type="checkbox"/>	Transporting & Placing arrangement
POST-CONCRETING	Compaction Checked	<input type="checkbox"/>	Removal of Laitance	<input type="checkbox"/>	Post Concreting Level/Dimensions	<input type="checkbox"/>	No. of Cubes Cast		
DESHUTTERING & CLEARING	Curing days..... Water / compound	<input type="checkbox"/>	Surface finish Ok	<input type="checkbox"/>	Concrete Test Results Ok	<input type="checkbox"/>			
SIGNATURE			DATE		SITE INCHARGE		DATE		
CONTRACTOR		DATE	SITE ENGR		DATE		CONSULTANT		DATE


NAME OF PROJECT _____

CONTRACT CONTRACT No.		CHECK LIST FOR MASONRY WORK REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____					
LAYOUT	Alignment & wall Thickness Checked	<input type="checkbox"/>	Brick on edge (top course)				
SCAFFOLDING	Adequacy of props, Stays, platform	<input type="checkbox"/>	Rigidity of base	<input type="checkbox"/>	Movement Space	<input type="checkbox"/>	Approach to height
PRE-LAYING	Working arrangements & service provisions checked	<input type="checkbox"/>	Bricks as per specification	<input type="checkbox"/>	Mortar grade & mix As specified	<input type="checkbox"/>	Bricks moistened
LAYING	Joint thickness & course Ht. As specified	<input type="checkbox"/>	Joint alignment Checked	<input type="checkbox"/>	Vertical joints Properly mortar filled from top		
	Raking of joints Done (if applicable)	<input type="checkbox"/>	Bearing plaster for Concrete				
CURING AND CLEARING	Proper curing of const. Joint	<input type="checkbox"/>	Scaffolding removed (if required)				
				W.O. ITEM		UNIT	QTY.
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE


NAME OF PROJECT _____

CONTRACT		CHECK LIST FOR PLASTERING WORK								
CONTRACT No. _____		REF DRAWING No. _____								
		LOCATION BLOCK _____ FLOOR _____ AREA _____								
SCAFFOLDING	Platform	<input type="checkbox"/>	Stability	<input type="checkbox"/>	Movement space	<input type="checkbox"/>	Approach to Height			
SERVICE	All chasing work Complete	<input type="checkbox"/>	Fixing in position Using clamps etc.	<input type="checkbox"/>	Patching Work complete	<input type="checkbox"/>	All door / window frames Fixed in position			
						<input type="checkbox"/>	Skirting to floors marked			
		CLEARANCE from Elect. In-charge								
SURFACE PREPARATION	Clearing & raking of surface	<input type="checkbox"/>	Roughening Hacking done	<input type="checkbox"/>	Fixing metal / lathe Chicken mesh	<input type="checkbox"/>	Mortar level Guides made			
						<input type="checkbox"/>	Surface moistened Cement slurry			
PIASTERING	Mix & W/P compound Checked as per specification	<input type="checkbox"/>	Coating / thickness As specified	<input type="checkbox"/>	Groove at Joints Provided	<input type="checkbox"/>	Corners & edges sharp & at right Angles lines & levels maintained			
						<input type="checkbox"/>	Surface leveled with At straight edge			
FINISHING	Texture	<input type="checkbox"/>	Curing Days.....	<input type="checkbox"/>	Site cleared	<input type="checkbox"/>				
						<input type="checkbox"/>				
		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 10%;">W.O. ITEM</td> <td style="width: 10%;">UNIT</td> <td style="width: 10%;">QTY.</td> </tr> </table>						W.O. ITEM	UNIT	QTY.
W.O. ITEM	UNIT	QTY.								
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE			


NAME OF PROJECT _____

CONTRACT CONTRACT No.		CHECK LIST FOR LAYING OF EXTERNAL SEWER REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____								
EXCAVATION	Layout	<input type="checkbox"/>	Slope / cutting as per Specifications	<input type="checkbox"/>	Level					
LAYING/RCC	Bed concrete as per Specifications	<input type="checkbox"/>	RCC pipes as per Requirement	<input type="checkbox"/>	Jointing of Pipes					
	Boxing	<input type="checkbox"/>	Strata bore Dewatering (wherever required)							
Manholes	Bricks as per specifications	<input type="checkbox"/>	Mortar as per specifications	<input type="checkbox"/>	Plastering					
	End of pipes plugged									
Back fillings	In layers									
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">W.O. ITEM</td> <td style="width: 15%;">UNIT</td> <td style="width: 15%;">QTY.</td> </tr> </table>						W.O. ITEM	UNIT	QTY.
W.O. ITEM	UNIT	QTY.								
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE			


NAME OF PROJECT _____

CONTRACT		CHECK LIST FOR GRIT WASH					
CONTRACT No. _____		REF DRAWING No. _____					
		LOCATION BLOCK _____ FLOOR _____ AREA _____					
SCAFFOLDING	Platform	<input type="checkbox"/>	Stability	<input type="checkbox"/>	Movement space	<input type="checkbox"/>	Approach to Height
SERVICE PROVISIONS		<input type="checkbox"/>	All chasing work Complete	<input type="checkbox"/>	All door / window frames Fixed in position		
SURFACE PREPARATION	Roughening / hacking of surface done	<input type="checkbox"/>	Fixing metal / lathe Chicken mesh	<input type="checkbox"/>	Mortar level Guides made	<input type="checkbox"/>	Surface moistened / Cement slurry
BASE PLASTER	Mix & W/P compound Checked against specs	<input type="checkbox"/>	Coating / thickness As specified	<input type="checkbox"/>	Corners & edges sharp & at right Angles lines & levels maintained		
TOP LAYER	Fixing of beading for grooves as per drawing	<input type="checkbox"/>	Lines and levels of grooves maintained	<input type="checkbox"/>	Mix as per specification		
	Washing of top layer	<input type="checkbox"/>	Washing with Acid (light)	<input type="checkbox"/>	Curing day	<input type="checkbox"/>	Texture of final surface
						W.O. ITEM	UNIT
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE


NAME OF PROJECT _____

CONTRACT CONTRACT No.		CHECK LIST FOR WASTE/SOIL/VENT PIPES ETC. REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____							
MATERIAL	Make as specified	<input type="checkbox"/> Thickness / class as Specified	<input type="checkbox"/> Length & dia as specified	<input type="checkbox"/> No cracks or holes visible					
LAYOUT	Space distribution & Alignment as specf.	<input type="checkbox"/> Plumb of vertical line checked							
FIXING PIPE & FITTINGS	Qty available for pipes fittings & jointing material as per size & fixing	<input type="checkbox"/> Cutting & jointing as Specified	<input type="checkbox"/> Fixing of fittings & specials as specified	<input type="checkbox"/> Connection with corr. Internal networks	<input type="checkbox"/> Temporary Plugging				
SMOKE TEST	Open ends plugged	<input type="checkbox"/> Injection of smoke Pressure	<input type="checkbox"/> No leakage of Smoke	<input type="checkbox"/> Section Is Ok					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 60%;">W.O. ITEM</th> <th style="width: 15%;">UNIT</th> <th style="width: 25%;">QTY.</th> </tr> </table>							W.O. ITEM	UNIT	QTY.
W.O. ITEM	UNIT	QTY.							
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT DATE			


NAME OF PROJECT _____

CONTRACT CONTRACT No.		CHECK LIST FOR MOSAIC FLOORING REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____										
LAYOUT	Sub base Prepared Slope Provision checked	<input type="checkbox"/> Provision of Services checked	<input type="checkbox"/> Panelling (max size) Separator strips	<input type="checkbox"/> Level of Sub base checked								
BASE LAYER	Mix As specified	<input type="checkbox"/> Water / cement Slurry applied	<input type="checkbox"/> Cement concrete Thickness checked	<input type="checkbox"/> Ramming / levelling Compaction done								
TOP LAYER	Evenness Checked Mix As specified	<input type="checkbox"/> Joints treatment If any, provided <input type="checkbox"/> Proper leveling Done	<input type="checkbox"/> Trowelling finish proper	<input type="checkbox"/> Curing done								
FINISHING	Grinding	<input type="checkbox"/> Final grinding	<input type="checkbox"/> Repair applied at grinding stages	<input type="checkbox"/> Polishing								
						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 60%;">W.O. ITEM</th> <th style="width: 20%;">UNIT</th> <th style="width: 20%;">QTY.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	W.O. ITEM	UNIT	QTY.			
W.O. ITEM	UNIT	QTY.										
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT DATE						

NAME OF PROJECT _____

CONTRACT CONTRACT No.		CHECK LIST FOR GLAZED TILE FLOORING REF DRAWING No. _____ LOCATION BLOCK _____ FLOOR _____ AREA _____										
LAYOUT	Service provisions Sanitary, electrical	<input type="checkbox"/>	Fixing pattern	<input type="checkbox"/>	Level of base & dad Height marked	<input type="checkbox"/>	Finish level Guide	<input type="checkbox"/>	Door & window frames in position			
BASE	Mix	<input type="checkbox"/>	Thickness Layers	<input type="checkbox"/>	Watering / Cement slurry	<input type="checkbox"/>	Evenness	<input type="checkbox"/>	Verticality, corners At right angle			
LAYING	Moistening of tiles Cement slurry adhesive	<input type="checkbox"/>	Plan position of cut pieces at corner	<input type="checkbox"/>	Cut to size Smooth edge	<input type="checkbox"/>	Chamfering of edges & edge matching proper	<input type="checkbox"/>	Raking / jointing			
FINISHING	Grouting of joints	<input type="checkbox"/>	Curing of joints									
		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 10%;">W.O. ITEM</td> <td style="width: 10%;">UNIT</td> <td style="width: 10%;">QTY.</td> </tr> </table>								W.O. ITEM	UNIT	QTY.
W.O. ITEM	UNIT	QTY.										
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE					

NAME OF PROJECT _____

CONTRACT		CHECK LIST FOR WATER BOUND MACADAM					
CONTRACT No.		LOCATION _____					
MATERIAL AGGREGATE	Gradation as specified	<input type="checkbox"/> Crushing strength as specified <input type="checkbox"/> As specified	<input type="checkbox"/> No of layers <input type="checkbox"/> Thickness of layers starting from subgrade				
SCREENINGS	Gradation as specified	<input type="checkbox"/> Crushing strength <input type="checkbox"/> As specified	<input type="checkbox"/> waiting & rolling as specified <input type="checkbox"/>				
MOORUM	Gradation as specified	<input type="checkbox"/> Silt content as specified <input type="checkbox"/>	<input type="checkbox"/> Fill material <input type="checkbox"/>				
LAYOUT	Alignment of central line as per drawings and reference points	<input type="checkbox"/> Marking of Carriage <input type="checkbox"/> way edges as per drawings	<input type="checkbox"/> Cross section levels of precedent <input type="checkbox"/> Layer recorded				
WATER BOUND MACADAM	Templates placed of specified thickness	<input type="checkbox"/> Placing, leveling of stone <input type="checkbox"/> aggregate	<input type="checkbox"/> Stone Screening spread as <input type="checkbox"/> specified				
	Dry rolling as specified Top cross section lands layer recorded	<input type="checkbox"/> Application of moorum as <input type="checkbox"/> specified	<input type="checkbox"/> Wet rolling / compaction as <input type="checkbox"/> specified				
				W.O. ITEM	UNIT	QTY.	
SIGNATURE CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE



AN ISO 9001 & 14001 COMPANY

NIT DOCUMENT

WRO/CON/893/SBM-GOA/333

Dated. 09.02.2024

FOR

Tender for Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."

VOL III

BILL OF QUANTITIES

**ENGINEERING PROJECTS (INDIA) LTD.
WESTERN REGIONAL OFFICE MUMBAI
6A, BAKHTAWAR, NARIMAN POINT
MUMBAI 400021**

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Item Wise BoQTender Inviting Authority: **ENGINEERING PROJECTS (INDIA) LTD., NEW DELHI**

NAME OF WORK : Appointment of Contractor for "Implementation of Swachh Bharat Mission II (Grameen) at 43 Village Panchayats for FY 2023-24 in the State of Goa."

NIT No: WRO/CON/893/SBM-GOA/333 dtd: 09.02.2024

Name of the Bidder/ Bidding Firm / Company :							
PRICE SCHEDULE (DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY) (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)							
Sl. No.	Item Description	Quantity	Units	Quoted Currency In INR / Other	BASIC RATE (including Transportation Insurance, F.O.R.) In Figures To be entered by the Bidder In Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	12	7	13	15
1	SOLID WASTE MANAGEMENT	0.00	Lot	INR		0.00	INR Zero Only
2	Equipment and Machinery	0.00	Lot	INR		0.00	INR Zero Only
3	Supply, Installation, Testing, Commissioning of Organic Waste Converter Machine of Capacity 500 Kg/Day complete in all respect. For detail specification refer Point No. 3.2.1.1	15.00	Nos	INR		0.00	INR Zero Only
4	Providing Service and retrofitting works with Supervision on annually basis for a period of 3 Years annually	15.00	Nos	INR		0.00	INR Zero Only
5	Supply, Installation, Testing, Commissioning of Plastic Waste Shredder Machine 5 HP complete in all respects. For detail specification refer Point No. 3.3.1	8.00	Nos	INR		0.00	INR Zero Only
6	Supply, Installation, Testing, Commissioning of Compost Seiving Machine complete in all respects. For detail specification refer Point No. 3.2.4	15.00	Nos	INR		0.00	INR Zero Only
7	Supply, Installation, Testing, Commissioning of Bailing Machine of Capacity 10 HP complete in all respects. For detail specification refer Point No. 3.3.2.A	33.00	Nos	INR		0.00	INR Zero Only
8	Supply, Installation, Testing, Commissioning of Bailing Machine of Capacity 20 HP complete in all respects. For detail specification refer Point No. 3.3.2.B	2.00	Nos	INR		0.00	INR Zero Only
9	Supply, Installation, Testing, Commissioning of Automated Forklift complete in all respects. For detail specification refer Point No. 3.3.3	35.00	Nos	INR		0.00	INR Zero Only
10	Supply, Testing, Handover of Diesel Vehicle 3.3 CuM complete in all respects. For detail specification refer Point No. 3.1.1	9.00	Nos	INR		0.00	INR Zero Only
11	Supply, Testing, Handover of Diesel Vehicle 2.0 CuM complete in all respects. For detail specification refer Point No. 3.1.1	35.00	Nos	INR		0.00	INR Zero Only

12	Supply, Testing, Handover of Weighing Scale 500 Kg complete in all respects. For detail specification refer Point No. 3.2.5	36.00	Nos	INR		0.00	INR Zero Only
13	Supply of Accessories to Village Panchayats complete in all respects. For Technical Specification Refer Point No. 3.6 (Type A)	38.00	Nos	INR		0.00	INR Zero Only
14	Supply of Accessories to Village Panchayats complete in all respects. For Technical Specification Refer Point No. 3.6 (Type B)	1.00	Nos	INR		0.00	INR Zero Only
15	CIVIL WORK FOR SHED MRF/PMU	0.00	Nos	INR		0.00	INR Zero Only
16	MRF Shed of 100 Sq. mtr (15 Nos.)	0.00	Nos	INR		0.00	INR Zero Only
17	EARTHWORK	0.00	cum	INR		0.00	INR Zero Only
18	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sq.m on plan) including disposal of excavated earth lead upto 50 m and lift upto 1.5m disposed earth to be leveled and neatly dressed including providing barricading, danger lighting guarding as directed in:	0.00	Cum	INR		0.00	INR Zero Only
19	All kinds of soil	1650.00	cum	INR		0.00	INR Zero Only
20	Hard rock where blasting prohibited	1125.00	Cum	INR		0.00	INR Zero Only
21	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means in foundation pipeline trenches drain (not exceeding 1.5 m in width or 10 sq.m. on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 m.	0.00	cum	INR		0.00	INR Zero Only
22	Hard rock where blasting prohibited	30.00	cum	INR		0.00	INR Zero Only
23	Refilling the pipeline/foundation trenches plinth sides, foundation etc. with available excavated earth in layers not exceeding 20 cm depth consolidating each layer ramming and watering lead upto 50 M and all lifts and disposal of surplus earth as directed by Engineer in Charge.	2325.00	Cum	INR		0.00	INR Zero Only
24	Supplying and filling in plinth under floors, trenches including watering ramming consolidating, dressing, complete	0.00	Lot	INR		0.00	INR Zero Only
25	Moorum	225.00	cum	INR		0.00	INR Zero Only
26	Clearing jungle including up rooting of rank vegetation grass bush wood trees and sapling of girth upto 30 cm. measured at a height of 1 m above ground level & removal of rubbish upto a distance of 50 mt outside the periphery of the area cleared (if however, only grass is met with the area will be measured and paid for under item 4001)	2700.00	sqm	INR		0.00	INR Zero Only
27	PLAIN CONCRETE WORKS	0.00	Lot	INR		0.00	INR Zero Only
28	Providing & laying cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded granitic or basaltic stone aggrt 20 mm nominal size) excluding cost of centering, shuttering and finishing in:	0.00	Lot	INR		0.00	INR Zero Only
29	All works upto plinth level	180.00	cum	INR		0.00	INR Zero Only
30	Centering and shuttering including struttings, propping etc and removal of formwork for:	0.00	Lot	INR		0.00	INR Zero Only
31	Foundations, footings, bases for columns and mass concrete.	270.00	sqm	INR		0.00	INR Zero Only

32	Making plinth protection 50mm thick of Cement Concrete 1:3:6 (1 cement: 3 Coarse Sand: 6 graded stone aggregate 20mm nominal size) over 75mm bed of dry laterite aggregate 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	600.00	sqm	INR		0.00	INR Zero Only
33	Providing and laying in position (1:11/2:3) Reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement (1 cement: 1½ coarse sand:3 graded stone agg 20mm nominal size)	0.00	Lot	INR		0.00	INR Zero Only
34	All works upto plinth level	405.00	Cum	INR		0.00	INR Zero Only
35	In walls (any thickness) , including attached plasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level	75.00	Cum	INR		0.00	INR Zero Only
36	In beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases upto floor five level	30.00	cum	INR		0.00	INR Zero Only
37	Centering & shuttering including Strutting, Propping & removal of forms for:	0.00	Lot	INR		0.00	INR Zero Only
38	Columns, Piers, Pillars, Abutments, Posts and struts (square rectangle polygon in plan)	750.00	sqm	INR		0.00	INR Zero Only
39	Providing TMT steel reinforcement bars of (SAIL, TATA, VIZAG, JSW Steel Ltd.)) (Confirming to IS 1786 of 1986) for RCC work (conforming to I.S. 1786 of 1986) including bending, binding & placing in position in all the floors along with the factory made precast concrete cover blocks of specified sizes whose compressive strength is not less than that of surrounding concrete in the structural member.	35250.00	KG	INR		0.00	INR Zero Only
40	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) (Square Hollow Section (SHS) IS4923 /Rectangular Hollow Section (RHS) IS4923/ Circular Hollow Section (CHS) IS1161 closed Structural Steel of (SAIL, TATA, VIZAG, JSW ,APOLLO Steel Ltd.) make (Min Yield Stress 310 Mpa)) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.	95100.00	kg	INR		0.00	INR Zero Only
41	Brick work using common burnt building bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with bricks of class designation 75 kgs/ cm2 (wire cut bricks)	0.00	Lot	INR		0.00	INR Zero Only
42	In superstructure upto floor five level.	30.00	cum	INR		0.00	INR Zero Only
43	Rubble packing with hard laterite stone under floors including watering ramming and consolidating etc. in pipeline trenches and other foundations complete.	600.00	cum	INR		0.00	INR Zero Only
44	Laterite masonry in neatly dressed stones for 23 cms thick masonry walls in c.m. 1 : 4 (1 cement : 4 coarse sand in foundation upto plinth level	240.00	cum	INR		0.00	INR Zero Only
45	Flooring and Floor Finishes	0.00	Lot	INR		0.00	INR Zero Only
46	Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement.	0.00	Lot	INR		0.00	INR Zero Only
47	40 mm thick	1592.10	sqm	INR		0.00	INR Zero Only
48	PLASTERING AND FINISHING WORKS	0.00	Lot	INR		0.00	INR Zero Only

49	15mm cement plaster 1: 4 (1 cement : 4 fine sand) on the rough side of single or half brick wall.	586.20	sqm	INR		0.00	INR Zero Only
50	20mm cement plaster 1: 4 (1 cement : 4 fine sand)	1642.05	sqm	INR		0.00	INR Zero Only
51	Painting one or more coats of acrylic exterior paint of approved brand and manufacture (Such as Dulux/ Asian Paints/ Sherwin Williams) on old work including cleaning the surface with water etc. complete.	1859.25	sqm	INR		0.00	INR Zero Only
52	Providing and applying white cement based putty of average thickness 1.00mm of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	586.20	sqm	INR		0.00	INR Zero Only
53	ROOFING & CEILING WORKS	0.00	Lot	INR		0.00	INR Zero Only
54	Providing and fixing Coloureon Plus galvulium roofing Sheets of 0.5mm thick double ribbed trapezoidal profile coated 1080mm with cover width of 1020mm including all the accessories (JSW or equivalent make) but excluding the cost of purlins, rafters, trusses, flashings etc. complete as per the directions of the Engineer in charge.	0.00	Lot	INR		0.00	INR Zero Only
55	0.50 mm thick sheet.-26G	3750.00	sqm	INR		0.00	INR Zero Only
56	Add for providing & fixing Flashings -[Corners, Ridges, valleys, gable end & Trims] (Girth above 610mm) including all the accessories complete as per the directions of the Engineer in charge.	150.00	m	INR		0.00	INR Zero Only
57	WATER SUPPLY SEWERAGE, PLUMBING & SANITATION WORK	0.00	Lot	INR		0.00	INR Zero Only
58	Providing and fixing vitreous china wash basin with RS or C.I. brackets painted white, 15 mm C.P. brass pillar taps C.P. brass chain with rubber plug 32 mm C.P. brass waste of pattern, 32 mm diameter M.I. or C.P. brass trap and union complete, including cutting and making good the walls where required.	0.00	Lot	INR		0.00	INR Zero Only
59	Flat back wash basin size 630 x 450mm with a pair of 15 mm C.P. brass pillar taps.	15.00	Each	INR		0.00	INR Zero Only
60	Providing & fixing liquid soap container with C. P. brass lid and brackets fixed to wooden cleats with C. P. brass screws	0.00	Lot	INR		0.00	INR Zero Only
61	Plastic container	30.00	each	INR		0.00	INR Zero Only
62	Providing & fixing soap dish chromium plated with brackets fixed to wooden cleats with CP brass screw	30.00	Each	INR		0.00	INR Zero Only
63	Providing and placing on terrace roof of floor two (1st floor roof) single piece rotational moulded polythene water storage tank having ISI mark and conforming to ISI 12701; 1996.	0.00	Lot	INR		0.00	INR Zero Only
64	1000 lit. capacity	15.00	Each	INR		0.00	INR Zero Only
65	Constructing brick masonry manhole or inspection chamber with second class bricks in cement mortar 1:5 (1 cement :5 fine sand) R.C.C. top slab with 1: 1 1/2:3 mix (1 cement: 1 1/2 coarse sand ;3 graded stone aggregate 20mm nominal size foundation concrete 1:1 1/2:3 mix (1 cement :1 1/2 coarse sand :8 graded stone aggregate 20mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) neatly finished complete as per standard design.	0.00	Lot	INR		0.00	INR Zero Only

66	Inside size 1.2m x 90 cm and 90cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter total weight of cover and frame to be not less than 116 kg. (weight of cover 58 kg).	15.00	Each	INR		0.00	INR Zero Only
67	Constructing soak pit 1.20m x 1.20m x1.20m filled with laterite stone aggregate 125 to 180 mm including S.W. drain pipe 100 mm diameter and 1.2m. long complete as per standard design.	15.00	Each	INR		0.00	INR Zero Only
68	Providing and fixing rigid PVC S.W.R. (soil, waste & rain water drainage pipes of approved including lubricant etc. complete (single/double) socketed:	0.00	Lot	INR		0.00	INR Zero Only
69	110 mm dia	300.00	m	INR		0.00	INR Zero Only
70	Providing and fixing chlorinated polyvinyl chloride (CPVC) pipes confirming to IS:15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipes with clamps at 1 mt. spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of the Engineer-in-charge. Internal work exposed on wall (Medium duty SDR 13.5 pipe).	0.00	Lot	INR		0.00	INR Zero Only
71	25 mm outer dia CPVC pipe	225.00	m	INR		0.00	INR Zero Only
72	50 mm outer dia CPVC pipe	150.00	m	INR		0.00	INR Zero Only
73	Providing and fixing Hand Shower (Health Faucet) with 8mm dia, ABS/brass body with double lock 1.00m long Flexible tube (Brass plated stainless steel flexible hose) and wall hook of approved quality confirming to IS standards.	30.00	Each	INR		0.00	INR Zero Only
74	Providing and fixing NICKEL chrome plated copper alloy Fancy Two Way Bib Cock with single knob and wall flange conforming to IS (8931:1993) 15mm nominal bore.	45.00	Each	INR		0.00	INR Zero Only
75	Internal & External Electrification works	0.00	Lot	INR		0.00	INR Zero Only
76	(Fan, tubelight, Switch & sockets, wiring, MCB Panel, Earthing Pit)	9.00	LS	INR		0.00	INR Zero Only
77	MRF Shed of 200 Sq. mtr (13 Nos.)	0.00	Lot	INR		0.00	INR Zero Only
78	EARTHWORK	0.00	Lot	INR		0.00	INR Zero Only
79	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sq.m on plan) including disposal of excavated earth lead upto 50 m and lift upto 1.5m disposed earth to be leveled and neatly dressed including providing barricading, danger lighting guarding as directed in:	0.00	Lot	INR		0.00	INR Zero Only
80	All kinds of soil	1950.00	cum	INR		0.00	INR Zero Only
81	Hard rock where blasting prohibited	1235.00	cum	INR		0.00	INR Zero Only
82	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means in foundation pipeline trenches drain (not exceeding 1.5 m in width or 10 sq.m. on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 m.	0.00	Lot	INR		0.00	INR Zero Only
83	Hard rock where blasting prohibited	52.00	cum	INR		0.00	INR Zero Only

84	Refilling the pipeline/foundation trenches plinth sides, foundation etc. with available excavated earth in layers not exceeding 20 cm depth consolidating each layer ramming and watering lead upto 50 M and all lifts and disposal of surplus earth as directed by Engineer in Charge.	2210.00	cum	INR		0.00	INR Zero Only
85	Supplying and filling in plinth under floors, trenches including watering ramming consolidating, dressing, complete.	0.00	Lot	INR		0.00	INR Zero Only
86	Moorum	325.00	cum	INR		0.00	INR Zero Only
87	Clearing jungle including up rooting of rank vegetation grass bush wood trees and sapling of girth upto 30 cm. measured at a height of 1 m above ground level & removal of rubbish upto a distance of 50 mt. outside the periphery of the area cleared. (if however, only grass is met with the area will be measured and paid for under item 4001).	3900.00	Sqm	INR		0.00	INR Zero Only
88	PLAIN CONCRETE WORKS	0.00	Lot	INR		0.00	INR Zero Only
89	Providing & laying cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded granitic or basaltic stone aggrt 20 mm nominal size) excluding cost of centering, shuttering and finishing in:	0.00	Lot	INR		0.00	INR Zero Only
90	All works upto plinth level	260.00	cum	INR		0.00	INR Zero Only
91	Centering and shuttering including struttings, propping etc. and removal of formwork for:	0.00	Lot	INR		0.00	INR Zero Only
92	Foundations, footings, bases for columns and mass concrete.	312.00	sqm	INR		0.00	INR Zero Only
93	Making plinth protection 50mm thick of Cement Concrete 1:3:6 (1cement: 3 Coarse Sand: 6 graded stone aggregate 20mm nominal size) over 75mm bed of dry laterite aggregate 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	780.00	sqm	INR		0.00	INR Zero Only
94	REINFORCED CEMENT CONCRETE WORKS	0.00	Lot	INR		0.00	INR Zero Only
95	Providing and laying in position (1:11/2:3) Reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement (1 cement: 1½ coarse sand:3 graded stone agg 20mm nominal size)	0.00	Lot	INR		0.00	INR Zero Only
96	All works upto plinth level	585.00	cum	INR		0.00	INR Zero Only
97	In walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level	195.00	cum	INR		0.00	INR Zero Only
98	In beams, suspended floors, roofs having slope upto 15° (landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases upto floor five level)	65.00	cum	INR		0.00	INR Zero Only
99	Centering & shuttering including Strutting, Propping & removal of forms for:	0.00	Lot	INR		0.00	INR Zero Only
100	Columns, Piers, Pillars, Abutments, Posts and struts (square rectangle polygon in plan)	3510.00	sqm	INR		0.00	INR Zero Only
101	Providing TMT steel reinforcement bars of (SAIL, TATA, VIZAG, JSW Steel Ltd.) (Confirming to IS 1786 of 1986) for RCC work (conforming to I.S. 1786 of 1986) including bending, binding & placing in position in all the floors along with the factory made precast concrete cover blocks of specified sizes whose compressive strength is not less than that of surrounding concrete in the structural member	47450.00	kg	INR		0.00	INR Zero Only
102	STEEL AND ALUMINIUM WORK	0.00	Lot	INR		0.00	INR Zero Only

103	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) (Square Hollow Section (SHS) IS4923 /Rectangular Hollow Section (RHS) IS4923/ Circular Hollow Section (CHS) IS1161 closed Structural Steel of (SAIL, TATA, VIZAG, JSW ,APOLLO Steel Ltd.) make (Min Yield Stress 310 Mpa)) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.	110175.00	kg	INR		0.00	INR Zero Only
104	BRICK MASONARY WORKS	0.00	Lot	INR		0.00	INR Zero Only
105	Brick work using common burnt building bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with bricks of class designation 75 kgs/ cm2 (wire cut bricks)	0.00	Lot	INR		0.00	INR Zero Only
106	In superstructure upto floor five level.	65.00	cum	INR		0.00	INR Zero Only
107	LATERITE MASONARY WORKS	0.00	Lot	INR		0.00	INR Zero Only
108	Rubble packing with hard laterite stone under floors including watering ramming and consolidating etc. in pipeline trenches and other foundations complete	1014.00	cum	INR		0.00	INR Zero Only
109	Laterite masonry in neatly dressed stones for 23 cms thick masonry walls in c.m. 1 : 4 (1 cement : 4 coarse sand in foundation upto plinth level	442.00	cum	INR		0.00	INR Zero Only
110	Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement.	0.00	Lot	INR		0.00	INR Zero Only
111	40 mm thick	2691.78	sqm	INR		0.00	INR Zero Only
112	PLASTERING AND FINISHING WORKS	0.00	Lot	INR		0.00	INR Zero Only
113	15mm cement plaster 1: 4 (1 cement : 4 fine sand) on the rough side of single or half brick wall.	2275.00	sqm	INR		0.00	INR Zero Only
114	20mm cement plaster 1: 4 (1 cement : 4 fine sand)	195.00	sqm	INR		0.00	INR Zero Only
115	Painting one or more coats of acrylic exterior paint of approved brand and manufacture (Such as Dulex/ Asian Paints/ Sherwin Williams) on old work including cleaning the surface with water etc. complete	1950.00	sqm	INR		0.00	INR Zero Only
116	Providing and applying white cement based putty of average thickness 1.00mm of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	1300.00	sqm	INR		0.00	INR Zero Only
117	ROOFING & CEILING WORKS	0.00	Lot	INR		0.00	INR Zero Only
118	Providing and fixing Coloureon Plus galvullum roofing Sheets of 0.5mm thick double ribbed trapezoidal profile coated 1080mm with cover width of 1020mm including all the accessories (JSW or equivalent make) but excluding the cost of purlins, rafters, trusses, flashings etc complete as per the directions of the Engineer in charge.	0.00	Lot	INR		0.00	INR Zero Only
119	0.50 mm thick sheet.-26G	7150.00	sqm	INR		0.00	INR Zero Only
120	Add for providing & fixing Flashings -[Corners, Ridges, valleys, gable end & Trims] (Girth above 610mm) including all the accessories complete as per the directions of the Engineer in charge	260.00	m	INR		0.00	INR Zero Only
121	WATER SUPPLY SEWERAGE, PLUMBING & SANITATION WORK	0.00	Lot	INR		0.00	INR Zero Only
122	Providing and fixing vitreous china wash basin with RS or C.I brackets painted white, 15 mm C.P. brass pillar taps C.P. brass chain with rubber plug 32 mm C.P. brass waste of pattern, 32 mm diameter M.I. or C.P. brass trap and union complete, including cutting and making good the walls where required.	0.00	Lot	INR		0.00	INR Zero Only

123	Flat back wash basin size 630 x 450mm with a pair of 15 mm C.P. brass pillar taps.	26.00	each	INR		0.00	INR Zero Only
124	Providing & fixing liquid soap container with C. P. brass lid and brackets fixed to wooden cleats with C. P. brass screws	0.00	Lot	INR		0.00	INR Zero Only
125	Plastic container	26.00	Each	INR		0.00	INR Zero Only
126	Providing & fixing soap dish chromium plated with brackets fixed to wooden cleats with CP brass screw	26.00	each	INR		0.00	INR Zero Only
127	Providing and placing on terrace roof of floor two (1st floor roof) single piece rotational moulded polythene water storage tank having ISI mark and conforming to IS 12701; 1996.	0.00	Lot	INR		0.00	INR Zero Only
128	1000 lit. capacity	26.00	each	INR		0.00	INR Zero Only
129	Constructing brick masonry manhole or inspection chamber with second class bricks in cement mortar 1:5 (1 cement :5 fine sand) R.C.C. top slab with 1: 1 1/2:3 mix (1 cement: 1 1/2 coarse sand ;3 graded stone aggregate 20mm nominal size foundation concrete 1:1 1/2:3 mix (1 cement :1 1/2 coarse sand :8 graded stone aggregate 20mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) neatly finished complete as per standard design.	0.00	Lot	INR		0.00	INR Zero Only
130	Inside size 1.2m x 90 cm and 90cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter total weight of cover and frame to be not less than 116 kg. (weight of cover 58 kg).	26.00	each	INR		0.00	INR Zero Only
131	Constructing soak pit 1.20m x 1.20m x1.20m filled with laterite stone aggregate 125 to 180 mm including S.W. drain pipe 100 mm diameter and 1.2m, long complete as per standard design. :	13.00	each	INR		0.00	INR Zero Only
132	Providing and fixing rigid PVC S.W.R. (soil, waste & rain water drainage pipes of approved including lubricant etc. complete (single/double) socketed:	0.00	Lot	INR		0.00	INR Zero Only
133	110 mm dia	390.00	m	INR		0.00	INR Zero Only
134	Providing and fixing chlorinated polyvinyl chloride (CPVC) pipes conforming to IS:15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipes with clamps at 1 mt. spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of the Engineer-in-charge. Internal work exposed on wall (Medium duty SDR 13.5 pipe).	0.00	Lot	INR		0.00	INR Zero Only
135	25 mm outer dia CPVC pipe	390.00	m	INR		0.00	INR Zero Only
136	50 mm outer dia CPVC pipe	195.00	m	INR		0.00	INR Zero Only
137	Providing and fixing Hand Shower (Health Faucet) with 8mm dia, ABS/brass body with double lock 1.00m long Flexible tube (Brass plated stainless steel flexible hose) and wall hook of approved quality conforming to IS standards.	26.00	Each	INR		0.00	INR Zero Only
138	Providing and fixing NICKEL chrome plated copper alloy Fancy Two Way Bib Cock with single knob and wall flange conforming to IS 8931:1993 15mm nominal bore.	39.00	Each	INR		0.00	INR Zero Only
139	Internal & External Electrification works	0.00	Lot	INR		0.00	INR Zero Only

140	(Fan, tubelight, Switch & sockets, wiring, MCB Pannel, Earthing Pit)	13.00	LS	INR		0.00	INR Zero Only
141	Transfer Station 15 Sq. mtr(As per Drawing No.4.3 in Tech Spec)	39.00	Nos	INR		0.00	INR Zero Only
142	LIQUID WASTE MANAGEMENT	0.00	Lot	INR		0.00	INR Zero Only
143	Providing Facilities for Setup of Faecal Sludge Treatment Plant of Capacity 40 KLD to treat Liquid Waste at Village Panchayat including Civil, Structural, Electromechanical Works along with installation and commissioning complete in all respects. For detail specification refer Point No. 3.5.1.1	4.00	Nos	INR		0.00	INR Zero Only
144	Providing Service and retrofitting works with Supervision on annually basis for a period of 3 Years	4.00	Nos	INR		0.00	INR Zero Only
145	IEC ACTIVITY	0.00	Lot	INR		0.00	INR Zero Only
146	Cleaniness/Awareness drives in Village Areas and Unclean sites	39.00	Nos	INR		0.00	INR Zero Only
147	Road Show/awareness in Village Panchayat	39.00	Nos	INR		0.00	INR Zero Only
148	Open School painting/ poster, slogan writing and quiz competition	39.00	Nos	INR		0.00	INR Zero Only
149	Street Plays/ Nukkad Nataks	39.00	Nos	INR		0.00	INR Zero Only
150	Printing of awareness posters	39.00	Nos	INR		0.00	INR Zero Only
151	Printing of IEC SBM manual & IEC KIT	39.00	Nos	INR		0.00	INR Zero Only
152	Production of Television spots	1.00	No	INR		0.00	INR Zero Only
153	Production of Audio - visual (success stories on SBM - G and awareness)	1.00	No	INR		0.00	INR Zero Only
154	Wall Paintings	39.00	Nos	INR		0.00	INR Zero Only
155	Public awareness Dry waste storage bags	39.00	Nos	INR		0.00	INR Zero Only
156	Seminar/ Workshop	39.00	Nos	INR		0.00	INR Zero Only
157	Social Media Presence on Facebook, Instagram	39.00	Nos	INR		0.00	INR Zero Only
158	Uniforms (Printed tee - shirts and hats) for various events	39.00	Nos	INR		0.00	INR Zero Only
159	District Level Awareness and Capacity Building	1.00	No	INR		0.00	INR Zero Only
160	State Level SBM - Waste Maangement Presentation & Panchayat Knowledge Exchange Program	1.00	No	INR		0.00	INR Zero Only
Total in Figures						0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only					