

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 543/2024

In the matter of:

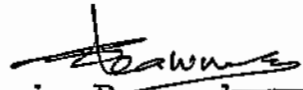
Raja Muzaffar Bhat Petitioner

V/S

MoEF Respondents

INDEX

| S.No | Document | Particulars | Page Nos |
|------|-------------------------|---------------------------------|----------|
| 1 | Response with Affidavit | | 1 -12 |
| 2 | Annexure 1 | Waste to Energy Plant Status | 13-15 |
| 3 | Annexure 2 | Bioremediation DPR | 16-74 |
| 4 | Annexure 3 | Bioremediation Tender | 75-132 |
| 5 | Annexure 4 | Garbage Transfer Station Tender | 133-212 |
| | Total | | 212 |


 Answering Respondents
 Through Counsel

(G. M. Kawoosa)

Srinagar
 11/12/2024

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 543/2024

In the matter of:

Raja Muzaffar Bhat

Petitioner

V/S

MoEF

Respondents

IN THE MATTER OF: Response for and on behalf of Srinagar Municipal Corporation in the above titled OA no. 543/2024.

MAY IT PLEASE YOUR LORDSHIPS,

The respondent Corporation herein humbly submit as under:

1. That it is submitted that the above titled Original Application which is pending before this Hon'ble Tribunal deals with the issue of improper waste management within the limits of the Srinagar Municipal Corporation. In this regard it is submitted that the averments made in the Original Application are exaggerated and do not represent the actual state of affairs of waste management within the limits of the Srinagar Municipal Corporation. In this regard the respondent Corporation submits the instant response in the form of the Action Plan as developed by the Srinagar Municipal Corporation for the effective management of Solid Waste within its municipal limits.
2. This response / compliance report details the Solid Waste Management (SWM) Action Plan developed by Srinagar Municipal Corporation (SMC) to address critical issues related to legacy waste remediation at the Achan dumpsite and the functionalization of existing and proposed waste processing facilities. The objective of the plan is to ensure 100% scientific processing of municipal solid waste by 2026 in alignment with the Solid Waste Management (SWM) Rules, 2016, and the

Commissioner
Srinagar Municipal Corporation

guidelines of Swachh Bharat Mission 2.0 (SBM 2.0). The report provides an in-depth analysis of the current situation, ongoing and planned projects, and the actions taken to overcome challenges, particularly following the failure of the Waste-to-Energy (WtE) plant.

Current Scenario

Population and Waste Generation

3. Srinagar is the largest urban center in Jammu and Kashmir and faces substantial challenges in waste management due to increasing population and per capita waste generation. The key parameters are as follows:

- Current Estimated Population (2024): 15.50 lakhs
- Projected Population (2028): 16,69,168
- Current Waste Generation: 600 TPD
- Projected Waste Generation (2028): 918.04 TPD
- Per Capita Waste Generation: 550 grams/day

It is submitted that these projections highlight the urgency of scaling up waste processing infrastructure to cope with the growing waste generation and the instant response / compliance report is aimed at providing the action plan / remedial measures as well as the difficulties and impediments faced by the respondent Corporation in the waste management within its municipal limits.

Waste Composition

4. That it is submitted that the composition of waste generated in Srinagar shows a predominance of organic waste, necessitating specific treatment methods like composting and bio-methanation. The breakdown is as follows:

- Wet Waste: 60% of total waste (360 TPD currently; projected to 459.02 TPD by 2028)
- Dry Waste: 40% of total waste (240 TPD currently; projected to 459.02 TPD by 2028)


Commissioner
Srinagar Municipal Corporation

Existing Processing Capacity

5. That it is submitted that the current waste processing capacity in Srinagar is insufficient to handle the total waste generated. At present, the city has the following facilities:
- Total Processing Capacity: 150 TPD
 - Wet Waste Processing (Composting): 50 TPD
 - Dry Waste Processing (Material Recovery Facility - MRF): 100 TPD

That given the gap between waste generation and processing, Srinagar Municipal Corporation has proposed to outsource both wet and dry waste processing facilities. In this regard the respondent Corporation is processing the DPR, FRP and other documentation, and progress with regard to the same shall be submitted to this Hon'ble Tribunal through the medium of future compliance / status reports.

Failure of the Waste-to-Energy (WtE) Plant: Challenges, Impacts, and the Road Ahead

6. That it is submitted that in 2013, this Hon'ble Tribunal constituted an expert committee to recommend a sustainable waste management solution for Srinagar. After evaluating various options, the committee so constituted identified a Waste-to-Energy (WtE) plant as the most suitable method for disposing of the city's increasing solid waste. The project aimed to transform waste into electricity while addressing the mounting landfill issues at the Achan dumpsite.

Project Details:

- Capacity: 5 MW of electricity generation
- Waste processing: 500 ÷ 125 MT/day
- Project duration: 25 years
- Land allocated: 10 acres at the Achan dumpsite
- Agreed power purchase rate: ₹7.65 per unit
- Approval & LOI: The project was approved by the Cabinet on

Commissioner
Srinagar Municipal Corporation

October 23, 2017, and a Letter of Intent (LOI) was issued to M/S.

Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd) on December 11, 2017. This Hon'ble Tribunal mandated completion within 18 months post-signing of the Power Purchase Agreement (PPA) and Concession Agreement (CA), subject to penalties for delays.

Project Developer's Defaults:

7. That despite the high expectations and clear timelines, the project was marred by significant delays and defaults, leading to its eventual failure.

1. Failure to submit Performance Bank Guarantee:

- o The developer was required to submit a ₹5 crore bank guarantee as part of the project's security.
- o Multiple reminders were sent by the Srinagar Municipal Corporation (SMC) from 2020 to 2022, yet the developer failed to comply. The developer incorrectly tied the submission of the bank guarantee to the signing of the PPA, which was not required.

2. Failure to sign Concession and Power Purchase Agreements:

- o The developer did not sign either the Conccssion Agreement or the Power Purchase Agreement (PPA).
- o Instead, they linked the signing of these agreements to compensation for unrelated land-filling work, which was outside the tender's scope, further delaying the process.

3. Delays in project implementation:

- o The project failed to meet the NGT's 18-month deadline.
- o No tangible progress was made in setting up the WtE plant, significantly hindering the overall waste management strategy.

Impact on Solid Waste Management in Srinagar:

1. Continued reliance on landfilling:

- o The inability to establish the WtE plant forced Srinagar to continue its reliance on landfilling at the already overburdened Achan dumpsite.

- o This contributed to the accumulation of approximately 11 lakh MT of legacy waste, compounding environmental and logistical challenges.
2. **Delayed implementation of scientific waste processing:**
- o The WtE plant was intended to process 500-625 MT/day of waste, which would have significantly reduced the burden on landfills.
 - o Without the plant, a large gap remained in Srinagar's waste processing capacity, hampering efforts to transition toward more scientific methods of waste management.
3. **Financial implications:**
- o Funds allocated for the WtE project were left unutilized, precluding their redirection to alternative waste management solutions.
 - o Srinagar also missed the opportunity to generate revenue through electricity sales, which could have supported further waste management initiatives.
4. **Environmental concerns:**
- o Continued reliance on landfilling has heightened environmental risks, including potential groundwater contamination and increased greenhouse gas emissions.
 - o The lost opportunity to convert waste to energy represented a missed chance to lower the city's carbon footprint.

The failure of WtE project has had wide-reaching implications for waste management in the city. The continued reliance on landfilling and delayed implementation of modern waste-processing techniques has exacerbated environmental and logistical challenges. Moving forward, Srinagar Municipal Corporation explore alternative waste management solutions, while ensuring that regulatory guidelines and project milestones are strictly enforced to avoid future failures. A photocopy of the detailed note on the WtE sequences and actions is attached as Annexure 1.

Actions Taken After Cancellation of the LoI for the WtE Plant

Legacy Waste Remediation at Achan Dumpsite

8. The failure of the WtE project prompted SMC to initiate the remediation of legacy waste at Achan through bio-mining and bio-remediation. This process will help reduce environmental risks and recover valuable land. In this regard it is submitted as under:

1.1 Site Assessment

- Total quantity of legacy waste: 11 lakh MTs

1.2 Action Plan

a) Preparatory Phase:

- Contour survey was completed with assistance from NIT Srinagar
- DPR was prepared for estimating quantity, volume, and waste characterization (Photocopy of DPR is appended hereto as Annexure 2)

b) Implementation Phase:

- Estimated cost: Rs. 60.50 Crore (@ Rs. 550/MT for 11 lakh MT)
- Technology: Bio-mining/Bioremediation

c) Current Status:

It is submitted that the work for the aforesaid Legacy Waste Remediation has been tendered (a photocopy of the RFP and tender document is appended hereto as Annexure 3).

- Timeline: To be completed by 2027

Proposed and Approved Waste Processing Facilities under SBM 2.0

New Waste Management Facilities

That it is submitted that in order to address the waste management gap, SMC has proposed several new facilities under the City Solid Waste Action Plan (CSWAP), approved under SBM 2.0:

Commissioner
Srinagar Municipal Corporation

1. **Compressed Bio-Gas Plant**
 - o Capacity: 459.02 TPD
 - o Estimated Project Cost: ₹82.62 Crore
2. **Material Recovery Facility (MRF)**
 - o Capacity: 459.02 TPD
 - o Estimated Project Cost: ₹39.02 Crore
3. **Transfer Stations (TS)**
 - o Total Project Cost: ₹11.83 Crore
4. **Legacy Waste Remediation**
 - o Quantity of Legacy Waste: 11 lakh MT
 - o Cost of Remediation: ₹60.50 Crore
5. **Construction & Demolition (C&D) Waste Management Facility**
 - o Capacity: 125 TPD
 - o Estimated Cost: ₹7.5 Crore (@ ₹6 lakh/TPD)
6. **Mechanical Road Sweepers**
 - o Number of Additional Machines: 5
 - o Estimated Cost: ₹2.75 Crore (@ ₹0.55 Crore/machine)
7. **Sanitary Landfill**
 - o Estimated Cost: ₹8.45 Crore

Proposed Waste Processing Facilities under CITIIS 2.0

10. The CITIIS 2.0 program (City Investments to Innovate, Integrate, and Sustain) will further bolster waste management efforts in Srinagar by introducing modern technologies and systems.
 1. **Waste to Charcoal Refuse-Derived Fuel (RDF) Based Plant**
 - o Capacity: 300 TPD
 - o Estimated Cost: ₹80 Crore
 2. **IoT-Based Waste Management System**
 - o Components: RFID tags for 2.40 lakh households and 70,000 commercial units
 - o Objective: To monitor and optimize door-to-door waste collection
 - o Estimated Cost: ₹5 Crore
 3. **Pre-Sorting Unit**
 - o Capacity: 700 TPD

Commissioner
Srinagar Municipal Corporation

- o Estimated Cost: ₹35 Crore
4. Leachate Treatment Plant
- o Estimated Cost: ₹2 Crore

Ongoing and Proposed Projects at Achan Dumpsite

Ongoing Projects at Achan

11. The following projects are in progress at the Achan dumpsite:
1. Development of Roads and Allied Works:
 - o Cost: ₹0.65 Crore (Allotment No: SMC/EERRWD/1436-40)
 2. Development of Composting Area:
 - o Cost: ₹3.63 Crore (Allotment No: SMC/EERRWD/1427-35)

Proposed Projects at Achan

The following projects are proposed to further modernize waste management at Achan:

1. Sanitary Landfill Cell #4:
 - o Estimated Cost: ₹30 Crore (Tendered)
2. Bio-Mining of Legacy Waste:
 - o Estimated Cost: ₹60.50 Crore
3. Green Buffer Zone Creation (Achan):
 - o Objective: To mitigate the environmental impact of the dumpsite
 - o Estimated Cost: ₹1.50 Crore

Additional Waste Management Improvements

12. In addition to the above facilities, several other waste management improvements are being implemented in Srinagar:
1. Garbage Transfer Stations (GTS)
 - o Number of GTS: 12
 - o Capacity: 367.22 TPD
 - o Total Project Cost: ₹16.56 Crore
 - o Current Status:
 - o Tender for 3 initial GTS tendered and Letter of Intent (LoI) under process


Commissioner
Srinagar Municipal Corporation

- o (Copy RFP and tender document attached Annexure 4)
2. **Weather-Proof Composting Sheds:**
 - o These sheds facilitate efficient composting in all weather conditions.
 3. **Anti-Odour Measures:**
 - o Initiatives implemented to reduce odour at the Achan dumpsite, including chemical treatment and green barriers.
 4. **Underground Bins and Litter Bins:**
 - o Installed in strategic locations across the city to manage smaller-scale waste generation effectively.
 5. **GIS-Based Integrated Waste Management System:**
 - o A digitized platform for real-time tracking of waste collection and processing operations across the city.

Enforcement and Compliance

SWM Rules & Bye-laws Enforcement

13. SMC is actively enforcing the SWM Rules, 2016, and municipal bye-laws to ensure proper waste management:
 - **Offences Compounded:** 396
 - **Total Fines Recovered:** ₹11.50 Lakh

Waste Collection Compliance

- **Current Door-to-Door Collection:** 100%
- **Target (October 2025):** 100% segregated waste collection
- **Enforcement Strategies:**
 - o Launching intensive awareness campaigns to promote source segregation
 - o Incentives for households complying with segregation rules
 - o Strict penalties for non-compliance

14. That it is submitted that while the failure of the Waste-to-Energy project was a setback for the city's solid waste management efforts, SMC has responded with a robust action plan that leverages alternative waste processing technologies and infrastructure development under SBM 2.0 and CITIIS 2.0. It is submitted that legacy waste remediation, coupled with

the proposed expansion of waste processing capacity, will ensure that Srinagar achieves 100% scientific processing of its waste by 2026. In this regard the respondent Corporation will try to ensure timely project execution, stakeholder engagement, and enforcement of SWM rules, which it is humbly submitted will be key to achieving the city's waste management goals.

15. That the respondent Corporation craves the leave of this Hon'ble Tribunal to supplement the instant response with compliance / status reports as and when required or directed by this Hon'ble Tribunal.
16. That the instant response is supported by a duly sworn affidavit.

sun alind
Commissioner
Srinagar Municipal Corporation

Srinagar
11-12-2024

G.M. Kawase
Respondent Corporation
Through Counsel

(G.M. Kawase)

//

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 543/2024

In the matter of:

Raja Muzaffar Bhat

Petitioner

V/S

MoEF

Respondents

IN THE MATTER OF: Affidavit in support of the response.

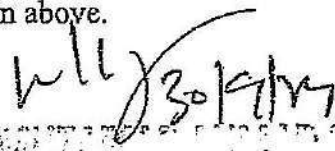
I, Mr. Owais Ahmed Lone, presently posted as Commissioner, SMC, Srinagar Municipal Corporation do hereby solemnly affirm and declare on Oath as under:-

1. That the enclosed response has been drafted at my instance, as such, I am conversant with the facts as set out in the enclosed response.
2. That whatever has been stated in the enclosed application are true and correct, and based on the official record perused by me, and nothing has been concealed therein.

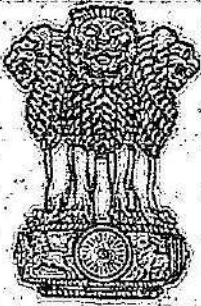

Deponent
Commissioner
Srinagar Municipal Corporation

Verification:

Verified that the averments made in this affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed herein above.


30/10/24
APPROVED
APPROVED
APPROVED


Deponent
Commissioner
Srinagar Municipal Corporation



सत्यमेव जयते

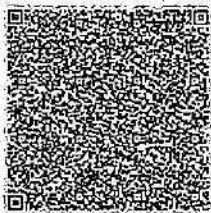
543

INDIA NON JUDICIAL

Government of Jammu and Kashmir

e-Stamp

| | |
|---------------------------|---|
| Certificate No. | IN-JK18527572381515W |
| Certificate Issued Date | 30-Sep-2024 04:48 PM |
| Account Reference | NEWIMPACC (SV)/ JK12539304/ SRINAGAR/ JK-SN |
| Unique Doc. Reference | SUBIN-JKJK1253930425268256786882W |
| Purchased by | Commissioner Srinagar Municipal Corporation |
| Description of Document | Article 4 Affidavit |
| Property Description | Not Applicable |
| Consideration Price (Rs.) | 0 (Zero) |
| First Party | Commissioner Srinagar Municipal Corporation |
| Second Party | Not Applicable |
| Stamp Duty Paid By | Commissioner Srinagar Municipal Corporation |
| Stamp Duty Amount (Rs.) | 10 (Ten only) |



Please write or type below this line

Statutory Alert:

- The authenticity of this Stamp certificate should be verified at www.shreestamp.com or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
- The price of the Stamp certificate is on the front of the certificate.

SRINAGAR MUNICIPAL CORPORATION**Status of Waste to energy plan proposed to be established at Srinagar:**

In the year, 2013, the Hon'ble Green Tribunal in a case titled Dr Irfan Ahmad v/s Nawang Rigzin Jora and Government of Jammu & Kashmir, constituted a committee of experts to suggest solutions to the waste management in Srinagar city. The constituted committee in the 2nd meeting, decided the type of technology which needs to be adopted for disposal of Solid Waste in Srinagar City. The Committee as per minutes dated 12.06.2015, had agreed for installation of a Waste-to-Energy Plant for disposal of Solid Waste as a better option. The Committee also approved engagement of M/S Tide Technocrats as Consultant which had earlier prepared DPR of Srinagar City. The consultant was directed by the Hon'ble NGT Committee to prepare Draft Expression of Interest and accordingly Committee in its meeting held on 29.06.2015 amended, corrected and finalized tariff based draft **Expression of Interest for installation of Waste-to-Energy Plant** having capacity of 5 MW generation capacity of electricity under Design, Finance, Build, Own, Operate & Transfer (DFBOOT) mode and approved EOI was accordingly published and uploaded for e-tendering purposes on 16/07/2015 which was later on extended and/or re-tendered for atleast 07 times and was finally uploaded on 24/4/2017.

In response to the EOI, various companies expressed their willingness to participate in the tendering process and also attended pre-bid meetings but on the due tender date only one bid from M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd) was received and the technical bid was accordingly opened. The matter was put before the Contract Committee of Srinagar Municipal Corporation and the tender amount being beyond the competence of Commissioner SMC was forwarded to State Level Contract Committee headed by Commissioner/Secretary, Housing & Urban Dev. Dept. The SLCC after threadbare discussions authorized the SMC Contract Committee to open the financial bid of the single bidder. The Contract Committee of the SMC accordingly opened the financial bid and rates quoted were negotiated to the amount of Rs. 7.65 per unit for period of 25 years.

A meeting under the chairmanship of Chief Secretary J&K was held on 7/6/2017 in his office chamber to deliberate upon the issues flagged by Housing & Urban Development Department, regarding the installation of WtE Plant and finalization of award of contract in favour of single qualified bidder M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone

Energy System LLP & Astrix Infra Pvt Ltd) at Achan Srinagar. The issues were threadbare discussed in the meeting and following decisions were taken:

- 1) Power Development Department shall purchase the power generated from WtE Plant during the operation period of the plant. However, the rates/tariff on which power shall be purchased will to be adopted by the J&K Electricity Regulatory Commission before signing the Power Purchase Agreement (PPA), in terms of the J&K Electricity Act, 2010.
- 2) Power Development Department shall project the demand separately before the Finance Department to meet out the additional requirement of funds approximately Rs. 14.24 Crores annually (to be worked out on the difference of cost of purchase of power per unit as adopted by J&K Electricity Regulatory Commission and cost of average pooled purchase price of power plus cost of renewable energy certificate) for the period of 25 years at the first instance. Principal Secretary to Government, Finance Department agreed in principle to bifurcate the power purchase budget of the Power Development Department accordingly.
- 3) Power Development Department may supply the equal quantum of power (as generated by WtE Plant) to Srinagar Municipal Corporation, at the same rate, on which they shall purchase power from the bidder. The SMC shall arrange requisite budget for the same purpose through saving achieved on waste treatment expenditure and additionality to be earmarked in their regular budget.

The H&UDD thereafter forwarded the case to the State Cabinet and the Cabinet accordingly accorded approval to the project vide Cabinet Decision No. 207/CIR/2017 dated 23/10/2017.

Vide NPs 37, 38 & 39 at master file (file lying with H&UDD), vide No. UO No.FD-VII-06(252) 2015-16 dated 3/10/2017, the Principal Secretary, Finance forwarded the following notes to the H&UDD:

NP 37) As per the contract agreement, the purchase of power from this WtE plant is to be done by the SMC after establishing the reasonability of rates and thereafter concurrence of Power Development Department to enter into a PPA accordingly,

NP 38) Finance Department provides PDD a fixed sum per year for purchase of power. Finance Department doesn't specify the source of purchase of power and the rates thereof while providing the power purchase

budget. Therefore, the Finance Department's concurrence is not required in the case.

NP 39) It is for the HUDD and more specifically the SMC to establish the rate for the power purchase from the plant and further the rate at which the same will be purchased by the PDD. Any gap arising between the two need to be closed from the resources of the SMC.

Vide NP 31, the Power Development Department forwarded the following text to the H&UDD.

“Power Development Department reiterated its commitment to support the plan of the HUDD to manage the problem of disposal of MSW by setting up a WtE Plant of 5MW capacity at Achan. As already conveyed, PDD agrees to purchase the power produced by the WtE plant at a price equivalent to the average pooled purchase price of power (about Rs. 3.09 per unit) plus the cost of the Renewable Energy Certificates (about Rs. 1.00 per unit). The differential amount (the price finalized by the H&UDD, reduced by Rs. 4.09 that the PDD is ready to pay) is to be decided and borne by the H&UDD, as the project is basically a municipal solid waste disposal project, and power production is only a welcome by-product thereof. The approval of Hon'ble Minister of H&UDD at NP 12 of the Departmental file also says that the differential cost shall be borne by the H&UDD. It may also be mentioned that the tariff will have to be adopted by the J&K SERC before signing the PPA, in terms of the J&K Electricity Act, 2010. The draft Cabinet Memo, particularly the draft proposal, may be amended appropriately by the H&UDD to reflect this course of action.”

Vide Government Order No. 255-HUD of 2017 dated 22/11/2017, the Commissioner, Srinagar Municipal Corporation was authorized to issue Letter of Intent (LOI) in favour of single bidder namely, M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd.), now an SPV namely, Syntech Bio-energy Pvt. Ltd., for establishment of 5MW capacity Waste-to-Energy Plant (disposal of waste) at landfill site Achan subject to following terms and conditions :

1. Establishment of Waste to Energy (WtE) plant (disposal of waste) at landfill site Achan, Saidapora, Srinagar shall be under Design, Finance, Build, Own, Operate and Transfer (DFBOOT) basis.
2. Srinagar Municipal Corporation will earmark the land at landfill site Achan Saidapora, Srinagar and provide same to proponent (bidder) for establishment of plant. However, the bidder shall have no

claim/right over the land provided to him by SMC for 5 years at the first instance.

3. The Power Development Department shall purchase the power to be generated from the WtE Plant during the operation period of the plant. The discovered rate/ tariff per unit has been approved as Rs. 7.65 per unit for a period of 25 years. However, the rates/tariff on which power shall be purchased will to be adopted by the J&K State Electricity Regulatory Commission before signing the Power Purchase Agreement in terms of J&K Electricity Act, 2010.
4. The SMC will get the PPA vetted from the Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with the bidder.
5. SMC will get the Concession Agreement vetted by Power Development Department and Law Department.

Vide No. SMC/SWM/2017/600-611 dated 11/12/2017, the SMC accordingly issued LOI to M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd.) for an integrated waste management facility including energy generation and value recovery from MSW for a capacity of 500 ± 125 MT/day, to be implemented on DFBOOT basis after a period of 25 years at Saidapora, Achan.

The Hon'ble National Green Tribunal vide order dated 12/12/2017 disposed of the original application with the direction that the project proponent shall be liable to pay environmental compensation at the rate Rs. 50000/- per day for a period of default in case he fails to establish the Waste to Energy Plant within 18 months after signing of Power Purchase Agreement (PPA) & Concession Agreement (CA).

Accordingly the draft PPA and CA were prepared, approved & vetted by J&K Housing & Urban Department, J&K Power Development Department, Law Department & Finance Department of the Government.

Vide No. SMC/COM/SWMO/1004-05 dated 24/5/2018, the Srinagar Municipal Corporation identified a patch of 10 acres of land on the west side of the dumping site Achan and handed over the possession of the said land to the Project Proponent, who has undertaken civil works by way of leveling of land etc. at site.

Vide Government Order No. 39 HUD of 2019 dated 23/1/2019, the change in nomenclature of M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd.) was approved to be M/S. Syntech Bio-energy Pvt. Ltd., a Special Purpose Vehicle (SPV).

Failure of Project Developer to sign agreement & submit BG:

Various letters have been addressed to the project developer for furnishing of BG for Rs. 5.00 Cr and execution of the contract. The developer has not complied and instead the project developer has linked the furnishing of performance security and signing of contract with the signing of Power Purchase Agreement. In one of project developers reply submitted vide no. SBPL/WTE/SMC/022 dated 01/01/2021 he has stated that:

“Regarding the performance bank guarantee issue against the Concession Agreement (CA), this activity can only be endorsed once the Tripartite Agreement the PPA is signed; so that the approved project cost is entertained. The commission will also certify our DPR and actual project cost at the time of tariff adoption. Unfortunately the PPA between the parties is not signed till date, then how can the project cost be established and vetted.”

The response further reads that:

“Syntech Bio-energy is ready to submit the PBG against execution of the CA anytime as and when SMC desires but only after the signing of the PPA and receiving compensation towards the land filling/earth works job under infrastructural activities done by Syntech Bio-energy on behalf of the SMC for the changed project site, which happens to be outside the scope of the tender”.

Issuance of Termination Notice of RFP:

Keeping in view the importance and urgency into the matter especially with regard to the directions by Hon'ble National Green Tribunal in the concerned OA No. 277 of 2013 titled Dr Irfan Ahmad & Ord v/s. Mr Nawang Rigzin Jora & Ors and failure of Project Developer to comply with the terms and conditions of the tender document, a Termination Notice was prepared with the PMU of H&UDD and shared with the Principal Secretary to Government, H&UDD for approval. After examination at Department level, the Principal Secretary sent the updated draft of the notice for issuance. Accordingly, vide No. SMC/SWMO/CSO/769-70 dated 22/12/2023, a notice for cancellation of the RFP/Bid Proposal floated vide

Tender ID No. 2017_HAUDD_39093_1 dated 11/12/2017 was issued to the project developer.

Response of the Project Developer:

Vide No. SBPL/WTE/SMC/025 dated 4/1/2024, the Project Developer has submitted a detailed reply, copy enclosed herewith, whereby trying to defend and putting the onus on Government.

Cancellation of Contract:

As the reply of Project Developer was found devoid from any merit and repeat of excuses with unwarranted claims was rejected. Vide No. SMC/PS/COM/877-884 dated 13/8/2024, the RFP/Bid Proposal floated vide Tender ID No. 2017_HAUDD_39093_1 and Letter of Intent/Acceptance issued vide No. SMC/SWM/2017/600-611 dated 11/12/2017 has been cancelled.

A clarification with regard to furnishing of Bank Guarantee:

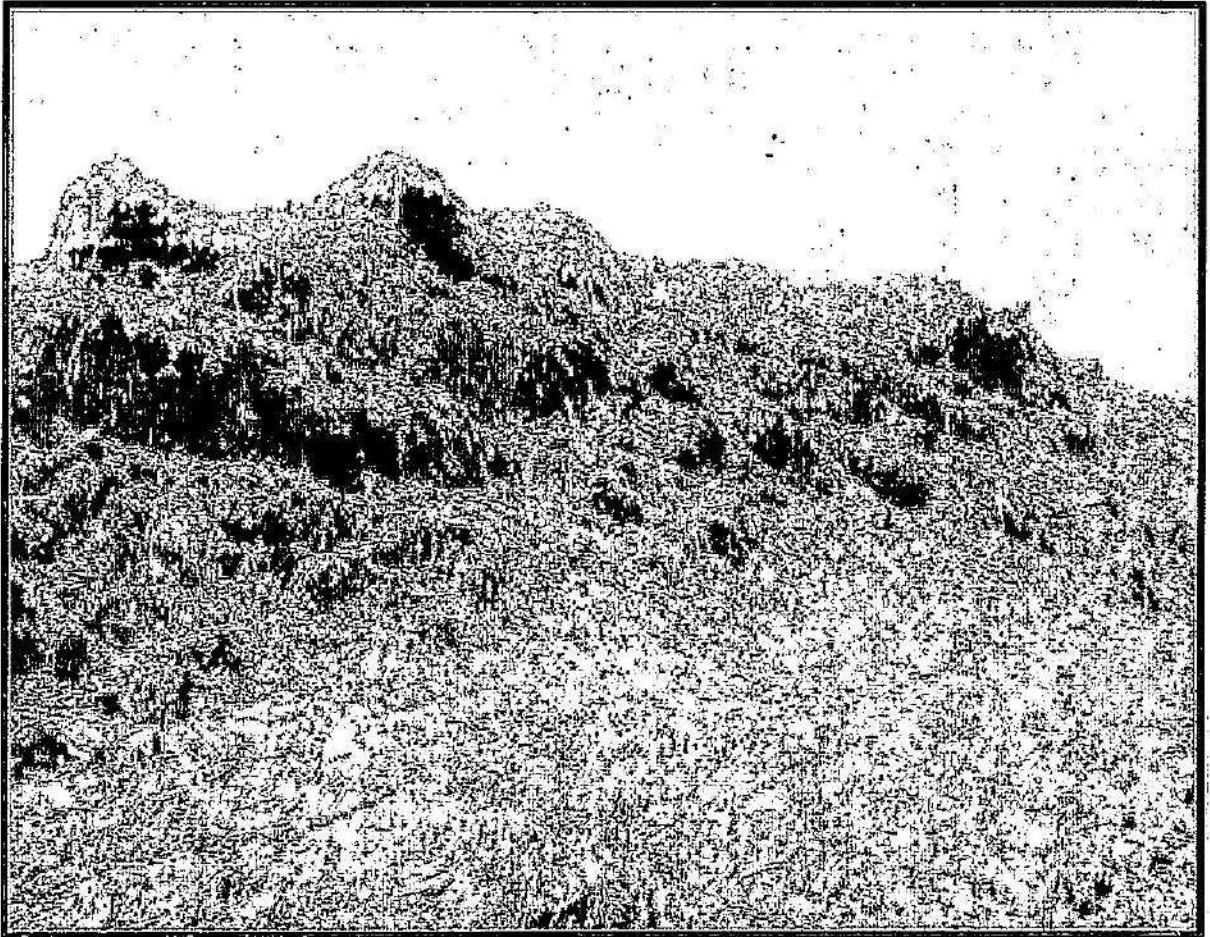
In a reply to a letter from Administrative Department bearing No. HUD/Plan/33/CSS/2014-II dated 8/2/2020, The Corporation vide No. SMC/COM/SWMO/2814-15 dated 8/2/2020 maintained that once the PPA is signed the bidder shall be asked to provide the performance Bank Guarantee to the tune of Rs. 5.00 Cr. This was an inter department communication and not intended for project developer. The Corporation afterwards vide communications requested the Project Developer to fulfill the formalities as stipulated in the tender document concerned including furnishing of Bank Guarantee worth Rs. 5 Cr. Some of the communications sent to the project developer asking for deposition of BG are as under:

- i) No: SMC/COM/SWMO/2883-85 dated 6/3/2020;
- ii) No: SMC/COM/SWMO/519-20 dated 23/11/2020
- iii) No: SMC/COM/SWMO/658-59 dated 30/12/2020;
- iv) No: SMC/COM/SWMO/687-88 dated 13/01/2021;
- v) No: SMC/COM/SWMO/1850-51 dated 28/4/2022 & so on.



DETAILED PROJECT REPORT (DPR)
For

BIO-MINING/BIO-REMEDIATION OF LEGACY WASTE DUMPED AT ACHAN



Report Prepared by:

Srinagar Municipal Corporation

Karan Nagar, Srinagar



Contents

| | |
|---|-----------|
| List of Table | 5 |
| List of Figure..... | 6 |
| Acronyms..... | 7 |
| General Terms & Definitions..... | 8 |
| 1 Executive Summary..... | 9 |
| 1.1 Introduction..... | 9 |
| 1.2 Project Background and Scope of work..... | 9 |
| 1.3 Overview of Project Area | 10 |
| 1.4 Summary and Conclusion..... | 10 |
| 2 Project Background | 10 |
| 2.1 General | 10 |
| 2.2 Project Appreciation | 11 |
| 2.3 Scope of Services | 11 |
| 2.4 Structure of the Report | 11 |
| 3 Socio-Economic Study | 13 |
| 3.1 City Profile..... | 13 |
| 3.2 Key Statistics | 14 |
| 3.3 Geography..... | 14 |
| 3.4 Climate | 15 |
| 3.5 Land Use..... | 18 |
| 3.6 Demographics | 21 |
| 3.7 Population trend | 21 |
| 3.7.1 Projection for Srinagar Municipal Corporation | 22 |
| 3.8 Settlements in the City/ Waste Generation Unit..... | 23 |
| 3.9 Administrative Set-up | 24 |
| 3.10 History..... | 24 |
| 3.11 Art and Culture..... | 25 |
| 3.12 Transport..... | 25 |
| 3.13 Economy..... | 27 |
| 3.13.1 Agriculture..... | 28 |
| 3.13.2 Tourism..... | 28 |
| 3.13.3 Industry..... | 32 |
| 4 Survey and Investigation | 33 |
| 4.1 Existing Scenario of Dumpsite..... | 33 |



| | | |
|--------|---|----|
| 4.1.1 | Site Details | 35 |
| 4.2 | Waste Quantification and Characterization..... | 36 |
| 4.2.1 | Waste Quantification..... | 36 |
| 4.2.2 | Waste Characterizations [Cell 1 & Cell 3]..... | 36 |
| 5 | Development Plan | 37 |
| 5.1 | Introduction | 37 |
| 5.2 | Selection of Technology..... | 37 |
| 5.3 | Bioremediation and Biomining of Old Municipal Dumpsites..... | 38 |
| 5.4 | Processing Equipment's for Processing of Legacy Waste | 42 |
| 6 | Process, Design & Cost Analysis | 44 |
| 6.1 | Process | 44 |
| 6.2 | Design & Analysis for Biomining Process | 46 |
| 6.3 | Cost Assessment..... | 47 |
| 7 | Summary of Cost Estimation for Biomining of Achan Site Srinagar is enclosed in the attached Excel sheet. | 48 |
| 8 | Model of Implementation | 48 |
| 8.1 | Execution Methods..... | 48 |
| 9 | Working Models | 48 |
| 10 | Standard Procedures for Operations..... | 49 |
| 10.1 | Use of Screened Fractions:..... | 49 |
| 10.2 | Space Management..... | 50 |
| 10.3 | Leachate Management..... | 50 |
| 10.4 | Fire Control and Safety..... | 50 |
| 10.5 | Use of Recovered Space | 51 |
| 10.6 | Bio-mining Below-Ground Waste | 51 |
| 10.7 | Environmental Risks and Environmental Management Plan | 52 |
| 10.8 | Environment Management Plan..... | 52 |
| 10.9 | Air Pollution Measures..... | 52 |
| 10.10 | Water Pollution Measures | 53 |
| 10.11 | Noise | 54 |
| 10.12 | Ecology of area | 54 |
| 10.13 | Green Belt Development..... | 54 |
| 10.14 | Solid Waste Disposal | 54 |
| 11 | Management Plans | 55 |
| 11.1 | Reporting Formats during Active Operation period | 55 |
| 11.1.1 | Weighment /Volume, Acceptance and Rejection of SWM..... | 55 |
| 11.1.2 | Leachate Collection and Removal System ("LCRS") | 55 |



| | | |
|--------|-------------------------------------|----|
| 11.1.3 | Environment Monitoring System | 55 |
| 11.1.4 | Reporting | 55 |



List of Table

| | |
|---|----|
| Table 3-1 Key Statistics | 14 |
| Table 3-2 Srinagar Rainfall Data for last 10 years | 16 |
| Table 3-3 Monthly variation of temperature in last 10 years | 17 |
| Table 3-4 Proposed Land use Breakup – Srinagar 2021 | 18 |
| Table 3-5 Proposed Land use Breakup – Srinagar 2035 | 19 |
| Table 3-6 Population Trends from Past years for SMC | 22 |
| Table 3-7 Population Projections for SMC | 22 |
| Table 4-1 Site Details | 35 |
| Table 5-1 Legacy Waste Composition | 41 |
| Table 5-2 Equipment Details for Bioremediation and Biomining | 42 |
| Table 6-1 Analysis of Bio-mining & Screening of Waste Dumped for Bio-remediation & Bio-mining of Legacy Waste at Achan Site | 46 |
| Table 6-2 Abstract of Cost for Bio-remediation & Bio-mining of Legacy Waste at Achan, Srinagar | 47 |
| Table 10-1 Pollutant & Mitigation Measures | 52 |



List of Figure

| | |
|--|----|
| Figure 3-1 Srinagar City Profile..... | 13 |
| Figure 3-2 Geographical features of the Srinagar city..... | 15 |
| Figure 3-3 Land Use details – year 1942..... | 20 |
| Figure 3-4 Land Use details – year 1959..... | 20 |
| Figure 3-5 Srinagar Land Use profile - 2035..... | 21 |
| Figure 3-6 Administrative set-up of SMC..... | 24 |
| Figure 3-7 Silk and Embroidery Work..... | 25 |
| Figure 3-8 Moulana Azad road (M.A. Road)..... | 26 |
| Figure 3-9 Srinagar International airport..... | 26 |
| Figure 3-10 Srinagar Railway station..... | 27 |
| Figure 3-11 Boating activities..... | 27 |
| Figure 3-12 Chashma Shahi..... | 28 |
| Figure 3-13 Badamwari garden..... | 29 |
| Figure 3-14 Nigeen lake..... | 29 |
| Figure 3-15 Dal Lake..... | 29 |
| Figure 3-16 Hari Parbat Fort..... | 30 |
| Figure 3-17 Dachigam National Park..... | 30 |
| Figure 3-18 Harwan Garden..... | 30 |
| Figure 3-19 Tulip Garden..... | 31 |
| Figure 3-20 Botanical Garden..... | 31 |
| Figure 3-21 Pari Mahal..... | 31 |
| Figure 3-22 Nishat Bagh..... | 32 |
| Figure 3-23 Shalimar Garden..... | 32 |
| Figure 4-1 Existing Dumpsite..... | 33 |
| Figure 4-2 Fine compost screening Shed..... | 34 |
| Figure 4-3 Existing Fresh Processing Plant..... | 34 |
| Figure 4-4 Existing 130 KLD Septage Treatment Plant..... | 35 |
| Figure 5-1 Capping V/S Bioremediation & Biomining..... | 38 |
| Figure 5-2 Bioremediation of Legacy Waste..... | 39 |
| Figure 5-4 Waste Stabilizations..... | 40 |
| Figure 10-1 Byproduct distribution..... | 49 |



Acronyms

| | | |
|-------|---|---|
| BOQ | : | Bill of Quantities |
| BOT | : | Build Operate Transfer |
| CapEx | : | Capital Expenditure |
| CBO | : | Community Based Organization |
| CPCB | : | Central pollution Control Board |
| C&D | : | Construction and Demolition Waste |
| DPR | : | Detail Project Report |
| GoI | : | Government of India |
| HPC | : | High Power Committee |
| IEC | : | Information, Education and Communication |
| MT | : | Metric Tones |
| MoUD | : | Ministry of Urban Development |
| MSW | : | Municipal Solid Waste |
| MSWM | : | Municipal Solid Waste Management |
| NGO | : | Non-Governmental Organization |
| NH | : | National Highway |
| O&M | : | Operation and Maintenance |
| RNP | : | Ramgarh Nagar Parishad |
| CBR | : | Cantonment Board Ramgarh |
| PPP | : | Public Private Partnership |
| RWA | : | Resident Welfare Association |
| RFID | : | Radio Frequency Identification |
| SMC | : | Srinagar Municipal Corporation |
| SBM | : | Swatch Bharat Mission |
| SH | : | State Highway |
| SHG | : | Self-Help Group |
| SLF | : | Sanitary Landfill Facility |
| TPD | : | Tons per Day |
| MT | : | Metric Ton |
| ULB | : | Urban Local Body |
| WPF | : | Waste Processing Facility |
| WPSLF | : | Waste Processing & Sanitary Landfill Site |



General Terms & Definitions

1 Executive Summary

1.1 Introduction

Solid Waste Management (SWM) is an organized process of storage, collection, transportation, processing, treatment and safe disposal of solid refuse residuals in an engineered sanitary landfill. It is an integrated process comprising several collection methods, varied transportation equipment, storage, recovery mechanisms for recyclable material, treatment and reduction of waste volume and quantity by methods such as bio-methanation (waste-to-energy), composting, refuse-derived fuel (RDF), waste-to-energy, and disposal in a designated engineered sanitary landfill. The selection of a suitable SWM process is driven by the source and quality of waste produced. Solid waste is generated from several sources which include households (kitchen and yard), commercial areas (shops, hotels and restaurants), industries (raw material and packaging), institutions (schools, hospitals and offices), construction and demolition sites, waste from the slaughter house, manure, parks (fallen branches, leaves from trees), and streets (sand, silt, clay, concrete, bricks, asphalt, residues from air deposition, and dust) Waste Disposal is one of the major problems being faced the world over and India is no exception. Management of Solid Waste, though an essential service, is given low priority. This, coupled with lack of financial resources, institutional weakness, improper choice of technology & rapid urbanization, whose ramifications are more pronounced with an uncontrolled growth rate of population, has made this service far from satisfactory, thus creating serious environmental and health problems.

1.2 Project Background and Scope of work

Accumulation of solid waste in open areas is an eyesore, diminishing real estate and property value, a breeding ground for insects, and other vectors (rats and mice, wild and domesticated animals). It also causes odour nuisance, reflects the unorganized nature of the community and creates a poor environment for growing children. Improper and unorganized disposal of Municipal Solid Waste (MSW) in open areas and landfills harm the living conditions of human beings as well as the overall environment. It results in the spread of communicable and non-communicable diseases among human beings and animals, thus affecting welfare, livelihood, and economic productivity. In addition, it causes contamination of soil, surface water, groundwater and the generation of toxic and greenhouse gases. However, using adequate information, resources, and efficient management practices, one can turn solid waste into a useful resource.

Management of solid waste is of growing concern to the general public at large, local authorities and business communities in cities and towns across India. The problem is exacerbating in urban areas due to rapid strides in population growth, coupled with an economic boom that encourages the consumption of goods and hence, wastes generation. As per Census 2001, the urban population accounts for 28 % of the total population.

The Local Governing Bodies (LGBs) and municipalities are responsible for providing SWM services in the urban areas. In most urban areas, insufficient funds, use of obsolete/inefficient technologies, lack of awareness, and improper infrastructure has resulted in a state of poor management of solid waste.



1.3 Overview of Project Area

The Srinagar Municipal Corporation (SMC) is working diligently in the field to ensure integrated and scientific solid waste management. The municipal boundary covers a total area of 294 Sq. kms which is divided into 74 Electoral Wards which is further clubbed into 35 Administrative Wards. The total road length within the jurisdiction is 1084 kms. As per the Census 2011, the total population of the city is 11.92 Lakhs. The average waste generation is about 0.4 kg/capita out of which 30-50% waste is bio-degradable.

The waste is been collected from households by door-to-door collection using a system of carts, hoppers, compactors and trucks. All collected waste is transferred to the sanitary landfill site located at Achan. Resource recovery is done for about 25% of the total quantity of waste, but most of it is dumped in to the scientifically designed landfill cells.

The details of Landfill site at Achan is given below:

- **Landfill Cell No. 1:** spread over an area 40 Kanals of land, was operational from the year 2011 to 2013. The Cell has been close and capped. Nearly 1.80 lac MTs of waste is dumped in the Cell.
- **Landfill Cell No. 2:** Spread over an area of 60 Kanals of land, was operational from 2013 to 2017. The cell has been temporarily capped and has been put to operation again. 8.00 lac MTs of waste is dumped in the cell.
- **Landfill Cell No. 3:** Spread over an area of 30 Kanals of land was operational from Sept. 2017 to Sept. 2018. The cell is permanently capped. 2.00 Lac MTs of waste is dumped in the Cell.

1.4 Summary and Conclusion

2 Project Background

2.1, General

Srinagar, the summer capital and the largest city of the Union Territory of Jammu and Kashmir (J&K) in India, is a symbol of ancient values and present aspirations. It lies at an average elevation of about 1586 m above M.S.L. on the banks of the Jhelum River, a tributary of the Indus, Dal and Anchar lakes. The city is famous for its gardens, waterfronts & houseboats and receives a large number of domestic and foreign tourists throughout the year.

The population of the Srinagar Master Plan area as per Census 2011 was 11.8 Lakh (excluding the overhead population of around 3 lakh which includes the Defense forces, Service and Darbar Move population). Large-scale urbanization and rapid growth of population and increase in tourism have laid severe stress on the solid waste management in Srinagar city.

Rapid urbanization and increase in tourism have led to over-stressing urban infrastructure services including Municipal Solid Waste Management because of poor resources and inadequacies of the existing systems. Augmentation of the Solid Waste Management facilities and their operation & maintenance in a sustainable manner by urban local bodies would require proper systematic



planning, capital investment, introduction of latest technologies which are cost effective. This urbanization and increased tourism in Srinagar have put pressure on Urban Local Bodies and Municipal Administration to look at Municipal Solid Waste Management (MSWM) efficiently.

2.2 Project Appreciation

Municipal Solid Waste Management (MSWM) refers to a systematic process that comprises waste segregation and storage at source, primary collection, secondary storage, transportation, secondary segregation, resource recovery, processing, treatment, and final disposal of solid waste. Municipal Solid Waste management is important as it impacts the health, environment and aesthetics of the society, if not managed properly. Municipal Solid Waste Management involves the application of the principle of Integrated Solid Waste Management (ISWM) to municipal waste. ISWM is the application of suitable techniques, technologies and management programs covering all types of solid wastes from all sources to achieve the twin objectives of (a) waste reduction and (b) effective management of waste still produced after waste reduction.

2.3 Scope of Services

In terms of improving the solid waste management facility of Srinagar, SMC has decided to implement Bioremediation and Biomining of Municipal Solid Waste. The main objectives of the implementation of Bioremediation and Biomining of Municipal Solid Waste will be to provide:

- Estimation of waste and area occupancy
- Preparing the Bioremediation & Biomining Standard operational procedures.
- Recommend a bio remediation process including process flow, technology and equipment required, quantity of compost that can be recovered etc.
- Prepare Estimates and DPR for conducting bio remediation including time line, vehicles, machineries and human resources required
- Estimating capital investment (capex) and operating cost (opex)

2.4 Structure of the Report

This document presents Detailed Report on Bioremediation and Biomining of Municipal Solid Waste in Srinagar city. This report documents the project activities, the observations of the study area in coherence with the Terms of Reference/ Scope of work and recommendations regarding improvements.

The Report Structure is given below:

- Chapter 1 – Executive Summary
- Chapter 2 – Project Background
- Chapter 3 – Socio-Economic study



- Chapter 4 – Survey and investigation
- Chapter 5 – Development plan
- Treatment Process
- Chapter 6 – Cost Estimate

3 Socio-Economic Study

3.1 City Profile

Srinagar City is the summer capital of the UT of Jammu and Kashmir which is the northern part of most of India. Srinagar is famous for its pleasant weather, lakes, canals, houseboats and Mughal gardens and attracts large number of tourists across the globe. The city is located in the Kashmir valley region in the Himalayan ranges. There are various tourist attractions located nearby like Gulmarg, Sonmarg, Pahalgam, Amaranth etc. Srinagar is the hub for all the tourists to arrive and stay while visiting these places.

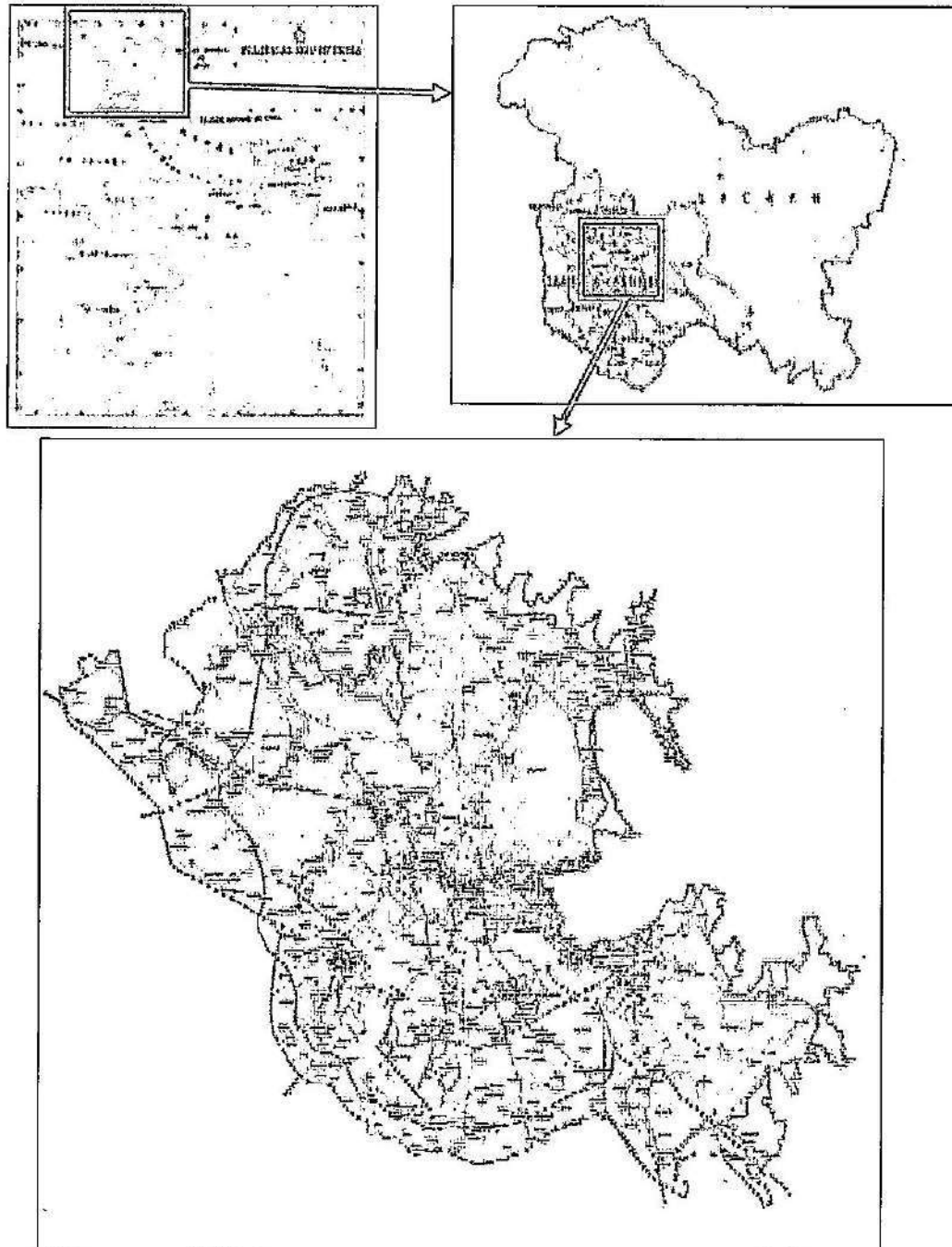


Figure 3-1 Srinagar City Profile

From the location point of view, Srinagar is situated at center of bowl-shaped Kashmir valley having North Kashmir in its left side and South Kashmir in right side and also has



good accessibility from both sides, from North as well as from South side. The city as well as its hinterland is encircled by the natural wall of mountains (the sub-mountain branches of the Pir Panjal range) whose height varies from 1800 to 4300 meters above the mean sea level.

The city is located at about 850 kms north to New Delhi, the capital city of India. The closest important city to Srinagar is the city of Jammu which is also the winter capital of the UT and is located at about 300 km. The city is well connected by air transit with frequent flights from New Delhi and Jammu.

3.2 Key Statistics

The key statistics of the Srinagar city is depicted in the following table 3-1.

Table 3-1 Key Statistics

| | |
|-------------------|---------------------------------|
| Country | India |
| State/UT | Union Territory of J&K |
| City Area | 246 sq.km |
| City population | 12.73 Lakh (2011 census) |
| Elevation | 1586 meters above sea level |
| Official language | Urdu, Kashmiri, English , Hindi |

(Source: - Srinagar Municipal Corporation Website)

3.3 Geography

The valley of Kashmir is distinctly marked by lakes, streams, luscious fruits, magnificent forests and mighty mountains; the features which contribute to the making of valley a paradise on earth. Situated in the lap of the Himalayas the green fertile valley of Kashmir is guarded by a long chain of mountains with an average height of about 1828.8 meters above the sea level. The general aspect of the valley is that of a basin, surrounded on every side, by a range of lofty mountains and with it is extensive tract alluvial soil water by the Jehlum and its various tributaries which flow down from the mountains and are fed by the heavy snow and rain falling in the elevated regions. The valley resembles a gem set in the casket of the everlasting Himalayas. The physiography of Kashmir can be studied with three major physical divisions plain, plateau and mountains.

The city is located on both the sides of the Jhelum River, which is called Vyath in Kashmir. The river passes through the city and meanders through the valley, moving onward and deepening in the Wular Lake. The city is known for its nine old bridges, connecting the two parts of the city.

There are a number of lakes and swamps in and around the city. These include the Dal, the Nigeen, the Anchar, Khushal Sar, Gilsar and Hokersar.

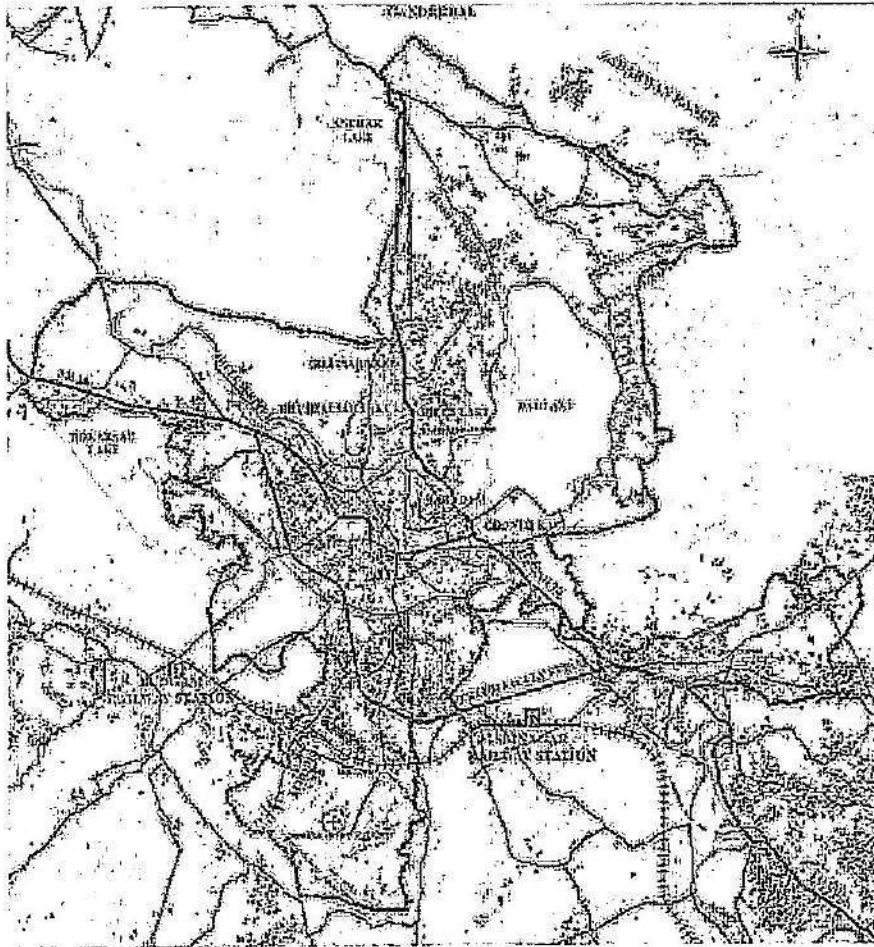


Figure 3-2 Geographical features of the Srinagar city

3.4 Climate

Srinagar has a humid subtropical climate. The valley is surrounded by the Himalayas on all sides.

The climate of the district is more or less similar to that of other districts of the valley. Areas situated at higher altitudes experience severe cold for major part of the year and are not accessible for more than few months.

The winter season lasts from December to February. January is the coldest month and generally the temperature goes down below the freezing point.

The hottest months are June, July and greater part of August during which the temperature goes on rising gradually. High temperature with high humidity make the weather very oppressive except at health-resorts, where the cold breeze blows from dense forests and makes the weather pleasant.

Winters are cool, with daytime temperature averaging to 2.5°C (36.5°F), and drops below freezing point at night. Moderate to heavy snowfall occurs in winter and the highway connecting Srinagar with the rest of India faces frequent blockades due to icy Roads and avalanches. Summers are warm with a July daytime average of 24.1 °C (75.4 °F). The average annual rainfall is around 720 millimeters (28 in). Spring is the wettest season while autumn is the driest. The highest temperature reliably recorded is 38.3 °C (100.9 °F) and the lowest is -20.0 °C (-4.0 °F).



The humidity is very low in the morning throughout the year. It is 40 per cent during December to February which is said to be maximum. The highest humidity 90 per cent is recorded during May-June.

The average annual rainfall is around 720 millimetres (28 in). The Rainfall details for past 10 years are shown in the following table.

Table 3-2 Srinagar Rainfall Data for last 10 years

| Year | No. of Rain days | Total Rainfall in mm |
|------|------------------|----------------------|
| 2011 | 57 | 64.1 |
| 2012 | 88 | 543.5 |
| 2013 | 88 | 689.9 |
| 2014 | NA | 892.9 |
| 2015 | 121 | 1154.7 |
| 2016 | 80 | 514.9 |
| 2017 | 111 | 739 |
| 2018 | 87 | 571.8 |
| 2019 | 101 | 949.3 |

(Source - Digest of Statistics - 2018-19)

Table 3-3 Monthly variation of temperature in last 10 years

| S.No. | Month | Years | | | | | | | | | | | | | | | | | |
|-------|-----------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | | | | | | | | | |
| 1 | January | 7.9 | -2.7 | 4.8 | -3.1 | 7.8 | -2.2 | 5.5 | -1.4 | 11.2 | -2 | 10.5 | -1.4 | 4.2 | -2 | 11.4 | -3.6 | 5.2 | -1.7 |
| 2 | February | 9.5 | 1.5 | 9.7 | 0.2 | 10.8 | 0.9 | 9.9 | 0.5 | 10.3 | 1.4 | 14.9 | 0.4 | 11.3 | 1.1 | 13.1 | 0.8 | 8.4 | -0.3 |
| 3 | March | 17.1 | 3.9 | 16.2 | 4.3 | 18.3 | 5.4 | 12.3 | 3.4 | 12.5 | 3.7 | 15.9 | 4.3 | 15.4 | 4.2 | 19.2 | 5.3 | 14.5 | 3.5 |
| 4 | April | 18.6 | 7 | 19.9 | 8.2 | 20 | 8.3 | 19 | 7.7 | 20.4 | 8.9 | 19.5 | 8.2 | 20.5 | 8.1 | 22.1 | 8.6 | 22.5 | 9.3 |
| 5 | May | 27.7 | 12.6 | 23.8 | 10.1 | 24.9 | 11.4 | 23.9 | 11.3 | 24.3 | 11.6 | 26.3 | 12.3 | 26.1 | 12.3 | 25 | 10.9 | 23.8 | 10 |
| 6 | June | 30.3 | 16.7 | 27.4 | 14.1 | 29.4 | 16.9 | 29.4 | 15.2 | 25.7 | 14.2 | 30.3 | 16.6 | 27.4 | 15 | 28.4 | 15.2 | 26.4 | 12.9 |
| 7 | July | 29.8 | 18.3 | 30.9 | 18.6 | 31.1 | 19.3 | 30.4 | 19.2 | 29.7 | 19 | 30.1 | 18.5 | 30.5 | 19 | 29.1 | 18.1 | 30.3 | 18.4 |
| 8 | August | 30.1 | 18.1 | 29.9 | 19.1 | 28.8 | 19.3 | 29.3 | 16.9 | 29.8 | 18.3 | 27.8 | 17.4 | 30.4 | 17.5 | 30.5 | 18.3 | 29.5 | 17.5 |
| 9 | September | 27.8 | 14.1 | 26.3 | 14.5 | 27.6 | 13.9 | 24.8 | 13.7 | 26.7 | 12.7 | 28.3 | 13.1 | 28.9 | 12.7 | 27.8 | 13.1 | 30.5 | 14.5 |
| 10 | October | 22.3 | 6.9 | 21.2 | 5.8 | 24.4 | 9.7 | 21.8 | 8.7 | 21.8 | 7.8 | 24.7 | 6.4 | 25.4 | 6 | 21.6 | 4.9 | 22 | 7.1 |
| 11 | November | 15.7 | 2.8 | 16.8 | 1.6 | 15.9 | 0.6 | 14.8 | 2 | 11.2 | NA | 15.9 | 0.4 | 16.2 | 1.1 | 12.5 | 1.7 | 10.6 | 3 |
| 12 | December | 10.4 | -1.9 | 9 | -0.4 | 10.7 | -1.4 | 10.7 | -2.6 | NA | NA | 11.2 | -3.2 | 10.6 | -1.6 | 9.6 | -3.5 | 7.5 | -2.4 |

NA: Not Available

Source: Regional Meteorological Centre, Srinagar



3.5 Land Use

The Land use plan narrates the larger distribution of land in the city of Srinagar. The proposed land use distribution from Master Plan – 2021 to Master Plan 2035 shows major increase in the existing built up, residential and traffic & transportation, whereas for other activities there is very marginal increase. The total developed area is proposed to increase from 28357.3 Ha in 2021 to 31171 Ha in 2035.

The proposed land use distribution clearly suggests thrust on the development of residential areas and a continued thrust on commercial development to boost the local economy. Transport continues to occupy a significant share of the land in the city. The land-use plan as per Master Plan 2035 is shown in Figure 0.4.

With regards to the land use of developed area and 2035, about 53.3% of area is categorized as residential in 2021 and about 64.88 in 2035. The proportion of commercial and industrial land use constitutes 2.1% and 3.4 % respectively in 2021.

For traffic and transportation in 2021 is about 6.2 % and in 2035 increased to 15.63. A proposed land use breaks up of Srinagar Master Plan 2021 & 2035 are given in Table 8 & Table 9.

Table-3-4 Proposed Land use Breakup - Srinagar 2021

| S.No. | Land use | Area (Ha) | Percentage |
|-------|---|----------------|--------------|
| 1 | Residential | 15112.3 | 53.3 |
| 2 | Commercial | 601.3 | 2.1 |
| 3 | Industrial/ Manufacturing | 959.8 | 3.4 |
| 4 | Public And Semi Public | 2158.4 | 7.6 |
| 5 | Public And Semi Public | 1601.9 | 5.6 |
| 6 | Administrative | 556.5 | 2.0 |
| 7 | Tourism | 405.6 | 1.4 |
| 8 | Traffic & Transportation | 1753.5 | 6.2 |
| 9 | Parks/ Playground/ Open Space | 2853 | 10.1 |
| 10 | Defence | 2355 | 8.3 |
| | Total Developed (A) | 28357.3 | 100.0 |
| 11 | Agriculture & Allied | 9687.5 | 62.8 |
| 12 | Forest, Wildlife, Water Bodies & Wetlands | 5657.1 | 36.7 |
| 13 | Floating Gardens | 71 | 0.5 |
| | Total Undeveloped (B) | 15415.6 | 100.0 |



| S.No. | Land use | Area (Ha) | Percentage |
|-------|-------------------|-----------|------------|
| | Grand Total (A+B) | 43772.9 | |

Table-3-5 Proposed Land use Breakup - Srinagar 2035

| S.No. | Land use | Area (Ha) | Percentage |
|-------|----------------------------|-----------|------------|
| 1 | Residential | 20225 | 64.88 |
| 2 | Commercial | 450 | 1.44 |
| 3 | Industrial & Manufacturing | 596 | 1.91 |
| 4 | Public And Semi Public | 2475 | 7.94 |
| 5 | Traffic & Transportation | 4873 | 15.63 |
| 6 | Tourism | 260 | 0.83 |
| 7 | Leisure & Sports | 1820 | 5.84 |
| 8 | Defence | 472 | 1.51 |
| | Total Developed (A) | 31171 | 100.00 |
| 9 | Ecology & Environment | 12617 | 27.74 |
| 10 | Ecological Reserve | 7841 | 17.24 |
| 11 | Agriculture & Allied | 21015 | 46.21 |
| 12 | Special Areas | 4004 | 8.80 |
| | Total Undeveloped (B) | 45477 | 100.00 |
| | Grand Total (A+B) | 76648 | |

Source: Master plan Srinagar 2035 (Table 4.1)

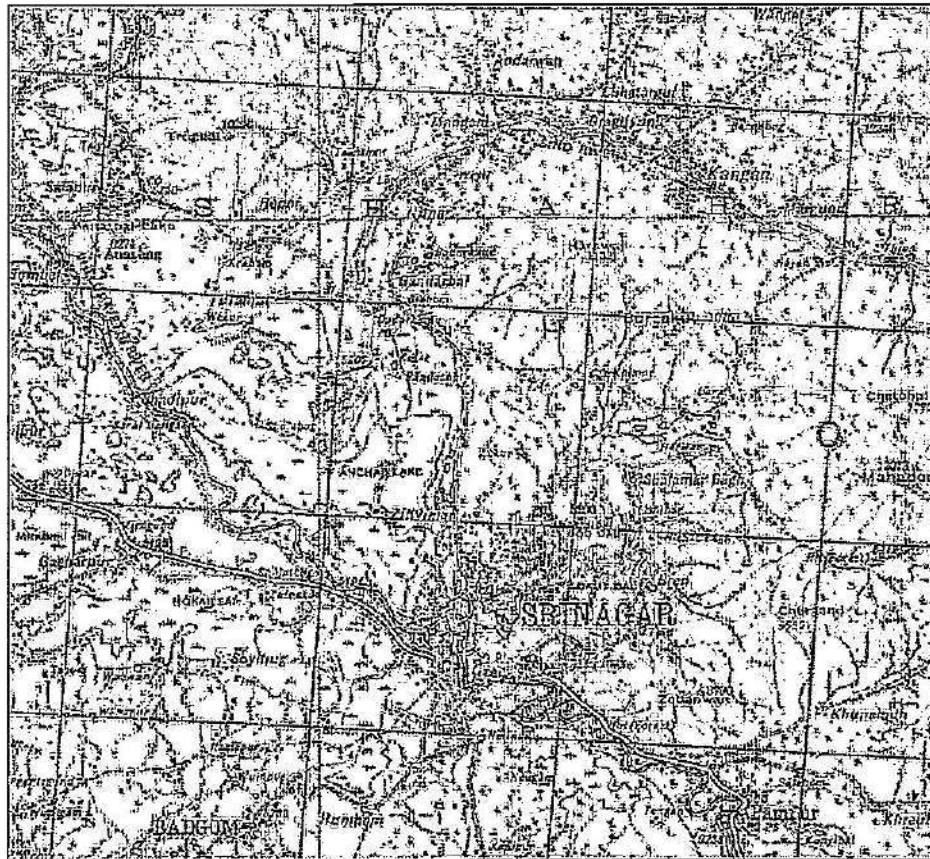


Figure 3-3 Land Use details - year 1942



Figure 3-4 Land Use details - year 1959

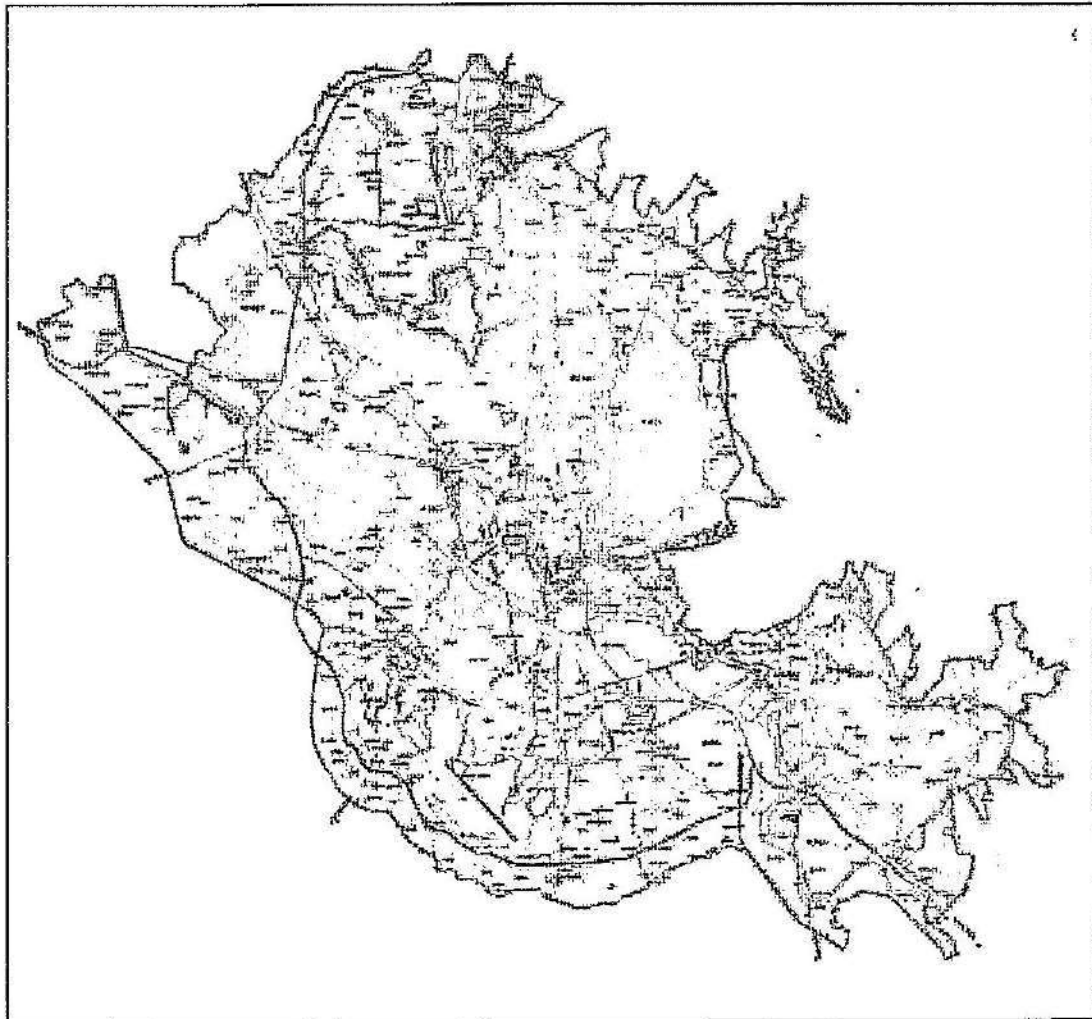


Figure 3-5 Srinagar Land Use profile - 2035

3.6 Demographics

As of 2011 census Srinagar urban agglomeration had population of 1,273,312. Both the city and the urban agglomeration has average literacy rate of approximately 70%. The child population of both the city and the urban agglomeration is approximately 12% of the total population. Males constituted 53.0% and females 47% of the population. The sex ratio in the city area is 888 females per 1000 males, whereas in the urban agglomeration it is 880 per 1,000. The predominant religion of Srinagar is Islam with 96% of the population being Muslim. Hindus constitute the second largest religious group representing 2.75% of the population. The remaining population constitutes Sikhs, Buddhist and Jains. There are about 1.78 lakh households in the city. The population density of Srinagar city is about 4407 per km².

(Source: District Census Handbook 2011)

3.7 Population trend

Srinagar Municipal Corporation's (SMC) precursor dates back to year 1886, when municipal committees were set up for Srinagar city and Jammu city under J&K Municipal act No. 16 in 1886, by monarchy during pre-independence era. Since then, Srinagar city had seen

continuous changes in its city limits. Owing to changes in city limits, immigration etc. trends of increasing population were observed in SMC and are tabulated as below.

Table 3-6 Population Trends from Past years for SMC

| Year | Population of SMC | Decadal Growth | Decadal Growth rate |
|------|-------------------|----------------|---------------------|
| 1991 | 787000 | | |
| 2001 | 1027670 | 240670 | 0.306 |
| 2011 | 1127340 | 99670 | 0.097 |
| 2021 | 1465069 | 337729 | 0.3 |

In the year 2016 jurisdiction of Srinagar Municipal Corporation limits were further extended and reshaped to form 74 Electoral & 35 Administrative wards with total area of 227.34 Km².

3.7.1 Projection for Srinagar Municipal Corporation

Considering current trend of population growth, population for upcoming years is forecasted considering annual growth rate of 3.9%. Similarly, number of households are calculated considering 5 persons per household. Following table excerpts the population projection for SMC at interval of 5 years.

Table 3-7 Population Projections for SMC

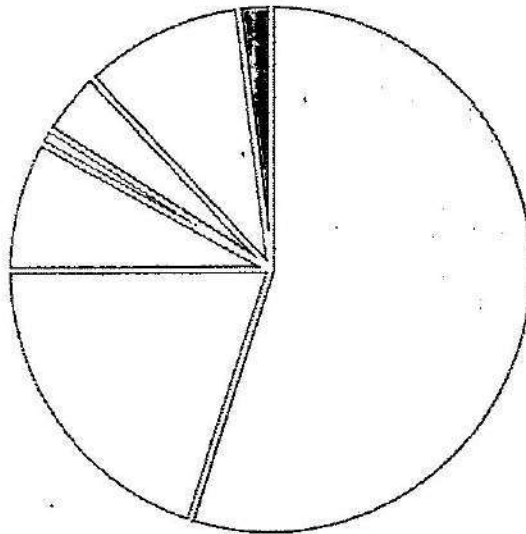
| Year | No. of Households | Population |
|------|-------------------|------------|
| 2021 | 309277 | 1546383 |
| 2026 | 373749 | 1868745 |
| 2031 | 451661 | 2258306 |
| 2036 | 545815 | 2729077 |
| 2041 | 659597 | 3297985 |
| 2046 | 797098 | 3985489 |
| 2051 | 963262 | 4816311 |

3.8 Settlements in the City/ Waste Generation Unit

| S. No. | Sources of MSW Generation | Percent | Quantity of Waste (TPD) |
|--------|---------------------------|-------------|-------------------------|
| 1 | Households | 55% | 341 |
| 2 | Shops & Establishments | 20% | 124 |
| 3 | Street Sweeping | 8% | 49.6 |
| 4 | Lakes | 1% | 6.2 |
| 5 | Markets | 4% | 24.8 |
| 6 | Hotels/Restaurants | 10% | 62 |
| 7 | Others | 2% | 12.4 |
| | | 100% | 620 |

Source: Survey done by Srinagar Municipal Corporation

Waste Generation contributor



- ▣ Households
- ▣ Shops & Establishments
- ▣ Street Sweeping
- ▣ Lakes
- ▣ Markets
- ▣ Hotels/Restaurants
- ▣ Others

3.9 Administrative Set-up

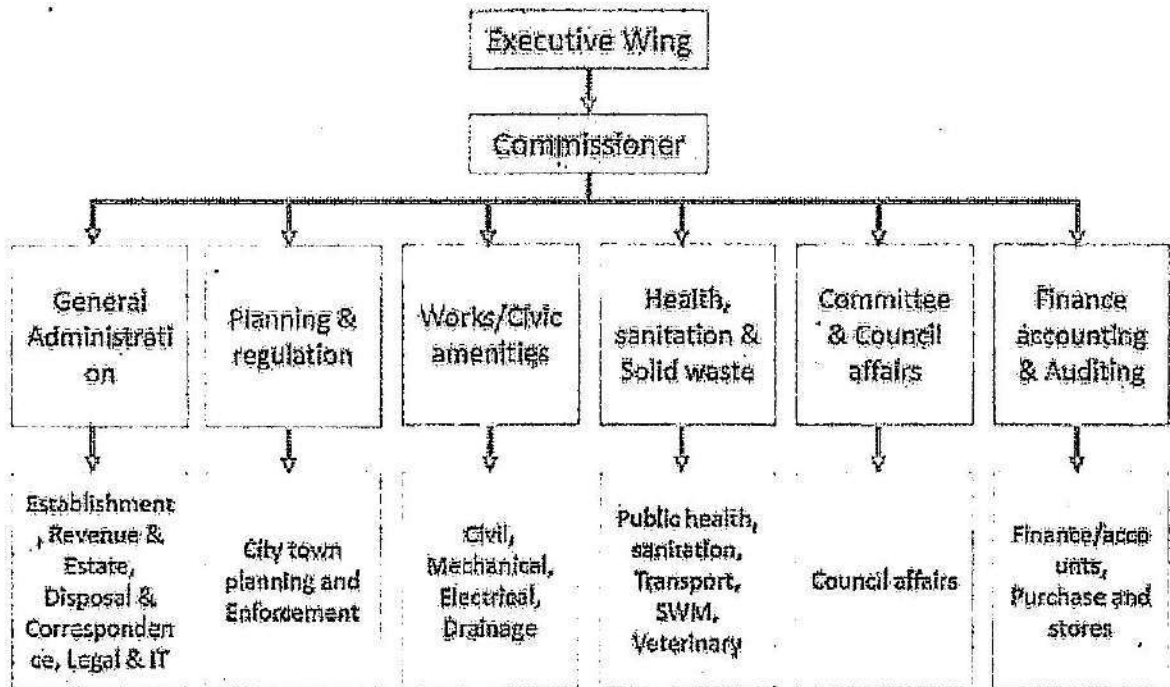


Figure 3-6 Administrative set-up of SMC

3.10 History

The first account of the spatial history of Srinagar—starting from the city of Srinagari founded by Ashoka in 250 BC at the present village of Pandrethan in the east of Takht-i-Sulaiman Hill or Shanker Acharya Hill—is available in Kalhan’s Rajatarangini. Srinagari remained the capital of Kashmir till the middle of sixth century AD when a new city—Pravarapura—was founded by Parvarasen II near the Hari Parbat Hill also Known as Kohi Maran. The city extended along the right bank of the river Jhelum. With the passage of time, Paravarapura assumed the old name Srinagari.

The city of Srinagar during the Muslim rule (1320-1819) became Kashmir or Shahr-i-Kashmir with the name also used by western travellers Bernier and Desideri. Srinagar during this period underwent significant changes but the geographic position of Parvarasen’s city remained unaltered. Rinchan—the first Muslim ruler—founded Rinchapora building the first mosque followed by Allauddin who founded Allaudinpora—between Jamia Masjid and Ali Kadal. Shahabuddin again selected Hariparbat for his capital followed by Qutbuddin who persisted with Srinagar, founded Qutbuddinpora also making Khanqahimualla as the centre for Islamic teaching. Sultan Sikander built a mosque at the place making it the centre for political and religious activities. Sultan Zain-ul-Abdin built Zaina Kadal and founded a new city—Nau Shahahr. The Mar Canal built by him remained until recently the main artery of communication between Srinagar city and the villages near Dal Lake—the production centres. He was responsible for introducing new industries – shawl, carpet, silk, paper machie, paper, wood carving Namda and Gabha—making Srinagar famous in the Central Asia.



After several centuries with the advent of Sikhs in 1819 Kashmir again assumed the name Srinagar. Srinagar became part of his kingdom and remained until 1947 as one of several private states in India, Presently Srinagar is the summer capital city of Indian UT of Jammu and Kashmir.

3.11 Art and Culture

When it comes to the culture of Srinagar means, it is just speechless. People here are very generous and friendly in inviting guests from all over the world with their sweet and humble gestures. The history, dressing style, language, delicious cuisines, and music everything here address the greatness and uniqueness of Srinagar culture. Especially in arts and crafts, you can see the immense respect and prominence of the culture living.

Arts and crafts are the primary things that carry culture to an infinite extent. Every region will be familiar with their respective unique arts and crafts. In this case, Srinagar is famous for its beautiful handicraft items and different art forms of dance, music, literature, paintings, etc. Particularly, the handicrafts of Srinagar are the best showcases of culture and tradition. Various traditional handicrafts such as Pashima shawls, Bamboo works, Wood carvings, Wall hangings, Kashmiri carpets, Chain stitch embroidery, Woolen garments, etc many other crafts of Srinagar are very attractive and impressive.



Figure 3-7 Silk and Embroidery Work

3.12 Transport

Srinagar city is connected with Jammu and rest of India. National highway - 1a connects Ambala to Srinagar via Jammu. Srinagar is also well connected by air and laying of railway track is in progress. Transportation system of Srinagar city is characterized by radial form of development with east-west and north-south corridors forming major radials and national highway bypass is the only bypass. 43% of the arterial and sub arterial road network within the town has carriage way width less than 7.0 m. 32% of the road length has carriageway width of 7.0 m, while 25% of the road has carriage way width of more than 7.0 m. Srinagar city like any other historical city has very complex road network.

Road:

The city is served by many highways, including NH 1a and NH 1d. There are many major junction and localities which are well connected to the each other by major roads. Major roads are M A road, residency road etc.

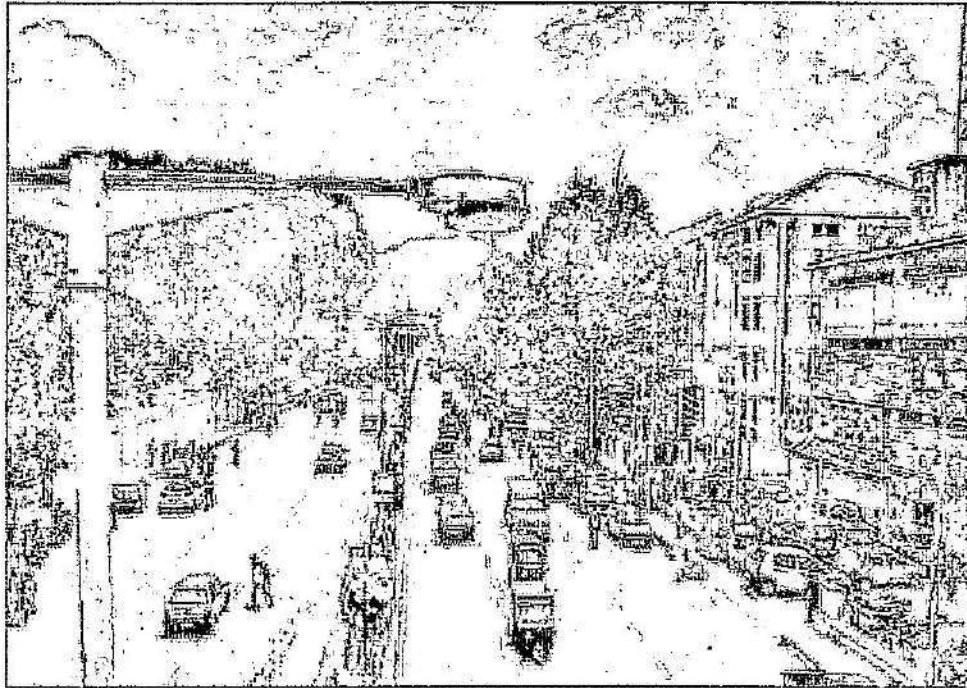


Figure 3-8 Moulana Azad road (M.A. Road)

Srinagar international airport has regular domestic flights to Leh, Jammu, Chandigarh, Delhi and Mumbai and occasional international flights. An expanded terminal capable of handling both domestic and international flights was inaugurated on 14 February 2009 with air India express flights to Dubai. Hajj flights also operate from this airport to Saudi Arabia.



Figure 3-9 Srinagar International airport

Rail:

Srinagar railway station or Nowgam railway station is a railway station of the city of Srinagar in the Indian union territory of Jammu and Kashmir. The station is part of the Jammu-Baramulla line, which once completed, will connect the city to the rail network of India. Currently, services are to Baramulla and Banihal. The railway line once fully

completed is expected to increase tourism and travel to the Kashmir Valley. The work of last leg Chenab Bridge is in final stages and is expected to be completed by 2021.

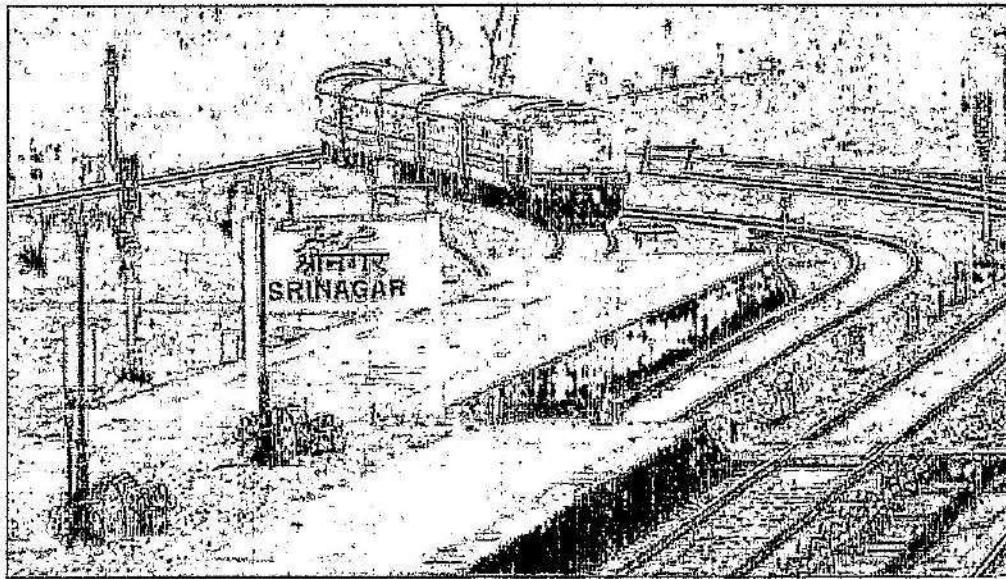


Figure 3-10 Srinagar Railway station

Boat:

Whilst popular since the 7th century, water transport is now mainly confined to dal lake, where shikaras (wooden boats) are used for local transport and tourism. There are efforts to revive transportation on the river Jhelum under smart city mission. The Jhelum is part of National Waterway 49.

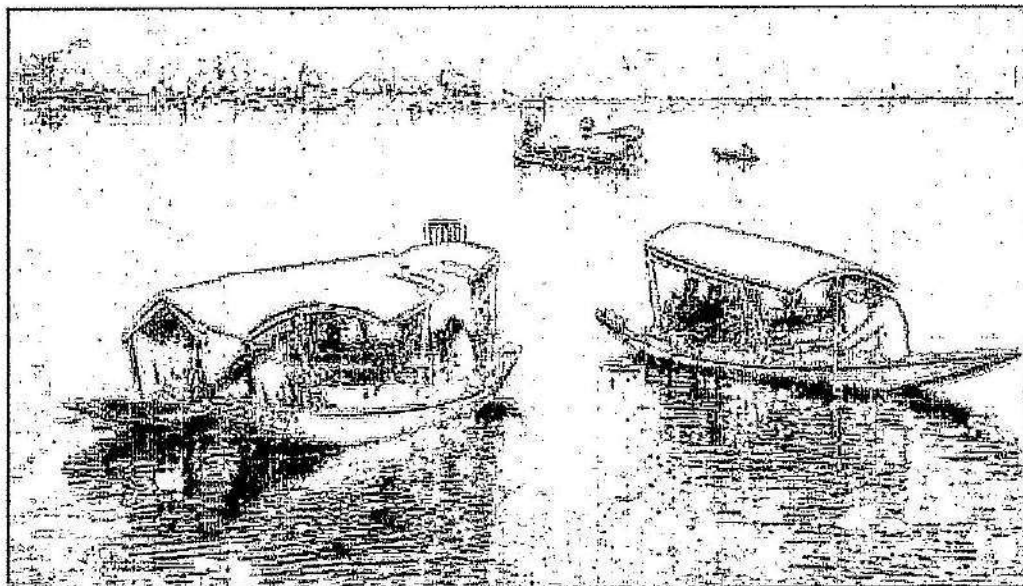


Figure 3-11 Boating activities

3.13 Economy

Srinagar's economy is predominantly dependent on agriculture and allied activities. The Kashmir valley is also known for its sericulture and cold-water fisheries. Wood from Kashmir is used to make high-quality cricket bats, popularly known as Kashmir Willow. Kashmiri saffron is also very famous and brings the state a handsome amount of foreign exchange. Agricultural exports from state include apples, barley, cherries, corn, millet,

oranges, rice, peaches, pears, saffron, sorghum, vegetables, and wheat, while manufactured exports include handicrafts, rugs, and shawls.

Horticulture plays a vital role in the economic development of the state. The region of Kashmir is known for its horticulture industry and is the wealthiest region in the state. Horticultural produce from the state includes apples, apricots, cherries, pears, plums, almonds and walnuts.

Srinagar has already been considered as the “paradise on the earth” because of its scenic beauty. The city is also got important place in the economic map of the county. Though tourism is the base of economy of Srinagar but other businesses which have been developed due to tourism i.e. hotel business, handicraft business, Wood furniture etc. are also on the rise. With more and more people looking for commercial and residential places in Srinagar, construction business is also on the rise in the city.

3.13.1 Agriculture

Rice, the staple crop, is planted in May and harvested in late September. Corn, millet, pulses (legumes such as peas, beans, and lentils), cotton, and tobacco are—with rice—the main summer crops, while wheat and barley are the chief spring crops. Many temperate fruits and vegetables are grown in areas adjacent to urban markets or in well-watered areas with rich organic soils. Sericulture (silk cultivation) is also widespread. Large orchards in the Vale of Kashmir produce apples, pears, peaches, walnuts, almonds, and cherries, which are among the union territory's major exports. In addition, the vale is the sole producer of saffron in the Indian subcontinent. Lake margins are particularly favorable for cultivation, and vegetables and flowers are grown intensively in reclaimed marshland or on artificial floating gardens.

3.13.2 Tourism

Srinagar is one of several places that have been called the “Venice of the East” or the “Kashmiri Venice. Lakes around the city Dal Lake – noted for its houseboats – and Nigeen Lake. Srinagar has some Mughal gardens, forming a part of those laid by the Mughal emperors across the Indian subcontinent. Those of Srinagar and its close vicinity includes – Dal lake, Nishant Lake, Shalimar Garden, Tulip Garden etc.

The Sher Garhi Palace houses administrative buildings from the J&K government. Another palace of the Maharajas, the Gulab Bhavan, has now become the Lalit Grand Palace hotel. The Shankaracharya Temple on the hill top in the middle of the city, is important Hindu temple in the city.

Chashma Shahi - Chashma Shahi or Chashma i Shahi (translation: the royal spring), also called Chashma Shahi, is one of the Mughal gardens built in 1632 AD around a spring by Ali Mardan Khan.

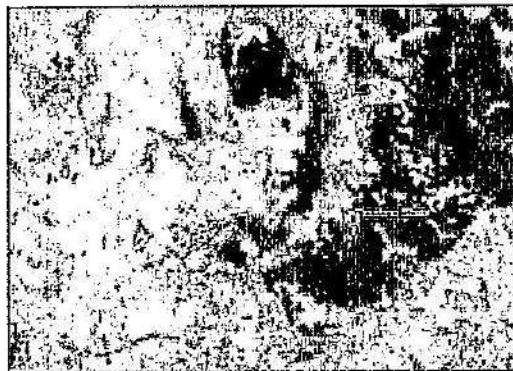
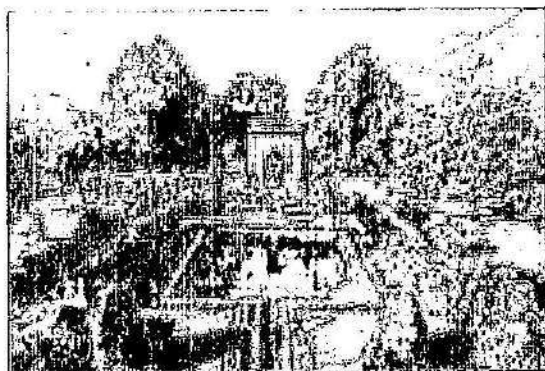


Figure 3-12 Chashma Shahi

Badamawari Garden - Situated on foothills of Koh-e-Maran, the 300 kanals garden is dotted with trees, flowers and cascades providing a soothing experience to the visitors.



Figure 3-13 Badamwari garden

Nigeen Lake - The Nigeen lake is surrounded by a large number of willow and poplar trees. Hence, it has come to be referred as a "nageena", which means "the jewel in the ring".

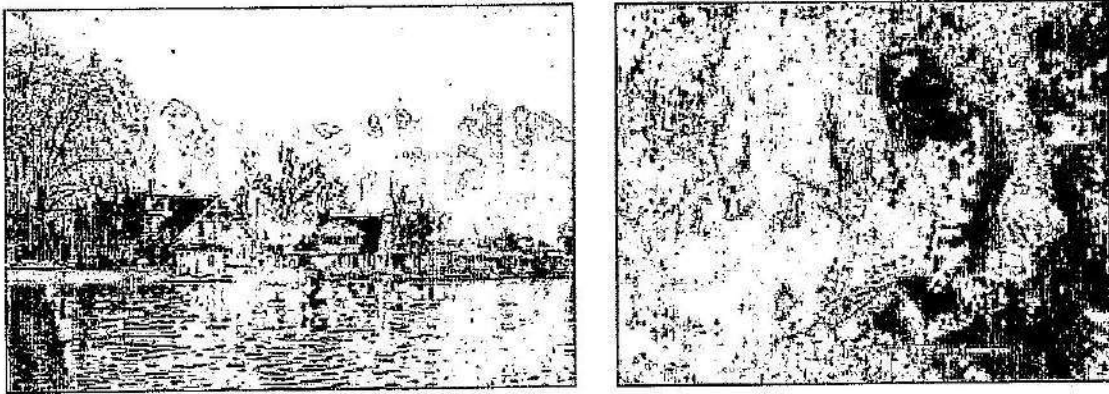


Figure 3-14 Nigeen lake

Dal Lake - The urban lake, is integral to tourism and recreation in Kashmir and is named the "Jewel in the crown of Kashmir" or "Srinagar's Jewel". The lake is also an important source for commercial operations in fishing and water plant harvesting.



Figure 3-15 Dal Lake

Hari parbat Fort - This Mughal structure was built by an Afghan Governor Atta Mohammed Khan in 18th century.

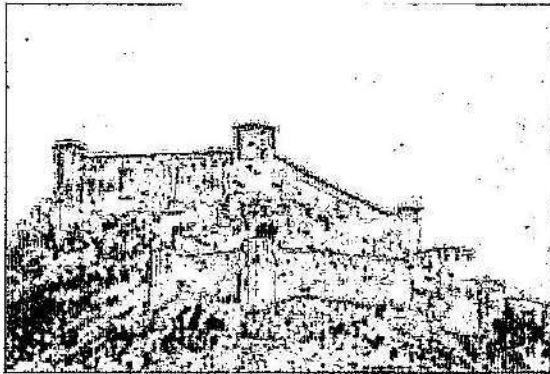


Figure 3-16 Hari Parbat Fort

Dachigam National Park - The park is best known as the home of the hangul, or Kashmir stag. Dachigam is open throughout the year, but the best time to visit is between April and August.

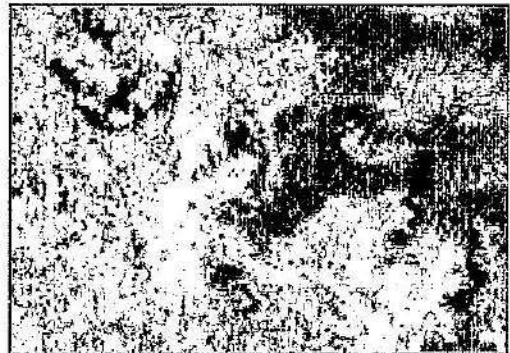
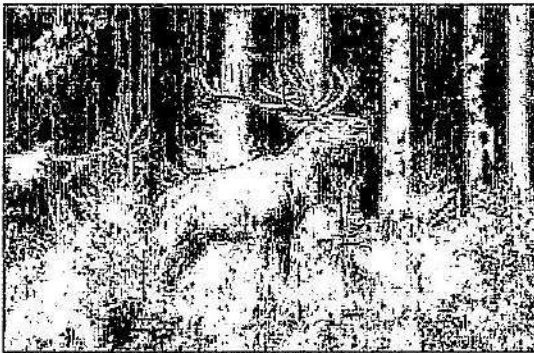


Figure 3-17 Dachigam National Park

Harwan Garden - Situated in Harwan Village (19 km) from Srinagar is an impressive, large and admired tourist spot.

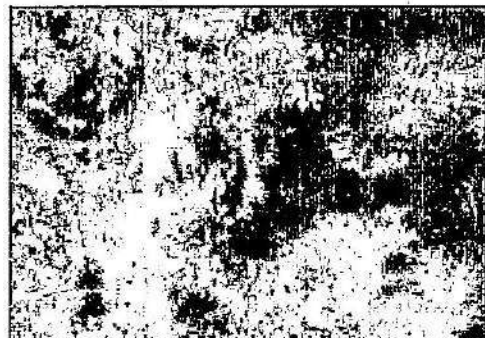
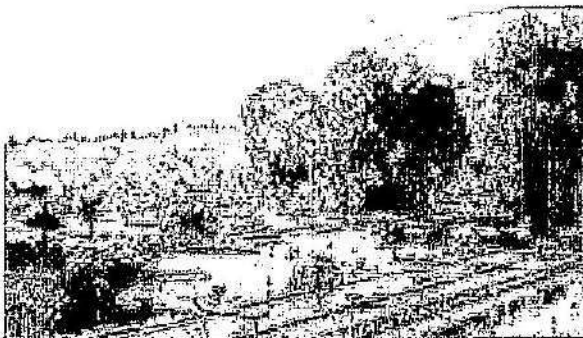


Figure 3-18 Harwan Garden

Tulip Garden - Indira Gandhi Memorial Tulip garden, previously Model Floriculture Center, is a tulip garden in Srinagar. It is the largest tulip garden in Asia spread over an area of about 30 hectares.

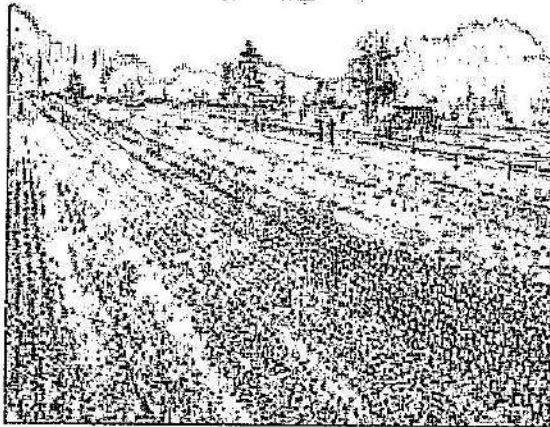


Figure 3-19 Tulip Garden

Botanical Garden - Botanical Garden was set up in 1969. Situated around the base of a hill overlooking Dal Lake.

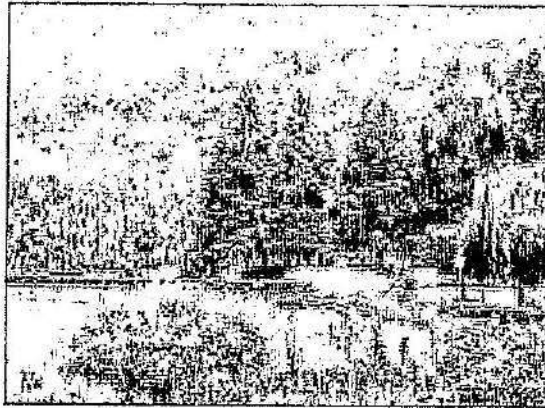


Figure 3-20 Botanical Garden

Pari Mahal - Pari Mahal or The Angels' Abode is a seven terraced garden located at the top of Zabarwan mountain range over-looking city of Srinagar and south-west of Dal Lake. The architecture depicts an example of Islamic architecture and patronage of art during the reign of the then Mughal Emperor Shah Jahan.

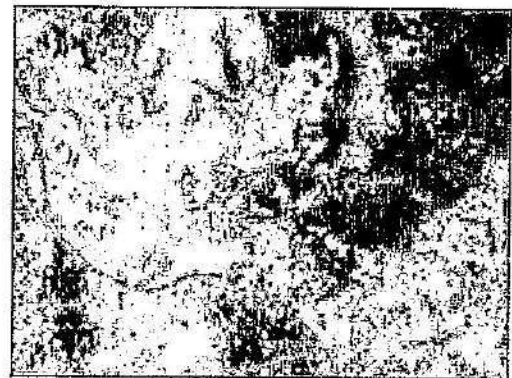
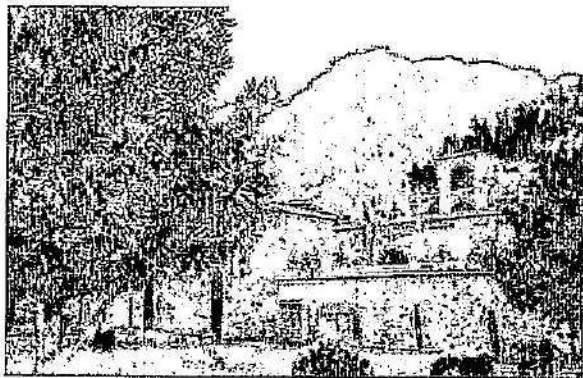


Figure 3-21 Pari Mahal

Nishat Bagh - Nishat Bagh is a terraced Mughal garden built on the eastern side of the Dal Lake, close to Srinagar. It is the second largest Mughal garden in the Kashmir Valley.

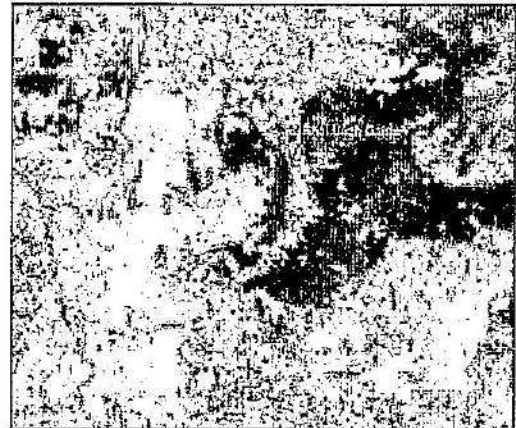
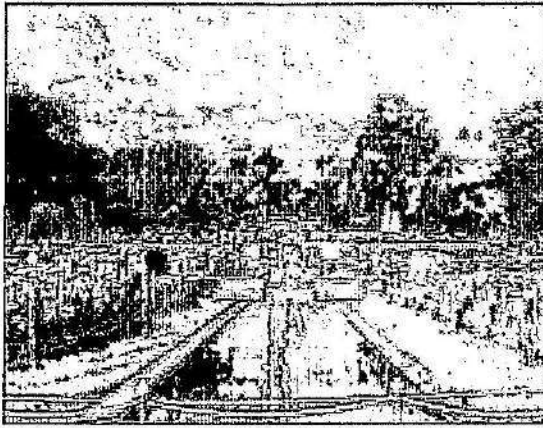


Figure 3-22 Nishat Bagh

Shalimar Garden - Emperor Jahangir built his celebrated Shalimar Bagh, his dream project to please his queen. He enlarged the ancient garden in 1619 into a royal garden and called it 'Farah Baksh' ('the delightful').

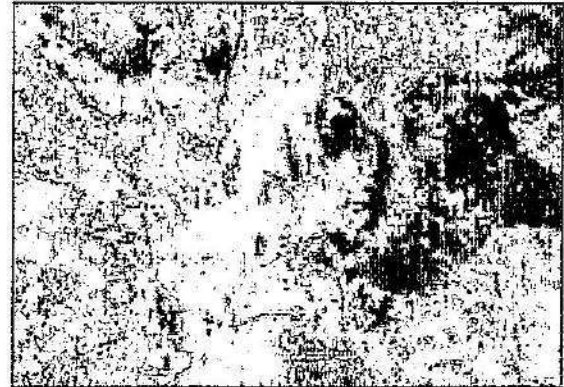
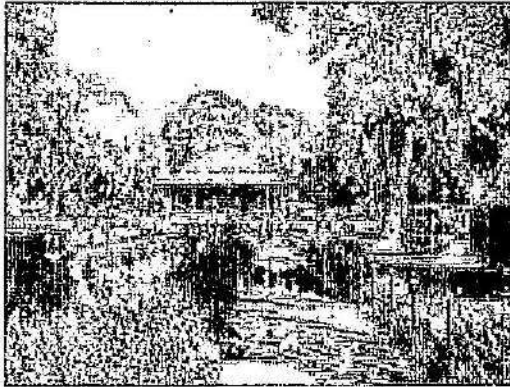


Figure 3-23 Shalimar Garden

3.13.3 Industry

Some of the most important industries of Jammu and Kashmir are: 1. Silk Textile 2. Carpet-Making and Woolen Textile 3. Forest-based Industries 4. Agro-based Industries 5. Paper Machine 6. Cement Industry 7. Industrial Complexes, 8. Wooden furniture. Industries fall under the secondary economic activity. The industrial process involves changing the form of goods to enhance their value. To undertake the manufacture of goods, inputs in the form of capital, labour, power and raw materials are required. The output is a finished product that can either be used again as a raw material for another manufactured or consumed in its present form.

4 Survey and Investigation

4.1 Existing Scenario of Dumpsite

In Existing the waste collected from primary and secondary collection points is being dumped in an unorganized manner at the designated dumpsite at Achan, Srinagar which are 15-20 Years old. Around 500 - 600 MT/day is dumped at this dumpsite as the waste generation is 600 MT/day currently. There is Processing facility about 100 MT/day has present at Achan Site but lack of adequacy the daily processing of waste is lagging.

The Site is facilitated with basic amenities like Weighbridge for daily waste weighing and daily records of waste received at dumpsite being maintained daily, Infrastructure, Fresh Waste Processing facilities of 100 TPD which need upgradation

In existing following infrastructure are available at Achan Site;

1. Fresh Waste processing plant of 100 TPD.
2. Office Building
3. Weighbridge for daily weighing of waste.
4. Landfill

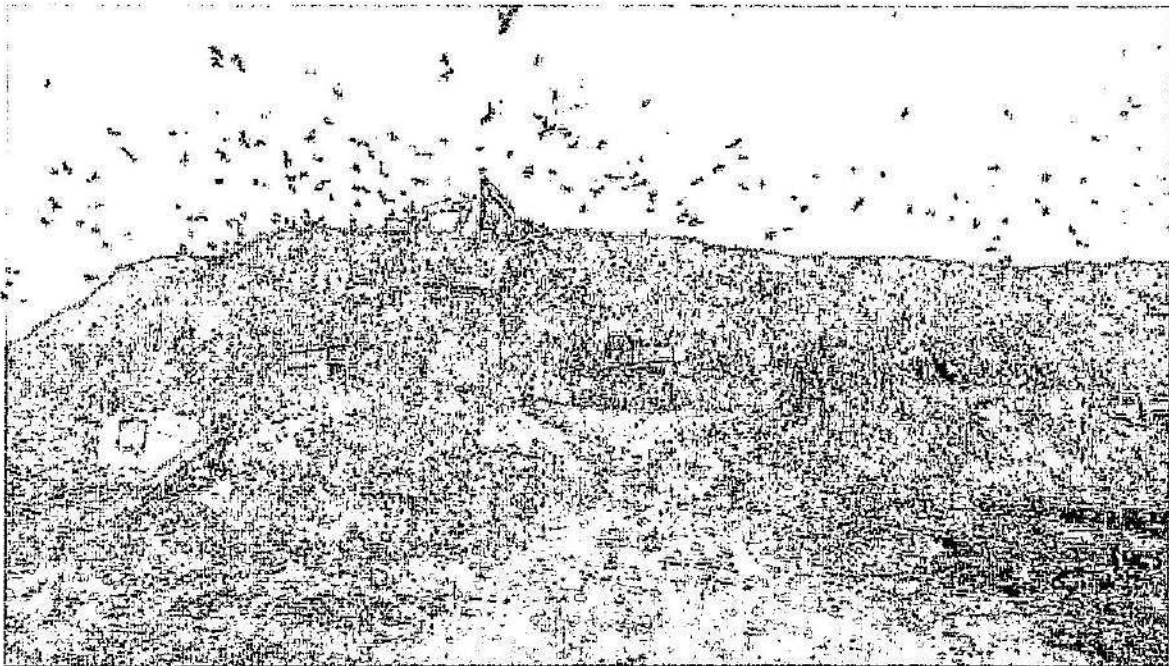


Figure 4-1 Existing Dumpsite

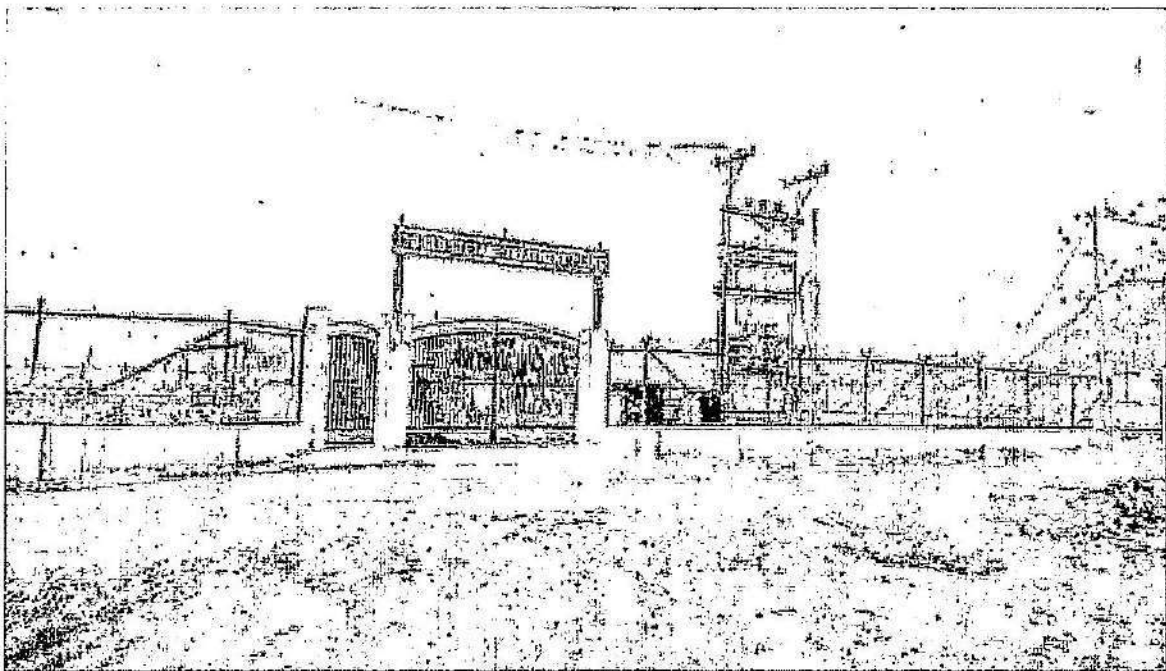


Figure 4-4 Existing 130 KLD Septage Treatment Plant

4.1.1 Site Details

Table 4-1 Site Details

| Sr.No | Description | Details |
|-------|---|--|
| 1 | Site Name | Achan, Srinagar |
| 2 | Total area (Acres) | 123 |
| 3 | Location Coordinates | Lat: - 34° 7'27.91"N Lag: -74°47'8.85"E |
| 4 | Total Old Waste (Legacy Waste) at site to be processed for Dumpsite reclamation | 11 Lakh MT |
| 5 | Distance from City center | 10 Kms |





4.2 Waste Quantification and Characterization

4.2.1 Waste Quantification

As per provided data by SMC (Srinagar Municipal Corporation), 10 to 12 Lakhs MT of legacy waste is accumulated at Achan Site.

4.2.2 Waste Characterizations (Cell 1 & Cell 3)

| Component | GPCB- NEERI | ERA | SMC | NIT Report March-2022 |
|---|-----------------|--------------|--------|--------------------------|
| Biodegradable Waste | 61.77% | 58.50% | 41.19% | 00% |
| INERTS | 17.76% | 10.30% | 19.54% | 35% |
| Inorganic Waste (Combustible & Non-combustible) | 20.47% | 31.20% | 39.27% | 50% |
| Moisture Content | 61% | 25.88% | ----- | 60% |
| Calorific Value | 1264 kcal/kg | 1579 kcal/kg | ----- | 1125.5 kcal/kg |

(*Source: Solid waste Management, Srinagar Action Plan)



5 Development Plan

5.1 Introduction

About 50-90% of the 42 million tons of urban waste generated in India, in a year, is collected and dumped-without sorting-into the open and uncontrolled landfill sites. As the garbage decomposes, methane is generated and released into the atmosphere. Methane is extremely harmful for health and has 23 times more global warming potential than carbon dioxide.

The technology options for generated waste is as follows;

- Bio-remediation & Bio mining
- Capping

5.2 Selection of Technology

The SWM Rules 2016 clearly mandate clearing of sites as a first option, by bio-mining and bioremediation. Still, capping is often proposed or considered an option in India merely because it is done in the West. But clearing a dumpsite almost to ground level rather than capping it is a far better option for permanent pollution prevention, as well as for the following additional reasons:

Clearing by bio-mining recovers the entire base area of a dump at almost ground level. Capping gives only one-third of the base area as usable area at an inconvenient height for future use.

Cleared sites require no after-care. Capping requires at least 15 years of continuous leachate pump-out and treatment in a dedicated effluent treatment plant nearby. Gas extraction is very difficult and inefficient when attempts are made to insert suction pipes into dumped waste instead of before dumping begins. Poor success at Gorai capping led to the forced refund by Mumbai city of Rs 15 crore advance carbon credits.

Capping of open dumps (wrongly called SLFs or Sanitary Landfills) requires intake of fresh waste to be stopped and permanently diverted to a fresh site before capping begins. With increasing protests against fresh waste disposal sites, getting started elsewhere can often delay capping plans indefinitely. Bioremediation and Bio-mining to clear a site can start immediately at one part of an actively used dump while fresh waste continues to be received and stabilized at another part. Clearing can be done in phases to match available funds.

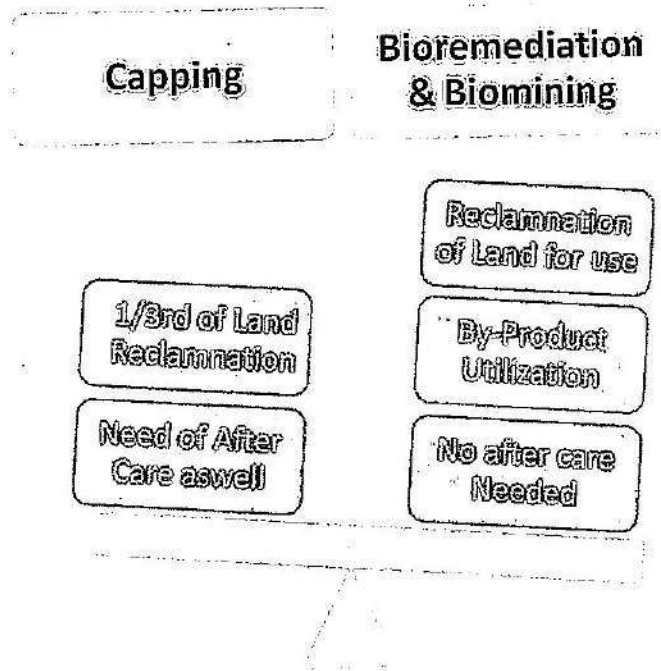


Figure 5-1 Capping V/S Bioremediation & Biomining

It must be regularly mowed for 15 years to prevent the growth of herbs or shrubs or trees whose roots may penetrate the plastic layer below the soil cover. If trees are planted over soil capping, they die in a few years as soon as their roots enter the hot airless waste below. Capped sites are closed to the public for 15 years. But if a dump is cleared to near ground level, it can be easily converted to a public tree park or garden if desired, unless below-ground waste remains untreated on the site.

Thus, "capping of dumpsites is not advisable and bioremediation and biomining of the legacy waste has been selected as the preferred option for legacy waste management of these two sites.

5.3 Bioremediation and Biomining of Old Municipal Dumpsites

It refers to the excavation of old dumped waste and make windrow of legacy waste thereafter stabilization of the waste through bio-remediation i.e. exposure of all the waste to air along with use of composting bio-cultures, i.e. screening of the stabilized waste to recover all valuable resources (like organic fines, bricks, stones, plastics, metals, clothes, rags etc.) followed by its sustainable management through recycling, co- processing, road making etc.

cloth and larger plastics. Density separation helps recover combustibles which can be used (usually up to 5-10%) as fuel replacement after supplying it to customer requirements. The lighter mid-fractions are mostly plastics and can be shredded as per industry requirement for use in bitumen hot mix plants to make so called Plastic Roads or as refuse derived fuel for co-processing in cement kilns. Fractions up to 50mm do not require shredding for use as RDF. The heavier mid-fractions are mostly stony inert which can be used in the lowest layers of roadmaking or plinth-filling or in low-lying areas but should not contain more than 3-5% plastics by weight. Less than 10% of the original waste remains as totally unusable residual rejects and may remain onsite, either in a small heap or spread to raise the ground level by a couple of meters. The land which was hosting waste dumps is now fully recovered for alternate uses. Biomining and Bio-remediation processes should be adopted as early as possible to ensure holistic solid waste management.

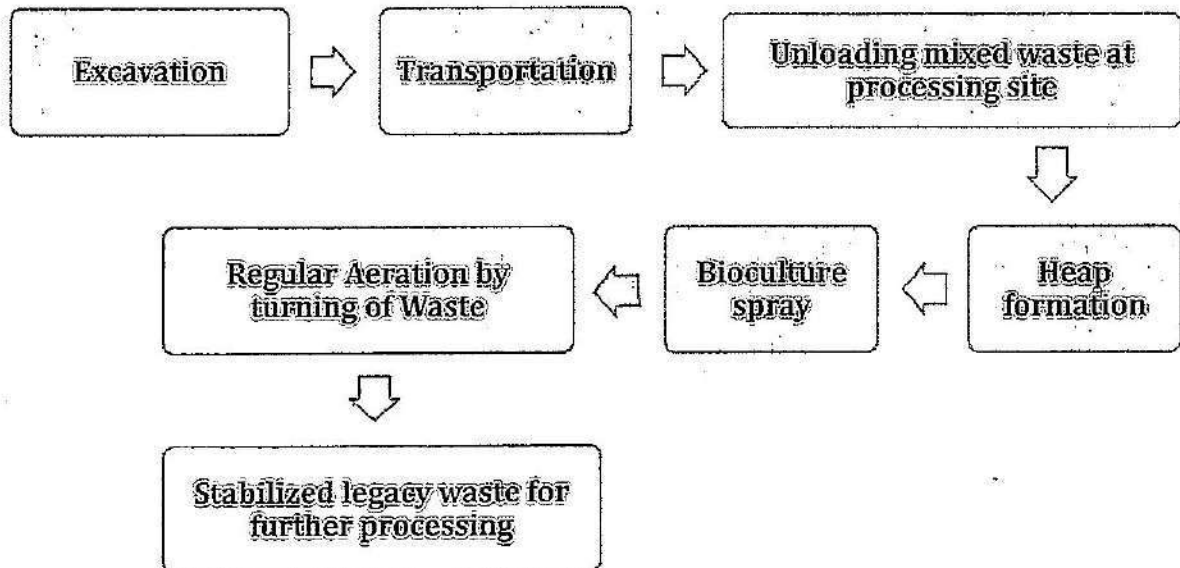


Figure 5-3 Waste Stabilizations

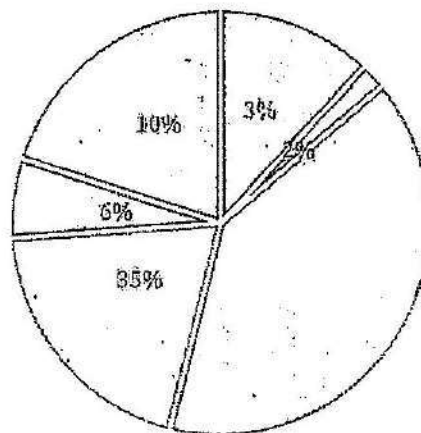
Legacy waste composition (Projected) and its Recover potential as for Indian Conditions.

Table 5-1 Legacy Waste Composition

| Sl. No | Description of Waste | Qty of waste Mts (11 Lakh) | Percentage (%) | Tones from each 100 tones of bio-mined waste |
|--------|--|----------------------------|----------------|--|
| 1 | Bio-soil (Organic Manure) Second grade Organic manure) | 11 | 11% | 11 |
| 2 | Recyclables (secondary market) | 2 | 2% | 2 |
| 3 | Solid Combustible Fuel (SCF/RDF) | 20 | 20% | 20 |
| 4 | Moisture Losses | 42 | 42% | From Biosoil & RDF |
| 5 | Process inerts for Scientific Landfill site | 25 | 25% | 25 |
| | Total | 100 | 100% | 100 |

***Note:** These Composition may vary from site to site and the local conditions of each site and also depends upon the life of the dumpsite. Open burning of old dumpsites (if any) may also have lot of impact on SCF availability & Compost Quality

Legacy Waste Composition



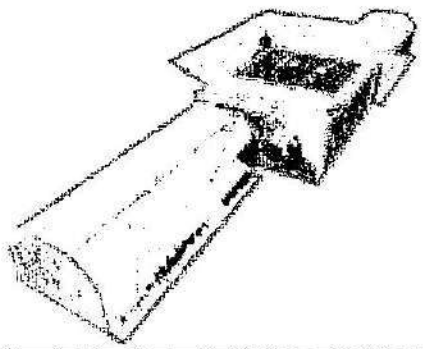
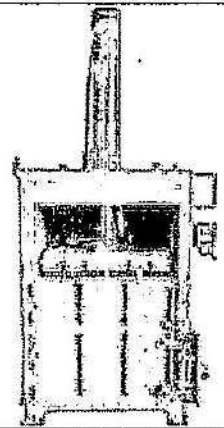
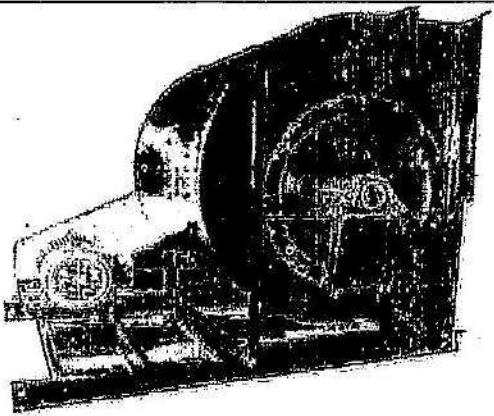
Bio-Soil
 Recyclable
 Moisture Loss
 Inerts
 Soil- Earth
 RDF/SCf

5.4 Processing Equipment's for Processing of Legacy Waste

The major equipment that would come in use would fall under the following heads of processes like excavation, shredding, screening, air classification and ferrous separation. As per suitability and requirement the appropriate choices should be made.

Table 5-2 Equipment Details for Bioremediation and Biomining

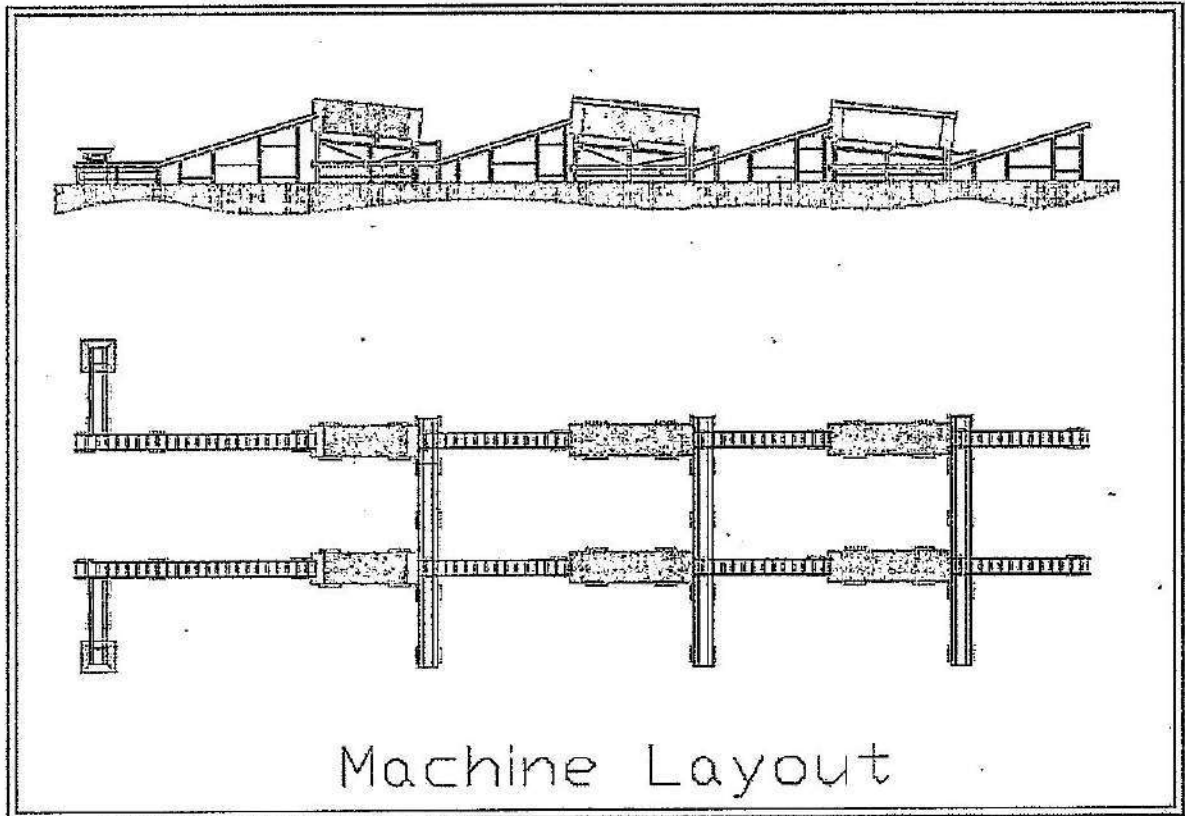
| Machineries | |
|--|--|
| Belt Conveyors (Roller Belts) along with supporting structure along with cable tray and electrical panels | |
| Moving Bed feeder conveyor with hooper (6.0 M long, 1.2 M wide) | |
| Feeding Conveyor for Trommels (100mm) (15.0 M long, 1.2 M wide) | |
| Process Conveyor for Trommel (35 mm, 6 mm) (16 M long, 1.0 M wide) | |
| Discharge Conveyor for Trommels (20M long, 1.2 M wide) | |
| Process Conveyor for reject the mass <6mm (16 M long, 0.8 M wide) | |
| Trommel Screen with Anti Clogging device | |
| Trommel Screen with 100 mm 80 mm Hole, size 6.5 m Long X 2.0 m dia | |
| Trommel Screen with 35 mm Hole, size 7.5 m Long X 2.0 m dia | |
| Trommel Screen with 6 mm Hole, size 7.5 m Long X 1.8 m dia | |
| Magnetic Separator | |

| Machineries | |
|------------------------------|--|
| Shredder (5 HP) |  |
| Bailing Machine (5HP) |  |
| Blower (10 HP) |  |

6 Process, Design & Cost Analysis

6.1 Process

Processing of accumulated waste shall be done in following manner as given below:



1. Local Body (LB) shall make a time bound plan to execute the bio-mining process to clear the old waste.
2. Volume of waste to be determined through contour survey (Total Station Survey) and site measurements. Drone mapping of heap volumes at different stages is most cost-effective and fast. Weighment of heaps is difficult and problematic as payment would be collected for heavy fractions, leaving behind the more pollution-prone lighter fractions.
3. Initial Contour level survey of the site shall be done on start of work and Final Contour level survey shall be done on final completion of the work.
4. Do an initial baseline survey of surface and subsurface soils and waters and also leachate present, to check for heavy metals and toxics if any. Samples should be drawn by an NABL or MOEF certified lab, also at the final stage. During operations, the operator should collect and keep daily samples of the finest fractions, to be pooled and analyzed monthly or at random by an NABL lab. This is to ensure that unsterilized rotted waste is not simply moved from one location to another by mining without bioremediation.
5. Sprinkle the newly exposed surfaces with a composting bio culture solution or a dilute solution of 5% fresh cow dung in water. This will control smell and speed



- up decomposition. With the help of Backhoe loader, the waste in the demarcated area should be loosened up.
6. Usually the top layer has several materials in the active biological state. This layer shall be stabilized through composting bio-cultures, as well as herbal/biological sanitizers if found necessary for odor control.
 7. Raking of garbage layers by a long spike harrow operating in cross directions may be done as needed to pull out large rags, plastic, rubber, textiles etc.
 8. Waste pickers or labor should manually pick out bulky waste like coconut shells, banana stems, tires and rocks prior to screening for bio-mining. Store in separate heaps for sale or use.
 9. Turn these windrow heaps once a week until no more volume reduction is observed in the heaps and no more heat is generated. If the garbage is stabilized, there will be no smell or leachate formation and the material will be dry enough for sieving.
 10. ULB or its agency may deploy Trommels and/or Horizontal Screens or other types of screens for the purpose of screening. Screen the stabilized waste in a rotary screen or gravity screens of different size openings, preferably 35mm and 8mm. A fan can blow out the plastic fraction for use by recyclers. Compost
 11. Appropriate numbers of excavators, backhoe loaders and workers will be required to execute the work.
 12. The recyclables recovered from the bio-mining process should be sent for recycling as per the quality of the material, which should also be randomly sampled by an NABL lab and tested for heavy metals, salinity/electrical conductivity and leachability to ensure no environmental harm during use. FCO standards for pH and contaminants could be provisionally used as a benchmark. Non-Recyclable plastic material shall be sent for road making or to RDF units or cement plants. Initial cleaning of recyclable waste shall be done before it is transported for sale or disposal.
 13. The recovered earthy fines shall preferably be used for landscaping or gardening or road medians within the Local Body or the site. The recovered soil can also be used as "Soil enricher" to develop green areas or by farmers.
 14. The recyclables like plastic, glass, metals, rags and cloth recovered from the waste during screening shall be sorted out and preferably cleaned before sending to recycling industries or as RDF.
 15. The heavy fractions may be sand and gravel usable for road shoulders or for plinth filling. Stones and concrete if any can be used for road sub-grade, or for crushing, recycling and reuse in the construction industry. The recovered construction and demolition waste recovered from the bio-mining process may be sent to a C&D processing facility if suitable for production of building materials.
 16. In very old garbage layers with high debris content, most of the organic matter may have already been decomposed. Do a seed germination test to ensure it is stabilized. Add bio-cultures to fully stabilize it if heat is still generated in windrow heaps or volume reduction is observed. After 7-10 days of stabilization the waste can be taken up for screening.
 17. Usually, the finest fraction will be organic matter plus fine soil, called 'bio-earth', which can be used as soil improver, especially for restoring alkaline or saline



soils to fertility, or to grow some vegetation for erosion control. It is also useful as a lawn subgrade cum drainage layer, or it can be used as organic manure in tree pits. The next coarser fraction will be gravel and coarse organics, which can be used for road and railway embankments the coarsest fraction may have a lot of combustibles (cloth etc.) which can be baled and supplied as Alternate Fuel Resources in cement kilns or boilers.

18. There may be some (maximum 5-10% of total) left over waste including lumps of heterogeneous nature. The waste may be soaked with leachate or hard and difficult to disintegrate. This waste can be sent to scientific landfill for disposal (near zero residues).
19. The recovered land from the bio-mining process shall be utilized for any purpose deemed appropriate. Ideally reclaimed space should be reused for waste processing, otherwise for alternate non-habitation uses.

6.2 Design & Analysis for Biomining Process

Table 6-1 Analysis of Bio-mining & Screening of Waste Dumped for Bio-remediation & Bio-mining of Legacy Waste at Achan Site

| S. No | Particulars | Qty | Unit |
|-------|---|------------|-------------|
| 1 | Quantity of Waste Dumped at Site | 1350000 | Cum |
| 2 | Quantity of Waste Dumped at Site | 1100000 | MT |
| 3 | Capacity of each unit | 35 | MT/Hr |
| 4 | No. of units/Lines proposed | 4 | Nos |
| 5 | Capacity of Processing unit [(4) x (4)] | 140 | Mt/Hr |
| 6 | No of 8 Hrs shifts per day | 2 | |
| 7 | Effective Working Hrs per shift | 7 | Hrs |
| 8 | Working Hours in a Day | 14 | Hrs |
| 9 | Total Waste capacity per day [(4) x (8)] | 1960 | Mt |
| 10 | Project completion Timeline | | |
| a | No of Days for Project completion (11 Lac) | 561 | Days |
| b | Add 15% for unforeseen & Weather hindrance | 85 | Days |
| c | Add 30 Days for windrow formation before starting segregation | 30 | Days |
| | Total Days for project [(a) + (b) + (c)] | 676 | Days |

| | | | |
|----|-----------------------------------|----------|--------|
| 14 | Total man months @ 26 Days /month | 26.01 | Months |
| | | 2.16 Yrs | Years |

6.3 Cost Assessment

Table 6-2 Abstract of Cost for Bio-remediation & Bio-mining of Legacy Waste at Achan, Srinagar

| Abstract of Cost for Bio-remediation & Bio-mining of Legacy Waste | | |
|---|---|---------------------|
| Considering around 11 Lakhs MTs of Garbage is available on 1 st May-2024 which is to be remediated as per CPCB Guidelines. | | |
| Sl No | Description of item | Cost in Lakhs (INR) |
| 1 | Capital Cost (Consists of Civil and Main Processing plant equipment) | 716.40 |
| 2 | Manpower Cost for Segregation & Material Recovery Unit | 314.33 |
| 3 | Power Cost for Segregation & Material Recovery Unit | 320.18 |
| 4 | Spare & Maintenance cost of Segregation & Material Recovery Unit | 153.04 |
| 5 | Hiring Charge of Earth moving & other Equipment | 1624.24 |
| 6 | Cost of Bio-culture | 552.21 |
| 7 | Cost of Inert Transportation up to lead 10 Kms | 116.82 |
| 8 | Cost of RDF Transportation & Scientific disposal beyond lead of 200 Kms | 1085.00 |
| 9 | Cost of Bio soil Transportation upto Lead 20 Kms | 155.76 |
| 10 | Miscellaneous Cost | 92.50 |
| 11 | Project Cost | |
| a | Project Cost without Profit & Interest | 5130.48 |
| b | Add Profit @ 10% of 'X' (b) (Inclusive of Capex Recovery) | 513.05 |
| c | Add Environment Management Charge @ 1% of 'X' © | 51.30 |
| d | Add water Charge @ 1% of 'X' (d) | 51.30 |
| e | Add Contingencies @ 1% of 'X' (f) | 51.30 |
| f | Add Project Monitoring & Supervision cost @ 5% of 'X' (g) | 256.52 |
| g | Total Project Cost with RDF Transportation (Y)=a+b+c+d+e+f | 6053.96 |
| h | Cost for Bio-remediation & Bio-mining without RDF Transportation | |
| 14 | Legacy Waste deposited at site (Lakh MT) | 11 Lacs |
| 15 | Per MT charges for Bio-remediation & Bio-mining with RDF Transportation (Rs) | 550.36 |
| | Note: Details of all the above are attached in the enclosed Excel sheet (R3) | |
| 16 | Total Project Cost including RDF Disposal | 60.53Cr |



7 Summary of Cost Estimation for Biomining of Achan Site Srinagar is enclosed in the attached Excel sheet.

8 Model of Implementation

8.1 Execution Methods

| Sr.No | Execution Methods | Preference for Biomining of Bareilly Dumpsite |
|-------|--|---|
| 1 | 100% Reclamation: Design Finance Own and Operate and Transfer with near-zero residues. All work must be carried out in compliance with SWMRules 2016 and CPCB Guidelines for the disposal of legacy waste 2019 | Preferred |
| 2 | 100% Capping (Minimum operating/ processing cost) | - |
| 3 | 60-70% Reclamation, rest with inert capping - Part Capping, (Nashik Model, EPC)- Processing & Operating cost lying between the first two models | - |

9 Working Models

| Sr.No | Working Model | Preference for Biomining of Achan Dumpsite |
|-------|--|---|
| 1 | 100% work to outsourced to selected private contractor | Preferred |
| 2 | 100% by ULB with rented equipment and manpower | Not Preferred ULB lacks technical know how |
| 3 | Part by private operator (processing only) and rest by ULB (utilization, transportation, and disposal) | Preferred |

10 Standard Procedures for Operations

10.1 Use of Screened Fractions:

When planning for bio-remediation and bio-mining, it is important at the same time to identify where the screened fractions will go, in order to bring down the heap of mixed waste to fractions that would each have been usable if unmixed. None of these fractions will bring in income. In fact, their transport offsite is a cost to be budgeted for. Look for the nearest industries using solid fuel. Look for the nearest bitumen hot-mix plants and also specify Plastic Roads in road tenders to ensure offtake of the thin-film plastic fractions. Start a dialogue with all kabadi walas

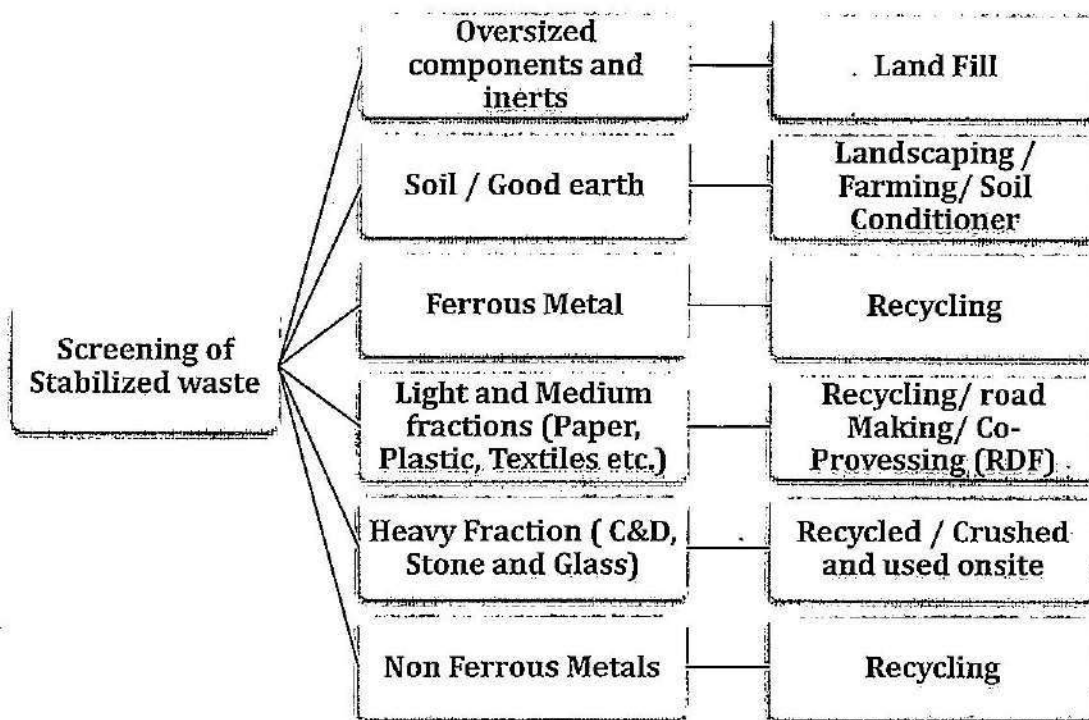


Figure 10-1 Byproduct distribution

within the local body to see who will be willing to pick up or accept which items. Plan for offsite aggregation space for different fractions and types of waste that will result from screening. Identify aggregation and storage sheds for use by waste-picker groups or kabadi walas. Identify transporters who can transport different fractions out on their return trips.

For the bio-earth or good earth finest fraction, test periodically for heavy metals, then look for farmers willing to accept it. It is excellent for reclaiming salt-affected soils and for restoration of mining overburden areas if any are nearby. There is a cess for restoration of mined areas, which is normally unspent as forest departments are supposed to revegetate them. But this is unviable in barren rocky soil by planting and watering saplings. Revegetation is instead possible and effective by mixing grass seed with the good earth fraction and spreading it on the overburden to start a natural succession of grasses, herbs, and shrubs.



10.2 Space Management

For all waste-stabilizing methods, management of space is the biggest challenge, as aeration, stabilizing and screening mostly needs to be done within the boundaries of an already overloaded dumpsite. This is achieved mainly by experience and creative common-sense. Onsite earth-mover operators often come up with the best solutions, so seek their opinions. Every dumpsite poses a case-by-case challenge, but there is no above-ground dump that cannot be successfully bio-remediated and bio-mined.

10.3 Leachate Management

Most high heaps of legacy waste are water-logged with leachate even near the topmost layers and all the way to the bottom, like a dhokla. This is not just from rainwater entering the heap but is produced by airless rotting within the entire waste heap. So, when legacy waste heaps are opened up, some leachate almost always trickles out. This is not produced by the formation of windrows or cones, which in fact help to dry out the waste by aerated decomposition.

Channels must be created to lead the oozing leachate rivulets to a lined depression or pond for treatment or for leachate recirculation onto windrows as a type of bio-culture. (test to see if heaps generate enough heat with its use). Leachate can also be treated in collection ponds by underwater composting. Bio-cultures that have been proved successful at other locations can be sprinkled onto the leachate pools. But intermittent aeration is a must, using small compressor pumps or aerators or airlift aeration or even simple manual or mechanical agitation. Aeration is necessary for the added microbes to do their work of digesting the polluting solids suspended in the dark and turbid leachate. Success is noticed by a progressive change in color from dark to light, by reduction or absence of odour and by fine bubbles rising to the surface from digested solids.

10.4 Fire Control and Safety

Most large dumpsites are smoldering from hidden fires. Methane itself is flammable with a blue flame and supports the yellow flame burning of combustible plastics, cloth, and oily rags. Sometimes flammable industrial waste finds its way onto dumpsites, aggravating the problem.

It is difficult to begin bio-remediation work on a smoking dump. Sometimes digging into the dump awakens hidden fires. So, fire control is important. Adding water increases the generation of both methane and leachate and is counter-productive, not a long-term solution, adding soil cover to smother the flames adds more material to a heap that one is trying to bring down.

There is a better way, again requiring creative common-sense and experience and training of earth-mover drivers. Most fires within heaps have a point source – a bag of textile discards or plastic waste or a ball of oily rags. Earthmover drivers must learn to dig in and pluck out these burning balls of fire. These should be laid nearby on the surface of the dump and then rubbed out with the back of the excavator shovel to extinguish the flames and smoke. Wet soil should be kept handy to immediately plug the excavated hole. Adding composting bio-cultures can be tried,



to counter the anaerobic conditions around the burning spots. Smoking points must be tackled patiently and systematically, one by one, till the dump is smoke-free to begin stabilizing operations by bioremediation.

It is important to do the risk assessment and an onsite emergency plan should be kept handy prior to commencement of dumpsite bioremediation & bio-mining.

10.5 Use of Recovered Space

The benefit of bio-mining lies in abatement of ongoing and future pollution and ill health and in the recovery and re-use of valuable space. This is ideally for continued long-term waste management since public consent for new waste sites is increasingly difficult because of earlier visible mismanagement of a virgin site. Ensure advance demarcation and declaration of a buffer zone of no new habitation for up to 500 meters around the cleared site to prevent real-estate activity from encroaching the buffer as soon as the dump is removed.

If a dump is engulfed within a growing city and its continued use for waste management is unsuitable, identify in advance the planned future use of that site and put up a signboard indicating that use, to ensure public acceptance of the biomining operations which will be temporarily noisy and dusty. This will also protect the site from landgrabbers.

Cleared dumps are not permitted for habitation for at least 15 years (SWM Rules Schedule I, H (2)). This is because of unhealthy leachate below the site and formation of flammable and offensive landfill gases from waste pockets that may remain unexcavated.

Permissible options are reuse for SWM, open stadia, sports grounds, parks and gardens, parking lots, container yards, warehouses of non-flammables and similar facilities where people are not living or working all day and night.

10.6 Bio-mining Below-Ground Waste

Many cities and towns chose abandoned quarry-pits to dump untreated waste, without realizing the permanently harmful effects of this. Leachate oozing out at the bottom of the pit cannot be seen or captured or treated and enters both shallow and deep groundwater through fissures in the rock. The hydrostatic pressure in deep quarries, as divers experience at increasing depths, forces the leachate even more forcefully into the cracks. Dark and smelly water pollution begins to show up in nearby wells and bore wells after a year or further away even after 3-4 years, after which the damage is irreversible.

But leachate in an airless rotting mass continues to form for up to 30 years, so further damage can be prevented by bio-mining the quarry-pits. This has also been ordered by the NGT (in OA 179 of 2017). The waste needs to be excavated in descending layers like any open-cast mining and unloaded on the surface in windrows or conical heaps which can be turned weekly for 5- 6 weeks before screening. Use of bio cultures is most important here, to control odour and the leachate which will run out while placing excavated material. Adding bio-cultures

into the pit without excavation will not give the waste and the digesting microbes the air needed for stabilizing the waste.

Immediate stoppage of further quarry-dumping of untreated waste is the most important action. The excavated quarry-pit, or any other quarry-pits that are planned for waste disposal, must first be filled to ground level with only debris and construction and demolition waste up to slightly above surrounding ground level. The newly created space can then be used for waste stabilizing by unloading fresh waste in windrows here and turning them regularly. Any small quantity of leachate produced will be visible as it runs out from the edges of the heaps. Bio-mining /screening may have to be interrupted during monsoons, both above grounds and below ground.

10.7 Environmental Risks and Environmental Management Plan

There are several potential environmental risks associated with bio-mining projects and therefore a plan addressing these potential risks should be kept ready. Most of the conditions present at the landfill and its surroundings will be unique to the specific landfill, and specific to the age of the waste being excavated.

Majorly the risks would be associated with proper management of hazardous waste that may be uncovered during the operations of reclamation, managing the releases of gases, odors, its associated risks to human health and controlling any fire, subsidence or collapse.

Environmental risks can be managed well if considered in advance of the operations and appropriate mitigation measures have been designed by the executing agency.

10.8 Environment Management Plan

In consideration to the prevailing site features and the proposed Solid Waste Management Facilities, it is necessary to ensure that the proposed plant and facilities would be adequately designed with necessary environment protection measures. This Chapter accordingly outlines the environment protection measures for the proposed dumpsite remediation for Achan dumpsites. During project implementation period special emphasis would be made on measures to minimize leachate/ effluent generation and dust control at source. The sources and types of pollution with broad level mitigation measures is outlined in the following sections.

10.9 Air Pollution Measures

Air environment including Ambient Air Quality and odour generation due to the proposed project during construction and operational phases would be accounted. The principal sources of air pollution are construction activities, truck movement with construction materials and municipal solid waste, loading and unloading of materials, vehicular exhaust. The impact is generally confined to the project area and is expected to be negligible outside the project site boundaries. The pollutants their sources and mitigation measures to be adopted are presented in Table 9-1.

Table 10-1 Pollutant & Mitigation Measures



| S.No | Pollution Source | Pollution Emitted | Mitigation Measures |
|--|--------------------------|---|---|
| Air Pollution Mitigation Measures | | | |
| 1 | Construction activities | SO ₂ , NO _x , Particulates, Odor etc., | Dust suppression by water sprinkling. Bitumen covered internal roads. Wheel Washing Bay at the entry point. Vehicles carrying of construction materials and waste to be covered with tarpaulin / plastic sheet. waste handling area rest to be covered Provision of green belt. |
| 2 | Vehicular Movement | | |
| 3 | Loading and unloading of | | |
| 4 | Processing of waste | | |
| Water Pollution Mitigation Measures | | | |
| 5 | Domestic Waste | Suspended Solid BOD etc. | Septic Tank/Soak Pit. LTP for recycling. Storm water drainage system. |
| 6 | Leachate from windrow | | |
| Solid Waste Management | | | |
| 7 | Construction | Construction materials e.g. coarse aggregate, fines aggregate, bricks, steel etc. | Recycled or used for filling/levelling of low-lying areas within the site or transported outside. |

10.10 Water Pollution Measures

The water demand for the project which would be in the range of 3 KLD. No surface water would be tapped. The source of water would be the Ground water. The main wastewater generation sources during construction phases would be equipment washed water and other surface run-off with suspended solids loading and sewage from temporary sanitary facilities with BOD loading. During construction activity the surface run-off would be diverted to working pit to arrest the suspended solids if any and the settled water would be reused for construction purposes, and for sprinkling on roads to control the dust emission, etc. During operation phase, the wastewater would be from drinking and sanitary use, leachate from bioremediation/windrows area. The domestic wastewater would be treated in septic tank followed by Soak pit. Maximum leachate generation from the windrows and other areas would be treated.

The Leachate generated at various places in the plant would be collected and properly treated in an LTP. The treated leachate would be sprayed on windrow to maintain suitable temperature and moisture. Leachate generated during precipitation period would be stored in evaporation pond. Based on the rainfall intensity of the plant area, separate storm water drainage system would be properly designed. Storm water would be collected in a centralized pit to arrest



603 69



the silt particulates and clear water would be used locally for landscaping and fountains. Surplus water would be released into public drains or adjacent nala. The pollutants their sources and mitigation measures to be adopted are given below.

10.11 Noise

Noise pollution would be resulted from transportation, construction phase and processing phase. To reduce noise pollution, high-grade machinery would be used. There would not be any major noise-causing activity during operational phase

10.12 Ecology of area

Site clearing or operational activities would not impact the ecology of the area adversely, since there are no known rare, endangered, or ecologically significant animal and plant species in the area. The scientific processing would have a beneficial impact on the surrounding terrestrial and aquatic ecology.

10.13 Green Belt Development

In order to arrest wind borne fugitive dusts around the plant boundary with about 3-5 m wide green coverage based on locally available plant species. The green belt developed would help to capture the fugitive emissions, attenuate the noise generation and improve the aesthetics. All open spaces, where tree plantation may not be possible, would be covered with shrubs and grass to prevent erosion of topsoil.

10.14 Solid Waste Disposal

During the construction phase, the solid waste would be different types of raw materials such as coarse aggregate, fines aggregate, bricks, steel etc. being used during construction stage. The solid waste generated during this period would be predominantly inert in nature. During operation phase appropriate management of solid rejects from different processing activity would be undertaken. Sanitary landfilling would be adopted for rejects generated from processing. The pollutants, their sources and mitigation measures to be adopted are presented in Table below.



11 Management Plans

11.1 Reporting Formats during Active Operation period

11.1.1 Weighment /Volume, Acceptance and Rejection of SWM

Following data will be recorded to record the weighment of legacy waste processed:

1. Date of operation
2. Registration number of the truck supplying SWM / Lorry number
3. Total volume of the truck trolley
4. Total laden weight
5. Total un-laden weight
6. Net weight of waste
7. In-situ volume of waste excavated (Net weight of waste/ In-situ density)
8. Time of entry-of the truck
9. Area of dumpsite (phase) from where waste has been collected
10. Trip Number
11. Time of Trip and material unloading

11.1.2 Leachate Collection and Removal System ("LCRS")

1. No overflow of Leachate from the LCRS.
2. No untreated Leachate to be let out from the Site, unless it meets the standards

11.1.3 Environment Monitoring System

1. A standard protocol will be prepared for environmental Monitoring to be carried out in the following zones:
2. On and within and surrounding area as well as from 500 m radius outside from the project and project facilities.
3. On and within the Scientific disposal area
4. Leachate Collection and treatment facilities in the project site as well as in the Scientific disposal area
5. Upstream and downstream ground water
6. In the atmosphere/local air above and around the Scientific disposal area

11.1.4 Reporting

The following data should form part of the reports to be submitted by the Contractor and monitored by Authority:

- a) Daily excavated weight and volume of compacted waste with extent of area and volume in cubic meter.
- b) Quantity of waste segregated in each day in Metric Ton and cubic meter.
- c) Quantity (in cubic meter) of waste taken out in each day including RDF, eco bricks, soil, C&D and residual Solid Waste to facility for Scientific disposal etc. as far as category wise.
- d) Leachate generation and treatment reports
- e) Rainfall days
- f) Quality test reports as and when made.
- g) All "as-built" Drawings of any Development undertaken after COD.
- h) Residual Solid Waste Matter quality test reports (including moisture content)
- i) Leachate generation
- j) Ground Water quality (both within and outside the Site)



Bioremediation Project Cost Estimates:

1. Reception Pad cum Processing Pad:

Reception pad cum Processing plant Pad is designed for a length of 50 mts and breadth 20 mts and with a clear height of 6 mts for ease of movable equipment. And provision is made to store up to 1000 tons of waste for 3-4 days.

Processing Pad: two parallel lines were proposed with a gap of 6 mts for each line for ease of operations.

Total area comes around 1000 Sq.mts with rooftop shed with two parallel lines with temp storage of dried mass;

Civil cost for this 1000 Sq.mts comes to around (each Sq.mts costs around Rs.18000/-), the civil cost comes to 180 Lakhs.

2. Process Plant equipment Cost:

As per CPCB Guidelines Series of 3 rotary trommels were planned for efficient screening of dried mass to recover maximum resources which consists of 100mm, 35mm and 6mm rotary screens. Two lines (parallel) lines with each line capacity of 40 tph were considered to suit the local weather conditions. And also required shredding cum Baling Machines were proposed for efficient handling of non-recyclables mainly plastic and other heat based products to make use them as an alternative fuel either to cement Industry or waste to energy plants.

With two sets of process lines of screening equipment and RDF preparation plant equipment cost will come around 550 Lakhs. (Details of Process plant equipment with costings are enclosed in attached XL file.

3. Movable equipment :

For excavating the old dump site, windrow formation, windrow turnings, shifting the mass nearer to the main processing plant and timely removal of rejects or process inerts requires reasonable number of movable equipment hydraulic tippers etc. Movable equipment can be either sourced or hired based on the local conditions which also amounts reasonable expenses on the Bioremediation Process.

4. Bio-cultures/ Inoculums: As per SBM advisory notes on Bioremediation it is mandatory to decompose all organic compounds in the existing old dump with required bio cultures or microbial cultures to minimize the odour nuisance and to recover soil nutrients called as Bio soil.

5. For efficient and effective bioremediation process, there is a possibility of recovery of valuable resources like bio-soil (Second grade compost for agricultural or horticultural use) and other heat based inorganics so called MRF/SRF which can be used as an alternative fuel either to cement industry or W2E Plants. There will be around 20 to 30 % process inerts like sand & silt is remain in the process which can be used as a low lying filling area and directly sent to sanitary landfill. Construction and operation of sanitary landfill will remain with the Corporation only.



- 6. Generated Bio-soil is not recommended for direct usage for both agricultural and Horticultural usage. However this can be enhanced by adding few soil health nutrients and stabilized before commercial marketing activity, which requires reasonable time and cost involvement along with time, space and energy.
- 7. As per the NIT report Achan site comprising of all 3 cells (Cell 1, 2 & 3) put together holding around 580 Lakhs MT of old waste. Which need to be recalculated. With our general survey and our SWM expertise team's view point around 10 to 12 lakhs Mts of Garbage is dumped at Achan site , which need to be remediated as per CPCB and SBM Guidelines .

Extract of workings are mentioned below as ease of understanding:

| Abstract of Cost for Bio-remediation & Bio-mining of Legacy Waste | | |
|---|---|---------------------|
| Considering around 11 Lakhs MTs of Garbage is available on 1 st May-2024 which is to be remediated as per CPCB Guidelines. | | |
| Sl No | Description of item | Cost in Lakhs (INR) |
| 1 | Capital Cost (Consists of Civil and Main Processing plant equipment) | 716.40 |
| 2 | Manpower Cost for Segregation & Material Recovery Unit | 568.22 |
| 3 | Power Cost for Segregation & Material Recovery Unit | 320.08 |
| 4 | Spare & Maintenance cost of Segregation & Material Recovery Unit | 153.04 |
| 5 | Hiring Charge of Earth moving & other Equipment | 1624.24 |
| 6 | Cost of Bio-culture | 552.21 |
| 7 | Cost of Inert Transportation up to lead 10 Kms | 116.82 |
| 8 | Cost of RDF Transportation & Scientific disposal beyond lead of 200 Kms | 865.33 |
| 9 | Cost of Bio soil Transportation upto Lead 20 Kms | 155.76 |
| 10 | Miscellaneous Cost | 92.50 |
| 11 | Project Cost | |
| a | Project Cost without Profit & Interest | 5164.59 |
| b | Add Profit @ 10% of 'X' (b) (Inclusive of Capex Recovery) | 516.459 |
| c | Add Environment Management Charge @ 1% of 'X' © | 51.65 |
| d | Add water Charge @ 1% of 'X' (d) | 51.65 |
| e | Add Contingencies @ 1% of 'X' (f) | 51.65 |
| f | Add Project Monitoring & Supervision cost @ 5% of 'X' (g) | 258.53 |
| g | Total Project Cost with RDF Transportation (Y)=a+b+c+d+e+f | 6094.22 |
| h | Cost for Bio-remediation & Bio-mining without RDF Transportation | |
| 14 | Legacy Waste deposited at site (Lakh MT) | 11 Lacs |
| 15 | Per MT charges for Bio-remediation & Bio-mining with RDF Transportation (Rs) | 554.02 |
| | Note: Details of all the above are attached in the enclosed Excel sheet (R3) | |
| 16 | Total Project Cost including RDF Disposal | 60.94 Cr |

Detailed cost analysis were enclosed in the attached Excel sheet:



607 73



Office of the Dean Research and Consultancy
National Institute of Technology Srinagar

NIT/Dean R&C/186
Dated: - 24/03/2022

Chief Sanitation Officer
Srinagar Municipal Corporation

Subject: - Test report of Waste characterization and Water quality

Reference: SMC/COM/SWM/Q/1582-83,

Dated: 11-01-2022

Dear Sir,

In reference to above subject please find enclosed the test report of Waste characterization (physical and chemical) and Water quality testing of garbage dumping site at Aehna Srinagar. The tests have been performed by Civil Engineering Department of this Institute.

Awai
(Prof. Dr. M. F. Wain)
Dean R&C
NIT Srinagar



608 D3



राष्ट्रीय प्रौद्योगिकी संस्थान श्रीनगर
NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR
DEPARTMENT OF CIVIL ENGINEERING
(Water Resources and Environmental Division)

Hazratbal, Srinagar Jammu and Kashmir, 190006, INDIA
Phone : 019-2429423(2202) GSTIN:- 01AMRR10814D1DE
Email : hodcivil@nitari.ac.in TAN: AMRR10814D

No. NIT/CED/WRE/2022/01

Date :- 22 Mar 2022

Chief Sanitation Officer

Srinagar Municipal Corporation

Reference: -Your letter No. SMC/COM/SWMO/1582-83 dated 11/01/2022

Subject: - Waste characterization (physical and chemical) and water quality testing of garbage dumping site at Achan Srinagar

Dear Sir

Please refer to above subject and reference. In this context, a team of experts from NIT Srinagar together with officials from your organization, visited the site and collected samples. Kindly find the report of laboratory tests herewith. The comments / recommendations relevant to waste characteristics and water quality are mentioned in the report. For any clarification, please feel free to contact us.

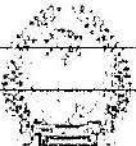

Thanking you

Khalid
22-03-2022

Dr Khalid Muzamil Gani
I/O Environmental Engg. Laboratory
Department of Civil Engineering

Manzoor
22/03/2022

Prof (Dr) Manzoor Ahmad Ahanger
O/C Water Resources and Environmental
Division
Department of Civil Engineering

| | | |
|--|--|---|
|  Jammu and Kashmir Tenders | | Procurement System Government of Jammu And Kashmir Tender Details |
| | | Date : 28-Jun-2024 03:33 PM |
| | |  Print |

Basic Details

| | | | |
|--------------------------------------|--|---------------------------------------|-----------|
| Organisation Chain | HAUDD Srinagar Municipal Corporation | | |
| Tender Reference Number | RPFE- TENDER No. 01 of 2024-2025 JCW/SE SMC 28.06.2024 | | |
| Tender ID | 2024_HAUDD_251496_1 | Withdrawal Allowed | Yes |
| Tender Type | Open Tender | Form of contract | Item Rate |
| Tender Category | Works | No. of Covers | 2 |
| General Technical Evaluation Allowed | No | ItemWise Technical Evaluation Allowed | No |
| Payment Mode | Offline | Is Multi Currency Allowed For BOQ | No |
| Is Multi Currency Allowed For Fee | No | Allow Two Stage Bidding | No |

Payment Instruments

| Offline | S.No | Instrument Type |
|---------|------|---------------------|
| | 1 | Demand Draft |
| | 2 | Bank Guarantee |
| | 3 | Fixed deposit |
| | 4 | Saving Certificates |
| | 5 | CDR (Cash Deposit) |

Cover Details, No. Of Covers - 2

| Cover No | Cover | Document Type | Description |
|----------|-----------------------|---------------|-------------------------|
| 1 | Fee/PreQual/Technical | .rar | Please refer To SBD/RFP |
| 2 | Finance | .xls | BOQ |

Tender Fee Details, [Total Fee in ₹ * - 10,000]

| | | | |
|------------------------------|----------------------------|----------------|-------------------------------------|
| Tender Fee in ₹ | 10,000 | | |
| Fee Payable To | FA/CAO 0216010200000007 | Fee Payable At | Jammu and Kashmir bank Balgarden |
| Tender Fee Exemption Allowed | No | | |

EMD Fee Details

| | | | |
|-----------------|---------------|-----------------------|---------------------------|
| EMD Amount in ₹ | 1,20,00,000 | EMD Exemption Allowed | No |
| EMD Fee Type | percentage | EMD Percentage | 2.0% |
| EMD Payable To | FA/CAO SMC | EMD Payable At | Jammu and Kashmir BANK |

[Click to view modification history](#)

Work /Item(s)

| | | | | | |
|---|--|------------------|---------------|--------------|----|
| Title | Dumpsite Remediation through Biomining of Legacy Waste at Achan of Srinagar City | | | | |
| Work Description | Dumpsite Remediation through Biomining of Legacy Waste at Achan of Srinagar City | | | | |
| Pre Qualification Details | Please Refer To SBD/RFP | | | | |
| Independent External Monitor/Remarks | NA | | | | |
| Tender Stage to disclose bid details to other bidders/public domain | Yes | | | | |
| Tender Value in ₹ | 60,00,00,000 | Product Category | Civil Works - | Sub category | NA |

| | | | | | | |
|-------------------------|---|---------------------------|----------------------|----------------------|-----------------------|--|
| Jammu and Kashmir | | Others | | | | |
| Contract Type | Kashmir | Tender | Bid Validity(Days) | 180 | Period Of Work (Days) | 730 |
| Location | Tenpora | Area of Srinagar City | Pincode | 190010 | Pre Bid Meeting Place | Office of the Joint Commissioner Works SMC |
| Pre Bid Meeting Address | Office of the Joint Commissioner Works SMC Karanagar Srinagar | | Pre Bid Meeting Date | 10-Jul-2024 02:00 PM | Bid Opening Place | Joint Commissioner Works SMC |
| Should Allow NDA Tender | No | Allow Preferential Bidder | No | | | |

Critical Dates

| | | | |
|-------------------------------------|----------------------|-----------------------------------|----------------------|
| Publish Date | 28-Jun-2024 04:00 PM | Bid Opening Date | 26-Jul-2024 04:30 PM |
| Document Download / Sale Start Date | 28-Jun-2024 04:00 PM | Document Download / Sale End Date | 26-Jul-2024 04:00 PM |
| Clarification Start Date | NA | Clarification End Date | NA |
| Bid Submission Start Date | 28-Jun-2024 04:00 PM | Bid Submission End Date | 26-Jul-2024 04:00 PM |

Tender Documents

| NIT Document | S.No | Document Name | Description | Document Size (in KB) |
|--------------|------|--------------------|--|-----------------------|
| | 1 | Tendernotice_1.pdf | RPPE- TENDER No. 01 of 2024-2025 JCW/SE SMC 28.06.2024 | 826.65 |

| Work Item Documents | S.No | Document Type | Document Name | Description | Document Size (in KB) |
|---------------------|------|---------------|----------------|-------------|-----------------------|
| | 1 | BOQ | BOQ_731446.xls | SN1 | 288.50 |

Bid Openers List

| S.No | Bid Opener Login Id | Bid Opener Name | Certificate Name |
|------|---------------------------|---------------------|----------------------|
| 1. | dgmhousingunit1@gmail.com | SAJAD AHMAD KAWOOSA | SAJAD AHMAD KAWOOSA |
| 2. | nazbaba@gmail.com | Nazir Ahmad Baba | NAZIR AHMAD BABA |
| 3. | aaosmc@gmail.com | GH Mustafa Haroo | GHULAM MUSTAFA HAROO |
| 4. | nasakhaltaf2@gmail.com | Altaf Hussain Lone | ALTAF HUSSAIN |

Tender Properties

| | | | |
|---------------------------------|--------|---|-----------------------|
| Auto Tendering Process allowed | No | Show Technical bid status | Yes |
| Show Finance bid status | Yes | Show Bid Details in Public Domain stage | Technical Bid Opening |
| BoQ Comparative Chart model | Normal | BoQ Comparative chart decimal places | 3 |
| BoQ Comparative Chart Rank Type | L | Form Based BoQ | No |

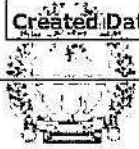
Tender Inviting Authority

| | |
|---------|---|
| Name | Joint Commissioner Works SMC |
| Address | Office of the Joint Commissioner Works SMC Kara Nagar Srainagar |

Tender Creator Details

| | |
|-------------|--------------------------|
| Created By | Nazir Ahmad Baba |
| Designation | Chief Sanitation Officer |

Created Date: 28 Jun 2024 03:22 PM



**Jammu and
Kashmir
Tenders**



Srinagar Municipal Corporation (SMC)

Request for proposal

for

**Selection of Agency for undertaking Dumpsite Remediation
through Biomining of Legacy Waste at Achan of Srinagar City**

Srinagar Municipal Corporation, Srinagar

Karan Nagar, Srinagar, 190010 J&K

Email: jcomworks2023@gmail.com; Phone Nos: 0194-2470466; 2470465;

Fax: 0194-2476931

Table of Contents

79

| | |
|--|----|
| Disclaimer..... | 5 |
| Notice Inviting Tenders..... | 7 |
| Instructions to Bidders..... | 9 |
| 1 General Information and Guidelines..... | 9 |
| 1.1 Purpose..... | 9 |
| 1.2 Contract Period..... | 9 |
| 1.3 Consortium..... | 9 |
| 1.4 Completeness of Bids..... | 9 |
| 1.5 Proposal Preparation Cost..... | 10 |
| 1.6 Pre-bid Meeting and Queries..... | 10 |
| 1.7 Amendment of RFP Document..... | 10 |
| 1.8 Supplementary Information to the RFP..... | 10 |
| 1.9 SMC's Right to Terminate the Process..... | 10 |
| 1.10 Verification of Information..... | 11 |
| 1.11 Bidding Process..... | 11 |
| 2 Key Requirements of the Bid..... | 11 |
| 2.1 RFP Document Fees..... | 11 |
| 2.2 Earnest Money Deposit..... | 11 |
| 3 Bid Submission Instructions and Format..... | 12 |
| 3.1 Bid Validity Period..... | 12 |
| 3.2 Modification and Withdrawal of Bids..... | 13 |
| 3.3 Non-Confirming Bids..... | 13 |
| 3.4 Language of Bids..... | 13 |
| 3.5 Authentication of Bid..... | 13 |
| 3.6 Acknowledgement of Understanding of Terms..... | 13 |
| 3.7 Conflict of Interest..... | 13 |
| 3.8 For the purposes of this RFP..... | 14 |
| 3.9 Disqualification..... | 14 |
| 3.10 Taxes..... | 15 |
| 3.11 Due diligence by the Bidders..... | 15 |
| 3.12 Evaluation Process..... | 16 |
| 3.13 Bid Opening..... | 16 |
| 3.14 Evaluation of Technical Proposals..... | 17 |
| 3.15 Financial Proposal Evaluation..... | 19 |
| 3.16 Technical Qualification Criteria..... | 19 |
| 3.17 Financial Evaluation Process:..... | 20 |

| | | |
|------|---|----|
| 3.18 | Selection Methodology:..... | 20 |
| 3.19 | Letter of Award (LOA) | 20 |
| 3.20 | Rates For Award of Contract(S)..... | 21 |
| 3.21 | Confidentiality..... | 21 |
| 3.22 | Signing of Contract Agreement..... | 21 |
| 3.23 | Failure to agree with the Terms and conditions of the RFP/ Contract | 21 |
| 4 | Performance Security..... | 21 |
| 5 | Consignee ULBs:..... | 22 |
| 6 | Verification of Bills:..... | 22 |
| 7 | Payment Authority..... | 22 |
| 8 | Payment Terms to the Bidder:..... | 22 |
| 9 | Statutory Variations | 22 |
| 10 | Notice To Bidder/Supplier..... | 23 |
| 11 | Indemnity Bond..... | 23 |
| 12 | Cancellation / Termination for Default..... | 23 |
| 13 | Force Majeure Clause: | 23 |
| 14 | Jurisdiction of Court..... | 24 |
| 15 | Arbitration..... | 24 |
| 16 | Reporting Requirement | 24 |
| | Scope of Work and Terms of Reference | 25 |
| 1 | Scope of Work..... | 25 |
| 2 | Scope of work for the project will broadly include, but not limited to..... | 25 |
| 3 | Operational Milestones | 26 |
| 4 | Weighment System..... | 27 |
| 5 | Environmental Standards..... | 28 |
| 6 | Hazardous waste..... | 28 |
| 7 | Special conditions | 29 |
| 8 | Water and Electricity..... | 30 |
| 9 | Provision for building ancillary facilities | 30 |
| 10 | Mobilization & Construction period and commencement of the project | 31 |
| 11 | Dumping of fresh MSW | 31 |
| 12 | Terms of Payment..... | 31 |
| 13 | Bill submission..... | 31 |
| 14 | Extension Of Contract | 31 |
| 15 | Penal action against non-compliance | 31 |
| 16 | Reporting Requirement | 32 |
| | Annexure 1 – Technical Qualification Proposal | 33 |

| | |
|---|----|
| Annexure 1.1 - Checklist for the Pre-Qualification Proposal | 33 |
| Annexure 1.2 - Pre-Qualification Cover Letter..... | 34 |
| Annexure 1.3 - Format for Sharing Particulars of the Bidder | 36 |
| Annexure 1.4 - Format for Project Citation | 37 |
| Annexure 1.5 - Format for Declaration by the Bidder for not being Blacklisted / Debarred | 38 |
| Annexure 1.6 - Format of Power of Attorney for Bidder | 39 |
| Annexure 1.7 – Format for Annual Turnover..... | 40 |
| Annexure 2 – Technical Proposal..... | 41 |
| Annexure 2.1 - Checklist for the documents to be included in the Technical Proposal | 41 |
| Annexure 2.2 Technical Bid Cover Letter | 42 |
| Annexure 2.3 Details of Past Assignments..... | 43 |
| Annexure 2.4: Team Composition | 44 |
| Annexure 2.5: Manpower Qualification & Roles Responsibilities | 46 |
| Annexure 2.6: Project site Coordinates and Pictures | 47 |
| Annexure 3: Format for Project Undertaking | 48 |
| Annexure 4: Affidavit | 49 |
| Annexure 5: Format of sending pre-bid queries..... | 50 |
| Annexure 6: Formula considered for QCBS | 51 |

616 Disclaimer

82

The information contained in this Request for Proposal document ("RFP document") or subsequently provided to Applicant(s), whether verbally or in documentary or in any other form, by or on behalf of Srinagar Municipal Corporation, Srinagar. (Hereafter referred to as "SMC") or any of its employees or advisors, is provided to the Applicant(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided in writing. The purpose of this RFP document is to provide the Applicant(s) with information to assist the formulation of their Proposals. This RFP document does not purport to contain all the information that each Applicant may require. This RFP document may not be appropriate for all persons, and it is not possible for the SMC, its employees or advisors to consider the investment objectives, financial situation and needs of each Applicant who reads or uses this RFP document. The assumptions, assessments, statements, and information contained in the RFP document may not be complete, accurate, adequate, or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements, and information contained in this RFP document and where necessary obtain independent advice from appropriate sources. The SMC, its employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules, or regulations as to the accuracy, adequacy, correctness, reliability, or completeness of the RFP document.

Information provided in this RFP document to the Applicant(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The SMC accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The SMC, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP document or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP document and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP document or arising in any way for participation.

The SMC also accept liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Applicant upon the statements contained in this RFP document. The SMC may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP document before the last date of bid submission.

The issue of this RFP document does not imply that the SMC is bound to select an Applicant or to appoint the selected Applicant or SI, as the case may be, for the Project and

the SMC reserves the right to reject all or any of the Applicants or Bids without assigning any reason whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the SMC, or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Applicant and the SMC shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

Sd/-

Joint Commissioner (Works)
Srinagar Municipal Corporation, Srinagar

Notice Inviting Tenders

Srinagar Municipal Corporation, Srinagar (SMC)

Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City

The Joint Commissioner (Works), Srinagar Municipal Corporation on behalf of the Commissioner, Srinagar Municipal Corporation invites online tender for the work mentioned below: -

| Sr. | Information | Details |
|-----|---|---|
| 1. | Client Name | Srinagar Municipal Corporation, Srinagar |
| 2. | Name of Work | Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste at Achan of Srinagar City in 24 months after allotment of the works. |
| 3. | Project cost | At the rates permissible under the scheme guidelines of SBM 2.0 (Urban) |
| 4. | RFP reference No. and Date of availability of RFP | RFP reference No. e-Tender-XX-XX-2023/24 Date- 25.06.2024 Date: 25.06.2024 at 2:00 PM to 16.07.2024 at 04:00 PM |
| 5. | Submission of queries on RFP | Bidders can submit their queries on official mail id icomworks2023@gmail.com before 10: 00 AM on 06/07/2024 |
| 6. | Pre-bid meeting | 06.07.2024 at 2:00 PM. |
| 7. | Last date and time for submission of bid | 16.07.2024 at 4:00 PM. |
| 8. | Opening of Technical Bid | 16.07.2024 at 4:30 PM. |
| 9. | Date of Opening of Financial Bid | Shall be intimated to technically qualified bidders, through email |
| 10. | Bid Submission mode | Online bid to be submitted on www.jktenders.gov.in and only online bids shall be entertained. Other modes of submission shall disqualify the bidder |
| 11. | Bid Document Fee & Mode of Payment (Non-Refundable) | INR 10,000/- (INR Ten Thousand only) to be submitted online payment system through RTGS/NEFT Account Holder Name: FA/Chief Accounts Officer, Srinagar Municipal Corporation. Account No: 0216010200000007 IFSC Code: JAKAOKARRAN Bank Name: Srinagar and Kashmir Bank, B/O. Balgarden, Srinagar. |
| 12. | EMD (Refundable) | INR 1,20,000,000/- (INR One Crore twenty Lakhs only) to be submitted on the shape of CDR/FDR/BG pledged to FA/ Chief Accounts officer, SMC. |
| 13. | Performance Security | 5% of the total contract value in accordance with clause 1.4 of RFP |

| | | |
|-----|--------------------------|---|
| 14. | Proposal Currency | In Indian Rupee (INR) |
| 15. | Proposal Validity | Proposals shall remain valid for 180 days following the tender submission date |
| 16. | MSME | Exemption as per financial rules. |
| 17. | Startup clause | <p>The conditions of prior experience (as per Pre-Qualification Criteria as per clause 1 under Instructions to Bidders, Section 2) is relaxed for all Startups (whether Micro & Small Enterprises (MSEs) or otherwise) subject to meeting of quality in accordance with the relevant provision of GFR 2017 or latest version and other DOE-PPD notifications for relaxation norms for Startups issued from time to time.</p> <p>Bidder who intends to participate as "Startups" company should fulfil all the conditions of Startups as directed by Department for promotion of Industry Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India and his eligibility shall be valid as on bid closing date. They will also enclose the certificate of Recognition issued by DPIIT.</p> <p>The startup is also exempted from paying of EMD as per financial rules.</p> |
| 18. | Mode of selection | QCBS |
| 19. | Language of the Proposal | English |

The detail tender notice and tender document can be seen on website and downloaded online from the portal: <https://jktenders.gov.in/> by the firms/ individuals registered on the portal.

1. Possession of digital signature certificate (DSC) and registration of the bidders on the portal i.e., <https://jktenders.gov.in/> is a prerequisite for e-tendering.
2. For further details, updates, corrigendum(s) and e-tendering schedule, visit the website <https://jktenders.gov.in/>
3. As the bids are to be submitted online and are required to be encrypted and digitally signed, the bidders are advised to obtain digital signature certificate (DSC) at the earliest.

Sd/-

Joint Commissioner (Works)
Srinagar Municipal Corporation,
Srinagar, J&K

Date: 25-06-2024

86

620
Instructions to Bidders

1 General Information and Guidelines

1.1 Purpose

Effective solid waste management is one of the major objectives under Swachh Bharat Mission. Swachh Bharat Mission since 2014 has introduced several scientific methods in Municipal Solid Waste Management. One of the critical focus areas include scientific remediation of dumpsites. Environmental adjudication has also mandated the scientific remediation of dumpsites.

Srinagar Municipal Corporation (SMC) has prepared this Request for Proposal for "Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City", to reclaim the complete existing dumpsites through applying scientific and safe disposal means of the legacy wastes.

The work has to be executed in accordance with the specifications approved by SMC. The technology should be based on the technical specifications specified in the Bid document and shall have to meet high standards of workmanship, safety and security as stipulated by concerned Ministries/ Departments of Government of India.

1.2 Contract Period

The expected timeline set for the contract is **Twenty-Four (24) Months (including Monsoon season and installation period)**. This shall also include establishment of dumpsite/ landfill processing tools/ equipment/ monitoring sheds as mentioned in the scope of work and process the entire waste to ensure complete reclamation of the dumpsites. Simultaneously the bidder must ensure that during the course of legacy waste remediation an area at each of these sites, shall be demarked for the reception of fresh wastes at the dumpsite. In no circumstances, fresh and the legacy waste shall be mixed, else it will be assumed as Legacy waste and the selected agency shall be responsible for entire site clearance.

1.3 Startups:

Bidder who intends to participate as "Startups" company should fulfil all the conditions of Startups as directed by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India and his eligibility shall be valid as on bid closing date. They will also enclose the certificate of Recognition issued by DPIIT. Further they necessarily have to submit the declaration to the effect on their letter head as prescribed below and should be signed and stamped by the authorized person. For participation, Startups company may associate or make consortium/ Joint Venture (JV) with another company who is having all the requisite technical and financial experience stipulated in the RFP.

In case of JV (applicable only for startups company), technical and financial eligibility of the Lead Member ("Lead Member") will only be considered for the purpose of evaluation. The maximum participating number of member allowed in a JV is 2(two) including the Lead Member of the JV out of which one member should be Startups company. In the case of a JV, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a representative of the Lead Member who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. JV shall include a copy of the Joint Venture Agreement entered into by all members.

Bids submitted by a JV of two firms as members shall comply with the following requirements, unless otherwise stated below:

(a) the Bid shall include all the information listed above for each joint venture member.

(b) the Bid shall be signed so as to be legally binding on all members.

(c) the Bid shall include a copy of the agreement entered into by the joint venture members defining the division of assignments to each member and establishing that all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms.

(d) one of the members shall be nominated (Lead Member) as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture; and

(e) the execution of the entire Contract, including payment, shall be done exclusively with the Lead Member.

A consistent history of litigation or arbitration awards against the Applicant or any member of a Joint Venture may result in disqualification. In this regard, both members need to upload their litigation history.

1.4 Completeness of Bids

The Bid should be complete in all respects. Failure to furnish all information required by the RFP document or submission of a proposal not substantially responsive to the RFP document in every respect will be at the Bidder's risk and may result in rejection of its Bid and forfeiture of the earnest money deposit (EMD).

1.5 Proposal Preparation Cost

The Bidder shall submit the bid at its own cost and expense. SMC shall not be held responsible for any cost incurred by the Bidder. Submission of a bid does not entitle the Bidder to claim any cost and rights over SMC and SMC shall be at liberty to cancel any or all bids without giving any notice. All materials submitted by the Bidder shall be the absolute property of SMC and no copyright etc. shall be entertained by SMC.

1.6 Pre-bid Meeting and Queries

- a. Srinagar Municipal Corporation (SMC) will host Pre-Bid meeting as per the date mentioned in the Notice Inviting Tender.
- b. The Bidder must e-mail their queries, if any, to jcomworks2023@gmail.com in the form and manner as prescribed in bid document only. The queries submitted through any other mode shall not be accepted. No queries will be entertained post Pre-Bid Meeting. SMC shall not make any warranty as to the accuracy and completeness of responses.
- c. SMC shall endeavor to respond to the questions raised or clarifications sought by the Bidders in consultation with Srinagar Municipal Corporation (Srinagar). However, SMC reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this clause shall be taken or read as compelling or requiring SMC to respond to any question or to provide any clarification.
- d. SMC may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by SMC shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by SMC, or its employees or representatives shall not in any way or manner be binding on SMC.

1.7 Amendment of RFP Document

All the amendments made in the document would be published on the e-Tendering Portal (<https://jktenders.gov.in>) only and shall form part of this RFP by issuing Addendum / Corrigendum. Any addendum/corrigendum as well as clarification thus issued shall be a part of the Tender documents and it will be assumed that the information contained in the amendment have been taken into account by the bidder in its tender. To give prospective bidder reasonable

time in which to take the amendment into account in preparing their tenders, the deadline for submission of tenders, may be extended at the Discretion of the Department in which case, Bidders will be notified by placing notice on website of the extended deadline.

The Bidders are advised to visit the e-tendering portal on regular basis to check for necessary updates. SMC also reserves the right to amend the dates mentioned in this RFP.

1.8 Supplementary Information to the RFP

If SMC deems it appropriate to revise any part of this RFP or to issue additional data to clarify an interpretation of provisions of this RFP, it may issue supplements to this RFP. Any such corrigendum shall be deemed to be incorporated by this reference into this RFP.

1.9 SMC's Right to Terminate the Process

SMC may terminate the RFP process at any time and without assigning any reason. SMC reserves the right to amend/ edit/ add/ delete any clause of this RFP Document. This will become part of the RFP and information for the same would be published only on <https://jktenders.gov.in>

1.10 Verification of Information

The Bidders are encouraged to obtain for themselves, at their own responsibility and risk, undertake site visit and all information that may be necessary for submission of the bid and entering into the Contract.

1.11 Bidding Process

The entire bidding process shall be online (e-Tendering) in two Stage Systems. The Bidders shall have to submit their Bids online as per the RFP on the website <https://jktenders.gov.in>.

2 Key Requirements of the Bid

2.1 RFP Document Fees

1.1. RFP can be downloaded from the website <https://jktenders.gov.in>. RFP Document Fee shall be paid only through online in the given account number as mentioned per the Notice Inviting Tender. The RFP document fee shall be non-refundable. Without the payment of tender fee, the bids will be taken as incomplete and non-responsive and shall not be considered. **RFP Document Fee of Rs 10000/- (INR Ten Thousand Only) shall be paid through online payment system through RTGS / NEFT or in favor of and as per payment detail given below:**

**Account Holder Name: FA/Chief Accounts Officer,
Srinagar Municipal Corporation.**

Account No: 0216010200000007

IFSC Code: JAKA0KARRAN

**Bank Name: Jammu and Kashmir Bank,
B/O. Balgarden, Srinagar.**

2.2 Earnest Money Deposit

a. In terms of this RFP, Earnest money/Bid security in shape of CDR/FDR/BG pledged to Chief Accounts officer, SMC. The CDR/FDR/BG shall be valid for 45 Days beyond the bid validity period. The original instruments in respect of cost of documents, EMD and relevant documents of successful bidder be submitted to the Jt. Commissioner (Works), SMC at the time of allotment within Seven days of opening of financial bid. No separate information regarding this shall be sent by this office/by the tender opening authority. In case the original documents are not submitted by the H-1 bidder within seven days after opening of financial bid, his bid will be cancelled, and the tender will be put to fresh tender at their own risk and cost and letter for forfeiture of EMD submitted online shall be sent to the concerned bank.

Account Holder Name: FA/Chief Accounts Officer,
Srinagar Municipal Corporation.
Account No: 0216010200000007
IFSC Code: JAKA0KARRAN
Bank Name: Jammu and Kashmir Bank,
B/O. Balgarden, Srinagar.

EMD Amount is mentioned in Notice Inviting Tender in absence of which the bid shall be deemed to submitted without EMD and shall be out rightly rejected.

- b. Earnest money of the tenderers shall be forfeited if they withdraw their bids or hike the prices of their offer within the validity period. The earnest money shall also be forfeited in case of tenderers who do not comply with the award/contract placed on them or violate any terms and conditions contained herein.
- c. Earnest money deposit shall be retained in respect of successful tenderers who is shortlisted for award of contract as per terms and conditions of the SBD.
- d. Earnest Money Deposit shall be returned to successful tenderer after completion and successful commissioning of works as reported by the concerned intending Department.
- e. The Earnest Money of the tenderer who backs out or withdraws his tender or fails to abide by it after acceptance thereof is conveyed or posted to him, shall be forfeited besides recourse to other measures under the Law in force in the UT of J&K to recover the extra cost if involved in getting the Works done through some other agency.
- f. The successful bidder shall have to furnish original Bid security Instrument and hard copies of other documents before issuance of Works order.
- g. The decision of SMC regarding forfeiture of the EMD shall be final and binding upon Bidders.
- h. In case the bidding process is not completed within the period of 180 days, SMC may request for extending the validity of the bid.

3 Bid Submission Instructions and Format

The entire Bid shall be submitted strictly as per the format specified in this RFP. Bids with any deviation from the prescribed format or with conditions are liable for rejection.

A two-cover system shall be followed for the bid for each part separately:

Technical Bid: RFP Fee, Declaration of EMD, qualification documents under technical bid (including the credentials) all shall be submitted in a scanned manner, duly self-certified on e-tendering portal.

Financial Bid: Financial bid as per the format specified, on e-tendering portal.

| Sr. | Document type | Documents Format |
|---|---------------------------------|---|
| RFP Fee & Declaration of EMD Details and Technical Documents = | | |
| a | Technical Bid and Qualification | As specified in RFP document |
| Financial Bid – | | |
| b | Financial Bid | As per BOQ (Bill of Quantities) specified in the e-tendering portal |

The bid shall include the following documents:

- a) The bidder should ensure that all the required documents, as mentioned in this RFP / bidding document, are submitted along with the bid and in the prescribed format only. Non-submission of the any of the required documents or submission of the documents in a different format / content may lead to rejection of the bid proposal submitted by the bidder.

- b) The following points shall be kept in mind for submission of bids;
- I. SMC shall not accept delivery of Bids in any manner other than that specified in this RFP. Bid delivered in any other manner shall be treated as defective, invalid, and rejected.
 - II. The Bid should be comprehensive and inclusive of all the services to be provided by the Bidder as per the scope of work and in accordance with the terms and conditions as set out in the RFP.
 - III. SMC may seek clarifications from the Bidder on the technical proposal. Any of the clarifications by the Bidder on the technical proposal should not have any commercial implications.
 - IV. Technical Proposal shall not contain any financial bid information. If any Financial information is found in the Proposal the entire bid shall be treated as disqualified and will be rejected.
 - V. It is required that all the proposals submitted in response to this RFP should be unconditional in all respects, failing which SMC reserves the right to reject the proposal.

3.1 Bid Validity Period

The bids will be valid till **180 (One hundred twenty Eighty days)** from the last date of bid submission.

3.2 Modification and Withdrawal of Bids

No bid shall be withdrawn in the interval between the last date of submission of bids and the expiration of the validity period.

3.3 Non-Confirming Bids

A Bid may be construed as a non-confirming proposal and ineligible for consideration:

- a) If it does not comply with the requirements of this RFP.
- b) If the Bid does not follow the format requested in this RFP or does not appear to address the requirements of SMC.

3.4 Defect Liability Period

The DLP shall be calculated from date of certified completion of work and period shall be **27 Months**. The defects noticed in the work during execution or DLP shall be corrected by the Contractor within the length of time specified by the Engineer. If the contractor does not correct the defects pertaining to DLP to the satisfaction of the Engineer within the time specified, the Engineer will assess the cost of having the defects corrected and contractor will pay this amount on correction of defects. The date of start of work shall be reckoned within ten days from the date of issuance of allotment. In case the agency fails to execute the work, the deposits in the shape of CDR/FDR/BG shall be liable for forfeiture besides initiating other punitive actions against the defaulter without serving any notice.

3.5 Language of Bids

The Bids should be submitted in English language only. If any supporting documents submitted are in any language other than English & Hindi, then the translation of the same in English or Hindi language is to be duly attested by the Bidder and submitted with the bid, and English translation shall be validated at SMC's discretion.

3.6 Authentication of Bid

- a) Authorized person of the Bidder who signs the bid shall obtain the Power of Attorney from the Bidder, which shall be submitted with the Bid. All pages of the bid and its annexures, etc. shall be signed and stamped by the person or persons signing the bid.
- b) The Bidder should submit a Power of Attorney as per the format set forth in Annexure-

3.7 Acknowledgement of Understanding of Terms

By submitting a Bid, each Bidder shall be deemed to acknowledge that the Bidder has carefully read all sections of this RFP, including all forms, schedules, annexure, corrigendum, and addendums (if any) hereto, and has fully informed itself as to all existing conditions and limitations.

3.8 Conflict of Interest

A Bidder shall not have a conflict of interest that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification in case of a Selected Bidder, the Authority shall forfeit the Security Deposit of such Selected Bidder as a mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Authority and not by way of penalty for, inter alia, the time, cost and effort of the Authority, including consideration of such Bidder's Bid, without prejudice to any other right or remedy that may be available to the Authority hereunder or/and the Contract Agreement or otherwise. Without limiting the generality of the foregoing, a Bidder shall be considered to have a conflict of Interest ("Conflict of Interest") that affects the Bidding Process, if:

- a) The Bidder, or any of its Member or Associate (or any constituent thereof) and any other Bidder, or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; Provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, or Associate, as the case may be) in the other Bidder, its Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; Provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in Section 2(72) of the Companies Act, 2013. For the purposes of this clause indirect shareholding held through one or more intermediate persons shall be computed as follows:
 - i. where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person ("Subject Person") shall be considered for computing the shareholding of such controlling person in the Subject Person; and
 - ii. subject to sub clause (i) herein above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (ii) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or
- b) a constituent of such Bidder is also a constituent of another Bidder; or
- c) such Bidder or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder or any Associate thereof; or
- d) such Bidder has the same Authorized Representative for the purposes of this Bid as any other Bidder; or
- e) such Bidder or any Associate thereof has a relationship with another Bidder, or any Associate thereof, directly or through common third parties, that puts them in a position to have access to each other's information about, or to influence the Bid of either or each

- f) of the other Bidder; or
- f) Such Bidder has participated as a consultant for the Authority in the preparation of any documents, design or technical specifications of the Project.

3.9 For the purposes of this RFP

"Associate" shall mean in relation to the Bidder, a person who controls, is controlled by, or is under the common control with such Bidder. As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or contract or otherwise.

3.10 Disqualification

Even though a Bidder meets the technical qualifying criteria, it could be disqualified if it has:

- a. Submitted the Bid after the date mentioned in Notice Inviting Tender.
- b. Made misleading or false representations in the forms, statements and experiences submitted in proof of the qualification requirements.
- c. Submitted the Bid, which is not accompanied by the required documents or is nonresponsive.
- d. Failed to provide any clarifications related thereto.
- e. Where the bidder has already submitted the Bid and is a member of entity, which has already submitted the Bid, or vice versa.
- f. If any member of an entity is replaced or withdraws, except without prior written permission of SMC at any stage.
- g. Violates any other condition mentioned herein before/ herein after.
- h. If any such information which would have entitled SMC to reject or disqualify the Bidder, becomes known after the bidder has been pre-qualified, SMC reserves the right to cancel the pre-qualification of the bidder at any later stage too, without assigning any reason thereof.
- i. Where the Bidder is a Joint Venture/Partnership firm or any entity, SMC may disqualify the entire entity for any of the reasons set out above, even if it applies in respect of only one member of the Consortium/ JV.
- j. Bidders who canvass or attempt to influence the qualification or selection process shall necessarily be disqualified from the process at any stage.
- k. Where the bidder has been declared as defaulter or blacklisted by the Govt. Agencies or any other municipal committees/councils of Srinagar division, before the date of opening of techno commercial Bid.

3.11 Taxes

- a. The successful bidder shall be responsible for all the income tax, statutory taxes, statutory dues, local levies, Goods & Service tax, etc., to be paid to Government / Statutory bodies / Authorities, etc., for the services rendered by it. There will be no tax liability upon the SMC whatsoever on any account.
- b. The Bidder indemnifies SMC from any claims that may arise from the statutory authorities in connection with this License.

3.12 Due diligence by the Bidders

- a. Bidders are encouraged to inform themselves fully about the Project and the Sites for installing the plant by visiting the project site, sending written queries (if any) to the SMC; attending Pre-Proposal Meetings on the date and time as stipulated. On written request from the Bidder for the site visit, SMC may depute the concerned officials for the site visit.

- b. The Bidders are also advised to study all instructions, forms, terms, requirements and other information in the Bid Documents carefully.
- c. The response to this RFP should be full and complete in all respects. Failure to furnish any information required by the RFP or submission of a proposal not substantially responsive to the RFP in any respect will be at the bidder's risk entirely and may result in rejection of its Bid.
- d. For Bidders, shall also be deemed to have acknowledged and agreed that in the event of a change in control of technical and financial capacity in terms of credentials and experience was taken into consideration for the purposes of the Technical Evaluation in accordance with the RFP, the Bidder shall be deemed to have knowledge of the same and shall be required to inform the Authority forthwith along with all relevant particulars about the same and the Authority may, in its sole discretion, disqualify the Bidder or withdraw the LOA from the Selected Bidder, as the case may be. In the event, such change in control occurs after signing of the Contract Agreement it would, notwithstanding anything to the contrary contained in the Contract Agreement, be deemed to be a breach of the Contract Agreement, and the same shall be liable to be terminated without the Authority being liable in any manner whatsoever to the Bidder. In such an event, notwithstanding anything to the contrary contained in the Contract Agreement, the Authority shall be entitled to forfeit and appropriate the EMD or Security Deposit or Performance Guarantee, as the case may be, as damages, without prejudice to any other right or remedy that may be available to the Authority under the RFP and/ or the Contract Agreement or otherwise.
- e. Bidders are encouraged to submit their respective Bids after visiting the project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities, access to Site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them.
- f. It shall be deemed that by submitting the Bid, the Bidder has:
 - i. Visited the project site and has ascertained the site conditions, location, climate, availability of infrastructure and is well aware of applicable laws and regulations of the State.
 - ii. Made a complete and careful examination of the RFP.
 - iii. Received all relevant information requested from the Authority.
 - iv. Accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority.
 - v. Satisfied itself about all matters, things and information including matters referred to in this clause as may be necessary and required for submitting an informed Bid, execution of the Project in accordance with the Bidding Documents and performance of all its obligations there under.
 - vi. Acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bidding Documents or ignorance of any of the matters shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from the Authority, or a ground for termination of the Contract Agreement.
 - vii. Acknowledged that it does not have a Conflict of Interest.
 - viii. Agreed to be bound by the undertakings provided by it under and in terms hereof; and made its own independent due diligence as provided in the bid document and satisfied itself on the viability of the Project.
 - ix. The Authority shall not be liable for any omission, mistake, or error in respect of any

of the above or on account of any matter or thing arising out of or concerning or relating to the Bid document or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

3.13 Evaluation Process

- a. The Tender Evaluation Committee (TEC) comprising of **Members of purchase committee of the Srinagar Municipal Corporation, Srinagar** shall evaluate the responses of the Bidders.
- b. The TEC constituted shall evaluate the responses to the RFP and all supporting documents/ documentary evidence. Inability to submit requisite supporting documents/ documentary evidence, may lead to rejection.
- c. The decision of the TEC in the evaluation of responses to the RFP shall be final. No correspondence shall be entertained outside the process of negotiation/ discussion with the TEC.
- d. The TEC may ask for meetings with the Bidders to seek clarifications on their proposals and may visit Bidder's client site to validate the credentials/ citations claimed by the Bidder.
- e. The TEC reserves the right to reject any or all proposals on the basis of any deviations.
- f. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.
- g. Please note that TEC may seek inputs from their professional, external experts in the Bid evaluation process.

3.14 Bid Opening

- a. Total transparency shall be observed and ensured while opening the Bids. All Bids shall be opened in the presence of Bidder's representatives who choose to attend the Bid opening sessions on the specified date, time and address.
- b. SMC always reserves the rights to postpone or cancel a scheduled Bid opening.
- c. Bid opening shall be conducted in the following.
- d. Initial screening – whether RFP Document fee and Bid Security / EMD declaration has been paid.
 - i. Whether the bidder has the necessary pre-qualifications as stipulated in the document
 - ii. Whether the proposal submitted by the bidder meets technical standards and qualifies based on evaluation parameters set forth in this RFP.
- e. The venue, date and time for opening the Technical Proposal are mentioned in the Notice Invite.
- f. Bidders who submit all the documents and qualifies the conditions mentioned under technical qualification criteria in the Technical Evaluation will be declared as Technically Qualified bidders.
- g. The Financial Proposals of only Technically Qualified Bidders will be opened.
- h. The Bidder's representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for SMC, the bids shall be opened at the same time and location on the next working day. In addition to that, if the representative(s) of the Bidder remains absent, SMC will continue process and open the bids of all Bidders.
- i. During Bid opening, preliminary scrutiny of the Bid documents shall be made to determine whether they are complete, whether required EMD declaration has been furnished, whether the Documents have been properly signed, and whether the bids are generally in order. Bids not conforming to such preliminary requirements may be rejected. SMC has the right to reject the bid after due diligence is done.

3.15 Eligibility and Pre-Qualification Criteria

629

96

1. Only those bidders who qualify the following criteria shall be allowed to participate in the bid:

| Sr. No. | Eligibility Criteria | Documents to be Submitted |
|---------|--|---|
| 1. | Only reputed Indian legal entities / firms [firm means – sole proprietorship firm, partnership firm, limited company, corporation, limited liability partnership, government company, NGO, Society or any other legal entity] are allowed to apply | Copy of the Certificate of Incorporation issued by Registrar of Companies or Copy of the Registration of the entity with the State Government of Central Government and full address of the registered office of the bidder |
| 2. | Joint Venture or Consortium is permitted to startup firm only for technical experience | |
| 3. | Mandatory Payment of Tender Fee and Earnest Money Deposit (EMD)/Bid Security | Details of Receipt/Proof of the submission or payment of Tender Fee and Earnest Money Deposit (EMD)/Bid Security. |
| 4. | The Bidder must have valid PAN, GST, TAN, EPFO and ESIC Registration Certificates | Copy of the valid PAN Card, TAN Registration, GST Registration, EPFO Registration and ESIC Registration |
| 5. | <p>The Bidder must be a reputed and an experienced entity having an experience of similar work in the last 3 years as on the date of issue of this RFP as follows:</p> <p>i. 1 (One) legacy waste management project of 50% i.e. 5.50 lakhs MT of the total defined legacy waste to be remediated</p> <p>OR</p> <p>ii. 2 (Two) legacy waste management projects of 40% i.e. 4.40 lakhs MT of the total defined legacy waste to be remediated</p> <p>OR</p> <p>iii. 3 (three) legacy waste management projects of 30% i.e 3.30 lakhs MT of the total defined legacy waste to be remediated</p> <p>OR</p> <p>iv. Cumulative daily design capacity of the bidder to be minimum of 150% of daily generation in the city i.e 900TPD for the City of Srinagar (Daily waste generation is (600TPD). Cumulative design capacity must be across a maximum of 5 (five) projects in waste processing/ treatment/ recycling in the last 7 years.</p> | Copy of the Work Order along with Certificate of Successful Completion of Work from the respective Government Organisation, Semi-Government Organisation, Urban Local Body or a Public Sector Unit signed by the authorized signatory of the client, not below the rank of Executive Engineer |
| 6. | The Bidder must have a minimum Average Annual Financial Turnover of INR 18,00,00,000/- during last 3 (three) | Copy of Auditor Report along with Audited Balance Sheet, Profit and Loss Statement, Average Annual Turnover |

| Sr. No. | Eligibility Criteria | Documents to be Submitted |
|---------|---|---|
| | <p>financial years (i.e. 2020-21, 2021-22 and 2022-23)</p> <p>The Bidder must be making profit in the last 3 (three) financial years (i.e. 2020-21, 2021-22 and 2022-23)</p> <p>The Bidder must have a positive net worth as per the Audited Balance Sheet at the end of last financial year (i.e. 2022-23)</p> | <p>Certificate, Net Worth Certificate of the Bidder, certified by a Chartered Accountant and Self-Attested copies of Income Tax Return for last 3 (three) financial years (i.e. 2020-21, 2021-22 and 2022-23) should be submitted.</p> |
| 7. | The Bidder must have valid ISO 9001, ISO 14001 and ISO 45001 registration | Copy of the valid ISO 9001, ISO 14001 and ISO 45001 registration |
| 8. | At the time of bidding, the Bidder must not have been blacklisted/debarred/ by any Government Department/PSU/PSE/ or banks for any reason or non-implementation/ delivery of the order | Submit the self-declaration on the letterhead of the bidder duly sealed and signed by the authorised signatory |
| 9. | At the time of bidding the Bidder should not have any pending litigation against the Bank before any Court of Law | Submit the self-declaration on the letterhead of the bidder duly sealed and signed by the authorised signatory |
| 10. | Bidder must not be a NPA holder in any Bank/Financial Institution | Submit the self-declaration on the letterhead of the bidder duly sealed and signed by the authorised signatory |
| 11. | Bidder must have access to liquid assets or credit facilities of minimum value of INR One Crore (2,00,00,000/-) to meet the fund requirement to execute the work | Submit duly sealed and signed Banker's certificate or CA certificate |
| 12. | Bidder must undertake a site visit prior to the submission of bid to acquaint themselves with the site location, the local conditions | Bidder must submit a Site Visit Declaration Certificate clearly mentioning the date of site visit verified by a representative of the Client |
| 13. | As per the Government of India Startup India Action Plan, all start-up firms/companies, registered under the Start-Up India Programme by the Government of India, are exempted from the prior experience and prior turnover under the eligibility and pre-qualification criteria for the bidders | Any bidder claiming exemption from the minimum eligibility criteria as a start-up firm/company, shall submit a self-declaration on the letterhead of the bidder duly sealed and signed by the authorized signatory along with a self-attested copy of the Certificate of Recognition issued by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, Government of India. |

3.16 Scoring and Evaluation Criteria:

1. Only those bidders who qualify the eligibility and pre-qualification criteria shall be evaluated for technical evaluation.
2. All the qualified bidders shall be intimated by the Client about their qualification. All the qualified bidders shall be required to give a detailed technical presentation to the Client, or any entity/committee authorized by the Client for a detailed technical evaluation
3. Through the technical presentation the bidders shall be evaluated on the parameters:

- i. Understanding of the scope of work
- ii. Technology and Methodology implemented for execution of work.
- iii. Schedule and Timeline of implementation
- iv. Technical capability and innovation

4. The following scoring pattern shall be followed for technical evaluation:

| Sr. No. | Parameter | Scoring |
|---------|---|----------|
| 1. | Value of similar completed works in the last 7 years | 30 marks |
| i. | i. 1 (One) legacy waste management project of 70% i.e. 7.70 lakhs MT of the total defined legacy waste to be remediated OR ii. 2 (Two) legacy waste management projects of 60% i.e. 6.60 lakhs MT of the total defined legacy waste to be remediated OR iii. 3 (three) legacy waste management projects of 50% i.e. 5.50 lakhs MT of the total defined legacy waste to be remediated OR iv. Cumulative daily design capacity of the bidder to be minimum of 175% of daily generation in the city i.e. 1050 TPD for the City of Srinagar (Daily waste generation is 600TPD). Cumulative design capacity must be across a maximum of 5 (five) projects in waste processing/treatment/recycling in the last 7 years. | 30 Marks |
| ii. | i. 1 (One) legacy waste management project of 60% i.e. 6.60 lakhs MT of the total defined legacy waste to be remediated OR ii. 2 (Two) legacy waste management projects of 50% i.e. 5.50 lakhs MT of the total defined legacy waste to be remediated OR iii. 3 (three) legacy waste management projects of 40% i.e. 4.40 lakhs MT of the total defined legacy waste to be remediated OR iv. Cumulative daily design capacity of the bidder to be minimum of 160% of daily generation in the city i.e. 960TPD for the City of Srinagar (Daily waste generation is 600TPD). Cumulative design capacity must be across a maximum of 5 (five) projects in waste processing/treatment/recycling in the last 7 years. | 25 Marks |
| iii. | i. 1 (One) legacy waste management project of 50% i.e. 5.50 lakhs MT of the total defined legacy waste to be remediated OR ii. 2 (Two) legacy waste management projects of 40% i.e. 4.40 lakhs MT of the total defined legacy waste to be remediated OR iii. 3 (three) legacy waste management projects of 30% i.e. 3.30 lakhs MT of the total defined legacy waste to be remediated OR iv. Cumulative daily design capacity of the bidder to be minimum of 150% of daily generation in the city i.e. 900 TPD for the City of Srinagar (Daily waste generation is 600TPD). Cumulative design capacity must be across a maximum of 5 (five) projects in waste processing/treatment/recycling in the last 7 years. | 20 Marks |
| iv. | For startups, technical experience of lead member of the JV will be evaluated | |

| | | |
|------|--|----------|
| 2. | Average Annual Financial Turnover during last 3 (three) financial years (i.e., 2020-21, 2021-22 and 2022-23) | 20 marks |
| I. | more than INR 60.00 Cr/- | 20 marks |
| II. | more than INR 37.70 Cr/- and less than 60.00 Cr/- | 15 marks |
| III. | more than 19.00 Cr/- and less than 37.70 Cr/- | 10 marks |
| IV. | For startups, claiming exemption | 5 marks |
| 3. | Profit or Surplus making in the last 3 (three) financial years (i.e., 2020-21, 2021-22 and 2022-23) | 5 marks |
| I. | Yes | 5 marks |
| II. | No | 0 marks |
| 4. | Positive net worth as per the Audited Balance Sheet at the end of last financial year (i.e. 2022-23) | 5 marks |
| I. | Yes | 5 marks |
| II. | No | 0 marks |
| 5. | Valid ISO 9001, ISO 14001 and ISO 45001 registration | 5 marks |
| I. | Yes | 5 marks |
| II. | No | 0 marks |
| 6. | Access to liquid assets or credit facilities of minimum value of INR 2.00 Cr/- | 5 marks |
| I. | Yes | 5 marks |
| II. | No | 0 marks |
| 7. | Technical Presentation | 30 marks |
| I. | Technology and Process focused on 100% land recovery and necessary environment mitigation measures | 13 |
| II. | Disposal/Utilization Plan for Materials recovered from the dumpsite | 9 |
| III. | Technical capability and innovation | 8 |

5. The Bidders will be evaluated against total score of 100 for technical evaluation.
6. The technical score (S_t) of each qualified bidder shall be calculated out of total score of 100.
7. Bidder should obtain a minimum of 60 marks in technical evaluation to qualify for next process of financial evaluation.
8. The financial bid of only those Bidders will be opened who are technically qualified.
9. The financial score for the technically qualified bidder will be determined as follows:
 $S_f = 100 \times (F_m / F)$ in which:
 S_f is the financial score; F_m is the lowest price and F the price of the proposal under consideration.
10. The final evaluation shall be carried out on Quality cum Cost-Based Selection (QCBS) basis with 30% weightage to Technical Score and 70% to Financial Score.
11. The final composite score shall be calculated as per the following weighted formula:
 $CS = (S_t \times 0.3) + (S_f \times 0.7)$
12. The contract shall be awarded to the bidder securing the highest final composite score.
13. In the event of two or more Bidders securing the same final composite score, then the Client reserves the right to award the contract to the bidder whose technical score is highest, among the bidders who have secured exactly the same final composite score, or adopt any other method as deemed suitable by the Client.

3.17 Letter of Award (LOA)

Prior to the expiration of the period of bid validity, SMC will notify the successful Bidder in writing or by fax or email, to be confirmed in writing by letter, that its bid has been accepted.

LOA will constitute the formation of the contract. Upon the successful Bidder's furnishing of Performance Bank Guarantee, SMC will promptly notify each unsuccessful Bidder.

3.18 Rates For Award of Contract(S)

The rates ordered shall be net rates inclusive of processing of legacy waste as per CPCB norms & its scientific disposal for complete works at site including all applicable taxes and other charges involved and quoted in the Financial Bid. Rates ordered shall be fixed and final for the period of assignment and no escalation on any account shall be permissible during the currency of the contract. Depending upon further requirement of similar work, repeat work orders may be placed with the firm foreexecution of work on approved rates till the validity of contract/rates after seeking necessary approval from the Srinagar Municipal Corporation, (Srinagar). The quantity of work may increase or decrease by 10% as compared to tendered quantity depending upon actual requirement as well as availability of budgetary provisions and discretion of the department shall be final in this regard.

Validity of Rates: Once the rates are contracted, they shall remain fixed for the entirety of contract period.

3.19 Confidentiality

Information relating to the examination, clarification, evaluation, and comparison of tenders, and recommendations for the award of a Contract shall not be disclosed to tenderer or any other persons not officially concerned with such process until the notification of Contract award is made.

Any effort by the tenderer to influence the TEC of the department in bid evaluation, bid comparison, or contract award decisions may result in the rejection of the Tenderer's bid.

3.20 Signing of Contract Agreement

SMC shall notify the successful Bidder that its bid has been accepted. The successful Bidder shall enter into Contract agreement which should be jointly signed by the Srinagar Municipal Corporation, SMC and the successful bidder within 15 days from the Letter of Acceptance / work Order issued to the successful Bidder by SMC. Original of all the documents as uploaded in the 1st cover shall form the part of agreement along with other documents as prescribed. Any delay or failure on this account shall inter alia be construed as willful default inviting forfeiture to the Department of the Earnest Money amount. In case the firm willfully or otherwise delays the execution of the Agreement, the contract as per Letter of Acceptance / Letter of Intent / Works order in accordance with the NIT terms and conditions shall still be binding on the firm / Supplier.

3.21 Failure to agree with the Terms and conditions of the RFP/ Contract

Failure of the Successful Bidder to agree with the Terms & Conditions of the RFP/ Contract shall constitute sufficient grounds for the annulment of the award, in which event SMC may invite the next best Bidder for negotiations or may call for fresh RFP.

4 Performance Security

- a. The Successful Bidder shall, within fourteen (14) working days from the date of issuance of LOA and prior to signing of Contract Agreement at its own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) to SMC.
- b. The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank having in the payable on demand, for the due performance and fulfillment of the Contract by the Successful Bidder.
- c. All charges whatsoever such as premium; commission etc. with respect to the PBG shall be borne by the Successful Bidder. The PBG shall be valid for at least 90 (ninety) days

beyond the date of completion of all contractual obligations of the Bidder. However, no interest shall be payable on the PBG.

- d. In case the project is extended after the project schedule as mentioned in the RFP, the PBG shall be accordingly extended by the Successful Bidder. In the event of the Successful Bidder being unable to service the requirements for whatever reason, SMC would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of SMC under the requirement in the matter, the proceeds of the PBG shall be payable to SMC as compensation for any loss resulting from the Successful Bidder's failure to complete its obligations under the requirements set in by SMC. SMC shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 (fourteen) days, indicating the obligation(s) for which the Successful Bidder is in default. SMC shall also be entitled to make recoveries from the Successful Bidder's bills, PBG, or from any other amount due to him, the value equal to any payment made to it due to inadvertence, error, collusion, misconstruction, or misstatement.
- e. The Performance Bank Guarantee may be discharged/ returned by department upon being satisfied that there has been due performance of the obligations of the Bidder under the Contract Agreement. However, no interest shall be payable on the Performance Bank Guarantee.

5 Verification of Bills:

Bills / Claims against Works accomplished by the firm shall be verified by representative of the Consignee prior to making the Payment. Further, verification to the effect that contract has been completed in all respects shall have to be made by the Consignee.

6 Payment Authority:

Payment shall be paid by the respective Consignee ULBs on the actual quantity processed of the legacy waste as per below payment terms:

7 Payment Terms to the Bidder:

| Payment Terms | |
|--------------------------|--|
| Per Tons Processing Cost | Based on monthly billing with minimum 30000 Tons |

Note: Payment will be made based on arithmetic sum of weightment of all segregated fractions moving out from the legacy waste site (i.e., SCF/ RDF, Good Earth / Bio soil, Recyclables, Inert/ C&D Materials, etc.) for further disposal. The successful bidder shall submit their per month invoice/ bill along with weighing receipt of outgoing of each trip of vehicle, disposal certificate with the monthly report, which shall be verified by the authorized representative of SMC and submitted for payment. Minimum billing should be of 30000 MT and copy of same shall require to be submitted to SMC.

Monthly Payment of 70% will be released within 15 days from the date of submission of bill, 5% of the total bill amount will be withheld from the monthly bill and the same will be released after 100% reclamation of land and verification of the same by competent authority. The remaining 25% will be released after submission of disposal certificate along with 70% of next month bill. The Certificates for proof for disposal should be submitted along with next invoice / bill. The period for submission of the said certificates should not be more than 60 days. For Certificate of Disposal: Certificate for Disposal of RDF / Recyclables / Inert / Rejects required to be submitted by the Operator, with the required transport documents of the RDF/ Recyclables / Inert / Rejects and its receipt at the place of the final disposal/usage, with whom the Agency has entered into the agreement for final recycling and disposal of RDF Recyclables / Inert / Rejects.

8 Penalty clause

For delay of every month, penalty @2% of the approved cost shall be levied on the approved agency. It is the responsibility of the agency to ensure that all approvals are taken in time and work is started in time. For any delay, it shall not be attributed on the SMC or its officials. SMC shall however, provide all possible assistance and facilitation to ensure that work is started and completed as per the prescribed

schedule and will designate responsible officers for the same and will also fix their responsibility for delay, within their service Rules.

9 Statutory Variations

If any statutory regulations or byelaws come into force after submission of the bids, which cause additional or reduced cost to the Supplier in the execution of the contract, such additional or reduced cost (except which are covered in cost indices) shall be added or deducted from the contract price.

10 Notice To Bidder / Supplier

Any notice to be given to the Bidder / Contractor may be sent by mail or fax to his address given in the SBD or delivered by hand post to his duly authorized local representative. Such delivery /posting shall be deemed as good as service for such notice.

11 Indemnity Bond

- a) The Bidder / Service Provider shall indemnify and keep fully indemnified and save the other parties to this agreement against any claim, loss or damage, costs, charges, and expenses including litigation expenses which may be brought or made or sustained or incurred by the Parties due to any action or inaction of the Service Provider while performing its duties and obligations under this agreement.
- b) The bidder shall be individually liable to indemnify the other parties to this agreement against any loss, damage, costs imposed on the parties due to the action or inaction on the part of the Service Provider.
- c) The Commissioner, SMC / TEC, SMC / Govt. of UT of J&K shall not be responsible for damages of any kind or for any mishap / injury / accident caused to any personnel/property of the bidder/Service Provider while performing works at the allotted work sites. All liabilities, legal or monetary, arising in that eventuality shall be borne by firm/Supplier.

12 Cancellation / Termination for Default

The Department reserves the right to cancel the Works order / contract in case of default on the part of the supplier.

- a) If the Supplier fails to execute the contract in full or part thereof as per prescribed schedule or deliver any or all the material in the contract within the time period specified in the contract on order.
- b) If the Supplier fails to perform any other obligation(s) under the contract.
- c) The past performance of the tenderers shall be checked and evaluated and in case of past performance of the Suppliers/Firms is reported / found un-satisfactory, the orders may not be placed with the firm even if the firm maybe H-1 on QCBS base.
- d) The Srinagar Municipal Corporation, Srinagar reserves the right to terminate the contract at any stage with notice period of one month without citing any reasons.
- e) In case of any kind of non-performance, service provider will be given a notice of seven days to take remedial action (with imposed penalty as per tender terms and conditions) and if remedial action not taken than the Srinagar Municipal Corporation, Srinagar reserves the right to terminate the agreement in accordance with the applicable rules in force and terms and conditions contained in the SBD/Contract.

13 Force Majeure Clause:

In case the delay in Works is due to any act of God (including fire, flood, earthquake, storm, hurricane or other natural disaster) war, invasion, act of foreign enemies, terrorist activities, nationalization or other cause like strikes, lockdown, whether similar or dissimilar to the causes herein enumerated not within the reasonable control of contractor through the exercise of due diligence said party is unable to foresee or overcome then the firm / supplier can be given suitable extension.

In no event shall the term "Force majeure" include normal, reasonably foreseeable, or reasonably Supplier. In the event the party is rendered unable wholly or in part by Force majeure to carry out its obligations under this contract, it is agreed that such party shall give notice and details of the Force Majeure in writing to the other party as promptly as possible after its occurrence. Should the continuation of Force majeure continue for more than 30 consecutive days the contract may be immediately terminated at the option of the Department by delivering written notice to the Supplier and an alternate arrangement can be made by the Department for Works.

14 Jurisdiction of Court

All legal proceedings in connection with the order/tender will be subject to the jurisdiction of local courts of U.T Srinagar and Kashmir alone.

15 Arbitration:

In case of any doubt, dispute or difference arising out of contract, the same shall be referred to the Government of U.T of J&K for decision under J&K Arbitration Act only.

16 Reporting Requirement

The bidder shall submit the monthly progress report including material recovered as below given format to the respective ULBs and Directorate of Urban Local Bodies (SMC), Srinagar along with monthly bill.

a. Mode of Disposal of Processed Waste:

| Date | Bio- Earth/ /soil enricher | | RDF | | C&D/inert material | |
|------|----------------------------|---------------------------------|----------|---------------------------------|--------------------|---------------------------------|
| | Quantity | Agency Name / Disposal Location | Quantity | Agency Name / Disposal Location | Quantity | Agency Name / Disposal Location |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Scope of Work and Terms of Reference**1 Scope of Work**

To remediate approx. 11 Lakhs MTs \pm 20% (by end of Aug,2026) of legacy waste at Achan which is ongoing dumpsite where approx. 600 MT waste being dumped on daily basis. The facility surroundings (the demarcated area) through scientific means of excavating, stabilizing, processing, treating, and disposing in an environmentally sustainable manner within Twenty-Four (24) months from the date of handing over of the site and reclaiming entire legacy waste dumped land site, free from waste and any environmental pollutant. As per the Contour Plan & Cross sections prepared by SMC, the volume of dumped garbage will be approximately 11 Lakhs MTs. The successful bidder has to conduct fresh contour survey at the different phases during the execution of work for assessing the quantity of the legacy waste.

Assumption for initial calculation: Bulk Density as 1000kg/m³

The detail of Waste lying at ULBs is given below:

| Sl. No. | ULB | Total Estimated Quantum in MT |
|---------|--------------------------------|-------------------------------|
| 1 | Srinagar Municipal Corporation | 11 Lakhs |

Note: Quantity may increase or decrease by 20%.

2 Scope of work for the project will broadly include, but not limited to

- a) Bidder in consultation with Authority needs to demarcate parcel of land for dumping of fresh waste till the date of commencement of operation of the proposed processing plant.
- b) As per the Contour Plan & Cross sections prepared by SMC, the volume of dumped garbage will be approximately 11 Lakhs MTs including the future accumulation of the waste till Aug 2026. The successful bidder has to conduct fresh contour survey at the different phases during the execution of work for assessing the quantity of the legacy waste.
- c) The successful bidder shall evaluate the volume of legacy waste processed by him by taking the cutting levels of the contour of the land and shall get it verified from the Engineer-in-charge for further submission of the bill based on this volume for payment.

NOTE: The contractor shall establish the Permanent and Temporary Benchmarks before start of the work. Bidders are advised to visit the site before submission of the proposal.

- d) The successful bidder has to prepare the DPR along with the work plan which shall get technically vetted by IIT/NIT. No extra Payment shall be made to the bidder for that.
- e) Bidder has to ensure the disposal of RDF by authorized recycler within the timeline and submit the disposal certificate along with the monthly payment bill.
- f) All payment will be borne by the bidder for conducting the survey, DPR vetting, O&M exp etc. SMC will pay only bio-remediation cost as per quoted rate, terms & conditions.
- g) The Bidder has to set up the legacy waste remediation facilities at the designated site and remediate the entire legacy waste that is lying inside the dumpsite/SLF and its surrounding through scientific means within **twenty-four (24)** months from the date of handover of the site, in accordance with Solid Waste Management Rules 2016 (SWM Rules 2016) Directions of Honorable NGT and other applicable rules & norms as amended from time to time.
- h) Bidder must start work at the site to complete the work before rainy season.
- i) The bidder shall require undertaking the contour survey prior to start of work to ascertain the legacy waste quantity at site and take prior approval for initiating the work.

- j) The bidder shall submit the work plan including deployment of manpower and Machineries at sites to be cleaned the sites within time before starting of work with mentioning all detail of processing and disposal and same will be monitored by SMC accordingly.
- k) The selected bidders require to prepare pre-feasibility report prior to start of work covering process methodology and technology to be deployed etc. and submit the same to JKPCB for obtaining the necessary approvals.
- l) The key goal is to achieve **100% reclamation of the legacy waste dumpsite** in the mentioned areas adopting scientific means and mechanism, that too in environment friendly manner.
- m) The Bidder will have to remediate land and scientific disposal of all material recovered, in accordance with present rules and regulations – norms of Government Authorities like MOEF&CC, CPCB, J&KPCB, Solid Waste Management Rules 2016 & National Green Tribunal (NGT) etc.
- n) The technology should be flexible enough to augment the capacity and accommodate environment friendly changes to be imposed by governing authority like MOEF&CC, CPCB, J&KPCB, National Green Tribunal (NGT) and other all regulatory agencies in future.
- o) The project site may continue to receive the fresh waste, which may also be catered along with the legacy waste, as directed by the Srinagar Municipal Corporation, Srinagar. It is evident that the waste that remain laid in yards can be considered as a legacy waste, so the piled waste can similarly be managed and processed, post approval of the Srinagar Municipal Corporation, Srinagar to a max limit of 11 Lakhs MTs (+/- 20%) in the stipulated time-period i.e., Twenty-four (24) months
- p) The legacy waste material that is recovered from the dumpsite and converted into a resource material shall be owned by the bidder and they shall be allowed to sell or use it for any civil infrastructure purpose subject to achievement of compliant norms as laid by the Centre/ State /UT Government.
- q) Bidder has to carry out contour survey every month for monitoring volumetric reduction of existing dump and contour survey reports shall be submitted along with every monthly bill clearly showing monthly volumetric reduction of existing dump.
- r) Legacy waste should be disposed as per MSW rules 2016 and any amendment thereof.
- s) Payment will be made to the Bidder on monthly basis with minimum quantity of 30000 MT on the basis of weighment of net quantity of input waste processed from designated sites. For this purpose, the Bidder has to place a weighment bridge of appropriate capacity, duly inspected by the prescribed authority and Srinagar Municipal Corporation, Srinagar team. At the weighbridge station staff deployed by respective consignee will remain seated for the entire day operation to verify, monitor the weighment process, and keep a check on the process, to avoid any dispute at later stage.
- t) Milestones required to be achieved within the given timeframe are mentioned as below.

3 Operational Milestones

Milestones required to be achieved within the given timeframe are as mentioned below:

| Sr. | Activities to be completed | Time Period for Completion |
|-----|---|--|
| A | Mobilization of manpower and earthmover equipment with related equipment. | 15 days from date of issuance of Letter of Award/ Contract signing/ Handing over of site (whichever is later). |

| | | |
|---|---|-------------|
| B | Start of operations including Obtaining Statutory Clearance, Excavation of waste, Stabilization of waste, Start of Erection of Plant and Machineries for stabilization and segregation of Legacy waste. | A + 45 days |
| C | To remediate/ dispose approx. 11 Lakhs MT of existing legacy waste lying at Achan dumpsite. | B + 660days |
| D | To de-commission the installed remediation machineries from the site. | C + 15 days |

Time relaxation can be provided by Srinagar Municipal Corporation, Srinagar based upon the ground status and condition against genuine reasons placed by the bidder to them in writing. Srinagar Municipal Corporation, Srinagar at their discretion can take a call accordingly, but the extension may be provided (considering monsoon period), either in one go or in phased manner. In case more wastes to be added in the existing quantity of remediated legacy wastes, a revised timeline shall be set for the additional quantity.

4 Weighment System

The Bidder must install the weighbridge on its own at any of the designated sites or as permitted by Srinagar Municipal Corporation, Srinagar for measurement of legacy waste to be processed. This weighment system should meet following conditions:

- a) It should be fully online electronic, automatic system equipped with the latest technology along with backup server facility. Data of weighment system shall be maintained properly for the entire contract period with back-up server facility and shall be provided as & when required by Srinagar Municipal Corporation, Srinagar officials and competent authorities.
- b) It should be operated in CCTV surveillance with data storage of entire contract period. For CCTV surveillance High-Definition IP based cameras in adequate numbers (as directed by SMC) shall be provided by the Bidder.
- c) CCTV Recordings of operation of weighment system shall be provided on weekly basis to Srinagar Municipal Corporation.
- d) Operation of the facility can be viewed and monitored through ICCC at SMC office.
- e) All the data acquisition of weighment system comprising weighment of legacy waste to be processed shall be done online on website in public domain in view of the transparency of project operations. Dedicated connectivity for Srinagar Municipal Corporation, Srinagar users shall be provided by the Bidder.
- f) Any malfunctioning in operation of weighment system will be the responsibility of Bidder.
- g) In case any malfunction/ technical problem in the functioning of weighment system, the same shall be rectified by the Bidder within period of 24 hrs. During this period of failure, weighing of MSW shall be carried out at private weighbridge located outside which should be approved by SMC at Bidders cost and no additional charges will be paid by SMC.
 1. The Bidder shall ensure collection, treatment and disposal of leachate, if the existing facility lacks ETP/ STP provision. All the facilities required by applicable law and to meet scope & conditions of this contract shall be set up by the Bidder.
 2. Initial land required for setting up processing plant and machineries shall be provided by Srinagar Municipal Corporation, Srinagar based on site situation. In case no land is available then Srinagar Municipal Corporation, Srinagar would ensure that the land is cleared under the supervision of the Bidder for getting equivalent land at the site. Expenses pertaining to clearing the site and making the space available will be borne by the bidder.
 3. If additional land is required for future expansion of the processing plant, operator can use the land that is recovered after processing the Legacy Waste and to be decided in agreement with Srinagar Municipal Corporation, Srinagar.
 4. The land area which will be cleared and cleaned will remain with Srinagar Municipal Corporation, Srinagar except as mentioned above, if required.
 5. The Bidder is expected to clear legacy waste available at the designated sites and is required to setup a plant at any designated site for doing so. All legacy waste from the sites will be transferred to the site where the machinery is installed by the bidder for its scientific remediation. All such expenses of collection and transferring (C&T) the waste shall be borne by the Bidder.
 6. It is the sole responsibility of the Bidder to dispose of the rejects/ inert generated during the process. By-products from such processing viz. recyclables, enriched soil, compost, gas, energy etc. will be the property of the Bidder. It is expected that e-waste, hazardous waste, and recyclables such as the plastic, glass, metal etc. does not any way form the part

of inert waste.

7. The inert waste disposal plan shall also be proposed by the Bidder which will include identification of an inert waste disposal area land within 's jurisdiction and at his discretion.
8. A comprehensive Aggregate Disposal Plan covering activity like Removal, Segregation, Processing, Transportation, Disposal in a scientific manner will be submitted to Srinagar Municipal Corporation, Srinagar for their approval. Inert for Bidder would mean non-biodegradable, non-recyclable and non-combustible fractions.
9. The Bidder has to obtain prescribed permissions/ NOCs from Srinagar & Kashmir State Pollution Control Board (J&K SPCB), in compliance with SWM Rules, 2016, if the rule asks so. SMC may assist the Bidder in obtaining the permissions from the prescribed authority, if so required. Ensuring such compliances is mandatory for Contract.

5 Environmental Standards

Bidder has to follow the Environmental Standards as mentioned below:

- a) Air Quality Monitoring: As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
- b) Noise Monitoring – As per Noise Pollution Rules 2000 or amendments thereafter with respect to baseline site parameters.
- c) Leachate Treatment – As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
- d) Odour Monitoring – As per CPCB guidelines 'Odour Pollution & Its Control May 2008' or amendments thereafter with respect to baseline site parameters.
- e) Water Quality Monitoring - As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
- f) Aggregate Disposal- As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
- g) Bidder has to make all the necessary arrangement for 24x7 online monitoring of environmental standards to the extent possible.
- h) Bidder may appoint a Professional Consultant/ Company approved by MoEF&CC/NABET to achieve these standards.

6 Hazardous waste

1. The Bidder will ensure separate means to remove hazardous waste, if any, and the disposal of this waste shall be the liability of respective Municipal Authority as per Hazardous Waste (Management & Handling) Rules, 2016. Biomedical waste if existing inside the site and separately earmarked. Respective Municipal Committee shall dispose of the same at J&KSPCB's approved sites in accordance with Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 or amendments thereafter.
2. If any heavy metals or hazardous components are detected in the inert generated from the process beyond the approved limits, then disposal of such aggregates would be the responsible of Srinagar Municipal Corporation, Srinagar. Bidder would store such material separately earmarked inside the site without any prejudice whatsoever.
3. After completion of 100% processing of legacy waste, within a month, Bidder must completely remove the plant, machineries and equipment from the site and clear the project area. Performance security of the Bidder will be released only after the entire project site has been handed over to Srinagar Municipal Corporation, Srinagar / respective Consignee without encumbrances.

4. It is the sole responsibility of the operator to abate the odour and fly's nuisance on site. Operator has to use enzyme/ herbal based products which will help to abate the odour and fly's nuisance. Necessary fire fighting vehicles shall be arranged to abate the fire nuisance. However, in case of major fire incidence, SMC may assist by providing fire fighting vehicles according to availability at that time.
5. Necessary safety gears shall be provided by the operator to all staff working as per the good industry practice.
6. To prevent nuisance at the site during the contract period, which may possibly arise because of neighboring public or media.
7. Bidder shall ensure that material which is to be transported for disposal after scientific processing is not dumped at any un-authorized place. They can make necessary arrangement like fencing, or any other suitable arrangement as directed by Srinagar Municipal Corporation, Srinagar authority to prevent such events.

7 Special conditions

1. There will be no lease of land to the Bidder. He will only set up the plant / machinery on Srinagar Municipal Corporation, Srinagar Consignee 's land for scientifically treating the garbage and operate it without any interest in land whatsoever. As specified above, there will be no lease of land to the Bidder and hence the question of creation of encumbrances on the land does not arise.
2. The Bidders should familiarize themselves with the site conditions and also carry out necessary site visits, surveys, studies / testing, analysis of the existing MSW with due diligence at their own cost prior to the RFP,
3. Bidders will be allowed to take bores at site to ascertain density at different levels and to carry out analysis of strata. All the data/ information/ maps provided in the RFP are indicative only.
4. Bidder shall not bring any dispute regarding any data provided in the RFP, variation in quantity and characteristics of MSW as he is expected to do his own studies.
5. Documentary evidence shall be provided for technical evaluation and all documents & technical proposal submitted shall be part of contract. The same plan shall be adhered for implementation. No change in the plan is allowed without the approval of Srinagar Municipal Corporation, Srinagar.
6. To identify and provide suitable low line areas/ quarries, where the leachate free, heavy metals, pollutant free inerts/ earth (duly certified by the competent authority) could safely be placed/ disposed, at the cost of bidder.
7. Srinagar Municipal Corporation, Srinagar will allow the bidder to sell the good earth recovered during the processing to the builders/ public, if so, required for using it in civil work. Authority may get the earth free of cost, if required for any civil construction purpose.

8 Water and Electricity

- a) Arrangement of water and electricity required for the project will be the assisted by the Srinagar Municipal Corporation, Srinagar. The Bidder must take water and electricity from the concerned department at their own costs. The cost of usage will be paid by the Bidder as per actual based on appropriate meter readings from the meters installed. The project site shall continue to receive the fresh waste, which shall also be catered along with the legacy waste.
- b) Management of the project and methodology required to be adopted for handling existing legacy waste shall include the following:
- c) The Bidder should ensure regulated and continuous removal of waste from dump site with utmost safety and under standard hygienic conditions.
- d) The waste removed from the dump sites is to be safely transferred to the treatment facility

erected at the site. The Bidder will prepare a layout clearly showing the area required for treatment of the garbage along with allied activities.

- e) The treatment plant should be provided with necessary infrastructure like security and access control/s, camera monitoring and recording features etc. by the Bidder.
- f) A separate first aid facility will be provided at the treatment plant within 100 meters of the treatment facility.
- g) Bidder may plan work in three shifts, if so required and situation demands.
- h) The hardware and technology adopted may include but not limited to the following:
 - i) Size reduction machineries.
 - j) Magnetic separator for ferrous metals & scraps.
 - k) Size reduction & screening.
 - l) Effective segregation of non-biodegradables mass like plastics, inert material (construction/ demolition waste), etc.
 - m) Collection of bio-degradable and organic matter followed by scientific processing.
 - n) Transfer and disposal of metal scrap and other recyclable mass like glass and plastics to primary producer industry either directly or through approved vendors/ Bidders.
 - o) By-products from such processing like recyclables, RDF will be the property of the Bidder however entire processing site should be cleaned within the stipulated timeline provided in the RFP.
 - p) The Bidder has to ensure that the aggregates that are segregated will be cleared from the dumpsite within 30 days from the date of segregation of the same.
 - q) Deploying of all requisite inputs viz., legacy waste collection & handling equipment and vehicles, conveyors, JCB, Poclain, dumpers etc. will be Bidder's responsibility.
 - r) The plant and machineries necessary for each of the above steps will be part of the proposal submitted to Srinagar Municipal Corporation, Srinagar for approval.
 - s) The Bidder will ensure that the land will be cleared to the natural ground level. If any waste is found below the ground level, the Bidder at his discretion can accept to go ahead with the bio-mining upon mutual consent.
 - t) The plan proposed should be comprehensive in terms of providing a source to end solution.
 - u) Bidder shall arrange for electricity and water connection on its own.
 - v) Further extension of connection with the desired load and metering inside the facility and payment of the utilization bill shall be under the scope of successful bidder.

9 Provision for building ancillary facilities

1. In case Bidders are required to set up ancillary facilities at site like Fuel storage, DG set etc., they may do so at their own cost.
2. All handling of explosives, including storage, transport shall be carried out under the rules approved by the "Explosives Department of the Government".

10 Mobilization & Construction period and commencement of the project

The Bidder is expected to install plant with machinery at any of the designated sites seeking the viability of their operation. Construction and erection of the plant and creation of other allied facilities should be completed as per the schedule mentioned above.

11 Dumping of fresh MSW

All Fresh MSW will be dumped at designated location based on discussions and plan layout discussed between the Bidder and Srinagar Municipal Corporation, Srinagar. In no circumstances, fresh and the legacy waste shall be mixed, else it will be assumed as Legacy

waste and the selected agency shall be responsible for entire site clearance.

12 Bill submission

The Bidder shall submit the bill for the work carried out in every fortnight with minimum prescribed quantity to the respective Srinagar Municipal Corporation along with monthly progress report. Bill must be accompanied supported with computerized weigh receipt on each vehicle generated from installed weighbridge at the site.

13 Extension Of Contract

Srinagar Municipal Corporation, Srinagar at its discretion may extend the contract with the Bidder in case the Bidder accomplishes 75% processing of quantity as stipulated in Clause above of Milestones within the Concession Period. If the Bidder is not able to accomplish the 75% processing of the quantity within the milestone stipulated, then extension of the contract for further quantity would be purely at the discretion of Srinagar Municipal Corporation, Srinagar.

14 Penal action against non-compliance

| Sr. | Description | Remarks |
|-----|---|--|
| 1. | Delay in mobilizing the team within the given time schedule | Rs. 5,000/- on per day basis, till the mobilization of the complete team & Machinery |
| 2. | If the allocated sites are not cleared within the stipulated period | Rs. 165,000/- on per week basis, till the site is reclaimed and handed over to SMC. (This will only be applicable, after the expiry of the extended remediation period by SMC) |
| 3. | Details of other penalties | Annexure-7 |

15 Reporting Requirement

The bidder shall submit the monthly progress report including material recovered as below given format to SMC along with monthly bill.

b. Mode of Disposal of Processed Waste:

| Date | Bio- Earth/ /soil enricher | | RDF | | C&D/inert material | |
|------|----------------------------|---------------------------------|----------|---------------------------------|--------------------|--------------------------------|
| | Quantity | Agency Name / Disposal Location | Quantity | Agency Name / Disposal Location | Quantity | AgencyName / Disposal Location |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Annexure 1 – Technical Qualification Proposal**Annexure 1.1 - Checklist for the Pre-Qualification Proposal**

(This list is not exhaustive, and the bidders are requested to read the whole document and submit all the required documents)

1. Tender fee deposited Receipt.
2. Scanned Copy of Earnest Money Deposit
3. Acceptance to technical Specifications as listed in 8,9,10
4. Copy of PAN card
5. Income tax return for three financial (2020-21 ,2021-22 & 2022-23)
6. Copy of GST Registration Certificate & Latest GST Returns.
7. **End User Certificate**-Works Order Completion Certificate and Performance Certificate.
8. Scanned Copy of Firm's Bank Account Number, Bank Name, IFSC Code with Documentary Evidence.
9. Affidavit on non-Judicial Stamp Paper of Rs. 100 as per Annexure 4
10. Similar nature Works Completed Certificate from Govt./Semi Govt./Pvt. during Last 07 Years
11. Bid validity on letter head in the format that the bid for the work shall remain valid for a period of 180 days from the opening of bids.
12. Tender document (SBD) duly signed & stamped on each leaf should also be uploaded.

114

647
Annexure 1.2 - Pre Qualification Cover Letter

{To be submitted on the Letterhead of the Bidder}

Date:

To Commissioner

Srinagar Municipal Corporation (SMC) Srinagar

Subject: Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City.

RFP Reference No: _____

Dear Sir/ Madam,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the "Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City". we hereby submit our Prequalification Proposal & Technical Proposal, for the same.

We hereby declare that:

We hereby acknowledge and unconditionally accept that the SMC can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the RFP and related documents, in short listing of Bidder for providing services.

We have submitted a EMD declaration as required by the project.

We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals. We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to SMC is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead SMC as to any material fact.

We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the RFP. We do hereby undertake to provision as per these terms and conditions. In the event of acceptance of our bid, we do hereby undertake:

To commence Services as stipulated in the RFP document

To undertake the Project for entire contract period from the date of signing of the contract as mentioned in the RFP document.

We affirm that the prices quoted are inclusive of design, development, delivery, installation, commissioning, training, providing facility management and handholding support, and inclusive of all out-of-pocket expenses, levies discounts etc.

We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

We understand that the SMC may cancel the bidding process at any time and that SMC is not bound to accept any bid that it may receive without incurring any liability towards the Bidder.

We fully understand and agree to comply that on verification, if any of the information provided in our bid is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

648

US

In case of any clarifications please contact Sh. _____ (name) at
_____ (email address and office
address)

Thanking you,

Yours sincerely,

(Signature of the Bidder)
Printed Name Designation
Seal
Date:
Place:
Business Address:

Annexure 1.3 - Format for Sharing Particulars of the Bidder

The table below provides the format in which general information about the Bidder must be furnished.

| Sr. | Information | Details |
|-----|--|---------|
| 1 | Name of the Bidder | |
| 2 | Address and contact details of Bidder: | |
| 3 | Registration Number and Year of Registration | |
| 4 | Web Site Address | |
| 5 | EPF Registration No | |
| 6 | GSTIN | |
| 7 | Permanent Account Number (PAN) | |
| 9 | Name of the authorised signatory, Designation and Address of the contact person to whom all references shall be made regarding this RFP (A Letter of company's Proprietor/ Partner/ director to be attached in support or the Board's Resolution for authorizing the concerned person to sign all documents on behalf of the company.) | |
| 10 | Telephone number of contact person: | |
| 11 | Mobile number of contact person: | |
| 12 | Fax Number of Contact person: | |
| 13 | E-mail address of contact person: | |

Authorized SignatoryName

Seal

Note: Please submit the relevant proofs for all the details mentioned above alongwith your Bid response

Annexure 1.4 - Format for Project Citation

| Sr. | Item | Details | Attachment Reference Number |
|-----|---------------------|---------|-----------------------------|
| 1 | Name of the Project | | |
| 2 | Date of Work Order | | |
| 3 | Client Details | | |
| 4 | Scope of Work | | |
| 5 | Contract Value | | |
| 6 | Contract Qty. | | |
| 7 | Completion Date | | |

Note: The Bidder is required to use above formats for all the projects referenced by the Bidder for the Pre-Qualification criteria and technical bid evaluation.

Annexure 1.5 - Format for Declaration by the Bidder for not being Blacklisted /Debarred

(To be submitted on the Letterhead of the Bidder)

Date: dd/mm/yyyy

To

Commissioner

Srinagar Municipal Corporation (SMC)

Srinagar

Subject: Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City.

RFP Reference No: _____

Subject: Declaration for not being debarred/ black-listed by Central Government/ any State Government/ Public Sector Undertaking in India or similar agencies globally as on the date of submission of the bid

Dear Sir/ Ma'am,

I, authorized representative of _____, hereby solemnly confirm that _____ ("Company") is not debarred/ black-listed by the Central Government/ any State Government/ Public Sector Undertaking in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices or for any other reason as on last date of submission of the Bid. In the event of any deviation from the factual information/ declaration, SMC reserves the right to reject the bid or terminate the Contract without any compensation to the Successful Bidder.

Thanking you,

Yours faithfully,

Signature of Authorized Signatory (with official seal)

Date:

Name:

Designation:

Address/ Telephone & Fax:E-mail address:

Annexure 1.6 - Format of Power of Attorney for Bidder

(On a non-judicial stamp paper of Rs. 500/- duly attested by notary public)

Power of Attorney

Whereas the SMC has invited applications from interested parties for the "Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City".

Whereas... ..,

....., interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal (RFP document) and other connected documents in respect of the Project, and Whereas, all acts, deeds and things as may be necessary in connection with the bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, having our Registered office at....., (hereinafter referred to as the "Bidder") do hereby irrevocably designate, nominate, constitute, appoint and authorize Mr

designated to do on our behalf of company, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in Bids and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid and generally to represent the Company in all its dealings with the SMC, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Project and/ or upon award thereof till the Contract Agreement is entered into with the SMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20....

(Signature)

.....(Name & Title)

Witnesses:

- 1.
- 2.

Annexure 1.7 – Format for Annual Turnover

ANNUAL TURNOVER

Requirements: The Average Annual Turnover to be provided in the following format for the any of 3 Financial Years (FY 2020-21, 2021-22 and 2022-23).

| Financial information | | | | |
|------------------------------|---------|---------|---------|--------------------|
| Bidder Name | | | | |
| Financial Year | 2020-21 | 2021-22 | 2022-23 | Total Average (FY) |
| Annual Turnover in INR Crore | | | | |

Certificate from the Statutory Auditor/ CA

This is to certify that (Name/Address of Bidder) has annual turnover as shown above against the respective years.

Seal of the audit firm:

Date:

(Signature, name, and designation of the authorized signatory)

Note: Financial Year means the period ending up to 31st March.

Annexure 2.1 - Checklist for the documents to be included in the Technical Proposal

| S. No. | List of Documents | Name of the File | Submitted (Y/N) | Description |
|--------|--|------------------|-----------------|--------------------------------------|
| 1. | Bid submission proposal letter | | | Reference Number: Date of letter: |
| 2. | Assignment details | | | |
| | May add as per requirement | | | |
| 3. | Approach and Methodology and work plan, man and machinery deployment, tie-up of processing material etc. | | | Reference Number: Date of letter: |

655

Annexure 2.2 Technical Bid Cover Letter
(To be submitted on the Letterhead of the Bidder)

122

Date: dd/mm/2023

To
Commissioner

Srinagar Municipal Corporation, (SMC) Srinagar

Subject: Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City.

RFP Reference No: _____

Dear Sir/Madam,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFP for "Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City". We attach hereto the technical response as required by the RFP, which constitutes our proposal. We undertake, if our proposal is accepted, to adhere to the implementation plan (Project schedule) for providing Professional Services for "Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City." put forward in RFP or such adjusted plan as may subsequently be mutually agreed between us and SMC or its appointed representatives. If our proposal is accepted, we will obtain a Performance Bank Guarantee issued by a nationalized bank in India, for a sum of equivalent to Rs. - _____/- of the contract value for the due performance of the contract.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of 180 (one hundred and eighty) days from the last date of submission of Bid and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this tender response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and SMC.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to SMC is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead SMC as to any material fact.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Date:
(Signature)
(Name)
(In the capacity of)
{Seal/ Stamp of bidder}

| | |
|---|--|
| Name of the Assignment | |
| Month, year of commencement | |
| Month, year of completion | |
| Client name | |
| Client address including liaison and contact number & e-mail | |
| Contract value | |
| Objective of assignment | |
| [State the desired expectations of the Client and the ground conditions at the time of being commissioned.] | |
| Scope of work | |
| [List the activities to perform as part of the contract; refer to the activities that qualify as 'similar services' above.] | |
| Results achieved | |
| [List the results achieved as a result of the activities performed. A before/ after approach may be used to illustrate this.] | |

For each assignment, please furnish a copy of work order, contract/ completion, on-going certificate.

| S. No. | Designation | Candidate Name and Contact No. | Role Responsibility & | Qualification |
|--------|------------------------------------|--------------------------------|-----------------------|---------------|
| 1. | Project Manager | | | |
| 2. | Site In-charge/Processing Engineer | | | |
| 3. | Support Supervisor | | | |
| 4. | Documentation Coordinating officer | | | |
| 5. | Any other members | | | |

| Sr. No | Designation | Qualification | Roles & Responsibility |
|--------|-------------|---------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

Annexure 2.6: Proposed Approach and Methodology

Bidder to provide the Approach and Methodology of work covering the following details:

1. General Understanding of the Project, local terrain and site working conditions
2. Proposed Approach & Methodology, Processing technology to undertake the work.
3. Key requirement of project infrastructure and clearances/approvals
4. Work Program/Plan including timelines
5. Tie-up/ usage of processed waste (RDF, Bio soils, etc.)
6. Availability of manpower, machinery, and O&M plan during assignment

Annexure 2.7: Project Site Coordinates and Picture

| Project Site | Coordinates | Pictures |
|--------------|-------------|----------|
| Achan | | |

Annexure 3: Format for Project Undertaking
(To be submitted on the Letterhead of the Bidder)

Date: dd/mm/2024

To
Commissioner
Srinagar Municipal Corporation (SMC)
Srinagar

Subject: Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City.

RFP Reference No: _____

Dear Sir/Madam,

We have read and understood the Request for Proposal (RFP) in respect of the captioned Project provided to us by SMC.

We hereby agree and undertake as under:

We abide by guidelines and procedures for Request for Proposal for Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste in Achan of Srinagar City and we agree to bind ourselves by the Bid Documents.

We shall abide by the scope of work mentioned under Section 2 & 3 and all the other terms and conditions stipulated in this RFP. We have gone through the scope of work and have made our independent assessment of expenses involved in operation and management based on the assessment are submitting our bid.

Any direct or indirect deviations from the terms of the Bid Documents, if any in our Proposal, are hereby revoked unconditionally. Notwithstanding any qualifications of conditions, whether implied or otherwise, contained in our Proposal we hereby represent and confirm that our Proposal is unqualified and unconditional in all respects.

Dated this.....Day of 2024.

Name of the Bidder
Signature of the Authorized Person
Name of the Authorized Person

Annexure 4: Affidavit

We M/s AddressRegistered contractor
 do solemnly affirm and declare here as under:

That we as are participating in e-NIT No
 dated due on

That we have carefully read and understood the scope of contract, terms and condition of the NIT as well as Technical Specifications of the items of material and works.

That we are eligible to participate in the tenders as per eligibility criteria laid in the SBD of the NIT i.e. we possess relevant experience in line and are financially sound to undertake the contract as per tender, in the event we turn out to be successful tenderer.

That we have enclosed all the documents as per details mentioned in clause and have furnished requisite EMD of Rs in shape of ...CDR... No..... dated Drawn on bank and paid tender fee vide treasury challan no:.....dated:.....

That our firm has not been declared bankrupt by any institution or Government.

1. That our firm has not been adjudged by any court of law of the land as insolvent or was/were not facing any/ under any arbitration proceedings in any court of law for any offence involving moral or any criminal activities etc.

2. That we have not been detained under any provisions of preventive law of the land

3. That we have not been debarred or blacklisted by any department or the organization.

4. That neither we have abandoned any work allotted by any Govt Authority/ Department in India nor any contract awarded to us for such work have been rescinded during the last five years period prior to the date of this bid.

*That information given by us and the documents furnished by us to form the part of bidding documents are genuine and nothing has been willfully or un-willfully has been misrepresented.

That we understand that in the event any information /document provided by us is proven to be wrong, our tender is liable to be rejected besides forfeiting of our earnest money.

That if the documents provided by us are not found to be sufficient to prove our eligibility in the tenders, our tender is liable to be rejected.

That we have accepted all the terms and conditions and technical specification of the NIT and that we have uploaded/enclosed Complete SBD and technical specifications duly signed and sealed on each page as token of our acceptance

That we have enclosed Annexure duly filled, general power of attorney in favour of authorised signatory of our firm for this tender.

Deponent Verified on.....that averments made above are true to the best of our knowledge and that nothing has been misrepresented /concealed.

Deponent
 Verified before me on
 Notary

Annexure 5: Format of sending pre-bid queries

RFP Reference No: XXXX

| Bidders Request for Clarification | |
|---|--|
| Name and complete official address of the Bidder submitting query / request for clarification | Telephone, Fax, and E-mail of the organization Tel: Fax: Email: |

| S. No | Clause No. | Page No. | Content of RFP Requiring Clarification | Change Requested/ Clarification required |
|-------|------------|----------|--|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

Signature:

Name of the Authorized signatory:

Seal:

Date and Stamped:

Note: Bidder(s) are requested to send the queries in PDF with Sign and Seal and also in MSExcel for making consolidation process easy.

Quality and Cost Based Selection (QCBS) method will be followed during the overall selection process. Based on the evaluation of technical proposal, the technically qualified bidders shall be ranked highest to lowest Technical Score (S_T) in accordance with the marks obtained during the technical evaluation stage. There shall be 30% weightage to technical score and 70% weightage to financial score.

The individual bidder's financial score (S_F) will be evaluated as per the formula given below:

$$S_F = [F_{min} / F_b] * 100 \text{ (rounded off to 2 decimal places)}$$

where,

S_F = Normalized financial score of the bidder under consideration

F_{min} = Minimum financial quote among the technically qualified bidders

F_b = Financial quote of the bidder under consideration

$$\text{Combined Score (S)} = S_T * 0.3 + S_F * 0.7$$

Where S_T = Technical score secured by the bidder. Where S_F = Financial score secured by the bidder. The bidder securing the highest evaluated **Combined Score(S)** will be awarded the contract observing due procedure.

The bidder scoring the maximum Combined Score shall be declared as successful bidder.

Annexure 7: Penalties for non-compliances

| S. No. | Penalty Description | Penalty Amount |
|--------|--|---|
| 1. | Non-compliance to SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract. | Rs. 10,000 /-per incidence per day, till the compliance of the failure is achieved. |
| 2 | Non-compliance of Safety Standards, use of Personal Protective Equipment, fire safety, slope stability while forming windrows (if any during pre-stabilization process) by the workers or non-working of pollution control/dust mitigation measures. | Rs. 10,000 /- per incidence per day, till the compliance of the failure is achieved. |
| 3 | Non-compliance against disposal mechanism as prescribed in the scope of work (for inert, combustible or any other end product). | Rs. 10,000 /- per incidence per day, till the compliance of the failure is achieved. |
| 4 | Non-provision of Site Facilities as per the work plan, submitted by the Bidder at the start of work and duly approved by the Authority. | Rs.10,000 /- per item per day, till the compliance of the failure is achieved |
| 5 | Non-achievement of decided milestones, with respect to the reduction of waste quantities as per work schedule. | 5% on quoted rate of the missed quantities for that period. |
| 6 | Non-function of weighment system due to Technical Problems, in case it is not rectified within 24 hrs. | Rs. 10,000 /- per incidence per day, till the compliance of the failure is achieved. |
| 7 | Tampering / manipulation of records at weighbridge or submission of manipulated records or any malpractice which will affect quantity & quality of work done. | To be decided by the authority instantly. |
| 8 | Non-lifting of Bio-mined fraction within 15 days from the date of Bio-Mining. | Rs. 20,000 /- per day beyond first 15 days, Final penalty amount to be decided by the authority. |
| 9 | Non-functional of the CCTV camera | Rs. 5,000 /- per incidence per day, till the compliance of the failure is achieved. |
| 10 | Non-Functional of trommel or other machine continuous 48 hrs | Rs. 5,000 /- per incidence per day, till the compliance of the failure is achieved. Maximum 2 incident allow in a month |
| 11. | to maintain Environmental, Health & Safety measures | Rs.10,000 /-per incidence per day, till the compliance of the failure is achieved. |
| 12. | Fail to submit fortnightly report to authority | Rs.25,000 /-per incidence per day, till the compliance of the failure is achieved. |
| 13. | Non disposal for RDF and other inert material as per the CPCB/SPCB guidelines | To be decided by the authority instantly. |
| 14. | Delay in deployment of plant & machinery | Rs. 10,000 /- per incidence per day, till the compliance of the failure is achieved |

Name of Work: Selection of Agency for undertaking Dumpsite Remediation through Biomining of Legacy Waste at Achan of Srinagar City

I/We do hereby BID to execution of the above work within the time specified at the rate mentioned below in all respects and in accordance with the specifications, designs, drawings, and instructions in writing in all respects in accordance with such conditions as far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ ourselves about the conditions regarding accessibility of site and quarries/ kilns, nature, and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labor etc. required for the satisfactory execution of contract.

| S. No. | work | Rate | Unit (Per Ton/ each) | Qty | Amount (INR) |
|--------|--|------|----------------------|-----|--------------|
| 1 | Dumpsite Remediation through Biomining of Legacy Waste at Achan of Srinagar City | | | | |
| | Total | - | - | - | |

(Amount in words)

*Above rates are exclusive of GST and any other applicable taxes

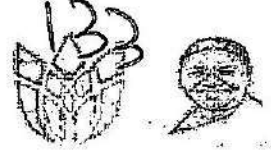
Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract as far as applicable, or in default thereof to forfeit and pay to the Commissioner, or his successors in office the sums of money mentioned in the said conditions.

Signature of the bidder

Name of the bidder



Government of Jammu & Kashmir



OFFICE OF THE EXECUTIVE ENGINEER LEFT RIVER WORKS DIVISION SMC, SGR
NOTICE INVITING TENDERS
(for Road work/bridges/Buildings)

TWO COVER SYSTEM (Above Rs. 2.50 Cr.)

Fresh NIT No.35 of 2023-24

Dated:06/11/2023 (E-tendering)

For and on behalf of the Hon'ble Lt. Governor, J&K UT, e-tenders are invited on %age basis (as the case may be) from approved and eligible Contractors registered with J&K State Govt. CPWD, Railways and other State/Central Governments for each of the following works:-

| S. No | Name of Work | Adv. Cost (Rs. In Cr.) Including GST | Cost of T/Doc. (In Rupees) | Earnest Money (Rs. In Lacs) | T.O.C | Class of Contractor |
|-------|--|--------------------------------------|----------------------------|-----------------------------|-------------------|---------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | Commissioning Of 3 No. Of Garbage Transfer Stations In Srinagar City | 12.40 | 11000/- | 24.80/- | 270 days strictly | AAV |

Project Authority = Commissioner, SMC

Major Head of Account = Srinagar Smart City

Position of AAA = Accorded vide Order No. (322-SSCL of 2021, Dated: 16/08/2021)
(318-SSCL of 2021, Dated: 16/08/2021)
(317-SSCL of 2021, Dated: 16/08/2021)

Executing Agency = Srinagar Municipal Corporation.

Position of Funds = Available.

Technical Sanction = (Order No. MED/K/TS/176, dated: 03.02.2022)

- The Bidding documents consisting of qualifying information, eligibility criteria, specifications, drawings, bill of quantities (B.O.Q), Set of terms and conditions of contract and other details can be seen/downloaded from the departmental website www.jktenders.gov.in as per below schedule:

| | | |
|----|---|---|
| 1. | Date of Issue of Tender Notice | 06/11/2023 |
| 2. | Period of downloading of bidding documents | From 06/11/2023 from 06:00 PM to 16/11/2023 upto 04:00 PM |
| 3. | Date, Time and place of pre-bid meeting | 13/11/2023 at 02:00 PM in the office of Joint Commissioner Works, SMC, Srinagar |
| 4. | Bid submission Start Date | 06/11/2023 From 06 :00 PM |
| 5. | Bid Submission End Date | 16/11/2023 upto 04:00 pm |
| 7. | Date & time of opening of Technical Bids (Online) | 17/ 11/2023 at 02:PM in the office of Joint Commissioner Works, SMC, Srinagar |
| 8. | Date & time of opening of Financial Bids (Online) | To be notified after technical bid evaluation is completed |

Bids must be accompanied with cost of Tender document (as mentioned above) is to be paid through online/ offline mode via NEFT/RTGS in favour of Chief Accounts Officer, Srinagar Municipal Corporation in the Municipal Account 0216010200000007 payable at J&K Bank Branch Balgarden. (The Date of Bank Receipt must be between the date of start of bid and Bid Submission End date).

- 1.2. At the time of tendering all bidders must upload earnest money/bid security equal to 2% of the Advertised Cost in the form of CDR/FDR/BG pledged to the tender receiving authority i.e. Joint Commissioner Works SMC Srinagar. The Date of Earnest money must be between the date of start of bid and bid submission end date). The successful bidder will have to provide Performance security @ 5% of Allotted cost In shape of CDR/FDR/BG before the contract award. The earnest money/bid security of 2% will be released to the successful bidder only after the submission of performance security @ 5% of the Allotted cost which will be released after successful completion of the DLP. The Bank Guarantee should be valid for 45 days beyond bid validity.
2. Bidders can resubmit/withdraw the bids as specified.
3. The date and time of opening of Financial-Bids shall be notified on Web Site www.jktenders.gov.in and conveyed to the bidders automatically through an e-mail message on their e-mail address. The **Financial-bids of Responsive bidders** shall be opened online in the Office of Joint Commissioner Works SMC. The date for same shall be intimated separately.
4. The bids for the work shall remain valid for a period of 120 days from the date of opening of Technical bids.
5. The earnest money shall be forfeited, If:-
- Any bidder/tenderer withdraws his bid/ tender during the period of bid validity or makes any modifications in the terms and conditions of the bid.
 - Failure of Successful bidder to furnish the required performance security within specified time period issue of letter of intent.
 - In case contractor fails to execute the agreement within 28 days after fixation of contract.
6. **Instruction to bidders regarding e-tendering process.**
- 6.1. Bidders are advised to download bid submission manual from the "Downloads" option as well as from "Bidders Manual Kit" on website www.jktenders.gov.in into acquaint bid submission process.
- 6.2. To participate in bidding process, bidders have to get 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000. Bidders can get digital certificate from any approved vendors.
- 6.3. The bidders have to submit their bids online in electronic format with digital Signature. No financial bid will be accepted in physical form.
- 6.4. Bids will be opened online as per time schedule mentioned in Para-2.
- ~~6.5. Bidders must ensure to upload scanned copy of all necessary documents mentioned in NIT and SBD with technical bid.~~
- 6.6. All bidders shall upload Verification Certificate from concerned Chief Engineer /Superintending Engineer to whom the Enlistment Registration Card was issued.
- Note: - Scan all the documents on 100 dpi with black and white option.**
7. The department will not be responsible for delay in online submission due to any reasons
8. Bidders may contact office of the Joint Commissioner Works SMC or concerned Executive Engineer for any guidance for getting DSC or any other relevant details in respect of e-tendering process.
9. Bidders are advised not to make any change in BOQ (Bill of Quantities) contents. In no case they should attempt to create similar BOQ manually. The BOQ downloaded should be used for filling the rate inclusive of all taxes and it should be saved with the same name as it contains.
10. The rates and prices shall be quoted by the bidder entirely in Indian Rupees and the rates quoted shall be deemed to include price escalation and all taxes upto completion of the work unless otherwise, specified.
11. Bidders are advised to use "My Documents" area in their user on e-Tendering portal to store such documents as are required.
12. **Defect Liability Period:**
The DLP shall be calculated from the date of completion of work and the DLP shall be 12 months after final financial completion year.
13. All key construction material (i.e., cement, steel, pipes etc) shall have to be arranged by the contractor strictly as per specifications with the approval of Engineer-in-charge.
14. Qualification criteria for the work and other terms and conditions are contained in the bidding document available on website
15. The contractor should give undertaking as per annexure No..II
16. All CVC guidelines are to be adhered strictly particularly similar nature of work should have been executed by the bidder clearly similar means same items of the work which have been advertized, its experience for execution shall be considered.
17. Any variation in items/ unit of BOQ shall be dealt rectified as per the SSR 2020/ Checked estimate.

No.SMC/EELRWD/1641-1650

Dated:06-11-2023

Sd/-

Er. Ishtiaq Ahmad Shah,
Executive Engineer,
LRWD SMC, Srinagar

Copy to the: -

- 1) Principal Secretary to Govt., H&UDD, Srinagar for favour of kind information.
- 2) Commissioner, Srinagar Municipal Corporation for favour of information.
- 3) Chief Account Officer, Srinagar Municipal Corporation for favour of information.
- 4) Joint Commissioner (Works) Srinagar Municipal Corporation for favour of information.
- 5) Deputy Director (P&M), Srinagar Municipal Corporation for favour of information.
- 5) Public Relation officer Srinagar Municipal Corporation for Publication of NIT in three local Dailies.
- 6) Informatics Officer, SMC for information and uploading of the NIT on Website of Corporation
www.smcsrinagar.in
- 7) All Assistant Executive Engineers, LRWD, SMC for favour of information.

Government of Jammu and Kashmir
Srinagar Municipal Corporation
Left River Works Division, SGR.

STANDARD BIDDING DOCUMENT

FOR

ROADS/BRIDGES/BUILDINGS

(Two Cover System)

(Applicable beyond 2.50 Cr.)

Name of work:- *Commissioning Of 3 No. Of Garbage Transfer Stations
In Srinagar City*

(Advt. Cost:- Rs.12.40 Cr.)

e-NIT NO.34 of 2023-24 Dated:06.11.2023

(E-tendering)

Left River Works Division, SGR

Instructions to Bidders (ITB)

Table of Clauses

| A | General | | |
|----|------------------------------------|----|---|
| 1 | Scope of Bid | 20 | Deadline for Submission of Bids |
| 2 | Source of Funds | 21 | Modification & Withdrawal of Bids. |
| 3 | Eligible Bidders | | |
| 4 | Qualification of Bidder | E | Bid Opening and Evaluation |
| 5 | One Bid per Bidder | | |
| 6 | Cost of bidding | 22 | Bid opening |
| 7 | Site visit | 23 | Process to be confidential |
| | | 24 | Clarification of bids |
| | | 25 | Examination of Bids and Determination of Responsiveness. |
| B | Bidding Documents | | |
| 8 | Content of Bidding Documents | | |
| 9 | Clarification of Bidding Documents | 26 | Evaluation and Comparison of Financial Bids. |
| 10 | Amendment of Bidding Documents | 27 | Award of Contract |
| C | Preparation of Bids | 28 | Employer's Right to Accept any Bid and to Reject any or all Bids. |
| 11 | Language of Bid | 29 | Notification of Award and Signing of Agreement. |
| 12 | Documents Comprising the Bid | 30 | Performance security. |
| 13 | Bid Prices | 31 | Advance Payment. |
| 14 | Currencies of Bid and | 32 | Dispute review Expert. |
| 15 | Bid Validity | 33 | Corrupt or Fraudulent practices. |
| 16 | Bid Security | | |
| 17 | Alternative Proposals by Bidders. | | |
| D | Submission of Bids | | |
| 18 | Bidding through e-Tendering | | |
| 19 | Electronic submission of Bids | | |

A. GENERAL

1. Scope of Bid

The Employer (named in Appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as "the works") detailed in the table given in the ITB. The bidders may submit bids for any or all of the works detailed in the table given in the ITB.

The successful bidder will be expected to complete the Works by intended completion date specified in the Contract data.

Throughout these bidding documents, the terms "bid" and "tender" and their derivatives (bidder/tender, bid/tender, bidding/tendering etc.) are synonymous.

2. Source of Funds

2.1 The expenditure on this project will be met from the funds as indicated in BDS.

3. Eligible Bidders

This Invitation for Bids is open to all Bidders as mentioned in NIT (Individual/Joint Venture). Joint venture bidding is allowed for the works costing Rs.15.00 Crores and above in I&K UT.

All Bidders shall provide in Section-2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated nor has been associated directly or indirectly, with the consultant or any other entity that has prepared the design, specifications and other documents for the project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the work, and any of its affiliates shall not be eligible to bid.

Bidders from Joint Venture are allowed as per 3.1 and as per clause 2.11 of Section- 2 (qualification Information).

Qualification of the Bidder (Technical Bid Qualification)

All Bidders shall provide in Section-2, Forms of Bid and Qualification Information, preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculation and quality assurance procedures along with Quality Assurance Plan(QAP), proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion

In the event that prequalification of quotation bidders has been under taken, only bids for prequalified bidders will be considered for award of contract, The qualification bidders should submit with their bids any information updating their original prequalification application's application or alternatively confirm in their bids that the originally submitted prequalification remains essentially correct as of date of bid submission. The update of confirmation should be provided in section 2 a copy of the original prequalification application and letter of prequalification should also be furnished. With the updated information, the bidder must continue to be qualified in accordance with the criteria laid down in the prequalification document. All bidders shall also furnish the following the information in Section 2.

All the bidders shall include the following information and documents with their bids in Section -3 Qualification Information unless otherwise stated in Appendix to ITB.

- a) Copies of original documents defining the constitution or legal status, registration card with latest renewal, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder.

- b) Financial turn over, year-wise, achieved on execution of civil engineering works for the last five years i.e. 2018-19 to 2022-23 duly certified by the Chartered Accountant.
- c) Completion Certificate of having executed and completed or substantially completed successfully single work of similar nature as defined under clause 4.4 b and clause 1.5 b of qualification criteria in any Govt. or Semi- Govt. Department during the last 7 (Seven) years duly issued by an officer not below the rank of Executive Engineer or equivalent.
- (d) The bidder shall also furnish details of other civil works of similar nature executed and completed in any Govt. or Semi Govt. department during the last 5 years and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts.
- (e) Copy of PAN card issued by the Income TAX Authority
- f) Reports on financial standing of the bidder such as profit and loss statement, balance sheet and auditor's report for the last five years and supported with ITR and TDS for the last five years. I.e. 2018-19 to 2022-23
- (g) Major items of construction equipment proposed to carry out the Contract;
- (h) Qualifications and experience of key site management and technical personnel proposed for contract;
- (i) Evidence of access to line(S) of credit and availability of other financial resources facilities (10% of contract value), certified by the Bankers (Not more than 3 months old).
- (j) Undertaking that the bidder will be able to invest a minimum cash up to 25% of contract value of work, during implementation of work.
- (k) Authority to seek references from the Bidder's bankers;
- (l) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount.
- m) Affidavit on Correctness of information submitted with the Bid.
- n) Power of attorney.
- o) Bidders shall furnish proof of latest returns in GST-3/GSTR-3B, FORM GST-3B i.e. latest clearance certificate FORM GST- 3B of the preceding month or quarter
- p) The proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones. The bidder shall prepare the QAP (Quality Assurance Plan) as per the manual /guidelines available on the departmental website.(refer Clause 4.1 &4.2 of ITB)
- Bids for joint venture are accepted for the works valuing Rs.15.00 Crore and above. (To be read with clause 2.11& 2.12 of section-2 -Qualification Information.)
- q) The bidder will ensure execution of electrical works under the supervision of a qualified Electrical Engineer hired by him after allotment of the work.
- r) The bidder will ensure execution of electrical works by a qualified electrician.
- s) The work will be put to third party checking in accordance with standard practices, specifications and codes at the cost of the contractor.
- t) All material used for electrification shall be supported with OEM Certificates and ISI Markings.

The authorized bidder should have experience of executing civil works and should have executed and completed atleast 1 work equivalent to 80% of the cost, 2 works 50% each of the adv. cost, 3 works 40% each of adv. cost. Same is for the original equipment manufacturer (OEM) of the mechanical items.

(A) Pre-qualification criteria:

- a) General Construction Experience: Annual Turnover

The applicant should have achieved minimum annual value of general construction work (as certified by Chartered Accountant, and at least 50(fifty) percent of which is from Civil Engineering construction works carried out in any of the last five financial years, calculated by applying multiplying factor of 2 for calculation of available bid capacity.

However, in case of Road/Bridge works under MORTH, NABARD and State Sector, the guidelines as circulated by MORTH shall apply while as in case of Road/Bridge works under PMGSY; the guidelines as circulated by PMGSY shall apply.

b) Particular Construction Experience and Key Production Rates

The applicant should have:

1. Successfully completed or substantially completed similar works during last seven years ending last day of month previous to the one in which applications are invited should be either of the following:-

Three similar completed works costing not less than the amount equal to 40 (forty) percent of the estimated cost;

or

Two similar completed works costing not less than the amount equal to 50 (fifty) percent of the estimated cost;

or

One similar completed work costing not less than the amount equal to 80 (eighty) percent of the estimated cost;

Similar nature of work:

As per the CVC guidelines the bidder should have executed similar nature of work for last seven years. Similar nature of work means the bidder should have executed major items of the work (building work), which will be considered as similar nature of work. Any work executed by the Contractor doesn't match with the item of work should not be considered similar nature of work.

- 2 The applicant should also have achieved the minimum annual production value of the key construction activities (e.g dredging, piling, or earthworks etc) stipulated.

The similarity of work shall be pre-defined based on the physical size, complexity methods/technology and /or other characteristics, and scope of works. Substantial completions shall be based on 80 (eighty) percent (value wise) or more works completed under the contract. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement. For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at simple rate of seven percent per annum, calculated from the date of completion to the date of Bid opening.

However, in case of Road/Bridge works under MORTH, NABARD and State Sector, the guidelines as circulated by MORTH shall apply while as in case of Road/Bridge works under PMGSY, the guidelines as circulated by PMGSY shall apply.

4.5 (B). Each bidder should further demonstrate:

- (a) Availability (either owned or leased or by procurement) of the key and critical equipment for this work as per Annexure -I below.

(To be included for bids valued over Rs.5.00 Cr).

Based on the studies, carried out by the Engineer, the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Annexure-I below:-

**LIST OF KEY PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACTWORK
FOR BUILDING WORKS**

| S.No | Type of Equipment | Maximum Age As on date of NIT | Work valuing up to 15 Crores | Above 15 Crores Upto Rs.30.00 Crore. |
|------|--|----------------------------------|---------------------------------|--|
| 1 | Tipper /Trucks | 5-7 | 3 | 5 |
| 2 | Excavator | 4 | 2 | 2 |
| 3 | Mixer | 3 | 2 | 2 |
| 4 | Lift mixer | 2 | 1 | 1 |
| 5 | Concrete vibrator | 6 | 4 | 5 |
| 6 | Generator 125 kv | 3 | 1 | 1 |
| 7 | Motor Grader | 3 | 1 | 1 |
| 8 | Welding machine | 2 | 1 | 1 |
| 9 | Dewatering pump 100mm | 2 | 1 | 1 |
| 10 | Shuttering kit ply / steel (1500 TO2000 Sqm) | 2 | 1 | 1 |

**LIST OF KEY PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACT WORKFOR BRIDGE/ROAD
WORKS**

| S.No | Type of Equipment | Maximum Age As on date of NIT | Work valuing up to 15 Crores | Above 15crores Upto Rs.30. 00 Crore. |
|------|--|-------------------------------------|------------------------------------|--|
| 1 | Tipper /Trucks | 5-7 | 3 | 5 |
| 2 | Excavator | 4 | 2 | 2 |
| 3 | Mixer | 3 | 2 | 2 |
| 4 | Lift mixer | 2 | 1 | 1 |
| 5 | Concrete vibrator | 6 | 4 | 5 |
| 6 | Generator 125 kv | 3 | 1 | 1 |
| 7 | Motor Grader | 3 | 1 | 1 |
| 8 | Welding machine | 2 | 1 | 1 |
| 9 | Dewatering pump 100mm | 2 | 1 | 1 |
| 10 | Shuttering kit ply / steel (1500 To 2000 Sqm) | 2 | 1 | 1 |
| 11 | Dozer | 5 | 1 | 1 |
| 12 | Front end loader | 5 | 1 | 1 |
| 13 | Smooth wheeled roller | 5 | 1 | 2 |

The Engineer in charge shall be at liberty to direct the contractor to get additional plant and equipment if necessary for timely complementation of project. The applicant should own or should have assured ownership/lease/hire the following key items of equipment, in full working order, and must demonstrate that, based on known commitments; they will be available for use in the proposed contract.

The Bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 12 of ITB to allow the employer to review their proposal. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (b) Availability for this work of personnel with adequate experience as required as per Annexure-II.

LIST OF KEY PERSONNEL TO BE DEPLOYED ON CONTRACT WORK

| S.No | PERSONAL | QUALIFICATION | Up to 15 Crores | 15 crores above Up to Rs.30.00 Crore. |
|------|--------------------------|---|-----------------|---------------------------------------|
| 1 | Project Manager | B.E Civil +10Years Exp Or Diploma in Civil with 15 years experience | 1 | 1 No |
| 2 | Site Engineer | B.E Civil +3Years Exp Or Diploma with 7 years experience | 1 | 2 No |
| 3 | Plant Engineer | B.E Mech. + 3 Years Exp. Or Dip. Mech.+ 7 Years Exp. | 1 | 1 No |
| 4 | Quantity Surveyor | B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp. | 1 | 1 No |
| 5 | Soil & Material Engineer | B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp. | 1 | 1 No |
| 6 | Survey Engineer | B.E Civil.+5 years Exp. Or Dip. Civil + 8 years Exp. | 1 | 1 No |

The contractor should have details vetted from department of pension & pensioners' welfare / Department of labour and employment/ department of financial services, in the form of CPF/NPS muster roll of technical and non-technical personal as a proof of Key personnel working in firm/company.

(c) Liquid assets and/ or availability of credit facilities of no less than amount indicated in Appendix to ITB (credit lines / letter of credit certificates from banks for meeting the funds requirement etc. usually the equivalent of the estimated cash flow for three months in peak construction period)

- 4.6(C) To qualify for a package of contracts made up of this and other contracts for which bids are invited in the ITB, the bidders must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.6. Bidders who meet the minimum qualification criteria will qualify only if their available bid capacity is more than the total estimated cost of the works. The available bid capacity will be calculated as under:-

Available Bid capacity = (A * N * M - B)

A = Maximum value of civil engineering constructions works executed in any one year during the last five years (updated to the current price level of the year indicated in appendix to ITB clause 16) taking into account the completed into as well as works in the progress.

N = Number of years prescribed for completion of the work in question.

B = Value of existing commencements and on-going works to be completed during the next 'N' years.

M = Multiplying factor 2.00.

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent. The certificate should be furnished as per format shown in qualification information (Section-2).

4.7 Even though the Applicants meet the above qualifying criteria, they are subject to be disqualified if they have:

- i. Made misleading or false representations in the forms, statements and attachments submitted: and / or
- ii. Record of poor performance such as abandoning the works not properly completed the contract inordinate delays in completion, litigation history or financial failure etc and /or
- iii. Participated in the previously bidding for the same works and had quoted unreasonably high bid prices and could not furnish rational justification to employer

5. One Bid per Bidder

Each Bidder shall submit only one bid for one work. A Bidder who submits more than one bid for one work will cause the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding Document

The Bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for those costs.

7. Site Visit

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

The set of bidding documents comprises the documents listed below and Addenda issued in accordance with Clause 10 of ITB.

1. Notice Inviting Tender
2. Instructions to Bidders
3. Qualification Information
4. Conditions of Contract (Part-I General Conditions of Contract, and Contract data; part II Special Conditions of Contract).
5. Specifications
6. Drawings
7. Bill of Quantities
8. Form of Bid
9. Form of Acceptance, Form of Agreement, and Issue of Notice to Proceed with the work
10. Forms of Securities and Form of Unconditional Bank Guarantee.

The bid document is available online on the website <http://www.jktenders.gov.in>.

The bid document can be downloaded free of cost, however, the bidder is required to submit Treasury Challan towards cost of bid document in favour of the name given in the Bid Data Sheet.

The bidder is expected to examine carefully all Instruction, Conditions of Contract, Contract Data,

Forms, Terms, Technical Specifications, Bill of Quantities, Annexes and Drawings in the Bid Document. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Pursuant to clause 26 hereof bids which are not substantially responsive to the requirements of the bidding documents shall be rejected.

9. Clarification of Bidding Documents

The electronic bidding system provides for online clarification. A prospective bidder requiring any clarification of the bidding document may notify online the authority inviting the bid. The authority inviting the bid will respond to any request(s) for clarification received at the time of pre bid meeting and the response of the authority inviting the bid will be uploaded for information of the public or other bidders without identifying the source of request for clarification.

Pre-bid Meeting

The bidder or his official representative is invited to attend a pre-bid meeting, which will take place at the address, venue, time and date as indicated in NIT.

The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

The bidder is requested to submit any questions in writing or by cable to reach the employer not later than two days before the meeting.

Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all bidders. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meetings shall be uploaded and bidder shall be automatically informed through messaging/mail through jktenders.gov.in.

Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing online corrigendum. The corrigendum will appear on the web page of the website www.iktenders.gov.in under the "Latest Corrigendum" and e-mail notification is also automatically sent to those bidders who have moved this tender to their "My tenders" area.

Any addendum thus issued shall be part of the bidding documents and shall be deemed to have been communicated to all the bidders who have moved this tender to their "My Tenders" area. In case any addendum/ Corrigendum, the system will automatically send e-mail to all bidders who have downloaded the bidding document.

To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with Clause 20.2 of ITB.

C. PREPARATION OF BIDS

11. Language of the Bid

All documents relating to the bid shall be in English language.

12. Document Comprising the Bid (Two cover system)

The bid to be uploaded by the bidder as Volume V of Bid document (Refer Clause 8.1) shall be in two separate parts.

Part I shall be named "Technical Bid" and shall comprise.

- i) Bid Security Declaration Form/Bid Security/Earnest money as the case may be as per NIT
- ii) Qualification Information and supporting documents as specified in Section 2.
- iii) Certificates, undertaking, affidavits in section 2.
- iv) Any other information pursuant to clause 4.0 of these instructions.
- v) Undertaking that, the bid shall remain valid for the period of 120 days after the deadline of date of opening of technical bids mentioned in the NIT.
- vi) Acceptance/non- acceptance of dispute review expert.

Part-II of the bid shall be named as "Financial Bid and shall comprise.

- (i) Form of Bid as specified in Section 6.
 - (ii) Priced Bill of Quantities for items specified in Section 7.
- 12.2(a) The documents and details mentioned in clause 12.1 Part I, financial Turnover for the last five financial years supported with all other documents as required as per NIT and SBD must be uploaded by the bidder with his technical bid online on website www.iktenders.gov.in.

Bidders must ensure to upload scanned copy of all necessary documents mentioned in NIT and SBD with technical bid documents, which are not submitted with the Bid, will be deemed to be part of the Bid separately sealed and marked

| Section | Particulars |
|---------|-----------------------------|
| 1 | Notice Inviting Tender |
| 2 | Instruction to Bidders(ITB) |
| 3-4 | Conditions of Contract |
| 5 | Contract Data |
| 6 | Specifications |
| 9 | Drawings |

(Deleted).

13. Bid Prices:

13.1 The Contract shall be for the whole Works, as described in Clause 1.1 of ITB, based on the priced Bill of Quantities submitted by the Bidder online.

The Bidder shall make online entries to fill the Item Rates in Bill of Quantities.

Item Rate Method requires the bidder to quote rates and prices for all items of the Works described in the Bill of Quantities. The items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Upon numerical entry, the amount in words would automatically appear and upon entry of rates in items of work, total bid price would automatically be calculated by the system and would be displayed.

Percentage Rate method requires the bidder to quote a percentage above/below /at par of the schedule of rates applicable/as mentioned in the advertised BOQ.

All duties, taxes and other levies payable by the Contractor under the contractor, or for any other cause including GST, shall be included in the rates, price and the total bid price submitted by the Bidder.

The rates & prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment or any account.

14 Currencies of Bid and Payment

The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15 Bid Validity

Bids shall remain valid for a period not less than 120 days (One hundred twenty days) after The deadline date for opening of Technical bids as specified in NIT. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bids submitted by the Bidder, the latter shall be deemed to stand corrected in accordance with the former and the Bidder has to provide for any additional security that is required.

In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his Bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his Bid security for a period of the extension, and in compliance with Clause 16 of this chapter in all respects

Bid evaluation will be based on the bid prices without taking into consideration the above correction.

16 Bid Security

All bidders have to submit Bid Security/Earnest money in shape of CDR/FDR/BG pledged to tender receiving authority

The successful bidder shall have to provide Performance Security @ 5% in shape of CDR/FDR/BG within 02 days after the date of receipt of letter of acceptance and the shall be released to successful bidder after successful completion of DLP. The Bank Guarantee should be valid for 45 days beyond bid validity

to 16.5 (not applicable presently)

16.6 The Bid Security may be forfeited

- a) If the Bidder withdraws the bid after bid opening during the period of bid validity;
- b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - i) Sign the Agreement and/or
 - ii) Furnish the required Performance Security

17 Alternative Proposal by Bidders

Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the condition of contract (including mobilization advance or time for completion), basic technical design as indicated in the Drawings and Specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.

Online Submission of Bids

18 Bidding through E-Tendering System:

The bidding under this contract is electronic bid submission through website www.jktenders.gov.in Detailed guidelines for viewing bids and submission of online bids are given on the website. The Invitation for Bids under SMC department is published on this website. Any citizen or prospective bidder can logon to this website and view the Invitation for Bids and can view the details of works for which bids are invited. The prospective bidder can submit bids online; however, the bidder is required to have enrolment/registration in the website and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token. The DSC can be obtained from any authorized certifying agencies. The bidder should register in the web site www.jktenders.gov.in using the relevant option available then the Digital Signature registration has to be done with the e-token, after logging into the site. After this, the bidder can login the site through the secured login by entering the password of the e-token and the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.

The completed bid comprising of documents indicated in ITB clause 12, should be

Uploaded on the website given above through e-tendering along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copies of the Bid Document, Treasury challan receipt and Earnest Money as per NIT/ SBD.

The bidder shall furnish information as described in the Form of Bid on Commissions or gratuities, if any, paid or to be paid to agents relating to the Bid, and to contract execution if the bidder is awarded the contract.

19 Electronic Submission of Bids:

The bidder shall submit online two separate files. Part I, marked as Part I: Technical Qualification Part and Part II; marked as Part II: Technical- Financial Part. The above files will have markings as given in the Bid Data Sheet. The contents of the Technical Qualification and Technical Financial bid shall be as specified in clause 12 of the ITB. All the documents are required to be signed digitally by the bidder. After electronic on line bid submission, the system generates a unique bid identification number which is time stamped. This shall be treated as acknowledgement of bid submission.

20 Deadline for Submission of Bids

Complete Bids in two parts as per clause 19 above must be submitted by the Bidder online not later than the date and time indicated in the Appendix to ITB.

The Employer may extend the deadline for submission of bids by issuing an Amendment in accordance with Clause 10.3 of ITB. In such case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21 Modification/ Withdrawal/Late Bids

The electronic bidding system would not allow any late submission of bids after due date and time as per server time.

Bidders may modify their bids by uploading their request for modification before the deadline for submission of bids. For this, the bidder need not make any additional payment towards the cost of tender document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential-submission of bids is allowed any number of times. The bidders may withdraw his bid by uploading their request before the deadline for submission of bids; however, if the bid is withdrawn, the re-submission of the bid is not allowed.

No bid shall be modified or withdrawn after the deadline of submission of bids.

Withdrawal or modification of a bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid Security pursuant to Clause 16.

22 Bid Opening and Evaluation

The Employer inviting the bids or its authorized representative will open the bids online and this could be viewed by the bidders also online. In the event of the specified date for the Opening of bids being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.

The file containing the Part-I of the bid will be opened first.

In all cases, the amount of Bid Security, cost of bid documents, and the validity of the bid shall be scrutinized. Thereafter, the bidders' names and such other details as the Employer may consider appropriate, will be notified as Part-I bid opening summary by the Authority inviting bids at The online opening. A separate electronic summary of the opening is generated and kept on-line.

The Employer will also prepare minutes of the Bid opening, including the information disclosed in accordance with Clause 22.3 of ITB and upload the same for viewing online.

Evaluation of Part-I of bids with respect to Earnest money/bid security, qualification information and other information furnished in Part I of the bid in pursuant to Clause 12.1 of ITB, shall be taken up and is expected to be completed within five working days of the date of bid opening, and a list will be drawn up of the qualified bidders whose Part- II of bids are eligible for opening.

The result of Technical evaluation shall be made public on jktenders.gov.in site following which there will be a period of two working days during which any bidder may submit objections if any in writing to the tender receiving authority which shall be considered for resolution before financial bid opening.

The Employer shall inform the bidders, who have qualified technical evaluation, of the date, time of online opening of financial bids. If the specified date of opening of financial bid is changed, in the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

Financial bids of only those bidders will be opened online, who have qualified in Technical Evaluation. The bidders' names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be notified online by the Employer at the time of bid opening.

2.9 The Employer shall prepare the minutes of the online opening of Financial Bids and upload the same for viewing online.

23 Process to be confidential

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a bidder to influence the Employer's processing of bids or award decision may result in the rejection of his bi

24. Clarification of Bids and contacting the Employer:-

No Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

Any attempt by the bidder to influence the Employer's bid evaluation, bid Comparison or contract award decision may result in the rejection of his bid.

25. Examination of Bids and Determination of Responsiveness

During the detailed evaluation of "Technical Bids" the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4,(b) has been properly signed;

(c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the 'Financial Bid' the responsiveness of the Bids will be further determined with respect to the remaining bid conditions i.e. priced Bill of Quantities, technical specifications and drawings.

A substantially responsive "Financial Bid" is one, which conforms to all the terms, conditions and specifications of the Bidding documents, without material deviation or reservation.

A material deviation or reservation is one

- (i) which affects in any substantial way the scope, quality or performance of the works;
- (ii) which limits in any substantial way inconsistent with the bidding documents the Employer's rights or the bidders obligations under the contract, or
- (iii) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

If a "Financial Bid" is not substantially responsive it will be rejected by the Employer and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

26 Evaluation and Comparison of Financial Bids

The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Sub-Clause 25.2.

In evaluating the bids, the Employer will determine for each bid the Evaluated Bid price adjusting the Bid price through making an appropriate adjustment for any other acceptable variation, deviations, and price modifications offered in accordance with sub-clause 21 of ITB.

The Employer reserves the right to accept or reject any variation or deviation. Variations and deviations, and other factors which are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.

Unbalanced Bid: (presently not applicable as per Government directions)

The successful bidder L1 shall have to deposit an additional performance security in the shape of CDR / FDR/ B.G before award of contract in case the bid of the successful bidder is found to be unbalanced and the following scale shall apply there to:-

| S.No | Percentage of unbalanced bid viz -a- viz Adv.cost | Additional performance security to be deposited on quoted bid by L1 |
|------|---|---|
| 1 | Upto and including 15% below | Nil |
| 2. | >15% upto and including 20% below | 5% |
| 3 | >20% upto and including 25% below | 10% |
| 4 | >25% upto and including 30% below | 15% |
| 5 | >30% below | 20% |

Payment for the items for which quoted rates are higher than estimated/DPR rates shall be restricted to estimated/DPR rates only till completion of items for which quoted rates are lower than the estimated/DPR rates.

It should also be ensured that advertised Quantities as per the BOQ should not exceed the advertised quantities in any case in order to ensure that intense position of the bidders does not get changed.

After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in clause 30 of ITB be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract.

A Bid which contains several items in the Bill of Quantities which are unrealistically which cannot be priced low and be substantiated satisfactorily by the bidder may be rejected as non-responsive.

There should be no post tender negotiation with L1 as per CVC guidelines. In case L1 backs out, there should re-tender.

26.70. Integrity Pact

The Pact essentially envisages an agreement between the prospective vendors/bidders and the buyer, committing the persons/officials of both sides, not to resort to any corrupt practices in any aspect/stage of the contract. Only those vendors/bidders, who commit themselves to such a Pact with the buyer, would be considered competent to participate in the bidding process. In other words, entering into this Pact would be a preliminary qualification. The essential ingredients of the Pact include:

- Promise on the part of the principal not to seek or accept any benefit, which is not legally available;
- Principal to treat all bidders with equity and reason;
- Promise on the part of bidders not to offer any benefit to the employees of the Principal not available legally;
- Bidders not to enter into any undisclosed agreement or understanding with other bidders with respect to prices, specifications, certifications, subsidiary contracts, etc. Bidders not to pass any information provided by Principal as part of business relationship to others and not to commit any offence under PC/ IPC Act;
- Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates.
- Bidders to disclose the payments to be made by them to agents / brokers or any other intermediary;
- Bidders to disclose any transgressions with any other company that may impinge on the anti corruption principle.

Integrity Pact, in respect of a particular contract, shall be operative from the date IP is signed by both the parties till the final completion of the contract. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

Sample of integrity pact agreement is given here under:-

INTEGRITY PACT SMC

To,

.....,

.....,

.....

Sub: NIT No. for the work

Dear Sir,

It is here by declared that SMC is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the SMC.

Yours faithfully
Executive Engineer

153

To,
Executive Engineer,
.....,
.....

Sub: Submission of Tender for the work of
Dear Sir,

I/We acknowledge that SMC is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by SMC. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, SMC shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of SMC.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of 20.....

BETWEEN

Lt Governor of Jammu and Kashmir represented through Executive Engineer,,
(Name of Division)

SMC,, (Hereinafter referred as the (Address of Division)
'Principal/Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)

through.....(Hereinafter referred to as the (Details of duly
authorized signatory)

"Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No.....) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for..... (Name of work) hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the 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/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner 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/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

- 2) The Bidder(s)/Contractor(s) commits 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/Owner's employees involved in the Tender process or 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 Bidder(s) 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 cartelize 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 the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner 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 names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or tends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a **willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**

- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises 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 or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, SMC.

157

Article 7- Other Provisions

1) This Pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal/Owner, who has floated the Tender.

2) Changes and supplements need to be made in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

158

D. AWARD OF CONTRACT**Award Criteria**

Subject to Clause 28, the Employer will award the Contract to the Bidder whose Bid has been determined. To be substantially responsive to the Bidding documents and who has offered the lowest Evaluated Bid Price, provided that such bidder has been determined to be (a) eligible in Accordance with the provisions of clause 3 of ITB and (b) qualified in accordance with the Provisions of clause 4 of ITB; and

- (i) To be within the available Bid Capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.
- (ii) The work shall not be awarded without proper verification of documents provided by the tenderers such as EMD, BG, Completion Certificate, IT returns etc.

Employer's right to accept any Bid and Reject any or all Bids

Not with standing Clause 27 the Employer reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders or any obligations to inform the affected bidder or bidders of the grounds for the Employer's action.

The acceptance of tenders shall not be delayed without any justification.

Notification of Award and signing of Agreement

The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called "the Letter of Acceptance") will state the sum that the Employer will pay the contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract. (Hereinafter and in the Contract called "the Contract Price").

The notification of award will constitute the formation of the Contract subject only to the furnishing of a performance security in accordance with provision of clause 30 of ITB.

The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the Performance Security is furnished.

Upon the furnishing by the successful bidder the performance security, the Employer will promptly notify the other bidders that their bids have been unsuccessful.

30 Performance Security

Within 02 (Two) days after the date of receipt of the Letter of Acceptance, the successful bidder/contractor shall deliver to the Employer/concerned authority, a Performance Security in the shape of CDR/FDR/BG for an amount equivalent to 5% of contract price

The additional performance security in the shape of CDR /FDR/ BG for the unbalanced bid in terms of clause 26.4 of ITB Shall not be applicable.

If the Performance Security is provided by the successful bidder in the form of a bank

guarantee, it shall be issued by either (a) at the Bidder's option, by a Nationalized / Scheduled Indian Bank or (b) by a foreign reservation. A material deviation or reservation is one bank located in India and acceptable to the Employer.

Failure of the successful bidder to comply with the requirements of Sub-Clause 30.1 of ITB shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

(Deleted)

31 No Advance Payment whatsoever shall be made by the department to the Contractor.

32 **Dispute Review Expert:**

The Employer proposes that (Name of the proposed Dispute Review Expert as indicated in the Appendix to ITB) to be appointed as Dispute Review Expert under the contract at a daily fee as indicated in Appendix plus reimbursable expenses. If the bidder disagrees with this proposal, the bidder should so state in the bid. If, in the letter of Acceptance, the Employer has not agreed on the appointment of the Dispute Review Expert, the Dispute Review Expert shall be appointed by the Council of Indian Road Congress at the request of either party.

33 **Corrupt or Fraudulent Practices**

The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with National Highways Authority of India / SMC / PWD and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor or in execution.

Furthermore, Bidders shall be aware of the provisions stated in Clause 53.2 of the Conditions of Contract.

34. **Scope and Specifications**

The scope and specifications of the work shall not be changed without prior approval of competent authority.

APPENDIX TO ITB

Clause Reference with respect to Section -I.

Name of Employer: Commissioner SMC.

2. The last five financial years are (2018-19, 2019-20, 2020-21, 2021-22 & 2022-23).

3. (Deleted).

4. Value of work is Rs. 12.40 Cr.

5. Liquid assets and/or availability of credit facilities is 10% of Adv. Cost. Section 3 (i).

6. Price level of the financial year 2018-19 (base year).

7. The pre-bid meeting will take place at office of the Joint Commissioner Works / Superintending

8. Engineer/ Executive Engineer (as the case may be) on 19/09/2023

9. The technical bid will be opened in the office of Joint Commissioner Works/ Superintending Engineer/ Executive Engineer (as the case may be) on 26/09/2023

10. Address of the Employer: SMC Complex Karan Nagar,

11. Identification of Scheme: Smart City

Bid for: 12.40 Cr.

Bid reference No. NIET No. 21 of 2023-2024 Dated: 26/09/2023 (E-tendering)

Do not open before 10/10/2023

12. The bid should be submitted latest from 28/09/2023 to 09/10/2023 upto 04:00 PM (as per e-Bidding)

13. The bid will be opened in the office of the Joint Commissioner Works / Superintending Engineer/ Executive Engineer (as the case may be) on 10/10/2023, at 02:00 pm.
14. CDR/FDR/BG in favour of FA/CAO SMC Payable at Srinagar.
15. Dispute Review Expert; T.O to Joint Commissioner Works SMC.

15(a): Performance Security shall be valid until a date 28 days after the expiry of Defect Liability Period as mentioned in the NIT.

15(b) Unbalanced Bid:

(Presently not applicable as per Government directions)

16. Base year : i.e. 2018-19.

| S.No | Year before | Multiplying factor |
|------|-------------|--------------------|
| 1 | One | 1.08 |
| 2 | Two | 1.17 |
| 3 | Three | 1.26 |
| 4 | Four | 1.36 |
| 5 | Five | 1.47 |

Escalation factors are for working out available bid capacity only (for the cost of works executed and financial figures arrived thereof to a common base value for works completed in India).

20.6.1.2 QUALIFICATION INFORMATION

Notes on Form of Qualification Information

The information to be filled in by the bidders in the following pages will be used to purposes of post-qualification as provided for in clause 4 of the instructions to Bidders. This information will not be incorporated in the contract. Attach additional pages as necessary.

For Individual Bidders

| | | |
|-----|---|--|
| 1.1 | Constitution or legal status of Bidder Place of registration Principal place of business Power of attorney of signatory of Bid | (attach copy) |
| 1.2 | Financial Turn over achieved on execution of civil works for the last five years duly certified by Chartered Accountant and supported with TDS, ITR; Profit and Loss statement and Balance sheet.** | (Rs. in lakhs) Year 2018-19 Year 2019-20 Year 2020-21 Year 2021-22 Year 2022-23 |

1.3. Work performed as prime contractor (in the same name & style) on construction works of similar nature over the last seven years. Attach certificate issued by an officer not below the rank of Executive Engineer or equivalent.

| Project Name | Name of the employer * | Description of work | Contract No | Value of contract (Rs in crore) | Date of issue of work Order | Stipulated Period of completion | Actual date of completion * | Remarks explaining reasons for delay & work completed |
|--------------|------------------------|---------------------|-------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|---|
| | | | | | | | | |

1.4 Work performed as sub-contractor (in the same name & style duly supported with an authority letter regarding approval of sub-contract by the competent authority) on construction works of similar nature over the last seven years. Attach certificate issued by an officer not below the rank of Executive Engineer or equivalent.

| Project Name | Name of the employer * | Description of work | Contract No | Value of contract (Rs in crore) | Date of issue of work Order | Stipulated Period of completion | Actual date of completion * | Remarks explaining reasons for delay & work completed |
|--------------|------------------------|---------------------|-------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|---|
| | | | | | | | | |

**** A certificate of performance evaluation of all such works/commitments in hand on the part of the bidder issued by the concerned Department to the affirmation that the contractual obligations are being performed satisfactorily without compromise on quality parameters and time lines.

1.5(a) General Construction Experience: Annual Turnover

The applicant should have achieved minimum annual value of general construction work (as certified by Chartered Accountant, and at least 50(fifty) percent of which is from Civil Engineering construction works carried out in any of the last five years, calculated by applying multiplying factor of 2 may be used for calculation of available bid capacity.

However, in case of Road/Bridge works under MORTH, NABARD and State Sector, the guidelines as circulated by MORTH shall apply while as in case of Road/Bridge works under PMGSY, the guidelines as circulated by PMGSY shall apply.

(b) Particular Construction Experience and Key Production Rates

The applicant should have:

1. Successfully completed or substantially completed similar works during last seven years ending last day of month previous to the one in which applications are invited should be either of the following:-

Three similar completed works costing not less than the amount equal to 40 (forty)

percent of the estimated cost; or

Two similar completed works costing not less than the amount equal to 50 (fifty)

percent of the estimated cost; or

One similar completed work costing not less than the amount equal to 80 (eighty)

percent of the estimated cost;

2. The applicant should also have achieved the minimum annual production value of the key construction activities (e.g dredging, piling, or earthworks etc) stipulated.
The similarity of work shall be pre-defined based on the physical size, complexity methods/technology and /or other characteristics, and scope of works. Substantial completions shall be based on 80 (eighty) percent (value wise) or more works completed under the contract. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement. For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% (seven percent) per annum, calculated from the date of completion to the date of Bid opening.

However, in case of Road/Bridge works under MORTH, NABARD and State Sector, the guidelines as circulated by MORTH shall apply while as in case of Road/Bridge works under PMGSY, the guidelines as circulated by PMGSY shall apply.

For this a certificate from employer shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, actual date of completion of work, satisfactory performance of the contractor and any other relevant information.

Existing commitments and ongoing construction works:-

| Description of Work | Place & State | Contract No. & date | Name & address of Employer | Value of contract (Rs. in lakhs) | Stipulated Period of completion | Value of works remaining to be completed (Rs. in lakhs) | Anticipated date of completion |
|---------------------|---------------|---------------------|----------------------------|----------------------------------|---------------------------------|---|--------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Enclose certificate(s) issued by an officer not below the rank of Executive Engineer or equivalent
 1.6 Availability of Major items of Contractor's equipment proposed for carrying out the Works. List all information requested below. Refer also to Clause 4.3(f) and 4.6(B) of the Instructions to Bidders.

| Item of Equipment | Description, make, and age (years), and capacity | Condition (new, good, poor) and number available | Owned, leased (from whom?) or to be purchased. |
|-------------------|--|--|--|
| | | | |

Financial reports for the last five years: balance sheets, profit and loss statements, auditors reports, etc. List below and attach copies.

Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.

Information on current litigation in which the Bidder is involved

| Name of other party(s) | Cause of dispute | Litigation where (Court/arbitration) | Amount involved (Rs. In lakh) |
|------------------------|------------------|--------------------------------------|-------------------------------|
| | | | |

Proposed work method and schedule. The Bidder should attach descriptions, Drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 12]

Applicants who meet the minimum qualification criteria will be qualified only if there available bid capacity at the expected time of bidding is more than the total estimate cost of the works. The available bid capacity will be calculated as under:-

$$\text{Available Bid capacity} = (A * N * M - B)$$

A = Maximum value of engineering (civil/electrical/mechanical as relevant to work being procured) works executed in any one year during the last five years (updated to the current price level of the year indicated in appendix to ITB clause 16) taking into account the completed into as well as works in the progress;

N = Number of years prescribed for completion of the work in question

B = Value of existing commencements and on-going works to be completed during the next 'N' years.

M= Multiplying factor 2.

Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

The item of work for which data is requested should tally with that specified in ITB clause 4.6 Qualification and experience of technical/key personnel required for administration and execution of the Contract [Ref. Clause 4.6 (B) (b)]. Attach biographical data. Refer also to sub Clause 4.3 (h) of instructions to Bidders and Sub Clause 8.1 of the Conditions of Contract.

| Position | Name | Qualification | Year of Experience (General) | Years of experience in similar nature of work |
|----------|------|---------------|------------------------------|---|
| | | | | |
| | | | | |
| | | | | |

Attach copies of certificates on possession of valid license for executing water supply/ sanitary work/ building electrification works [Reference Clause 4.3 of Chapter SBD]

Evidence of access to financial resources to meet the qualification requirements: Cash in hand, lines of credit, etc. List them below and attach copies of supports documents.

Quality Assurance Programme (to be framed in accordance with the requirements /guide lines/manual uploaded on departmental website.

Additional Requirements

Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.

- (i) Affidavit on correctness of information.
- (ii) Undertakings

(A) Pre-qualification criteria:

General Construction Experience: Annual Turnover

The applicant should have achieved minimum annual value of general construction work (as certified by Chartered Accountant, and at least 50(fifty) percent of which is from Civil Engineering construction works carried out in any of the last five years, calculated by applying multiplying factor of 2 may be used for calculation of available bid capacity.

However, in case of Road/Bridge works under MORTH, NABARD and State Sector, the guidelines as circulated by MORTH shall apply while as in case of Road/Bridge works under PMGSY, the guidelines as circulated by PMGSY shall apply.

Particular Construction Experience and Key Production

Rates The applicant should have:

Successfully completed or substantially completed similar works during last seven years ending last day of month previous to the one in which applications are invited should be either of the following:-

1. Three similar completed works costing not less than the amount equal to 40 (forty) percent of the estimated cost

Or

2. Two similar completed works costing not less than the amount equal to 50 (fifty) percent of the estimated cost

Or

3. One similar completed work costing not less than the amount equal to 80 (eighty) percent of the estimated cost

The applicant should also have achieved the minimum annual production value of the key construction activities (e.g dredging, piling, or earthworks etc) stipulated. The similarity of work shall be pre-defined based on the physical size, complexity methods/technology and /or other characteristics, and scope of works. Substantial completions shall be based on 80 (eighty) percent (value wise) or more works completed under the contract. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement. For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% (seven percent) per annum, calculated from the date of completion to the date of Bid opening.

Financial Position:-

The applicant should demonstrate that he has excess to, or has available, liquid assets (aggregate Of working capital, cash in hand and uncommitted Bank Guarantee's) and / or credit facilities of not less than 10% of the value of the contract/ contracts applied for (construction cash-flow may be taken as 10% of the estimated value of contract / contracts).

The audited balance sheets for the last five years should be submitted, which must demonstrate the soundness of the applicant's financial position, showing long term profitability including and estimated financial projection for the next two years. If necessary, the employer will make inquires with the applicant's bankers.

Litigation History:-

The Applicant should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years. A consistent of awards against the applicant or any partner of a joint venture may result in failure of the applicant.

Joint Venture:- (Applicable for the works costing Rs.15.00 Crores and above in J&K UT). If the bidder is a Joint Venture, the partners would be limited to three (including lead partner). Joint Venture firm shall be jointly and severally responsible for completion of the project.

Joint Venture must fulfill the following minimum qualification requirement:-

- i. Qualifying factors to be met collectively:
 - (i) annual turnover from construction; (ii) particular construction experience and key production rates; (iii) construction cash flow for the subject contract; (iv) personnel capabilities; and (v) equipment capabilities;
2. Qualifying factors for lead partner:
 - (i) Annual Turnover from Construction; (ii) particular construction experience; (iii) financial capability to meet cash flow requirement of subject contract not less than of 50 (fifty) percent of the respective limits prescribed in case of individual contractors may be accepted;
 - (iii) adequate sources to meet financial commitments on other contracts;
 - (iv) financial soundness;
3. Qualifying factors for junior partner: Same as for lead partner except that for the factors specified in (2) (iii) above, a lower limit of 25 (twenty-five) percent will be accepted instead of 50 (fifty) per cent.

Provisions required to be Included in the Joint Venture Agreement

If the application is made by a Joint Venture of two or more firms, the evidence of clear mandate (i.e., in the form of respective Board Resolution duly authenticated by competent authority) by such two or more firms willing to form Joint Venture among

themselves for the specified projects should accompany duly recognizing their respective authorized signatories signing for and on behalf of respective firms for the purpose of forming the Joint Venture .A certified copy of the power of attorney to the authorized representatives, signed by legally authorized signatories of all the firms of the Joint Venture shall accompany the application. The JV Agreement shall need to be submitted consisting but not limited to the following provisions.

- a) Name, Style and Project(s) specified JV with Head Office address
- b) Extent (or Equity)for participation of each party in the JV
- c) Commitment of each party to furnish the Bond money (i.e. Bid, security, performance security) to the extent of his participation in the JV.
- d) Responsibility of each Partner of JV (in terms of Physical and Financial involvement)
- e) Working Capital arrangement.
- f) Operation of separate Bank Account in the name of JV to be operated by both the partners.
- g) Provision for cure in case non-performance of responsibility by any party of the J.V
- h) Provision that NEITHER party of the JV shall be allowed to sign, pledge, sell or otherwise dispose of all or part of its respective interests in JV to any party including existing partner(s) of the JV .The Employer derives right for any consequent action (including blacklisting) against any or all JV partners in case of any breach in this regard .
- i) Management Structure of JV with details.
- j) Lead Partner to be identified who shall be empowered by the JV to incur liabilities on behalf of JV.
- k) Parties/firms committing themselves to the Employer for jointly and severally responsible for the intended works.
- l) The Joint Venture (JV) Agreement shall be duly registered by First class Munsiff.
- m) Any other relevant details.

168

A. GENERAL**1. Definitions**

Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms. The Adjudicator (synonymous with Dispute Review Expert) is the person appointed jointly by the employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25. The name of the adjudicator is defined in the contract Data.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid. The Completion Date is the date of completion of the Works as Certified by the Engineer in accordance with the clause 49.

The Contract is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The Contract Data defines the documents and other information which comprise the Contract. The Contractor is a person or corporation body whose Bid to carry out the works has been accepted by the Employer.

The Contractor's Bid is the completed Bidding document submitted by the contractor to the Employer and includes Technical & Financial -Bids.

The Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provision of the Contract.

Days are calendar days; months are calendar months. A Defect is any part of the works not completed in accordance with the Contract.

The Defects Liability Period is the period named in the Contract Data and the Completion Date.

The Employer is the party who will employ the Contractor to carry out the Works. The Engineer is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extension of time, and valuing the Compensation events.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construction the works.

The Initial Contract Price is the Contract Price Listed in the Employer's Letter of Acceptance. The Intended Completion Date is the date on which it is intended that the Contractor shall complete the works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the engineer by issuing an extension of time. Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works, which is to have a mechanical, electrical, electronic, or chemical or biological function. 168

The Site is the area defined as such in the contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the works included in the contract and any modification or addition made or approved by the Engineer.

The Start Date is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site possession dates. A subcontractor is a person or corporate body who has a contract with the contractor to carry out part of the work in the contract, which includes works on the site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the works.

The Works are what the Contract requires the contractor to construct, install, and turnover to the Employer, as defined in the contract Data.

2. Interpretation

In interpreting these conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Heading have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about the Conditions of contract.

If sectional completion is specified in the contract Data, references in the conditions of contract to the works, the completion Date, and the Intended Completion Date apply to any Section of the works (other than references to the completion date and Intended Completion date for the whole of the works).

The documents forming the Contract shall be interpreted in the following Order of priority:

- (a) Agreement
- (b) Letter of Acceptance, notice to proceed with the works
- (c) Contractor's Bid
- (d) Contract Data
- (e) Conditions of Contract including Special Conditions of Contract
- (f) Specifications
- (g) Drawings
- (h) Bill of quantities and
- (i) Any other document listed in the Contract Data as forming part of the Contract.

3. Language and Law

The language of the Contract and the law governing the Contract are stated in the contract Data.

4. **Engineer's Decisions**

Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. **Delegation**

The engineer may delegate any of his duties and responsibilities to other people except to the Dispute Review Expert after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. **Communications**

Communications between parties, which are referred to in the conditions, are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act

7. **Other Contractors**

The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities, and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

8 **Personnel**

The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the function stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experiences are substantially equal to or better than those of the personnel listed in the Schedule.

If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the contractor shall ensure that the person leaves the Site within seven days and has no further connection with the working the Contract.

9. **Employer's and Contractor's Risks**

The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this contract states are Contractor's risks.

10. **Employer's Risks**

The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the works in the Employer's country, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employee's), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the works, other than the Contractor's design.

11. **Contractor's Risks**

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the excepted risks are the responsibility of the Contractor.

12. **Insurance:**

12.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the start date to the end of the Defects Liability Period, in the amounts and deductibles stated in the contract Data for the following events which are due to the

Contractor's risks:

- a) loss of or damage to the works, Plant and Materials;
- b) loss of or damage to Equipment; loss of or damage of property (except the works, Plant, Materials and Equipment) in connection with the Contract; and personal injury or death.

Policy and certificates for insurance shall be delivered by the Contractor to the engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

Alterations to the terms of insurance shall not be made without the approval of the Engineer. Both parties shall comply with any conditions of the insurance policies.

13. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any site Investigation Reports referred to in the Contract Data, supplemented by any information available to the Bidder.

14. Queries about the Contract Data

The Engineer will clarify queries on the Contract Data.

15. Contractor to Construct the Works

The Contractor shall construct and install the works in accordance with the Specifications and Drawings.

16. The Works to be completed by the Intended Completion Date

The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

17. Approval by the Engineer

The Contractor shall submit specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

The Contractor shall be responsible for design of Temporary Works.

The Engineer's approval shall not alter the Contractor's responsibility for design of the temporary Works.

The contractor shall obtain approval of third parties to the design of the Temporary Works where required.

All Drawings prepared by the Contractor for the execution of the temporary works, are subject to prior approval by the Engineer before their use

18. Safety

The Contractor shall be responsible for the safety of all activities on the Site.

Safety helmets to be used by engineers on site as well as work men/construction personnel's. It has to be made mandatory for the contractor in contract to provide the necessary safety helmets to both skilled/unskilled work force.

The contractor should also provide safe drinking water and toilet facilities to the

170

labours etc besides covered enclosures for having lunch/refreshments.

19. **Discoveries**

Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the Employer. The contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

20. **Possession of the Site**

The Employer shall provide adequate Site to the Contractor to start and carry out his construction activity.

21. **Access to the Site**

The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

22. **Instructions**

The Contractor shall carry out all instructions of the Engineer, which comply with the applicable where the site is located.

The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

23. **DISPUTES:**

If the contractor believes that the decision taken by the Engineer was either outside the authority give to the Engineer by the contract or that the decision was wrongly taken, the decision shall be referred to the Dispute Review Expert within 14 days of the notification of Engineer's decision.

24. **Arbitration:**

The Arbitration shall be conducted in accordance with the Arbitration procedure stated in the Special Conditions of the Contract.

25. **Replacement of Dispute Review Expert:**

Should the Dispute Review Expert resign or die, or should the Employer and the Contractor agree that the Dispute Review Expert is not fulfilling his functions in accordance with the provisions of the contract; a new Dispute Review Expert will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Dispute Review Expert shall be designated by the appointing authority designated in the Contract Data at the request of either party, within 14 days of receipt of such request.

B- TIME CONTROL

26. **Programme**

Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the works along with monthly cash flow forecast.

An update of the Programme shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

The Contractor shall submit to the Engineer, for approval, an updated Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

27 Extension of the Intended Completion Date

The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended completion date refer to the employer his decision. The employer shall in not more than 21 days communicate to the Engineer the acceptance or otherwise of the engineer's decision.

28. Delays Ordered by the Engineer

The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

29 Management Meetings

Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

The Engineer shall record the business of management meetings and is to provide copies of this record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

30. Early Warning

The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.

The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

C. QUALITY CONTROL**31. Quality Assurance Programme (For Works Valuing Rs.10.00 Cr. and Above)**

The Contractor shall prepare and submit a quality control plan/mechanism (Quality Assurance Plan" or "QAP") and make all necessary arrangements to ensure its compliance. Having regard to the requirement of the project, Quality assurance plan shall be devised by taking into consideration the quality assurance manual/ guide which is available on the web site of PW(R&B) Department of Chief Engineer(s) Jammu/ Kashmir.

While submitting the bid, the bidder along with other documents shall submit Quality Assurance Plan (QAP) as per the clause 4.1 and 4.3(p) of ITB. However a final QAP shall be framed by the successful bidder after the allotment of work. The Engineer –in charge shall convey its comments to the contractor within a period of 21 days of receipt of the QAP after the allotment of work, stating the modifications, and the contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of Quality Assurance manual/guide, which shall be approved by the competent authority and treated as inseparable part of agreement to be signed between the contractor and the department.

32. Tests

If the Engineer-in-Charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the test Confirms the defect, then the contractor shall have to pay for the tests and the defective work shall have to be dismantled and reconstructed in accordance to the IRC/MOST/BIS/PWD/NBO Specifications as applicable. The Engineer in-charge of site shall ensure / will certify that the lab has been established & tests performed.

The contractor will furnish documentary proof of procurement of materials like cement, steel and other equipment and goods to the engineer in-charge. This will include original vouchers for all quantities in lieu of purchase of materials/ equipments etc from the original manufacturer or authorized dealer/distributor to the satisfaction of engineer in-charge for ascertaining genuineness of materials. Attested copy of such material shall be submitted along with the bills.

No extra payment on account of quality control measures shall be paid to the contractor

33. Identifying Defects

The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work at site.

34. Correction of Defects

The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

35. Uncorrected Defects

If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. COST CONTROL**36. Bill of Quantities**

The Bill of Quantities shall contain items for the Construction, Installation, testing, and commissioning work to be done by the Contractor.

The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

36.3. Cash Flow forecasts

36.4 When the Programme is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

37. Payment Certificate

The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit the month in question in respect of materials for the works in the relevant amounts.

The value of work executed shall be determined by the Engineer.

The value of work executed shall comprise the value of the quantities of the items in the Bill of quantities completed.

The value of work executed shall include the valuation of variations and Compensation Events.

The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

38. Payments

Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes, at source, as applicable under the law.

Items of the works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

39. Tax

The rates quoted by the Contractor shall be deemed to be inclusive of all taxes including GST (SGST AND CGST) that the Contractor will have to pay for the performance of this Contract up to the completion. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law from time to time.

40. Currencies

All Payments shall be made in Indian Rupees.

41. Price Adjustment

The rates quoted by the contract shall be deemed to include price escalation upto completion of project.

42. Retention

The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

On Completion of the whole of the Works half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

On completion of the whole works the contractor may substitute retention money with an "on demand" Bank guarantee.

43. Liquidated Damages:

In the event of failure on part of the Contractor to achieve timely completion of the project including any extension of time granted under clause 27, he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as agreed Liquidated Damages to the Employer and not by way of penalty in a sum calculated at the rate per week or part thereof as stated in the Contract Data. For the period that the completion date is later than the intended completion date, Liquidated Damages at the same rate shall be withheld if the Contractor fails to achieve the Mile Stones prescribed in the Contract Data. However, in case the Contractor achieves the next mile stone, the amount of the Liquidated Damages already withheld shall be restored to the Contractor by adjustment in the payment certificate. Both the parties expressly agree that the total amount of Liquidated Damages shall not exceed 10% of initial contract price and that the Liquidated Damages payable by the Contractor are mutually agreed genuine pre-estimated loss and without any proof of actual damage likely to be suffered and incurred by the Employer, and the Employer is entitled to receive the same and are not by way of penalty.

The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any sum due, or to become due to the Contractor or from performance security or any other dues from Government or Semi-Government body within the State.

The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the works, or from any other of his duties, obligations or responsibilities under the contract. The Contractor shall use and continue to use his best endeavors to avoid or reduce further delay to the works, or any other relevant stages.

If the intended completion date is extended after Liquidated Damages have been paid, the Engineer shall correct any such payment of Liquidated Damages by the Contractor by adjusting the next payment certificate.

: It is agreed by the contractor that the decision of the Employer as to the Liquidated Damages payable by the Contractor under this clause shall be final and binding,

- 44. BONUS** – The bidder who has successfully completed three CRF works within the Prescribed time over the last five years shall be rewarded with the multiplying factor of 2.75 instead of 2.5 for ascertaining the available bid capacity of the bidder during the technical evaluation of his bid. The bidder to this effect shall furnish the completion certificates of works issued by an officer not below the rank of Executive Engineer or equivalent.

45. Secured Advance

Security advance shall be paid for the quantity as per allotment of work or requirement at site whichever is lesser after proper testing of material.

Secure advance should be avoided for perishable item. However in special cases may be provided only against insurance cover.

46. Securities

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The performance Security shall be valid until a date 28 days from the date of expiry of Defects Liability Period and the additional

security for unbalanced bids shall be valid until a date 28 days from the date of issue of the certificate of completion.

47. Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the works between the start date and the end of the Defects Correction period shall be remedied by the contractor at the contractor's cost, if the loss or damage arises from the contractor's acts or omissions.

E. FINISHING THE CONTRACT

48 Completion

The Contractor shall request the Engineer to issue a CERTIFICATE OF COMPLETION of the works and the Engineer will do so upon deciding that the Work is completed.

49 Taking Over

The Employer shall take over the Site and the works within seven days of the Engineer issuing a certificate of Completion.

50. Final Account

50.1 The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's accounts if it is correct and complete. If it is not, the Engineer shall issue within 56 a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

51. Operating and Maintenance Manuals

If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payment due to the Contractor.

52. Termination

The Employer may terminate the contract if the contractor causes a fundamental breach of the Contract.

Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) The Contractor stops work for 28 days when no stoppage of work is shown on the current programme and the stoppage has not been authorized by the Engineer;
- (b) The contractor is declared bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- (c) If the contractor fails to deploy machinery and equipment or personnel as specified in the Contract Data or Appendix to ITB at the appropriate time.
- (d) The Engineer gives Notice that failure to correct a particular Defect is fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined

by the Engineer;

- (e) The Contractor does not maintain a security, which is required;
- (f) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages becomes payable as defined in the Contract data; and

(g) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice amount Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition".

When the Employer gives notice of a breach of contract to the contractor for a cause other than those listed under Sub Clause 53 above, the Engineer shall decide whether the breach is fundamental or not.

Notwithstanding the above, the Employer may terminate the Contract for convenience.

If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the site without shifting any equipment as soon as reasonably possible.

53. Payment upon Termination

If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less Liquidated damages, advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. . If the amount due to the Employer exceeds any payment due to the Contractor the difference shall be adept payable to the Employer

If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works less other recoveries due in terms of the contract and less taxes due to be deducted at sources as per applicable law.

54 Property

All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's defaulted.

55. Release from Performance

If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

Death or permanent invalidity of the contractor: the contractor shall indicate nominee

for the contract at the time of signing of the agreement. If the contractor dies during currency of the contract or becomes permanently incapacitated, and his/her nominee are not willing to complete the contract, the contract shall be closed without levying any damages/compensation.

However, if the nominee expresses his/her intention to complete, the balance work and the competent authority is satisfied about the competence of nominee, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms & conditions under which the contract was initially awarded.

20.6.1.4 SPECIAL CONDITIONS OF CONTRACT

1. LABOUR

The contractor shall, unless otherwise provided in the contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the site and such there information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS

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, regulation, notifications and bye laws of the State or Central Government of 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 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/byelaws/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 employer of the contractor and the Sub-Contractor in no case shall be treated as the employees of the employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTIONWORK.

- 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.
- 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.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be(ii) Deposit linked insurance on the death in harness of the worker. (iii) Payment of P.F. accumulation on retirement/deathetc.

- d) **Maternity Benefit Act 1951:** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- 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.
- 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.
- 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.
- 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.
- 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 subject to minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs. 2500/- per month or above upto 3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly setup establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- 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 become illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment
- k) **Industrial Employment (Standing Orders) Act 1946:** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.
- l) **Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) **Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment, which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.
- o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost

of construction as may be modified by the Government. The employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodation for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

- p) **Factories Act 1948:** The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

ARBITRATION (GCC CLAUSE 24 and 25)

The procedure for Arbitration will be as follows:

Any Dispute or difference arising between the department and contractor shall be dealt in accordance with J&K Arbitration Act in vogue.

- (a) In case of Dispute or difference arising between the Employer and a domestic contractor relating to any matter arising out of or connected with the agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act 1996. The parties shall make efforts to agree on a sole Arbitrator and only if such an attempt does not succeed then the Arbitral Tribunal consisting of 3 Arbitrators one each to be appointed by the Employer and the contractor and the third Arbitrator to be chosen by the two Arbitrators so appointed by the parties to act as presiding Arbitrator, shall be considered. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Council, Indian Road Congress.
- b) The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Council, Indian Road Congress.
- c) If one of the parties fails to appoint the Arbitrator in pursuance of sub-clause (a) and (b) above within 30 days after receipt of notice of appointment of its Arbitrator by the other party, then the Council of Indian Road Congress shall appoint the Arbitrator. A certified copy of the order of the Council of Indian Road Congress making such appointment shall be furnished to each of the parties.
- d) Arbitration proceedings shall be held at Srinagar/Jammu, India and the language of the arbitration proceeding and that of all documents and communications between the parties shall be English.
- e) The decision of the majority of Arbitrators shall be final and binding upon both the parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitral Tribunal. However, the expenses incurred by each party in connection with preparation, presentation etc. of its proceedings as also the fee and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself.
- f) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the owners shall not be withheld, unless they are the subject matter of the arbitration proceedings.

20.6.1.5. CONTRACT DATA

Items marked "N/A" do not apply in this contract.

1. The Employer is

Name: Joint Commissioner Works SMC _____

Address: SMC Complex Karan Nagar _____

Name of authorized representative Executive Engineer LRWD SMC _____

2. The Engineer is Executive Engineer, LRWD SMC _____

Name of authorized Representative:

3. The Dispute Review as per Arbitration (GCC) Clause 25.

4. The defects liability period shall remain the same as per the NIT clause

5. The start date shall be seven days from the date of issue of the notice to proceed with the work.

6. The intended completion date for the whole of the works is _____ -days Calendar Months after start of work with the following milestones.

Milestone dates:

Milestone to be achieved during the contract period.

1/8th of the value of entire contract upto 1/4th of the period allowed for completion of construction.

3/8th of the value of entire contract upto 1/2 of the period allowed for completion of construction.

3/4th of the value of entire contract upto 3/4th of the period allowed for completion of construction.

Rest of the work within the remaining time period.

7. The site is located in District Srinagar.

B. Amount of liquidated damages for delay in completion of work — For whole of work 1% of the initial contract price, rounded off to the nearest thousand, per week.

C. Maximum limit of liquidated damages for delay in completion - 10% of the initial contract price of work rounded off to the nearest

8. The name and identification number of the contract is: _____

9. The works consist of _____ The work shall, inter-alia, include the following as specified or as directed.

(A) Building Works

The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work as per drawings and as directed by the Engineer's representative and check these at frequent intervals. The Engineer shall direct the order in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time; but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects. No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions

from the Engineer. The Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer. All terms and conditions shall remain same as per PWD manual.

B) Other Items

- Any other items as required fulfilling all contractual obligations as per the documents. [Cl.1.1] of ITB Bid documents.
- The following documents also from part of the contract: [Cl.2.3(i) of GCC]
Specification of Roads and Bridges (4th edition)
1. The law which applies to the contract is law of Union of India [Cl.3.1 of GCC]
 2. The language of the contract documents is English. [Cl.3.1 of GCC]
 3. The Schedule of other contractors [Cl.7 of GCC]
 4. The schedule of key personnel [Cl.4.6(B) of Section-I]
 5. The minimum insurance cover for physical property, injury and death is Rs. 5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four Occurrences always. [Cl.12 of GCC]
 6. Site investigation report [Cl.13 of GCC]
 7. The Site Possession Dates shall be same as date of letter to proceed With the work [Cl.19 of GCC]
 8. Fees and types of reimbursable expenses to be paid to the Dispute Review Expert (As per clause 23 of GCC)
 9. Appointing Authority for the Dispute Review Expert -- To be nominated in the Bidding document) (As per clause 23 of GCC)
 10. The period for submission of the programme for approval of Engineer shall be [Cl.26 of GCC] 21 days from the issue of Letter of Acceptance.
 11. The period between Programme updates shall be 30 days. [Cl.26 of GCC]
 12. The amount to be withheld for late submission of an updated programme shall be Rs. _____ lacs). [Cl.26 of GCC]
 13. The currency of the contract is Indian Rupees. [Cl.40 of GCC]
 14. The formula (e) for adjustment of price are : (Not Applicable)
 15. The proportion of payments retained (retention money) shall be 10% from each bill subject to a maximum of 5% of final contract price.
 16. Bonus for early completion of Shall be As per clause 45 OF GCC whole of the works
 17. The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: Performance Security of 5% of contract price.
 18. The standard form of Performance Security acceptable to the Employer shall be CDR/FDR or an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.
 19. The Schedule of Operating and Maintenance Manuals _____ Not Applicable.
 20. The date by which "as-built" drawings (in scale as directed) in 2 sets are required is Within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
 21. The amount to be withheld for failing to supply "as built" drawings by the data required Rs. 2% of contract value.
 22. The following event shall constitute fundamental breach of contract. "The Contractor has Contravened Clause 9 of GCC." [Cl.53 of GCC]
 24. The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 20 percent [Cl.54 of GCC]

TECHNICAL SPECIFICATION

Specification for Road & Bridge works, MORT&H (4th Revision) with latest amendments thereto and relevant

IRC specifications shall be followed in execution of the project.

Special Terms and Condition

43. SCOPE OF WORK, DEVELOPMENT CONTROLS AND TECHNICAL SPECIFICATIONS

SCOPE OF WORK

The scope of work includes but not limited to the following

Construction of three garbage transfer station at Zainakote, Pindchi Mandi and Nishat in Srinagar city. The major civil works comprises of construction of Pre Engineered Building structure, Weigh Bridge, Internal Roads & Drains, Office Room, Security Room, Toilet, Compound wall with main gate, parking area, public utilities, and associated electrical works.

Supply, install, testing, and Commissioning of 12 Nos. of Portable Compactor with integral 16 Cum capacity Container along with Guide Rails for Roll-on-Roll-off.

Supply, install, testing, and Commissioning of 6 Nos. of Truck-mounted Hook loader suitable for handling compactor unit of 16 cum mounted on 28T GVW or equivalent BSVI Truck Chassis

Supply, install, testing, and Commissioning of 50 Ton Weigh Bridge and 50 KVA Diesel Generator Set

Comprehensive Maintenance (Repair & Maintenance) for three years

The detailed Technical Specifications for Civil Works are given in BOQ as per the Design, Inspection and Quality Control Department, Public Works (R&B) Department, Government of Jammu & Kashmir Schedule of Rates 2020.

TECHNICAL SPECIFICATIONS FOR MECHANICAL WORKS.

Technical Specifications (TS1): Mobile/Portable Compactor with integral 16 Cum capacity Container

The Technical specification for Supply Erection and Commissioning of Garbage Transfer Station Equipment, Containers, and Hook Loader with Vehicles are as per the details given below:

A General Description:

Portable Compactor (PC) is a garbage compactor capable of compacting more quantity of garbage placed at Garbage Transfer Station (GTS). The Waste is brought to the GTS Centre using hoppers/handcart/tricycle rickshaws etc. and is unloaded into a Bucket which can receive garbage from 5 to 6 hand carts or 2 to 3 tricycle rickshaws or Auto tippers. When the Tip cart or Bucket is full, the Bucket is lifted hydraulically to discharges the garbage into the charge chamber of the Equipment and unload the waste into the Compaction unit to compact it into the Container. On actuation of the hydraulic system, a compacting head travel through the charge box into the container through an aperture and compacts the garbage. On completion of the compaction cycle, the compaction head shall return to its retracted position till the next charge is loaded. As the container starts fillings up, with

717

184

every movement of the compaction head, the waste is compacted.

The Portable Compactor is an integral unit incorporating the garbage storage Container and the Compaction unit. After the filling and compacting process, the entire PC unit is lifted by a specially designed Hook Loader, unit mounted on a truck chassis for transportation and unloading of compacted garbage at the desired processing or disposal site.

B Features of Portable Compactors:

1. The Portable Compactor shall be of the front-garbage loading type with a hydraulic operated device to receive waste from hand cart/tricycle vans/ small tippers etc.
2. The Portable Compactor shall be provided with a suitable drainage system to unload leachate in a nearby drain. Leachate shall not drop on the road during transportation due to leak-proof sealing at the rear door.
3. The size of the compaction chamber of the compaction unit shall not be less than 1.8 m³.
4. Compaction unit shall be powered by Hydraulic power unit at very low noise level.
5. Entire body shall be in a cylindrical shape, for an easy discharge of waste and ensure complete filling with compacted garbage.
6. Container Body of the compactor shall be completely smooth, without any reinforcement ribs on the body surface, to reduce material stress and keep the strength of the body intact and avoid deformation due to weld joints.
7. Body bottom shall be flat enough to accommodate Body runners (bottom long members) to support the Compactor Body on Hook Loader.
8. Dish end type back door assembly shall be top hinged with vertical travel to unlock the door.
9. Door assembly shall have swiveled movement with respect to top hinge and attached with bottom metallic rollers to avoid direct contact with garbage floor.
10. Automatic rear door locking arrangement shall be equipped with four cams located at four corners of the door to ensure zero leakage. All four cams shall be engaged with the reardoor by the mechanical ratchet locking mechanism.
11. Compaction unit shall be incorporated with Special rear door rubber with the double lid to ensure the sealing of the compactor and can be demountable.
12. The Portable compactor shall have a fixed tipcart of a minimum size of 1.6 m³ capacity.
13. Compactor body shall be manufactured with high tensile steel with a yield limit of 355N/mm² or equivalent.
14. Compactor body shall be provided with a minimum of two leachate drainage outlets with leak-proof aluminum cam lock couplings of minimum 3-inch diameter.
15. Compaction of garbage shall achieve up to a density of 750-850 Kg / cum.
16. All electro-hydraulic functions and working principle of machine shall be PLC electronic system based, monitoring operational conditions, duration of operation, loading percentage, compaction mode, etc. shall be indicated on LCD screen when required.
17. Hydraulic Power Pack shall be accommodated within the compaction unit and same shall be mounted on rails to facilitate maintenance & repair as & when required, from outside of the machine.
18. All Hydraulic Cylinders and allied components and all hydraulic pumps must be from Manufacturers of ISO Certified.
19. Construction of entire compactor shall be robust and enough sturdy to maintain its structure throughout its service life.
20. Rear frame, front frame, rear door and structure of compaction unit shall be of high strength steel of Y.S 355 MPa.
21. Floor of charge chamber shall be minimum 6mm thick and made of high strength steel of Y.S. 355 MPa and shall be supported by longitudinal members and intermediate bracing.
22. The Trapezium Crusher Block shall have a scissor shaped head to crush the refuse inside the container. Special teeth inside the container shall be provided to retain the refuse inside the container.
23. The bottom plate of trapezium Crusher block is made of high strength steel of Y.S 355 MPa.
24. Container shall be of cylindrical shape to ensure good compaction ratio, light weight, Hi- strength longer life, and easier discharging of all refuse after compaction.
25. The workflow of the arrangement shall be such that - loading the waste in to Tip Cart by collection vehicle - loading the waste in to Compactor by Tip Cart - handling the full container with hook loader - transport the container to dump yard - discharging the waste.

Electrical

1. Power supply per compaction equipment, 3 x 440 V, secured at 32 Amp, easy access to the place where the installation needed to be executed and enough free space around the machine to facilitate operation and its safety.
2. Control panel of operating system shall be equipped with main switch, display screen, emergency stop, connecting socket and operating push buttons.
3. All electrical circuits shall be enclosed in control box with start & stop buttons according to IP65.
4. Control panel is located outside the operating area, safe for the operator.
5. All safety features shall be included in the unit like start/stop buttons.
6. Preventive measure messages shall be provided on HMI display.
7. Electric Motor - 5.5 KW

C TECHNICAL PARAMETERS:

The technical parameters of 16 Cubic meters (CuM) Portable/Mobile Compactors:

| Sl. No | Description | Parameter |
|--------|---|-------------|
| 1 | Body Volume in CuM | 16 |
| 2 | Body Shape | Cylindrical |
| 3 | Compaction ratio base on Indian waste (approx.) | 0.6 to 0.8 |
| 4 | Pressure (Bar) | 240 |
| 5 | Power (KW) | 5.5 |
| 6 | Voltage (V) | 415 |
| 7 | Working Capacity m3/hour | 125 |
| 8 | Compaction Force (KN) | 300 to 360 |
| 9 | Cycle time for Crusher (Seconds) | 52 |
| 10 | Cycle time for Tipcart (Seconds) | 30-35 |
| 11 | Compaction Chamber Volume (m3) | 0.8 – 1.8 |
| 12 | Tip Cart capacity (m3) | 1.8 to 2.0 |
| 13 | Approximate Compactor weight with Hydraulics (Kg) | 6090 |

NOTE: The suitable Guide Rails for Roll-on-Roll-off Portable Compactor container to facilitate easy movement during hook loader operations shall be provided.

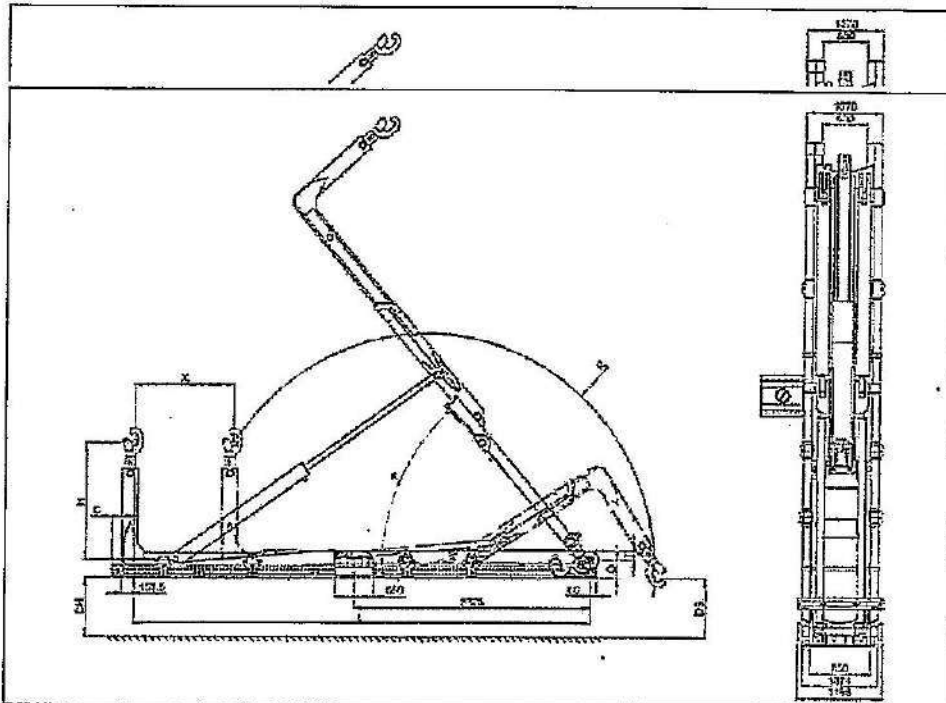
D SURFACE FEATURES AND FINISH

Both the exterior and interior surfaces of the compactor shall be thoroughly cleaned prior to spray painting. The compactor's exterior shall be spray-painted with two coats of superior quality anticorrosive primer and two coats enamel metal paint of a reputed make of approved shade. To resist corrosion, the compactor's interior shall be coated with 2 coats of superior quality anti-corrosive gray epoxy paint.

Technical Specifications (TS2): Truck-Mounted Hook Loader suitable for handling Portable Compactor Unit

Truck Mounted Hook Loader, suitable for lifting 16 M3 capacity container is designed to pick up the loaded or empty Roll on – Roll off containers, transport, dumping of material and thereafter unload the skip containers safely and faster. The telescopic Jib enables proper load distribution on the chassis. The hook loaders shall be mounted on a 25 Ton GVW to 28 Ton GVW Truck chassis of standard TATA/ Ashok Leyland, Eicher/ Bharat Benz or equivalent and have Euro/ Bharat VI compliant or as per RTA norms. The chassis shall be with Non-sleeper Driver cabin fitted with PTO and hydraulic Pump. The Kerb weight shall not be less than 6200 kg and wheel base shall not be less than 4800 mm.

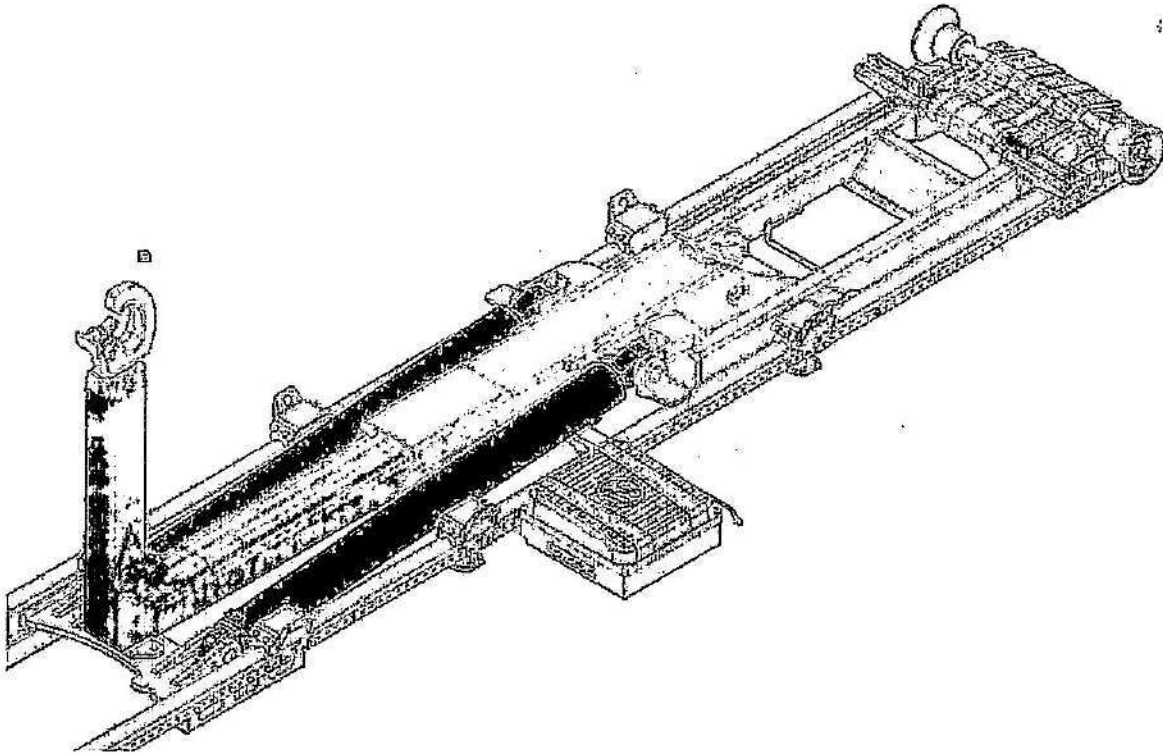
The Hook Loaders shall be fabricated in accordance with CE machine regulations and shall ensure the safety of its operator and its environment. The following are detailed specifications of the hook lift of a system. Capacity – minimum of 200 KN and Hook Height - 1570 mm and be mounted on a chassis height of 1050 mm.



H = Hook height, CH = Chassis height, DS = Lowest pick-up point (depending on the hook- and chassis height)

| Description | Dimension or Equivalent |
|---------------------------------|-------------------------|
| X (mm) | 1200 |
| L (mm) | 5300 |
| O (mm) | 250 |
| K | 55° |
| R (mm) | 3045 |
| T (mm) | 130 |
| Weight (kg) | 2550 |
| DS (mm) | 1060 |
| Min./max. container length (mm) | 4100 – 6400 |
| Loading (time) (s) | 36 |
| Unloading (time) (s) | 46 |
| Tipping (time) (s) | 41 |

The indicative drawing with colored part is detailed out in subsequent sections.



Bottom Frame:

The bottom frame (yellow part in picture) shall comprise two longitudinal main runners and cross reinforcement. The rear portion of the system with the pivot point of the tipping frame shall be attached. The pivot point shall be situated as low as possible into the bottom frame and the tipping capacity of the cylinders shall be augmented.

The bottom frame shall have several container supports divided over the full length, which shall support the container's lower main frame. The front portion of the bottom frame shall have high tensile steel slide supports placed to support the container over a big surface.

At the front portion of the frame, the cylinder bridge construction shall be located, providing a strong and solid attachment for the main cylinders. The tipping frame shall be automatically locked onto the bottom frame during the unloading procedure.

Tipping Frame:

The tipping frame (red part in picture) shall enable the system to tip the containers. The tipping frame shall rotate at the rear of the system's bottom frame and shall have its casted rollers on which the container shall be supported. At the tipping frame, a steel locking device shall be constructed to lock to the main off-loading frame. These two components shall be locked together for tipping the container.

Off - loading frame:

The off-loading frame (green part in picture) shall have the hook mast, which slides front and backwards. The off-loading frame shall enable the system to roll off the container. The off-loading frame shall rotate in the middle of the main frame at the front of the tipping frame. During the operation, the hook masts shall move backwards and unlocks the off-loading frame from the tipping frame. After this the two double acting main cylinders shall rotate the off-loading frame and enable the system to roll-off the container.

Hook Mast:

The hook mast (blue part in the picture) shall move front – and backward inside the off-loading frame. With this, the system can transport different various lengths of containers. The hook mast shall also unlock the off-loading frame from the tipping frame, which enables the system to roll – off the container. Further, the system shall have synthetic bearing to have the maintenance-free bearing of the sliding.

The hook for lifting the Compactor Unit would be integral to the structure. It shall be provided with the necessary reinforcement to handle the design weight for lifting with adequate factor of safety. The shape and size would as per design of the lifting tackle. The high strength cast hook shall be mounted into the hook mast shall be placed at a height of 1570 mm. a specially designed lock shall be ensured that the hook eye of the container shall be secured during tipping, on and off-rolling and ensure no dropout.

Technical Specifications (TS3): 3 years Comprehensive Maintenance for 3 GTS comprising 12 nos. of Portable Compactors 6 nos. Hook Loaders

SCOPE OF WORK: The bidder has to provide comprehensive annual maintenance of all the supplied equipment for 2 years after successful completion of Defects Liability Period of one year.

(A) Scope of Work for Successful bidder:

The Scope of Work shall consist of carrying out Preventive and Break down Maintenance of equipment supplied by the successful bidder

The scope of work shall cover the preventive maintenance of equipment viz., a) Portable Refuse Compactor of 16 cum. capacity and (b) Truck mounted Hook Loader on 28 T Chassis which shall include the following:-

Deputing Service Engineer and Technicians at every 500 hours of operation or two months interval whichever is earlier to carry out preventive maintenance of the equipment including backup technical support of Service Engineers from the manufacturing plant as per requirement. For this purpose, bidder shall post his Service Engineers and Technicians at site if necessary.

Checking of equipment, supply and replacement of Hydraulic return line filters and Air breather element every 500 hrs. of operation/ during each visit and supply and replacement of Suction filters after 1000 hrs, of operation/during alternate visit.

To carry out lubrication of equipment, replacement of hydraulic oil, minor repairs such as replacement of seal kit etc. as per requirement.

Supply of all the consumables required for preventive maintenance such as Lubricants, Hydraulic Oil etc.

Supply of spares for minor and major repair of equipment as required, along with welding machine, special tools and tackles

(B) SMC's Scope: The client shall be responsible for the following:-

Operation of all equipment including day-to-day maintenance as per the checklist washing and cleaning of all equipment by deputing trained maintenance staff at the site.

Routine Maintenance of all equipment including top-up of hydraulic oil and engine oil, grease, etc.

Supply of Fuel/Diesel for the operation of Hook Loaders.

Electricity Charges for the operation of Transfer Station.

Upkeep and maintenance of Transfer Station complexes and provide space for workshop facilities. Crane, Office space, a storage facility for storage of spare parts, tool, and tackles required for maintenance including water and power connection.

(C) TAXES

The quoted rates by the bidder shall include GST. Any statutory taxes and duties shall be included in the BOQ cost without any extra charges. Presently GST @ 18% is applicable.

(D) CONTRACT PERIOD/PRICE ESCALATION

The contract period shall be for three years from the date of start of work. However, the same may be renewed as per mutual agreement.

Technical Specifications (TS4): 50 MT capacity Weigh Bridge

The technical Specifications for Surface Mounted 50 MT capacity Electronic Weigh Bridge shall not be less than the following minimum specifications;

| S No. | Minimum Compliances |
|-------|---|
| 1 | Complete M.S. Fabricated Weighbridge Platform Structure with Paint & all accessories. |
| 2 | Platform Size : Length – 8.0 to 9.0 & Width 3.0 Meter, RCC Surface for installation of Weigh Bridge and Ramp length in mm 1:10 for portable for 1 feet height 10 feet length Max. Capacity: 50 MT, e-value / Division : ± 05 Kg, System Accuracy: $\pm 0.01\%$ ~ $\pm 0.02\%$ Full Scale Top Plate :10 mm |
| 3 | Load Cell <ul style="list-style-type: none"> • Load Cell Capacity Minimum 34.5 Tons Or Higher, • Compression Type Load Cells, Minimum 6 (Six) Nos , • Pre-Calibrated Digital Type Load Cell, Double Ended Shear Beam Type Load Cells, Mounting Assembly Lightning Protection |
| 4 | Make Digitizer with Data Storage Facility & Direct Printout System <ul style="list-style-type: none"> • 2.5 Lac Data Backup Facility • Calibration with Weights or E-Cal Facility • USB – Slot for Data Backup in Pen-Drive • USB Key Board Connectivity • Graphical LCD Display • RS232 Communication interfacing system • SMPS Power Supply with surge protection |
| 5 | <ul style="list-style-type: none"> • Weighbridge Management Software • Dot Matrix Printer with Data Cable • USB – Key Board for Weighment Data Entry in Indicator |
| 6 | Make Junction Box (Summation Box) <ul style="list-style-type: none"> • High Protection Junction Box with GD Tubes • Built-in Surge & Lightning Protection • Water Proof Cable Gland • Extra Metal Box for Extra Cable & Rat Protection with Locking facility |
| 7 | Copper Strips - 4 Core /6 Core Load Cell Shielded Signal Cable (Junction Box to Digitizer) |
| 8 | Out Door Jumbo Display <ul style="list-style-type: none"> • 7 Segment 6 Digit Jumbo Display • High Bright RED LED Display |
| 9 | Accessories (Cable, Connectors & Data Signal Cable etc....) <ul style="list-style-type: none"> • Power Cable for Digitizer & Printer • RS 232 Interfacing Cable - 2 Meter |

| | |
|----|--|
| | <ul style="list-style-type: none"> • Printer Data Cable • Load Cell Connectors |
| 10 | Non-Conductivity Hylam Assembly |
| 11 | Input Power Supply Requirements - Single Phase 230 V 50 HZ, Power consumption of controller unit in watts - 24 watts |
| 12 | <p>Weigh Bridge management Software: User-friendly Software for processing data date wise, truck wise, challan wise, shift wise, customer wise etc. for generation of daily / weekly & monthly reports. Preparing Transport Permit, Invoice etc.</p> <p>Print out Provided by System: Monogram, address with phone, no, date at time of weighing, vehicle registration, gross weight, net weight, tare weight in kg, item particularly description in minimum 32 space alphanumeric mode</p> |

Technical Specifications (TS5): 50 KVA, Three Phase, silent DG Set comprising of Diesel engine model. Water-cooled (CPCB Norms)

• **REQUIREMENT:**

The Engine Alternator supplied should be of ready --to --use type (RTU) four Stroke Engine, the BHP of Engine may be suitably enhanced as per site conditions in order to deliver the minimum required KVA at site, in case of water cooled engine it should be supplied with first filling of coolant and water mixture as per the manufacturer recommendation. The Engine shall be equipped with governor of class A1 or A2 accuracy and all standard fittings, flexible pipe, 1 no. 12 Volt 150 AH (minimum) sealed maintenance free lead acid automotive duty battery fixed between base frame, 200 litres (minimum) capacity fuel tank with steel wire braided fuel pipe, silencer, MS exhaust pipe of suitable size and length as per siterequirement covered with two layers of 6 mm thick asbestos rope, instrument panel equipped with necessary instruments, directly coupled with Alternator of suitable capacity on a suitable length of common base frame, channel fixed on necessary AVM pads, providing tools for normal maintenance and all other accessories complete as required and as per detailed specifications attached. The Engine and the Enclosure shall conform to the latest environment (protection) act 1986 (29 of 1986) of Ministry of Environment and Forest notification No. dated 17th May 2002 and 12th July, 2004 and second amendment of 2002 and 2004 respectively. No set shall be accepted without the CPCB certificate of authorized agencies such as ARAI of Pune, NPL New Delhi, NSTL Vishakhapatnam, FCRI Palghat and NAL Bangalore. The electrical compliance certificate must be signed by an accredited person.

• **OPERATING CONDITIONS:**

The engine alternator shall be capable of working at any ambient temperature between -30°C to 50° C and relative humidity 95% at 40° C up to an altitude of 2500 meters.

• **PERFORMANCE REQUIREMENT :**

- The working KVA rating at site condition after accounting for de-rating shall be obtained at 0.8 (lag) power factors.
- When there is an electrical main supply failure it shall be required to work continuously for a period, which may even exceed 24hour at a time.
- The set shall be capable of taking 10% overload for a period of one hour during every 12 hours period while operating continuously at full load.

• **OUT PUT VOLTAGE, FREQUENCY AND WAVE FORM:**

Nominal out put voltage shall be 415 volt with $\pm 1.5\%$ manual adjustment at all conditions of the load. Frequency shall be 50 cycle per second ± 1.5 Hz in sinusoidal out put waveform.

• **DIESEL ENGINE:**

Engine shall be reciprocating compression ignition Four Stroke Engine as per manufacturer standard design and conforming to IS10001-1981 & BS5514 & latest

• **LUBRICATION:**

Lubrication shall be positive pressure type lubricating all moving parts. No moving parts shall require lubrication by hand either prior to the starting of the engine or while it is in operation. Temperature and pressure gauge shall be fitted to the lubricating system.

• **FUEL TANK:**

Fuel tank with a usable capacity of 200 liters (minimum), made up of 2mm thickness MS sheet, shall be suitably installed inside the canopy and connected to the Engine through steel wire braided fuel pipe line for easy maintenance. The tank shall have a pipe level indicators marked in liters, filling inlet with removable screen, fuel out let located at minimum of 25mm above the bottom, drain plug, air vent and necessary piping, hand fuel pump etc. The outlet of the hand fuel pump supplied shall be provided with 3- meter long reinforced hosepipe.

• **FUEL PIPING:**

Steel wire braided pipe with hydraulically compressed benzo of superior quality shall be provided for fuel piping.

• **SPEED AND GOVERNING:**

The engine shall operate on 1500 RPM, and be able to meet site conditions with regard to Voltage, Speed, Frequency and regulation equipped with governor of suitable Class A1 or A2 accuracy.

• **ENGINE START:**

Engine shall be cold and self-starting type. The starter battery shall have suitable copper connecting lead, sufficient to meet engine starting and control gear requirement as per manufacturer specification.

• **BATTERY CHARGING:**

The battery charging shall be done through alternator and solid-state battery charger.

• **THE ENGINE SHALL HAVE FOLLOWING ACCESSORIES: -**

- (i) Heavy duties fly wheel.
- (ii) Coupling with guard.
- (iii) Fuel Pump.
- (iv) Governor.
- (v) Pre filters.
- (vi) Heavy Duty Air Cleaner.
- (vii) Water separator Fuel Filter.
- (viii) Pre-filter in lift pump/button filter.
- (ix) Lubricating oil filter.

- (x) Residential exhaust silencer.
- (xi) Starter.
- (xii) Alternator.
- (xiii) Blower Fan
- (xiv) Mechanical type hour meter cum RPM indicator.

• **ENGINE INSTRUMENT PANEL: -**

It shall comprise of the following: -

- (i) Starting switch with key.
- (ii) Lubricating oil temperature gauge.
- (iii) Lubricating oil pressure gauge.
- (iv) Battery charging ammeter.

• **SAFETY TRIPPING ARRANGEMENT:-**

- (i) Safety control (auto cut off) for low lube oil pressure.
- (ii) Safety control (trip) for high water temperature.
- (iii) Safety control (trip) for high Cylinder head temperature.

• **ALTERNATOR**

- (i) The alternator shall be copper wound and totally enclosed for screen-protected class-H insulation, designed and constructed to withstand tropical conditions. Voltage regulation shall be $\pm 1.5\%$. And shall be conforming to IS 13364 (Part I): 1992
- (ii) The winding shall be star connected and neutral shall be brought out to the terminal box for earth with two independent earths. The terminal of the alternator out put shall be enclosed in the terminal box. The AC/DC wiring shall be separated from each other.
- (iii) Radio interference suppressor should be provided in case of slip ring type Alternator

• **AMF CONTROL PANEL:**

- (a) AMF Control panel shall be cubical type made of 16 gauge CRCA sheet with hinged type openable covers mounted above base frame at a suitable location of EA set and supported on both sides on base frame. Rubber pads of 6mm thickness shall be provided between the base frame and control panel support. All the control panel wiring should be easily accessible and shall have sufficient working space for making connections of cables etc. A manual bypass switch shall be provided on the control panel for total bypass of the AMF system. The changeover from Mains supply to EA set supply should be possible in manual mode with AMF relay totally bypassed. A tinned copper earth stud of adequate dimension shall be provided.
- (b) The panel shall be consisting of the following: -
 - (i) 2 Nos. of 4 poles 100A MCCB (with adjustable current setting).
 - (ii) Contactors: -2 Nos. minimum, of suitable rating 4 - pole Power Contactor for Main commercial supply and Diesel EA set supply (Electrically & Mechanically interlocked) with contactor coil.

- (iii) The supply to the coil of mains contactor is to be provided with the help of a Static Voltage Regulator having wide input range from 90 volt to 300 volt and output within the operating range of the contactor coil.
- (iv) **Microprocessor based Automatic Mains Failure Controller**
(suitable for 12V DC) with following functions :
- (a) As the operating range of power plant (90V to 300V) and AC voltage stabilizer is quite wide, the AMF relay should be able to trigger EA set for starting and stopping in accordance with this range.
 - (b) Switch the load to the Engine supply after suitable time delay, after starting the Engine on mains failure/phase failure / low voltage / high voltage.
 - (c) Switch the load back to the Mains supply after suitable time delay, when healthy mains supply is restored and stopping the Engine.
 - (d) Attempt to start the Engine up to three times on failure of earlier attempts with suitable time intervals.
 - (e) AMF Relay should have a facility for RS 232 serial communication interference following TCP/IP Protocol.
- (v) 1No. Multifunctional meter to indicate Voltage, Current, PF, Frequency & kWh.
- (vi) Push button for Stop, Reset, Tests and Acknowledge.
- (vii) Recessed-type hooter.
- (viii) RYB LED indication for indicating Mains/EA set supply = 2 sets.
- (x) DC Ammeter [0-15A], DC Voltmeter [0-30V] of size 96mm x 96mm with selector switch for trickle /boost charging through battery charger and battery charging unit.
- (xi) Selector switches for Auto /Manual operation.
- (xii) **Battery Charger:** The charger shall be of SCR or SMPS type with automatic trickle and boost charging facility, current and voltage limiting circuits to avoid over charging, short circuit, reverse polarity protection and auto cut off facility when genset is "ON". DC voltmeter and ammeter of approved make, HRC fuse on DC side & DP MCB on AC side. It shall be provided in addition to Dynamo along with the engine. The tenderer shall include AC input cord with 3 pin top and DC wiring of the battery charger with 2.5 mm² copper conductor in recess / surface metal conduit / armoured cable. Make of charger should be got approved by the Engineer – in – charge before actual installation at site.
- (c) **Audiovisual indication for :**
- Lack of Fuel.
 - Low Lube Oil Pressure.
 - High cylinder / water temperature.
 - Engine Overspeed

(d) Safety Control Trip in the event of :

- Low lubricating oil pressure.
- High cylinder / water temperature.
- Lack of Fuel
- Over speed

(e) Connections of Control wiring shall be done screwless connector strips and ferrules for identification on both ends. AC and DC wiring shall be separated distinctly.

- **CONTROL WIRING:**

- i) The control wiring shall be done with PVC insulated copper wires of minimum 1.5 sq. mm. size.
- ii) The control wiring shall be provided with identification ferrules at each end.
- iii) More than two wires shall not be terminated at any one terminal.
- iv) The wires shall be arranged and supported in such a manner that they shall be separately bunched.
- v) Runs of wires shall be neatly bunched and suitably supported and clamped. A.C and D.C wiring shall be separately bunched
- vi) All control wiring meant for external connections are to be brought out on a terminal board.

- **ROUTINE TESTS :**

The control panels shall be subjected to following routine tests before commissioning.

- i. Insulation resistance test with 500 volts meggar
- ii. Polarity test.
- iii. Earth continuity test.
- iv. Control circuit wiring test.

- **TEST PROFORMA:**

- **SCOPE :** This section lays down the procedure for conducting test on the installation. In general the procedure laid down here shall be followed, which is at variance, the same may be adopted.

PHYSICAL CHECKS: Particulars such as name plate details of all major components/ equipments shall be recorded and compared with what has been offered by the contractor as per the concluded agreement.

Physical visual inspection of the installations specially on the following aspect shall be conducted.

- a. Firmness of mounting.
- b. Verticality of installed set.
- c. Tightness of nuts & bolts.
- d. Proper installation of exhaust pipe.
- e. Insulation of exhaust pipe.
- f. Provision of guards on EA set coupling joint.
- g. Proper location of fuel tank
- h. Size of electrical cables as per approved plan.
- i. Termination of cables.
- j. Ratings of various fuses
- k. Termination of earth leads on neutral & body.

MFA

• **EARTH RESISTANCE:**

Measurements shall be taken in respect of earth resistance or earth stations provided for grounding of neutral and body. The resistance shall be measured by isolating the connecting earth lead in respect of all earth stations individually. The results shall be recorded as under:-

| Sl. No. | Identification of Earth station | Used for | Earth stations (ohms) |
|---------|---------------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 |
| | | | |

RUN TEST: Both the engine shall be given a test run continuously for at least seven hours with alternator supplying full rated load. During this run following observation shall be recorded.

| Sl. No. | ITEM | Time (After start of run test) | | | | | | |
|---------|--------------------------|---------------------------------|------|------|------|------|------|-----|
| | | 1 Hr. | 2Hr. | 3Hr. | 4Hr. | 5Hr. | 6Hr. | 7Hr |
| 1. | Lubricating oil pressure | | | | | | | |
| 2. | Exhaust gas colour | | | | | | | |
| 3. | Speed of Engine | | | | | | | |
| 4. | Output voltage | | | | | | | |
| 5. | Load current | | | | | | | |

STATOR TEMPERATURE RISE TEST:

The alternator shall be loaded at full rated and stator (alternator body) temp. be recorded as under at interval of 30 minutes till such time three consecutive readings are same.

| Sl. No. | Time (hrs.) | Ambient Temp. (deg. C) | Stator Temp. (deg. C) |
|---------|-------------|------------------------|-----------------------|
| | | | |
| | | | |

The temp. rise shall be maintained within 60 deg. C above the ambient.

FUEL CONSUMPTION TEST:

- i) Fuel consumption for half an hour shall be measured after the full load operating conditions have stabilized.
- ii) During the measurement the load shall be maintained unchanged.
- iii) The fuel consumption shall be compared with values given in technical particulars.

OVERLOAD TEST:

- Overload test to the extent of 10% over the rated load for one Hr. shall be conducted immediately after the full load run test.

- The various parameters as in the case of run test shall regularly be monitored and recorded.
- After the overload test the load shall be normalized to rated value and all parameters recorded accordingly in addition to recording stator body temp.

ENGINE GOVERNOR:

Suitable to meet requirement as given under speed Governing of A/T Test

SPEED GOVERNING:

The engine shall run steadily and load upto its maximum rated load to the standards given below:

| LOAD VARIATION | Maximum change of speed as A percentage of rated speed | |
|---|--|-----|
| * Load variation on suddenly taking off or throwing on the rated load | Temporary change | 10% |
| | Permanent Change | 4% |
| * On change of load by any step of 20 percent of the rated load | Temporary change | 3% |
| | Permanent Change | 2% |

When the Engine Alternator is delivering 10% and 100% of the rated power output, the steady load speed band shall not exceed 1% of the rated speed.

The recovery time from temporary distribution to the steady load speed band at the new shall not exceed 3 second after taking off or throwing on the rated load.

INSULATION TEST :

- (i) Insulation test shall be conducted after testing the EA set at over load.
 - (ii) The insulation resistance between the stator coil and frame shall be measured with 500 volts megger.
- (iii) The insulation resistance of alternator winding shall be not below :-

$$\frac{\text{Rated output Voltage}}{1000 + \text{Rated output in KVA}} + 1 \text{ Mega Ohm}$$

- (iv) Insulation resistance of control wiring with 500V megger shall be measured which shall not be less than one mega ohm.

REGULATION TEST:

- i) The voltage from no load to full rated load at 0.8 P.F and from no load to half the rated load at P.F shall be measured between phase & neutral under automatic and manual regulation mode which shall not exceed 5% of the nominal rated output voltages.
- ii) In automatic regulation made the recovery time shall be noted which shall not exceed 3 seconds.
- iii) The frequency of output supply of various load conditions shall be noted and recorded. The variation shall be compared with the accuracy standards specified.

- iv) Change in speed of engine with change in load conditions shall be observed and compared with standards laid down for the speed governor.

FUNCTIONAL TEST:

Functional tests in respect of various components like controls. Interlocks, measuring devices, battery chargers and annunciation devices shall be considered.

BATTERY TEST:

The battery shall be tested for six successive attempts for starting of the engine in order to establish the healthy condition of the battery.

Performa for Load Test :

| Srl. No | Item Description | After | | | |
|---------|---------------------------------------|--------|--------|--------------------|--------|
| | | 1st hr | 2nd hr | 3 rd hr | 4th hr |
| 1 | Lubricating oil pressure | | | | |
| 2 | Colour of the exhaust smoke (Visual) | | | | |
| 3 | RPM | | | | |
| 4 | Current & Voltage | | | | |
| 5 | Wattage-KWH | | | | |
| 6 | Water temperature | | | | |
| 7 | Initial Diesel Level | | | | |
| 8 | Initial Hour meter reading | | | | |
| 9 | Final Diesel Level | | | | |
| 10 | Final Hour meter reading | | | | |
| 11 | Check Fuel consumption | | | | |

Performa for Temperature rise test for Alternator

(Take three consecutive readings)

| Time | Ambient Temp: | The temperature on alternator body |
|------|---------------|------------------------------------|
| | | |
| | | |

After stopping the load test of the engine, take insulation test between stator coil and body with 500V megger. (The resistance shall not be less than 1 Mega ohm).

SOUND PROOF ENCLOSURE:

- (i) The canopy should be soundproof, weatherproof & environment friendly.
- (ii) The soundproof canopy shall meet the requirements of the environment (protection) Rules 1986 as laid down by the Ministry of Environment and forests read with GSR371(E) dated 17th May 2002, GSR520 (E) dated 1.7.2003 and GSR (E) dated 12/7/2004 in respect of noise level for the E/A sets or as amended and applicable at the time of supply.
- (iii) The canopy shall be designed for maximum permissible sound pressure level for

D.G. sets shall be 75db (A) at one meter from the enclosure (canopy) surface. The D.G. set shall be provided with proper exhaust muffler with insertion loss of minimum 25db (A).

- (iv) Suitable see through window made of transparent polymer sheet/heat resistant glass of thickness not less than 10 mm for visibility of meters/indications etc. on control panel shall be provided.
- (v) The doors shall be doubled walled and openable for easy access to virtually every part of E/A set for comfortable maintenance.
- (vi) Suitable G.I. Bus bar shall be provided in the canopy for neutral and body earthing separately. All the equipments in the canopy shall be connected together with suitable G.I. strip and in turn to the Bus bars for body earthing
- (vii) The sound proof canopy design shall have Adequate ventilation with heat removal arrangement and shall meet the requirements as per MOEF/CPCB-II norms. The difference of temperature inside the canopy than out side ambient temperature should not increase beyond 7°C as per CPCB-II norms.
- (viii) All exposed moving parts like radiator fan, flexible coupling, ventilation (Exhaust) fan etc. shall be provided with suitable wire mesh/guard to avoid any accident during running of set and all exposed metal parts shall be suitably painted to prohibit corrosion.
- (ix) The enclosure (canopy) housing with base frame shall be provided with sufficient structural strength for vibration etc.
- (x) The enclosure shall have enough space for the housing of the control panel & fuel tank and also shall have an arrangement for lifting, fuel filling, fuel & oil drains, air-breathing, emergency stop push button.

GENERAL REQUIREMENT:

- (i) The set shall have minimum vibration and noise under all conditions of load. The set shall be properly dynamically balanced. Anti-vibration mounting shall be provided for supporting the set.
- (ii) The set shall be fitted with radio interference suppressors in case of slip ring type alternator.
- (iii) The size of EA set base frame channels shall be 100mmX50mm and not less than 5mm thick. Each channel shall be provided with 3 ribs in between the ends and also holes for earth connections.
- (iv) Control wiring shall be done with suitable 1.5sq.mm multi strand PVC insulated copper conductor cable.
- (v) Earthing provision should be made for earthing all non-current carrying metal parts of the equipment. Earth lugs of suitable size shall be provided.
- (vi) All the exposed moving parts like coupling etc. shall be provided with suitable guards covering.
- (vii) All exposed metal parts shall be suitably finished to prohibit corrosion.
- (viii) A nameplate showing rating connection diagram should be provided on Engine and Alternator. All the important and major parts should bear there catalogue number make of the parts etc. All the control wiring shall be provided with letter number ferules at both ends.
- (ix) One set of Tools as per the list mentioned below shall be supplied along with the DEA set:

List of the tools to be supplied by the contractor free of cost.

| Sl.no. | Description of Tools | Quantity |
|--------|---|----------|
| 1. | Combination set (one end ring and other end open) spanner set 3/0" to X 1 1/4 " 14 pieces per set. | 1set |

| | | |
|----|---|--------|
| 2. | Socket set 1/2" square drive 3/8 "to 1 "(set of 11 nos.). | 1 set |
| 3. | Reducer 1/2" male X 3/8 "female. | 1 no |
| 4. | Filler Gauge 6 "long. | 1 no. |
| 5. | Nose pliers. | 1 no. |
| 6. | Adjustable Wrench 250 mm chromo plated. | 1 no. |
| 7. | Ball point Hammer (2 lbs.) | 1 no. |
| 8. | Allen Key set 1/16" to 3/8". | 1 set. |

TESTING AND A/T :

The firm shall test the set itself as per the SMC schedule and practice before offering for Acceptance Test to SMC All the relevant tests to check the performance of the set shall be conducted (A/T) at the site after the installation as per the decision of the SMC. Diesel and lubricant oil shall be supplied by the contractor for 8 hours of successful Acceptance testing of the set. The necessary artificial load and any other necessary manpower, material, consumables, etc shall be provided free of cost by the contractor at the time of testing / A/T. In case the set does not pass the test due to inherent defects in the equipment or due to faulty workmanship, then the contractor has to re-supply the necessary fuel oil and lubricant required while reoffering the DG set for testing.

BILL OF QUANTITIES (BOQ)

Annexure-I

SECURITIES AND OTHER FORMS

In Original

BID SECURITY (BANK GUARANTEE)

WHEREAS _____ [Name of Bidder] (hereinafter called "the Bidder") has submitted his bid dated _____ [Date] for the Construction of _____ (Name of Contract hereinafter called "the Bid"). KNOW ALL PEOPLE by these presents that We _____ [Name of Bank] of _____ [Name of Country] having our registered office at _____ (hereinafter called "the Bank") are bound unto the _____ Name of Employer] (hereinafter called "the Employer") in the sum of _____ * for which payment well and truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said bank this _____ day of _____ 20____. THE CONDITIONS of this obligation are:

1) If after Bid opening the bidder withdraws his Bid during the period of bid validity specified in the Form of Bid.

or

2) If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:

a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required;

or

b) Fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders,

or

c) Does not accept the correction of the Bid price pursuant to Clause 27. We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date **days after the end of the validity period of the bid stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE _____

WITNESS _____ SEAL _____

[Signature, Name, and Address] _____

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

* 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the bidding documents are issued

Annexure-II

(BID Validity)

UNDERTAKING

1. The undersigned do hereby undertake that our firm M/s _____ agree to abide by this bid for a period 120 (one hundred and twenty) days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorized Officer of the Firm)

_____ Title of Officer

_____ Time of firm

Date

Annexure-III

Credit facility

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES (CLAUSE 4.2 (I) OF ITB)
BANKCERTIFICATE**

This is to certify that M/s. _____
Company with a good financial standing. If the contract for the work, namely
is a reputed _____

is awarded to the above firm, we shall be able to provide overdraft/ credit facilities to the extent of **10% of Advertised Cost** to meet their working capital requirements for executing the above contract during the contract period.

(Signature) Name of
Bank Address of the
Bank

Annexure-IV

AFFIDAVIT on correctness of Information furnished with the Bid

I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct. The undersigned also hereby certifies that neither our firm

M/s _____ have abandoned any work on National Highways in India /any other work of state Government or central Govt. Nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.

That our firm has not been black listed or debarred in any state or central Govt. department. Neither our firm has any history of litigations.

In case the contract for the work is awarded in our favour we shall invest a minimum cash up to 25% of value of the contract during the implementation of work.

We authorize the department to seek references from our bankers

Name of bank is _____ Branch _____ Account No. _____

2. The undersigned hereby authorize (s) and request (s) any bank, person, firm or Corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.

3. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department/Project implementing agency.

WE solemnly affirm that the information give in the bid is correct to the best of my knowledge and belief and nothing of any sort has been concealed.

Note: Affidavit to be notarized.

(Signed by an Authorized Officer of the Firm) _____

Title of Officer

Name of Firm DATE

Annexure- V PERFORMANCE BANK GUARANTEE

To,

..... [Name of Employer]
 [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract"); AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a Nationalized/Scheduled bank of India for the sum specified therein as security for compliance with his obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee.

NOW THEREFORE we hereby affirm that we are the guarantor and responsible to you on behalf of the Contractor, up to a total of Rs. [amount of guarantee] (Rupees _____) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defects Liability Period.

Signature and seal of the guarantor _____

Name and Designation _____

Name of the Bank _____

Address _____

Date _____

* An amount shall be inserted by the Guarantor, representing the percentage the contract price specified in the contract including additional security for unbalanced Bids. If any and denominated in Indian Rupees.

741

Annexure-VI

208

UNDERTAKING

The undersigned to hereby undertake that our firm M/s _____
would invest minimum cash up to 25% of the value of the work during implementation of the
Contract.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

209

Annexure-VII

Letter of Acceptance
(Letterhead paper of the Employer)

..... (Date)

To: _____ (Name and address of the contractor)

Dear Sirs,

This is to notify that your Bid dated _____ for execution: completion and maintenance of the _____ (name of the contract and identification number, as given in the Instruction to Bidders) for the Contract Price of Rs. (Rupees _____) (amount in words and figures as corrected and modified in accordance with the Instruction to Bidders) is her by accepted by our agency We accept/do not accept that _____ be appointed as the Adjudicator². You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of ITB for an amount for an amount equivalent to Rs. _____ within 21 days of the receipt of this letter of acceptance valid up to 28 days from date of expiry of the Defects Liability Period i.e up to _____ and sign the contract failing which action as stated in clause 34.3 of "Instructions to Bidders" will be taken.

Yours faithfully

Authorized signatory
(Name & title of signatory
(Name of Agency)

1. Delete "corrected and" or "and modified" if only one of these actions, Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected.
 2. To be used only if the contractor disagrees in his Bid with the Adjudicator proposed by the Employer in the "Instructions to Bidders".
-

743

Annexure-VIII

2/10

Issue of Notice to proceed with the work

(Letterhead of the Employer)

(Date) _____

To, _____
(Name and address of the Contractor)

Dear Sir (S)

Pursuant to your furnishing the requisite performance security as stipulated in ITB clause 34.1 and signing of the contract for the construction of _____ at a Bid Price of Rs. _____

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and
title of signatory
authorized to sign on
behalf of Employer)

211

Agreement Form
Agreement

Annexure-IX

This agreement made the ___ day of _____, between

_____ (name and address of Employer) (herein after called "the Employer)" and _____ (name and address of Contractor) (hereinafter called "the Contractor" of the other part). Whereas the Employer is desirous that the Contractor execute _____

name and identification number of Contract) (hereinafter called "the Works") and the Employer s accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a contract price of Rs. _ NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and constructed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and constructed as part of this Agreement viz:
 - i) Letter of Acceptance
 - ii) Notice to proceed with the works:
 - iii) Contractor's Bid;
 - iv) Contract Data:
 - v) Conditions of Contract : Special Conditions of Contract;
 - vi) Additional condition:
 - vii) Drawings:
 - viii) Bill of quantities and
 - ix) Any other document listed in the Contract Data as forming part of the contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of..... was hereunto affixed in the presence of: Signed, Sealed and Delivered by the said.....

in the presence of:

Binding Signature of Employer.....

Binding Signature of Contractor.....

745

212

Drawings & BOQ

The necessary drawings and BOQ to be annexed

Signature Not Verified

Digitally signed by TSHTAQ AHMAD SHAH
Date: 2023.11.06 02:45:56 PST
Location: Jammu and Kashmir-JK