Technology Informatics Design Endeavour (TIDE)

Expression of Interest

Implementation of Rain Garden

Issued by: Technology Informatics Design Endeavour (TIDE)

Release Date: 11-August-2025

Last date for submission of quotation: 25-August-2025

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Location: 9 Sites across Chennai

- **Important:** Please mention the proprietor details and kindly mention the GST if applicable and mention "No GST Applicable" if there is no GST in the quotation. Vendor must have a proper invoice for payment purposes.

Background and Objective

Technology Informatics Design Endeavour (TIDE) is a non-profit organization dedicated to implementing sustainable water management and environmental solutions. As part of our ongoing commitment to urban ecological restoration, we are developing a Rain Garden at the children's park Ashok Nagar in Chennai.

This rain garden project aims to improve stormwater management, groundwater recharge, and urban biodiversity. By utilizing natural filtration processes, rain gardens help reduce surface runoff, prevent waterlogging, and enhance the aesthetics of the surrounding environment. The initiative also aligns with broader climate resilience and sustainability efforts by promoting water conservation and ecosystem-based approaches to urban landscaping.

We invite experienced vendors to submit an Expression of Interest (EOI) for the supply of materials, and implementation of a Rain Gardens.

Explanation of Product

A **Rain Garden** is a **shallow, landscaped depression** designed to **capture, filter, and absorb stormwater runoff** from impervious surfaces such as roads, rooftops, and parking lots. It consists of multiple layers, including **soil, gravel, mulch, and native vegetation**, which work together to slow down water flow, remove pollutants, and enhance infiltration.

Key Features of the Rain Garden:

- **Stormwater Management:** Reduces surface runoff and mitigates urban flooding.
- **Natural Filtration:** Removes pollutants such as sediments, heavy metals, and nutrients.

- **Groundwater Recharge:** Enhances percolation and improves local water tables.
- **Biodiversity Enhancement:** Supports native plant species and attracts beneficial insects and birds.
- **Aesthetic and Educational Benefits:** Provides a green space for students to learn about ecological sustainability and water conservation.

Functionality and Process:

1. **Inflow of Water:** Rainwater is directed into the garden via designated inlet structures.
2. **Filtration Through Soil and Gravel Layers:** Water passes through an engineered substrate, where contaminants are removed.
3. **Plant Uptake and Microbial Action:** Native vegetation absorbs excess nutrients while beneficial microbes break down pollutants.
4. **Gradual Percolation and Groundwater Recharge:** Filtered water either percolates into the ground or exits through an overflow structure for controlled drainage.

The treated water will be absorbed into the soil, supporting groundwater recharge and reducing runoff into storm drains. The rain garden will be designed to handle varying rainfall intensities while ensuring minimal maintenance requirements. By incorporating recycled construction waste for berms and utilizing locally adapted native plant species, this project will serve as a model for sustainable urban stormwater management.

Rain Garden Specifications

The following no. of sites has been selected for implementation:

S. No	No. of Sites	Area Category
1	6 Sites	75–85 sq.m
2	3 Sites	120–150 sq.m

Note: These are indicative sizes; final designs will be shared during the detailed implementation phase. Vendors are requested to submit their financial quotation on a per square meter (₹/sq.m) basis for the rain garden implementation inclusive of materials, labor, transportation, and installation.

Scope of Work

The selected vendor will be responsible for executing the following tasks:

3.1 Provide inputs in Design and Engineering

- Analyse the site assessment reports shared by TIDE to determine hydrology, soil quality, and drainage conditions.
- Provide inputs on developing the detailed design plans and technical drawings, including:
    a. Site layout with inlet and outlet positioning.

b. Layering of filtration media (gravel, sand, soil, and planting media).

c. Flow pathway mapping for stormwater movement.

d. Planting scheme for optimal water absorption and ecological benefits.

e. Overflow and drainage systems to manage excess water.

- Share feedbacks / suggestions on provision of final design specifications by TIDE team for implementation.

3.2 Site Preparation

- Removal of debris, invasive vegetation, and other obstructions from the designated rain garden area.
- Excavation and grading of the site based on the provided design specifications to ensure proper water infiltration and flow.
- Ensure proper levelling and dressing of the site to facilitate drainage.
- Reuse of construction waste where feasible, as per site survey recommendations, to construct berms within the rain garden design.

3.2 Material Procurement & Installation

The vendor shall procure and install the following materials:

- Native Plants: Selection and planting of drought-resistant and pollinator-friendly species.
- Mulch & Soil Mix: High-quality mulch and engineered soil mix for effective water absorption.
- Permeable Gravel or Drainage Layer: To support infiltration and prevent waterlogging.
- Geotextile Fabric (if required): For erosion control and soil layer separation.
- Rain Garden Inlet & Outlet Structures: Efficient drainage structures to direct stormwater.
- Decorative & Functional Elements: Incorporation of natural materials for aesthetic enhancement.
- Any other design elements on approval from the service seeker based on the site needs.

3.3 Construction & Implementation

- Ensure adherence to approved design and environmental regulations.
- Install all components as per specifications to maximize water retention and prevent erosion.
- Construct berms using recycled construction waste, where feasible, for water retention and site stability.
- Conduct post-installation inspections to verify proper functionality and infiltration efficiency.

3.4 Maintenance & Knowledge Transfer

- Provide a detailed maintenance plan, including watering schedules and seasonal care recommendations.
- Conduct a training session for designated personnel on upkeep and sustainability.
- Offer a minimum 2-year warranty on system components and plant establishment support.
- Enable 1 year of maintenance support post implementation of the rain garden.
- Replacement of dead plants within six months of installation.
- Any material defects or structural issues must be rectified within 30 days of notification at no additional cost.

3.5 Additional Requirements

- Obtain necessary permits and ensure compliance with environmental regulations.
- Dispose of non-reusable construction waste responsibly.
- Provide maintenance guidelines, including watering schedules and seasonal care recommendations.

Deliverables

- **Fully operational rain garden** with necessary infrastructure.
- **Installation of a drainage and water collection system** such as inlet, outlet, and overflow systems.
- **Successful planting and stabilization** of native vegetation.
- **Submission of high-resolution images** and documentation of the completed project.
- **Post-installation inspection report** ensuring compliance with specifications.

Qualification Requirements

Interested vendors must demonstrate:

- Proven experience in constructing rain gardens or similar ecological projects.
- Knowledge of stormwater management principles and ecological landscaping.
- Ability to source and install native plant species suitable for Chennai's climate.
- Expertise in soil and hydrology assessment for rain garden design.
- Compliance with environmental and urban planning regulations.

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Submission Requirements

Vendors are required to submit:

- Company Profile: Including relevant project experience.
- Technical Proposal: Detailing approach, methodology, and design considerations.
- Financial Quotation: Itemized breakdown of materials, labor, and other associated costs.
- Timeline: Proposed schedule for implementation and completion.
- References: Contact details of past clients or case studies of similar projects.

Terms & Conditions (T&C):

1. TIDE requests the supplier to provide a quotation for the supply of goods and services detailed above.
2. All correspondence from the supplier to TIDE shall be submitted by email to the designated contact person.
3. **Contents for EOI:**
    - Fixed and firm price of the goods / services.
    - Separate listing of GST or any applicable tax.
    - Other costs (e.g., transportation).
    - Payment terms.
    - The quotation must be on the company letterhead, with a seal and signature.
4. Any deviations from the specifications must be justified for evaluation.
5. The selected vendor must provide a cancelled cheque mentioning bank account details. If the total price excluding GST exceeds Rs. 1,00,000, a bank guarantee is required for advance payment.
6. Advance payment will be provided only for material costs. GST, transportation, and installation charges will be paid upon successful delivery and inspection.
7. Full payment will be released only after installation and quality inspection by TIDE's technical team.
8. If the vendor is not GST-registered, the company registration deed will be considered.

9. Quotation Submission Channels:

    - **Email:** Send the quotation to with the subject line: "Response to EOI #: Rain Garden Implementation_2526."
    - **Hard Copy:** May be sent in a sealed envelope to the specified address.
    - Quotations above Rs. 1,00,000 must be submitted via email from a registered domain (not Gmail, Yahoo, etc.) or as a hard copy to the specified address.

Deadline for Submission: 25th August 2025

For further queries, please contact us at: 080 2361 2031

Evaluation Criteria

Proposals will be evaluated based on:

- **Technical competency** (40%)
- **Relevant experience** (20%)
- **Financial feasibility** (20%)
- **Sustainability approach & compliance** (20%)

We look forward to receiving proposals from qualified vendors committed to **eco-friendly urban development and water conservation**. TIDE reserves the right to accept or reject any proposals based on evaluation results.