Northeast Ohio Areawide Coordinating Agency

NOACA
1299 Superior Avenue
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(216) 241-2414
www.noaca.org

Request for Proposals (RFP) for PHASE I: FEASIBILITY STUDY AND CONCEPTUAL DESIGN-GREEN ROOF, WALL, PARKING LOT (NOACA NET ZERO COOL) PROJECT

Issue Date:  April 4th 2019
Closing Date:  April 30th 2019

NOACA is seeking a qualified firm to contract for consulting services to develop FEASIBILITY STUDY AND CONCEPTUAL DESIGN PROJECT. The deadline for submittals is Monday, April 30, 2019, 12:00 PM.
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1. THE NORTHEAST OHIO AREAWIDE COORDINATING AGENCY (NOACA)

The Northeast Ohio Areawide Coordinating Agency (NOACA) is a Cleveland-based transportation and environmental planning organization that serves as the metropolitan planning organization (MPO) and designated areawide water quality management agency for the counties of Cuyahoga, Geauga, Lake, Lorain, and Medina in Ohio.

In these capacities it:

- Works with other organizations to help address northeast Ohio’s transportation, air quality, and water quality needs.
- Conducts metropolitan planning for various modes of transportation, including vehicles, freight, transit, bicycle, pedestrian, etc., while considering the transportation system’s impact on the environment and land use.
- Prepares the region’s long-range transportation plan and short-range transportation improvement program, which is the region’s capital budget for federally funded transportation projects.
- Conducts studies that address congestion, improve safety and strengthen community livability.

The vision of NOACA is as follows: NOACA will **STRENGTHEN** regional cohesion, **PRESERVE** existing infrastructure, and **BUILD** a sustainable multimodal transportation system to **SUPPORT** economic development and **ENHANCE** quality of life in Northeast Ohio.

NOACA is directed by a 45-member Board of Directors, representing the City of Cleveland and all five NOACA counties and their communities, plus transit agencies, the Northeast Ohio Regional Sewer District (NEORSD), the Cleveland-Cuyahoga County Port Authority, the Ohio Environmental Protection Agency (Ohio EPA), and the Ohio Department of Transportation (ODOT).

The NOACA region is home to 2.1 million people and over 150 units of government. The region is anchored by several urban core cities with the largest being Cleveland.

More information about NOACA is available on our website at [www.noaca.org](http://www.noaca.org)
2. INTRODUCTION and BACKGROUND

The Northeast Ohio Areawide Coordinating Agency (NOACA) anticipates the Northeast Ohio Regional Sewer District (NEORSD) will request proposals for the 2020 Green Infrastructure Grant (GIG) Program later this spring. To be ready for application, NOACA seeks a firm(s) to provide anticipated services in landscape architecture, architecture and civil engineering to determine the feasibility of NOACA’s proposed “Net Zero Cool” project (Phase I).

A successful application based on Phase I work may lead to implementation of the actual project itself through the GIG Program (Phase II). Phase I work will be funded directly by NOACA. Phase II work will be funded by NOACA with reimbursement from NEORSD through the GIG Program. Phase II projects may be awarded up to $250,000, although applications exceeding this limit may be considered.

Eligible expenses in Phase I may include professional services such as design and engineering costs, structural analysis, and soil testing costs, if required, to determine suitability of a project. Eligible expenses in Phase II include those eligible for Phase I, and also construction costs such as labor, materials, plants, and equipment rental.

3. SCOPE AND PROJECT DETAILS

NET ZERO COOL: NOACA’S VISION

NOACA proposes to explore three projects for potential submittal to NEORSD for GIG funding:

1) Creation of a green roof terrace on top of the NOACA building’s extension
2) Creation of a green wall on the side of the NOACA building’s extension
3) Retrofit of existing NOACA surface parking lot with a bioswale and cistern, or retrofit of existing NOACA surface parking lot with permeable asphalt

The concept behind NOACA’s vision is embodied in its name, “Net Zero Cool.” “Net Zero” refers to NOACA’s goal to capture all stormwater runoff from its impervious surface area on-site and eliminate its contribution to the combined wastewater/stormwater conveyance system. “Cool” refers to NOACA’s goal to showcase its green infrastructure elements with an eye-catching, water-themed mural or green wall (or combination thereof) painted on the sides of the building’s extension, educational placards along the bioswale (adjacent to sidewalks) and outdoor classroom space on the green roof terrace that may be used for lectures and tours as well as NOACA public meetings.

NOACA seeks a design firm to assess the feasibility of NOACA’s proposal for a stormwater capture and conveyance system that utilizes the green roof, green wall and parking lot bioswale (or permeable surface material) to capture all site stormwater. The firm needs to estimate how much of the stormwater runoff from all NOACA roof areas may be captured by the green roof terrace and how much of the remnant stormwater runoff, as well as the parking lot stormwater runoff, may be captured by the green wall and parking lot bioswale (or permeable pavement). The firm needs to determine whether a cistern is necessary underneath the parking lot to hold excess runoff for heavier precipitation events and at what capacity.
DESIGN CONSIDERATIONS

Considerations for each of the green infrastructure elements include the following:

**Green Roof Terrace:**

The layers of a contemporary green roof system, from the top down, include:¹

- the plants, often specially selected for particular applications
- an engineered growing medium, which may not include soil
- a landscape or filter cloth to contain the roots and the growing medium, while allowing for water penetration
- a specialized drainage layer, sometimes with built-in water reservoirs
- the waterproofing / roofing membrane, with an integral root repellent
- the roof structure, with traditional insulation either above or below.

There are two basic types of green roof systems the applicant should consider: extensive and intensive.²

Extensive and intensive green roof systems are differentiated mainly by the cost, depth of growing medium and the choice of plants.

Extensive green roofs are often not accessible and are characterized by:

- low weight
- low capital cost
- low plant diversity
- minimal maintenance requirements.

Intensive green roofs are often accessible and are characterized by:

- deeper soil and greater weight
- higher capital costs
- increased plant diversity
- more maintenance requirements

It should be noted that, depending on such site specific factors as location, structural capacity of the building, budget, client needs, and material and plant availability, each individual green roof will be different, likely a combination of both intensive and extensive systems. The successful applicant should plan a structural evaluation of the roof system for its maximum weight bearing capacity or roof live-load limits.³ This evaluation should be performed by a qualified and licensed structural engineer, architect, or other professional with the knowledge and ability to perform this activity. NOACA must verify that there is adequate weight bearing capacity as part of its proposed design. The professional conducting this evaluation will need to consider current conditions and weight from mechanical systems present on the building roof, factors for snow/water/wind load, necessary safety factors,

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² Ibid.
building code requirements and any other applicable local/county/state requirements, as appropriate. The information obtained from the evaluation should provide a maximum value regarding the pounds per square foot that can be additionally placed onto the roof surface and not result in damage, potential for failure or collapse.

**Green Wall:**

According to the Center for Clean Air Policy, green walls refer to all forms of vegetative wall surfaces.\(^4\) Green walls may include green facades, living walls and landscape walls. Green facades are characterized by plants growing onto and over specially designed supporting structures. Living walls are distinct wall panels that include growing medium or liquid nutrient. Landscape walls are exterior living structures used to delineate boundaries, such as a hedge.

Green Roof Technology, one of the self-proclaimed founding fathers of green roofs in the United States with a portfolio spanning nearly four decades, offers a different classification for green walls:\(^5\) Extensive, Semi-Intensive, Intensive, Free-Standing.

An **extensive green wall** consists of a vine that can climb a structure on its own. One of the benefits of this type of green wall is its low installation cost and maintenance. It also provides excellent shade during the warmer months. Through proper plant selection, vines may be chosen to accommodate seasonal needs such as allowing for more sun to reach the building in the winter or the option for evergreen winter décor.

**Semi-intensive green walls** use a support system for climbing plants. These support systems can be cables or a wire mesh that the vines wrap themselves around creating a dense green wall. These too can be used to create a cool shady environment and can be a good solution for buildings that have a facade that might otherwise be damaged by climbing plants. Both extensive and semi-intensive green walls can provide food and habitat for wildlife.

**Intensive green walls** consist of a planter cell style. This type of wall comes in many forms and is typically composed of plastic grid like components or large sheets of felt-like material with pockets for soil. These systems offer a lot of options in terms of decorative and plant selection, but are generally high maintenance in terms of irrigation, weeding, and fertilizing. Green walls where their maintenance outweighs their ecological benefits also fall into the green art category.\(^6\)

**Free standing green walls** are green walls independent of an architectural structure. Some common examples of this type of structure might be a neatly pruned hedge or shrub. While largely used as screens for privacy, this types of green wall can provide seasonal interest through a wide selection of ever-green to semi evergreen foliage, flowers, and berries in addition to providing food and shelter for wildlife.

**Parking Lot Bioswale:**

Bioswales are an infiltration dependent practice affected by soil type, groundwater table, size of the


\(^6\) When a green roof or wall's maintenance out weighs its environmental contributions we classify it strictly as art. Other examples of green art are topiary, bonsai, and flower arrangements. Green art is wonderful in terms of inspiring passers by and getting people to think from a different angle. The creativity expressed through this media is very contagious and greatly enhance the ambiance of a location (retrieved 3.22.2019 from http://www.greenrooftechnology.com/green-art).

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**NOACA**

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area serviced, imperviousness of the contributing watershed, and dimensions and slope of the swale system.\footnote{University of Florida IFAS Extension. 2008. Florida Field Guide to Low-Impact Development (retrieved 8.2.2018 from http://buildgreen.ufl.edu/Fact_sheet_Bioswales_Vegetated_Swales.pdf).} Swales are impractical for areas with very flat grades or steep slopes, and should be used to serve areas of less than 10 acres with slopes no greater than 5\%. As a simple rule of thumb, the total surface area of the swale should be one percent (1\%) of the area from which it will receive stormwater. Vegetated swales should not be installed in areas with high water tables where groundwater reaches the bottom of the swale.

Additional considerations include the following:

- Bioswale function and treatment is improved when applied in areas with well-drained soils; compacted soils reduce the effectiveness of swales.
- Poorly drained sites require an underdrain system
- A high flow bypass (outlet or control structure) should be used to safely convey high flows
- Vegetation should be a fine, close-growing, water-tolerant species that provides high amounts of vegetative surface area for contact with stormwater. Select native plants for nutrient uptake ability and site appropriateness.
- Evaluate the need for regrading of the existing parking lot

**Parking Lot Cistern:**

Rain barrels or cisterns are containers that collect roof runoff during storm events and can either release or re-use the rainwater during dry periods.\footnote{Office of Research and Development, United States Environmental Protection Agency. 2017. Science in Action, Innovative Research for a Sustainable Future: National Stormwater Calculator (SWC) (retrieved 8.2.2018 from https://www.epa.gov/sites/production/files/2017-09/documents/swc_technical_factsheet_update_final_9-28-17.pdf).} Cisterns may be located above or below ground and have a greater storage capacity than a rain barrel.

**Parking Lot Retrofit with Permeable Pavement**

Porous pavements with stone reservoirs are a multifunctional low impact development technology. With proper design and installation, porous asphalt pavements can provide a cost effective solution for stormwater management in an environmentally friendly way. As a result, they are recognized as a best practice by the United States Environmental Protection Agency (US EPA). The location of porous pavement should be considered early in the design process.

Site Considerations:

Soil types, depth of bedrock, pavement slope and additional sources of runoff. General site considerations:

- Soil infiltration rates of 0.1 to 10 inches per hour
- Minimum depth to bedrock or seasonal high water should be greater than two (2) feet
- Frost depth should be considered. The bottom of the stone reservoir should be 60\% of the frost depth, but lesser depths are acceptable

The slope of the porous surface should be less than 5\%
Tasks and Deliverables

DELIVERABLES

- Conceptual Design drawings; preliminary listing of recommended materials and systems; and stormwater calculations, including:
  - Structural evaluation of the NOACA roof system and load-bearing capacity
  - Preliminary green roof terrace design and stormwater retention and drainage plan
  - Preliminary green wall design and stormwater retention and drainage plan
  - Parking lot grade assessment
  - Site soils assessment
  - Preliminary assessment of NOACA’s “Net Zero” stormwater runoff goal
  - Preliminary redesign of NOACA surface parking lot with bioswale
  - Anticipated cistern placement and capacity.
  - Preliminary assessment of site conditions for permeable pavement parking lot retrofit
- Conceptual cost estimate
- Three meetings with NOACA staff (preliminary, mid-term, final)

Timeline: The proposed timeline for the project will be six weeks from the date of contract signing.

4. QUALIFICATIONS

Any combination of skills and experience that can successfully and effectively address the scope of services will be considered.

5. PROCUREMENT TIMELINE

NOACA’s process and timeline for the selection of a consultant are as follows:

WALK-THROUGH

NOACA will host a walk-through of the building and site on April 12th, 2019; 1:30PM at 1299 Superior Ave., Cleveland, Ohio 44114. Applicants who wish to be considered must attend the walk-through. Please contact Susanna Merlone at 216-241-2414 if you plan on attending. Applicants may take pictures and ask questions of NOACA staff during the walk-through.

TIMELINE

April 4th, 2019, Request for Proposal’s (RFP) Released by NOACA

April 12th, 2019, 1:30PM-NOACA Building and Site Walk-Through-Please contact Susanna Merlone @216-241-2414 if participating.

April 22nd, 2019, Deadline for questions and clarifications (Answers will be posted to NOACA’s website no later than April 23rd end of day)
April 30, 2019 – Proposal’s Due (12:00 Noon) Submittals must be received at NOACA by the above deadline. Submittals should be marked to the attention of Susanna Merlone. Digital proposals are to be submitted via email to procurement@mpo.noaca.org, but NOACA assumes no responsibility for formatting or transmission errors. Submittals received after the deadline will not be considered. Please reference “FEASIBILITY STUDY AND CONCEPTUAL DESIGN (NOACA NET ZERO COOL) PROJECT” in the email subject line.

May 1-7, 2019, Evaluations. An evaluation team will select candidate(s) from submittals received for interview(s). This process will include review of submittals, references and other information as necessary, as well as the rating of submittals.

May 6th and 7th, 2019. Interviews with Selected Candidates (If Needed) Interviews will provide an opportunity for NOACA and selected candidates further to gauge their fit and ability to work with each other.

Please ensure that the appropriate representative, including the designated project manager, will be available to attend an interview on May 6th and May 7th, 2019 if your organization is selected as a finalist.

June 30, 2019 (Approximately-or 6 weeks after contract signing) – Preliminary Design/Project Feasibility Study Complete

**REQUIREMENTS AND APPLICATION MATERIALS**

Applicants must provide the following materials to be eligible:

- Qualifications of the applicant(s) in the areas of storm water management planning and design techniques
- Preliminary design/project feasibility study budget and total cost
- Outline of work scope with major tasks, deadlines and deliverables

NOACA will confirm receipt of all complete applications. Applications must be received by NOACA no later than **5:00PM** on **April 30, 2019**, to be eligible. All questions regarding the application process must be directed to Susanna Merlone. Please contact Susanna Merlone at 216.241.2414 ext.108 or SMerlone@mpo.noaca.org.
6. **EVALUATION CRITERIA:**

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<thead>
<tr>
<th>Criteria</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>Project Approach: Exhibit 1. Note 3</td>
<td>40</td>
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<tr>
<td>Demonstrated experience with similar projects: Exhibit 1. Note 2</td>
<td>30</td>
</tr>
<tr>
<td>Qualifications of the organization(s) &amp; project team: Exhibit 1. Note 1</td>
<td>30</td>
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<td><strong>Total</strong></td>
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**Exhibit 1 - Consultant Selection Rating Form Notes**

1. **Qualification of Staff** - The Proposal must demonstrate that the Consultant has the organizational capability and experience to complete the project. Identify the project team members, the role of the prime consultant, and any sub consultant(s). The rankings and scores will be based on the Staff's experience on similar projects and past performance for other agencies.

Differential scoring will consider the relative importance of the Project Manager's role in the success of a given project. The Project Manager’s role in a simple project may be less important than for a complex project, and differential scoring will reflect this, with higher differentials assigned to projects that require a larger role for the Project Manager.

2. **Demonstrated Experience with Similar Projects** – The proposal must demonstrate each consultant’s experience and established competence related to this procurement. Each consultant shall be ranked, with the highest ranked consultant and proposed sub consultants receiving the greatest number of points, and lowest ranked consultant and proposed sub consultants receiving commensurately lower scores. The rankings and scores will be based on each firm's experience on similar projects and past performance for NOACA and other appropriate agencies. The selection team will consider documented performance ratings if available, and consult other agencies as appropriate. The use of documented ratings shall place emphasis on the specific type of services requested.

3. **Project Approach** - Each consultant shall be evaluated based on the approach presented in the proposal to complete the project. Factors for evaluation shall include project schedules; demonstration of understanding for the project; methods and strategies to best accomplish the project; creativity; viability; and implementation. Proposals should clearly describe how each task or deliverable will be completed.

4. **Cost**: This is a qualification based selection process, but please have cost estimates prepared in the event that you are selected.
7. **SUBMITTALS**

7.1 **Instructions for Submission of Responses**

All responses to this RFP shall contain the following sections in the following order:

1. Letter of interest
2. Abstract
3. Background and Experience
4. Project Staffing and Organization
5. References

And, optionally:

6. Supplementary and/or reference material/Drawings

Submissions for items 1-6 must be made electronically by **12:00 noon on Tuesday, April 30, 2019** using a PDF or Microsoft Office format. Proposals must be sent to procurement@mpo.noaca.org with “FEASIBILITY STUDY AND CONCEPTUAL DESIGN (NOACA NET ZERO COOL)” in the subject line. For items 1-6, the number of pages per section must not exceed the number detailed below. The largest file size attachment that may be emailed is 65mb. For file sizes larger than that, respondents must provide an FTP link with the file, including any necessary logins and passwords before the procurement deadline. Paper submissions will not be accepted.

Supplementary and/or reference material, may be submitted or referenced as a DVD, website, via FTP, or other media or means. Accessibility to any website or platform, including any login information and passwords must be provided. Such material or references, including authority to review such information (if client-proprietary, for example) must be made available by the procurement deadline indicated above. Any media that must be mailed shall be sent to the address below and shall be referenced in the pdf document containing Sections 1-6. (Any items mailed or sent via courier services must arrive before the procurement deadline to be considered as submission supplementary material.)

Submittals received for items 1-6, above, will be confirmed via email. Please call (216) 241-2414 if you do not receive an email response within 48 hours indicating that your submittal was received.

7.2 **Submittal Details**

Proposal package should include the following:

1. **Letter of interest** – Must be no more than 2 pages and include contact information and authorizing signature.
2. **Abstract** – The abstract will consist of a summary of the highlights contained in the proposal and will be a maximum of one page.
3. **Background and Experience** – This section will include background information on the applicant’s organization and shall give details of experience with similar projects. This may not be more than 5 pages.
4. Samples of work performed by the applicant related to previously implemented projects must be submitted (either a website or other media, or as supplementary material discussed above).

5. **Project Staffing and Organization** – Must be no more than 10 pages in length. This section should outline the qualifications and relevant experience of key staff members proposed to work on this project. It should identify these staff members’ experience with similar projects, and these staff members’ proposed roles on the project. Staff bios should be included in this section. After contract award, project staff changes must be approved by NOACA.

6. **Project Approach** – No more than 12 pages. This section shall discuss the vendor’s proposed project plan and approach that will be utilized to implement the scope of work outlined in this RFP, and include specific outputs and milestones. Can also include drawings.

7. **References** – No more than 1 page listing the most recent references from similar projects that include contact information.

8. **Cost Proposal** – Do NOT submit but have one prepared if selected.

9. **Supplementary and/or reference material** - Examples of past work performed for other clients that demonstrate the capability to develop such a design.

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8. **ADMINISTRATIVE PROCEDURES AND CONDITIONS**

A. Consultants agree not to discriminate against any employee or applicant for employment because of race, color, religion, age, creed, sex, sexual orientation or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Consultants further agree to comply with all requirements of Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d et seq., 49 C.F.R. Part 21.

B. The proposal, including price, shall be valid for at least nine months from the date of submission.

C. An RFP does not constitute an offer or a contract. No contract may be awarded without a resolution by the NOACA Board of Directors.

D. NOACA reserves the right to cancel or reissue the RFP or to revise the timeline at anytime.

   NOACA reserves the right to reject any and all proposals and to waive minor irregularities in the proposal process. NOACA may accept any proposal if such action is believed to be in the best interest of the agency.

E. NOACA is not liable for any cost incurred by the proposer prior to execution of a contract.
H. The contract between the successful proposer and NOACA shall include all documents mutually entered into specifically, including the contract instrument, the RFP and the response to the RFP. The contract must include, and be consistent with, the provisions stated in the RFP.

I. The prime consultant or system provider will be required to assume the responsibility for all services offered in the proposal regardless of whether directly performed by the prime consultant. Further, the prime consultant will be the sole point of contact for NOACA with regard to contractual matters.

J. The consultant project team shall be approved by NOACA. NOACA must approve any changes in the project team.

K. Any award of contract will be to the consultant or contractor that provides the highest value relative to costs.

L. Consultants must show proof of liability insurance.

M. NOACA reserves the right to cancel or reissue the RFP or to revise the timeline at anytime.

9. QUESTIONS

For questions regarding the RFP, please contact procurement@mpo.noaca.org. All questions must be submitted by email by noon on April 22, 2019. All answers will be publicly posted on www.NOACA.org.
NOTES:
1. THE NEW GAS SERVICE SIZE IS 3" AS RECOMMENDED BY EAST OHIO GAS CO.
2. EXISTING 1 1/2" WATER SERVICE TO BE ABANDONED IN ACCORDANCE WITH CITY OF CLEVELAND WATER DEPARTMENT REQUIREMENTS, WHICH REQUIRE DISCONNECTION AT CORPORATION STOP.

CUYAHOGA COUNTY 3G CATCH BASIN W/SUMP & TRAP

TYPICAL TRENCH DETAILS

- Premium Bowel and catch of course interlocking aggregate no. 4, 6, 7, 7E, 8, or
- Woodchips, crushed

- Clay liner and base of course interlocking aggregate no. 4, 7E, 8, 7, 8, or
- Woodchips, crushed

- Sump and catch of course interlocking aggregate no. 4, 7E, 8, 7, 8, or
- Woodchips, crushed

SCALE: 1" = 20'

N.O.A.C.A.
NORTHWEST OHIO AGENCY, COORDINATING AGENCY
200 MINT STREET, FIFTH FLOOR, CLEVELAND, OH 44113