



# TOWN OF BOONSBORO

21 NORTH MAIN STREET □ BOONSBORO, MARYLAND 21713

WWW.TOWN.BOONSBORO.MD.US □ 301-432-5141

## REQUEST FOR PROPOSALS

### Geographic Information System Survey & Modeling Services

The Town of Boonsboro (the Town), in accordance with its Charter, Article VII Section 719 - Purchasing and Contracts, is inviting eligible contractors to submit proposals to the Town. A contractor will be selected for negotiation based on the demonstrated competence and qualifications for the required work. Proposals will be received at the Town of Boonsboro, 21 N. Main St. Boonsboro, MD 21713 until Tuesday, February 8th, 2019. Award of the contract is subject to approval of the Park Board and the Mayor & Council of the Town of Boonsboro.

#### BACKGROUND

The Town of Boonsboro, Maryland is motivated annually to achieve reforestation and tree planting goals, thereby reducing stormwater-conveyed pollutants from entering local waterways and complying with the Town's Municipal Separate Storm Sewer System (MS4), Phase II Permit Requirements. In April of 2018, the Maryland Department of Environment (MDE) Water & Science Administration identified the Town of Boonsboro as the owner of a MS4, that is required to comply with the state's MS4 general permit, under the Federal Clean Water Act of 1972.

The permit became effective in October of 2018 and requires the development / management of stormwater management programs and the "restoration" of twenty percent of the total "impervious area" in Town Limits. Furthermore, pollutant load reductions, contributed by runoff created from the Town's impervious surfaces, are necessary to comply with the assumptions and requirements of the Environmental Protection Agency (EPA) Chesapeake Bay Total Maximum Daily Load (TMDL). The Town of Boonsboro is a tributary (12-digit Hydrologic Unit Code 020700041008: Dog Creek-Little Antietam Creek) of the Antietam Creek watershed (10-digit Hydrologic Unit Code 0207000410) that ultimately flows into the Potomac River.

The Town of Boonsboro is interested in using ArcGIS Online to develop internal dashboards, with supporting databases, for the Town's recently developed stormwater management program and public communication products to educate and involve the local community in the Town's environmental goals and state mandates. Internally, the Town has a primary need to report on MS4 stormwater permitting goals and manage stormwater assets. A physical survey including attributes such as expected lifespan, tree species, and condition assessments is needed to digitally locate and track tree plantings. Additional data modeling is needed to calculate current and future benefits of the tree canopy and locations where future tree plantings will provide the most environmental benefit. The physical survey and modeling information is needed for reporting of the treatment / restoration data needed for MS4 Permit compliance and grant opportunities. A stormwater dashboard is also needed to summarize MS4 classification and performance values, allow the Town to track and schedule maintenance, and provide data to support capital planning.

Publicly, the Town would like to promote its progress toward environmental and MS4 goals, through easy to understand and navigate story maps and other forward-facing applications. "Public Education" is an MS4 permit requirement and this project is an opportunity for the Town to become more digitally

transparent. The project's forward-facing applications should educate the public about responsible stormwater management, explain the purpose and requirements of the State's MS4 Permit, and communicate the Town's progress towards permit compliance. In addition, the Town would like to pilot a crowdsourcing application to involve residents in the process of physically surveying trees.

## **PROJECT TASKS**

The goal of this project is to develop ArcGIS Online internal tracking dashboards and public-facing communication products and utilize Town and County GIS data for MS4 requirement tracking / reporting. Internal tracking dashboards are needed for recent tree plantings and the Town's stormwater infrastructure GIS database. The Town's current data assets include a stormwater infrastructure database; however, a tree inventory database does not currently exist. This project will develop a tree inventory database and collect data points with the help of Town Volunteers. The project will also develop communication products to educate the local community on MS4 progress, tree planting efforts, and include crowdsourcing opportunities.

**TASK #1 - TREE INVENTORY:** Physical Survey and Development of ArcGIS Online Database(s), Internal Dashboards, and Public Communication Products.

- Conduct a project kickoff meeting with the Town Staff and Volunteers, to review areas where recent tree plantings have occurred and previous survey data that was collected in 2016. In addition, review available resources such as ArcGIS licenses and devices including GPS units. Together with Staff and Volunteers, goals for tree asset reporting and communication products will be developed, along with protocols and criteria for collection of tree asset data. This includes any ArcGIS Online database coordination such as developing the online database to be populated by ESRI Collector or Survey123 app.
- Design an inventory plan and timeframe for completion, with input from the Town Staff and Volunteers. Set up an ArcGIS Collector or Survey123 app for collection of tree asset data. Train Town Staff and Volunteers on use of the ArcGIS app and use of any devices needed to collect information.
- Review and QC data quality of tree asset database, during and after collection is complete.
- Conduct a follow-up meeting(s), with the Town Staff and Volunteers, to develop and finalize designs of internal MS4 tracking dashboard(s) and public-facing story map(s).
- Begin development of approved products. Include the Town Staff and Volunteers on milestone reviews and testing of products. Develop standard operating procedures, metadata, and other documents as training resources for Town Staff and Volunteers.

**TASK #2 - STORMWATER INFRASTRUCTURE DATABASE:** Develop Stormwater Infrastructure ArcGIS Online Internal Dashboards, and Public Communication Products.

- Conduct an initial meeting with the Town to review the stormwater infrastructure database and identify goals for long term tracking of maintenance, repairs, condition assessments, and other MS4 data points.
- Conduct a secondary meeting with the Town to develop designs of internal MS4 tracking dashboard(s) and electronic forms. Set a time frame for completion with input from the Town.
- Begin development on products. Include the Town on milestone reviews and testing of products. Develop standard operating procedures, metadata, and other documents as training resources for Town Staff and Volunteers.
- Provide field training for Town Staff on use of final products.

**SUBMITTAL FORMAT & REQUIREMENTS:** One (1) Copy of the bid proposal shall be submitted and include the following criteria:

- 1) An itemized scope of work and schedule of hourly rates.
- 2) Proposed Project Timeline with Interim Target Goals/Dates
- 3) Contractor/Company Qualifications, including licenses/certifications.
- 4) List of References

Inquiries & Receipt of Bid Proposals: Bids must be received by the Town of Boonsboro, either by mail or hand delivery, no later than \_\_\_\_\_, in a Sealed Envelope marked "Boonsboro GIS Survey & Modeling Services" at the following address. Any bids received after the above time will not be accepted, under any circumstances. Bids shall remain valid for 90 days. All bidders are notified that regarding any contract pursuant to this advertisement, businesses will be afforded full opportunity to submit bids in response to this notice and will not be subject to discrimination on the basis of gender, race, color, creed, sex, age, physical disability or national origin in consideration for an award.

Town of Boonsboro  
ATTN: Town Manager  
21 North Main Street  
Boonsboro, Maryland 21713

The Bids will be opened publicly and read aloud at 2:15 PM, \_\_\_\_\_, in the Town Hall Meeting Chambers, located at 21 North Main Street, Boonsboro, MD.

Bid proposals will be presented to the Mayor and Council of Boonsboro for final review and consideration for award of contract. Owner reserves the right:

1. To reject any or all Bids.
2. To waive any informality or irregularity in any Bid received.
3. To accept the Bid deemed by the Town of Boonsboro to be the most advantageous to its interests.

Thanks!  
Paul Mantello, Town Manager  
Town of Boonsboro

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