

Town of North Stonington, Connecticut

Request for Proposals for Color Digital Orthophotography

Issue Date:

March 6, 2015

Proposals Due:

March 13, 2015

STATEMENT OF PURPOSE

Under this Request for Proposals (RFP) the Town of North Stonington (hereafter referred to as "Town") would like to solicit proposals from vendors who are qualified to provide 1" = 100' color digital orthophotography. The imagery shall be at a scale of 1:100' and a pixel resolution of 0.25'. A minimum of 4 bands shall be captured. The data developed from this project will be incorporated into the municipality's existing Geographic Information System (GIS). The municipality intends to select a vendor and have a contract signed in time for the aerial imagery to be flown in the spring of 2015.

PROJECT BACKGROUND

Town of North Stonington
Total land area: 55 square miles
Population: Approx. 5,500

The Town of North Stonington maintains an enterprise Geographic Information System for use by town departments. The current system is managed in house by staff with annual updates of parcels outsourced. The town currently stores its geographic data in a Geodatabase. All planimetric and topographic data is in Shapefile or Geodatabase format. The Town of North Stonington currently utilizes color orthophotography at a scale of 1" = 100' acquired from a 2011 aerial flight.

SCOPE OF SERVICES

The products to be obtained through this solicitation are:

- Color aerial imagery
- Ground Control
- FAAT (Fully Analytical Aerial Triangulation)
- Development of color digital orthophotography (4 band minimum)

Overall Specifications for Aerial Imagery

The digital orthophotography shall comply with the American Society for Photogrammetry and Remote Sensing Accuracy Standards (ASPRS) for Class 1, large scale maps at 1" = 100'. Horizontal datum shall be the Connecticut State Plane Coordinate System NAD83 (feet). Vertical datum shall be the National American Vertical Datum of 1988 (NAVD88). Pixel Resolution shall be 0.25' GSD. A minimum of four bands shall be collected.

Project Area -The location and size of the project area have been defined in Attachment A. The photography must cover all grid cells in their entirety.

Conditions -The contractor shall take vertical photographs, free of clouds, cloud shadows, atmospheric haze and severe sun glare reflections with a minimum sun angle of 45 degrees or above. Imagery shall not be collected when the ground is obstructed by snow, smoke, dust, floodwaters, or other environmental factors. All deciduous vegetation shall be free of leaves and streams shall be within their normal banks.

Spacing of Photographs - Overlapping photographs in each flight line shall provide full stereo coverage of the area mapped. Endlap shall average 60 percent and not be less than 55 percent and no more than 65 percent. Sidelap shall average 25 percent and not be less than 20 percent and no more than 40 percent. Photographic crab shall be reduced to a minimum and shall not exceed 5 degrees for any flight line. Both Tilt and Roll shall not exceed 5 degrees.

Re-flights -Unacceptable coverage resulting from deviation from flight plan shall be immediately corrected at the vendor's expense.

Pixel Ground Resolution - The vendor shall capture imagery at a scale where 0.25 ft ground sample distance (GSD) can be achieved.

Overlap - Images will edgemark with no overlap or underlap.

Tonal/Color Balancing - Each image shall be balanced to adjacent orthophotos to the highest extent.

QA/QC for Aerial Imagery - As soon as the aerial imagery has been taken, it must be inspected for cloud, snow, shadow, color or any aforementioned variables. The imagery must then be inspected for sidelap, endlap and crab. A QC summary report shall be provided within two (2) weeks of the date of the photography.

Aerial Imagery Deliverables

Upon completion of the project, the vendor shall provide an ortho rectified imagery in the following formats:

- A seamless, color-balanced mosaic of the entire project area in MrSID format. The compression ratio shall be 40:1, or whatever the vendor deems most appropriate.
- Individual uncompressed TIFF tiles, with accompanying world files, as defined in Attachment A. Each tile will be numbered in correspondence with the sheet grid.
- Individual compressed tiles, with accompanying world files, as defined in Attachment A. Each tile will be numbered in correspondence with the sheet grid. The compression should be at a ratio of 40:1.

Overall Specifications for Ground Control and Photogrammetry

The vendor will conduct all ground control to produce the products described herein. It will be the responsibility of the vendor to verify the validity.

Ground Control

Ground control shall meet ASPRS Class 1 Accuracy Standards. The vendor shall provide the description and location sketch of all measured and adjusted coordinate values in a hard-copy report and digital format. The vendor's proposal shall address the number and type ground control points planned to meet the accuracy specification. The plan shall address the extent to which the existing Ground Control will be used in this project.

The procedures shall address:

- Horizontal Control
- Vertical Control
- Tie-ins to existing NGS Points
- Use of existing ground control
- Use of other existing control
- Survey methods, including use of field crews, GPS and other techniques.

Ground Control Deliverables

The resultant ground control will be delivered as a ground control report. If existing ground control is utilized, the vendor shall provide a report verifying the location and existence of each location.

The ground control report should include:

- The ground control field book(s)
- A map showing the ground control station locations with numbers accurately referencing the appropriate features in the ground control field notebook.
- A digital data layer (ESRI File Geodatabase or Shapefile) containing the ground control points along with permanent attributes (e.g. X, Y, Z, type of point, etc.)

Fully Analytical Aerial Triangulation (FAAT) Technical Requirements

Fully Analytical Aerial Triangulation (FAAT) will be used to densify ground control. The vendor's proposal shall describe the expected positional accuracy of the horizontal and vertical control. A step-by-step discussion of the procedures and equipment used for the FAAT shall be included in the vendor's proposal.

This discussion shall also describe:

- Use of pugging
- Use of passpoints
- Use of diapositives
- Quality Control
- Point Mensuration
- Software programs and methodologies for processing

FAAT Deliverables

The vendor shall submit an aerial triangulation report at the completion of the FAAT step.

PROPOSAL SUBMITTAL AND SELECTION GUIDELINES

Interested vendors shall submit one (1) copy of the Technical and Cost proposals in sealed envelope. The envelope shall be clearly labeled as follows:

Digital Orthophotography Project - 2015

<<DATE>>

<<FIRM NAME>>

All proposals must be received no later than 2:30 p.m. on March 13, 2015 at the Address Below:

North Stonington IT/GIS Department
40 Main Street
North Stonington, CT 06359

ATTENTION: Digital Orthophotography Project - 2015

Additionally an electronic version of both the cost and technical proposals, in a standard format such as Adobe Acrobat PDF, shall be provided on one CD-ROM or flash drive.

Each vendor assumes full responsibility for delivery of the completed proposal on or prior to the deadline. Any proposal received after the appointed time and date will not be considered. All clarifications and any additional information will be provided in the form of written addenda.

Such addenda will become part of the RFP, and, therefore, will be considered as part of the binding contract. Addenda will be posted to the town website on the "RFQ / RFP / Bids" page.

Proposal Submission

Proposals shall include the following:

- A project approach description that covers the entire Scope of Services as described below, including a description of how quality control measures are conducted.
- A timetable or timeline showing key milestones and progress
- The vendor must have at least 3 years experiences in aerial imagery and photogrammetry.
- A listing of similar projects completed by the vendor within the past 3 years with reference information (name, address, phone, etc.) for a representative for each of their clients. At least one of these references must have involved town-wide mapping for a municipality.
- Clear enumeration of any sub-contractors that will be working on the project, and their roles. The Town requires that all work be done in the United States.
- Corporate Qualifications and financial stability (Balance sheet/income statement for most recent fiscal year)
- Staff resumes for individuals who will be working on this project.
- The proposal shall not use excessive or unexplained technical jargon

Inquiries

All inquiries regarding this RFP must be in writing and must be postmarked or delivered prior to the submission date. Acceptable forms of contact include U.S. Mail, Fax, and Email. Phone calls will not be accepted.

The point of contact for all technical questions is listed below:

Marc Tate, IT/GIS Coordinator
 40 Main Street
 North Stonington, CT 06359
 or
 mtate@NorthStoningtonCT.gov

Selection Process

Proposals will be evaluated based on the following criteria - listed in no specific order:

- Overall Plan of Services / Proposal
- The proposal shall be organized in a logical order using appropriate technical knowledge.
- The proposal shall not use excessive or unexplained technical jargon.
- The proposal shall demonstrate an excellent understanding of the needs.
- Vendor's background
- Past vendor performance
- Vendor's references
- Technical evaluation and approach
- Ability to meet project schedule
- Quality Assurance / Quality Control measures
- Guarantee of work and timeliness

Vendors will be short-listed based upon the above criteria. The town reserves the right to reject any and all proposals, to waive technical and minor defects, and make an award for what they deem to be in the best interest of the Town.

Special Considerations

The project area shares many environmental and industrial variables that should be considered when proposing on this project. Vendors should take the following into consideration. Because the project area is mainly a coastal region, vegetation begins to bloom earlier in the spring season than that of inland areas. Vendors should take this into consideration when developing their timeline.

GENERAL CONDITIONS PERTAINING TO THIS PROJECT

Quality Assurance/Quality Control

The vendor shall conduct quality assurance/quality control checks during all phases of the project. The vendor's proposal shall describe each of these checks, and which team member or staff person will be conducting the QA/QC. The proposal shall be specific and not generalize the QA/QC "philosophy" of the firm.

Acceptance of Deliverables and Quality Assurance/Quality Control

The Town will subject interim and final deliverable products to a series of visual, digital, and accuracy checks. These checks will be the basis for accepting or rejecting the products, and may include, but will not necessarily be limited to, the following:

- Ability to access digital files in ESRI software
- Visual inspection of digital orthophotography for color consistency, overlap/ underlap, and building lean.

Products with missing data, gross errors, poor edgemark, poor color balance, incorrect attributes, and/or formatting errors will be returned to the vendor for correction

Project Management, Scheduling & Meetings

The vendor shall indicate in the proposal who the main point of contact will be and how the overall project coordination, tracking and management will be achieved.

The Town anticipates a series of meeting with the winning vendor, as follows:

- Kick-off meeting
- Post-Flight report
- Final Delivery/Project wrap-up meeting

The vendor's proposal shall include these meetings as milestones in the project schedule. If the vendor feels that more meetings are necessary, this should be indicated in the proposal and justified.

Ownership of Deliverables

The Town will retain exclusive ownership of their respective deliverables developed under this contract. The Town retains the right to redistribute and/or sell the deliverables without additional compensation to the vendor.

Contractor's Insurance Required

All bidders must carry insurance under which the Town North Stonington is named as an additional insured, as follows:

A. Worker's Compensation – as required by State statute.

B. Commercial Liability as follows:

\$5,000,000 – General Aggregate

\$5,000,000 – Products Completed Operations Aggregate

\$5,000,000 – Personal & Advertising Injury

\$5,000,000 – Each Occurrence Bodily Injury & Property Damage

\$100,000 – Fire Damage, Any One Fire

\$5,000 – Medical Payments, Any One Person Including Explosion Collapse & Underground

C. Automobile Liability: \$5,000,000 combined Single Limit Bodily Injury & Property Damage

Such insurance must be by insurance companies licensed to write such insurance in the State of Connecticut against the above risks and in the amounts indicated. All insurance must provide for a thirty (30) day notice to the Town of Cancellation or restrictive amendment.

Certificates of Insurance do not have to be submitted as part of the bid; however they must be submitted to the First Selectman within ten (10) days after the Notification of Award.

Failure to provide and to keep current the required insurance and certificates may be held to be a willful and substantial breach of this Contract.

Indemnification

The vendor shall indemnify, hold harmless, and defend the Town from and against any and all liabilities, claims, penalties, thereto, including but not limited to, costs of defense settlement, and reasonable attorney's fees, which may be alleged against the Town, become responsible for, or pay out as a result of death, bodily injury to any person, damage to or destruction of any property, contamination of or adverse effects on the environment or any violation or alleged violation of governmental law, regulation, order caused by, arising out of, or in any manner connected with his provision of services to the municipality. The vendor shall be liable for and shall indemnify the municipality from and against any

injury or loss whatever resulting from the negligent act or omission of any employee or agent of the vendor or from the failure of or inadequacy of any of the Contractor's equipment.

Performance and Labor & Materials Bond

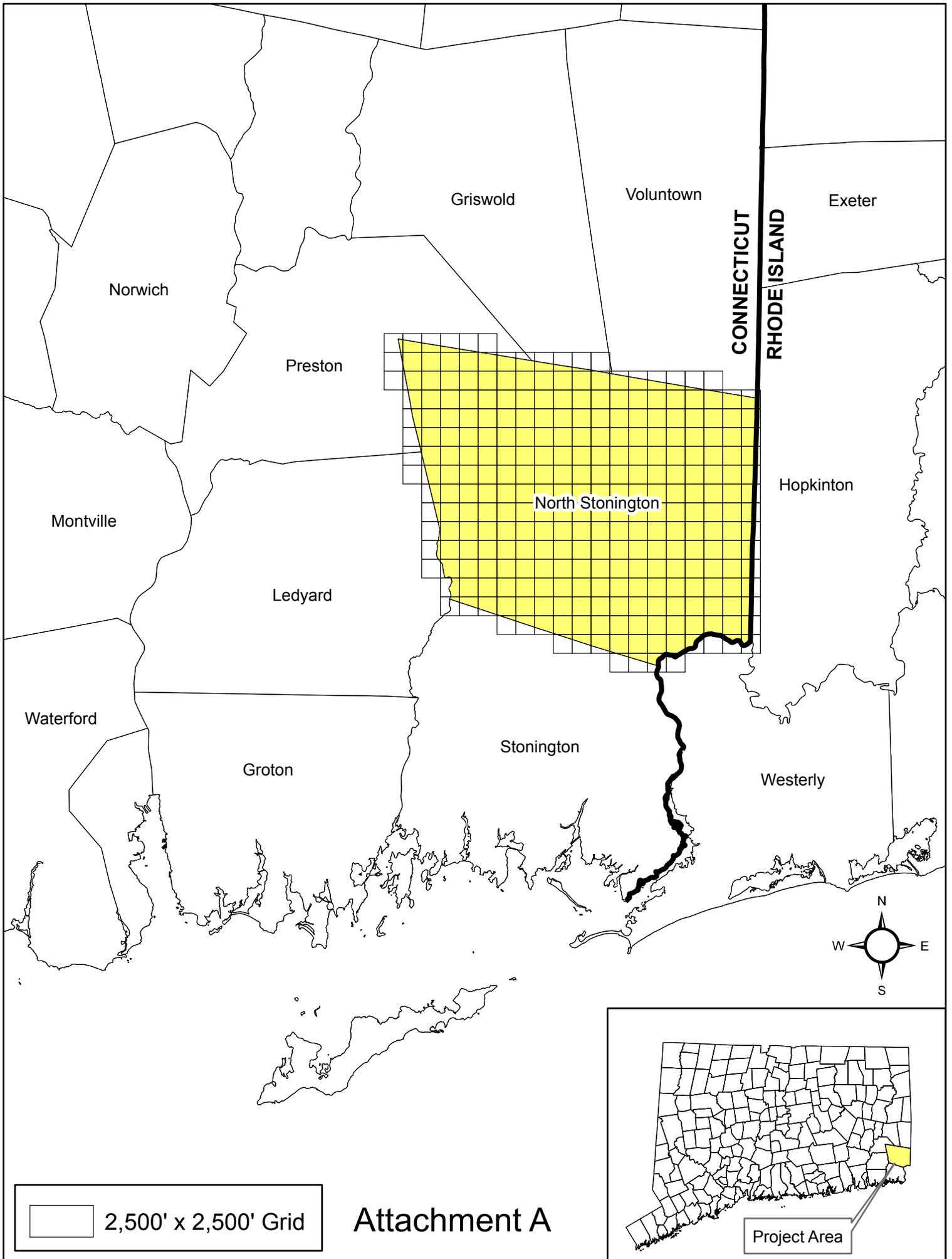
A Performance Bond in the full amount of the bid and a Labor and Materials Bond in the same amount will be required from the successful bidder for the faithful performance on the Contract if the contract amount is greater than twenty thousand (\$20,000) dollars. The Bonds must be in favor of the municipality and executed by a Surety Company authorized to do business in the State of Connecticut. In lieu of the above Bonds, alternate surety in the same amount, in the form of a secured passbook, if acceptable to the municipal Treasurer, may be substituted. The security must be posted and accepted within thirty (30) days of the notification of award and prior to the commencement of any work under the contract.

Equal Opportunity & Affirmative Action

The Town is an Affirmative Action/Equal Employment Opportunity Employer. The Town and the Contractor shall comply with the regulations of the United States Department of Transportation (Title 49, Code of Federal Regulations, Part 21), issued in implementation of Title VI of the Civil Rights Act of 1964, 78 Statute 252, 42 United States code 2000d to 2000d-4. Further, the Town and the Contractor warrant that in the performance of this project, it will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex or physical disability, including, but not limited to blindness, unless it is shown to be that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States, or the State of Connecticut and further agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission concerning the employment practices and procedures of the Town and the Contractor as related to the provisions of this section. (Section 4-114a of the General Statutes of Connecticut as revised.)

Termination

This Agreement may be terminated by either Party provided thirty (30) days written notice is given to the other before the effective date of termination. Such notice shall contain the reasons for the intention to terminate this Agreement. In the event of such termination, Contractor shall be entitled to receive reasonable compensation for all work performed and items delivered and accepted by the Town as of the termination date and the Town shall be entitled to a refund of any unearned funds paid in advance to the Contractor. In the event of such termination, both Parties shall continue to be bound by all obligations set forth in this Agreement arising prior to the date of termination, in connection therewith, and/or obligations, promises, and/or covenants of this Agreement set forth below. If the contract is terminated, the Contractor is required to return all confidential information to the Town.



CONNECTICUT
RHODE ISLAND

Griswold

Voluntown

Exeter

Norwich

Preston

North Stonington

Hopkinton

Montville

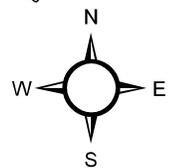
Ledyard

Waterford

Groton

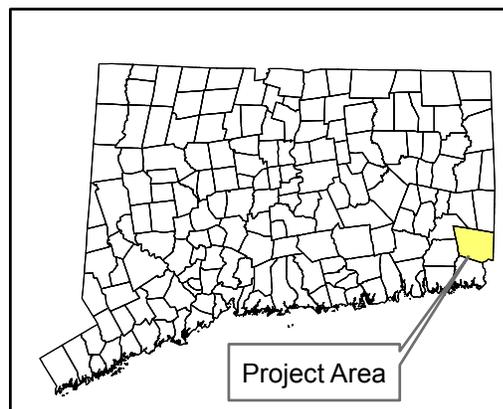
Stonington

Westerly



2,500' x 2,500' Grid

Attachment A



Project Area