



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

Bureau of Planning and Community Assistance
November 19, 2014

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

- (1) Authorize the Department of Transportation (DOT) to enter into a **Sole Source** joint funding agreement with the United States Geological Survey (USGS) (Vendor 175772) Pembroke, NH, United States Department of the Interior in the amount not to exceed \$609,041 for statewide high-resolution aerial orthoimagery, effective upon Governor and Council approval through September 30, 2016. The Department of Transportation will provide \$459,041 of the contracted amount. 100% Federal Funds.
- (2) Authorize the Department of Safety (DOS) to provide the Department of Transportation (DOT) funding in the amount of \$150,000 for the remaining contract amount for statewide high-resolution aerial orthoimagery, effective upon Governor and Council approval through September 30, 2016. 100% Other Funds (E911).

Funding is available as follows for FY 2015 and is contingent upon the availability and continued appropriation of funds for FY 2016.

	<u>FY 2015</u>	<u>FY 2016</u>
(1) Department of Transportation		
04-96-96-962515-2944	\$225,000	\$84,041
SPR Planning funds		
046-500464 Gen Consultants Non-Benefit		
04-96-96-963515-3054		
Consolidated Federal	\$150,000	\$0
046-500464 Gen Consultants Non-Benefit		
(2) Department of Safety		
01-02-023-33280000-3328 NHV Department of Safety		
Bureau of Emergency Communication	\$0	\$150,000
039-500189 Wireless Data		
Total	\$375,000	\$234,041

EXPLANATION

This Joint Funding Agreement is **sole source** because USGS is uniquely qualified to provide the statewide high-resolution aerial orthoimagery services the DOT is requesting. USGS has comprehensive knowledge and experience in orthoimagery data collection and data quality assurance and quality control (QA/AC). USGS also has strong working relationships with qualified vendors through their Geospatial Product and Service Contracts (GPSC).

DOT requests to enter into a joint funding agreement with USGS to obtain statewide high-resolution, one-foot pixel resolution aerial orthoimagery. Orthoimagery will provide to the state aerial photography that is compatible with the State, municipal, and federal Geographical Information Systems (GIS) and Global Position Satellites (GPS) technologies. The orthoimagery meets the technical requirements and specifications of the Department, and USGS's National Map Program. This program supports effort among the USGS and other Federal, State, and local transportation planning partners to improve and deliver topographic information for the State and the Nation.

DOT will integrate the orthoimagery as a statewide GIS layer for mapping, transportation planning, land use/land cover analysis, wetland evaluation, and general reference. The Department of Safety, Division of Emergency Services & Communications will use the orthoimagery GIS layer to enhance the development and maintenance of their 9-1-1 GIS map, upgrade the current imagery in NHVIEWW from 2010, improve their ability to support Department of Safety and local public safety agencies planning and operational activities, and provide improved support for emergency management in disaster operational support and recovery. The Department of Revenue Administration will use the orthoimagery GIS layer in the development of a redundant statewide equalization/property appraisal system. DOT uses the property appraisal system's mapping feature (Mosaic Parcel map) to support project development.

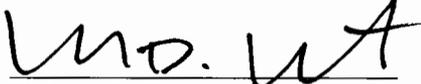
USGS will select a qualified vendor to perform the orthoimagery data collection through their Geospatial Product and Service Contracts (GPSC). USGS will administer data quality assurance and quality control (QA/AC), and manage data deliverables. The GPSCs are awarded to qualified vendors through federal government solicitation. Current solicitation 09CR14-NoSolicitation was issued March 3, 2009 (See attached). Qualified consultants are selected in accordance with Public Law 92-528 (Brooks Act) and FAR 36.6 - Architect-Engineering Services (See attached), which establishes a qualifications-based selection process, in which contracts for Architectural and Engineering services are negotiated on the basis of demonstrated competence and qualification for the type of professional services required at a fair and reasonable price. Vendor selection is based on the following 6 criteria (1) Professional qualifications necessary for satisfactory performance of required services; (2) Specialized experience and technical competence in the type of work required; (3) Capacity to accomplish the work in the required time; (4) Past performance on contracts with Government agencies and private industry in terms of cost control, quality of work, and compliance with performance schedules; (5) Location in the general geographical area of the project and knowledge of the locality of the project and (6) Acceptability under other appropriate evaluation criteria. This process is aligned with the DOT's consultant RFP and selection process.

USGS can accomplish this work for a total fee not to exceed \$609,041 (75% Federal Funds, 25% Other). The Department of Transportation and Department of Safety will jointly fund this project. The FHWA portion 100% (\$459,041) is Federal Aid (involving SPR Planning and Consolidated Federal-HSIP) with the remaining portion 100% Other Funds (\$150,000) from the Department of Safety – Bureau of Emergency Communication.

The agreement has been approved by the Attorney General as to form and execution, and the DOT has verified that the necessary funds are available. Copies of the fully executed agreement are on file at the Secretary of State's office and the Department of Administrative Services office, and, subsequent to Governor and Council approval, will be on file at the Department of Transportation.

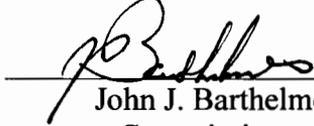
It is respectfully requested that authority be given to enter into a joint funding agreement USGS, as detailed in the Requested Resolution.

Sincerely,



Christopher D. Clement, Sr.
Commissioner

Sincerely,



John J. Barthelmes
Commissioner

Form 9-1366
(Oct. 2005)

**U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

JOINT FUNDING AGREEMENT

FOR

New Hampshire Statewide Ortho Coverage

Customer #:
Agreement #:
Project #:
TIN #: 02-6000-618
Fixed Cost
Agreement NO

THIS AGREEMENT is entered into as of the, day of November, 2014 by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the New Hampshire Department of Transportation, party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation a project to acquire and conduct quality assurance on statewide high-resolution digital orthophotography covering the state of New Hampshire (see attached statement of work) herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50; and 43 USC 50b.
2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) includes In-Kind Services in the amount of \$0.00
 - (a) by the party of the first part during the period

Amount	Date	to	Date
\$0.00	October 1, 2014		September 30, 2016
 - (b) by the party of the second part during the period

Amount	Date	to	Date
\$609,041.00	October 1, 2014		September 30, 2016
 - (c) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.
 - (d) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.
3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

9-1366 (Continuation)

Customer #:

Agreement #:

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.
8. The maps, records, or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records, or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program and, if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at costs, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records, or reports published by either party shall contain a statement of the cooperative relations between the parties.
9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered monthly, based on actual expenses, independent of product delivery. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983).

**U.S. Geological Survey
United States
Department of the Interior
USGS Point of Contact**

Name: Lin Neifert
Address: 331 Commerce Way, Suite 2
Pembroke, NH 03275

Telephone: (802) 522-8275
Email: lineifert@USGS.gov

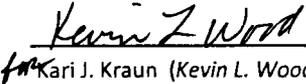
New Hampshire Department of Transportation

Customer Point of Contact

Name: Glenn Davison
Address: Bureau of Planning and Community Assistance
JOM Building
PO Box 483 | 7 Hazen Drive
Concord, NH 03302-0483

Telephone: (603)271-7145
Email: gdavison@dot.state.nh.us

Signatures and Date

Signature:  Date: 8-19-14
Name: ~~for~~ Kari J. Kraun (Kevin L. Wood, Acting Director)
Title: Director, NGTOC, US Geological Survey

Signature:  Date: 11/25/14
Name: William Cass
Title: Director Project Developmant, NH Departme...

**PROJECT DESCRIPTION FOR THE ACQUISITION OF
DIGITAL ORTHOIMAGERY BETWEEN
USGS, NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER
AND
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
AUGUST 2014**

I. Purpose:

Acquire and conduct quality assurance on statewide high-resolution digital orthophotography covering the state of New Hampshire for the U. S. Geological Survey (USGS) and the New Hampshire Department of Transportation (NHDOT). The area covered by this agreement is 9,391 square miles, representing a 1000' buffer around the State of New Hampshire.

This joint funding agreement will allow the New Hampshire Department of Transportation to contribute funds to cover the cost of the necessary field analytical work directly related to this effort. USGS will select a qualified vendor to perform the orthoimagery data collection through their Geospatial Product and Service Contracts (GPSC). USGS will administer a contract to conduct data quality assurance and quality control (QA/AC), and will manage data deliverables. The GPSCs are awarded to qualified vendors through federal government solicitation. Qualified consultants are selected in accordance with Public Law 92-528 (Brooks Act) and FAR 36.6 - Architect-Engineering Services (See attached), which establishes a qualifications-based selection process, in which contracts for Architectural and Engineering services are negotiated on the basis of demonstrated competence and qualification for the type of professional services required at a fair and reasonable price. Vendor selection is based on the following 6 criteria (1) Professional qualifications necessary for satisfactory performance of required services; (2) Specialized experience and technical competence in the type of work required; (3) Capacity to accomplish the work in the required time; (4) Past performance on contracts with Government agencies and private industry in terms of cost control, quality of work, and compliance with performance schedules; (5) Location in the general geographical area of the project and knowledge of the locality of the project and (6) Acceptability under other appropriate evaluation criteria. This process is aligned with the Department's consultant RFP and selection process.

II. Background:

NHDOT and USGS seek to establish a relationship for cooperating in the development and maintenance of geographic data. Such a cooperative relationship is essential for the development of the National Spatial Data Infrastructure (NSDI), including *The National Map (TNM)* in this area. The highest priority activity for *TNM* is the collection of high-resolution data, including orthophotography, in urban areas. NHDOT has a need for updated imagery data. This partnership will result in products that meet the needs of both parties while eliminating redundancy in the collection of the data.

III. Specifications:

Area of Coverage: State of New Hampshire and 1000' buffer (flight area shown in attached map)

Imagery Source Data: Flown during the spring leaf-off season of 2015 (4/1-5/1).

Resolution: Statewide 12 inch pixel resolution or ground sample distance

Projections: State Plane

Horizontal Datum: NAD-83, HPGN

Horizontal Accuracy: All orthoimagery shall have 95% (NSSDA Confidence Interval) of all well-defined points tested fall within the specified distance listed below of true ground:

Ground Sample Distance (GSD)	Horizontal Accuracy
30 centimeters	1.52 meters

Alignment: Misalignment of transportation features between adjacent image chips/tiles shall not exceed 3 times the GSD.

Imagery Type: Natural color and infrared

Format: Geotiff and MrSID

Tiling: 5,000 ft x 5,000 ft, State Plane Coordinate System, an index sheet and shapefile suitable for loading shall accompany tiles into ArcGIS.

IV. Scope of Work

USGS will:

- Be responsible for administering the contract for acquiring the aerial imagery and the production of digital orthophotography.
- Be responsible for administering the contract for conducting control control/quality assurance for all deliverables.
- Make the data viewable through the Seamless Server and *The National Map*.
- All data collected will be Public Domain.

V. Deliverables:

USGS will:

- Make digital orthophotography available for unlimited viewing and downloads.
- Provide NHDOT with one copy of the raw images for stereo viewing, the orthophotographs in geotiff format, and compressed versions of the orthophotographs in MrSID format (using 20:1 compression ratio), meeting the above specifications on a mutually agreed upon media.
- Provide NHDOT with tile-level FGDC compliant metadata for the delivered data.
- Deliver finished products to NHDOT upon completion.

USGS Delivery to:		NHDOT Delivery to:
Lin Neifert	Name	Glenn Davison
US Geological Survey		NHDOT
331 Commerce Way, Suite 2	Address	7 Hazen Drive P.O. Box 483
Pembroke, NH 03275-3718		Concord, NH 03302-0483
802-522-8275	Telephone	603-271-7145
lineifert@usgs.gov	E-Mail	GDavison@dot.state.nh.us

VI. Financial Arrangements:

Funding for this agreement in the amount of \$609,041 will be provided by NHDOT. This amount represents the following components:

Component	Estimated Cost
Image Data – geotiffs and MrSID	\$504,373
Quality Assurance Subcontract (15%)	\$ 75,666
Subtotal	\$580,039
USGS Assessment (5%)	\$ 29,002
Tpta;	\$609,041

This Statement of Work does not constitute a financial commitment on the part of USGS.

VII. Termination:

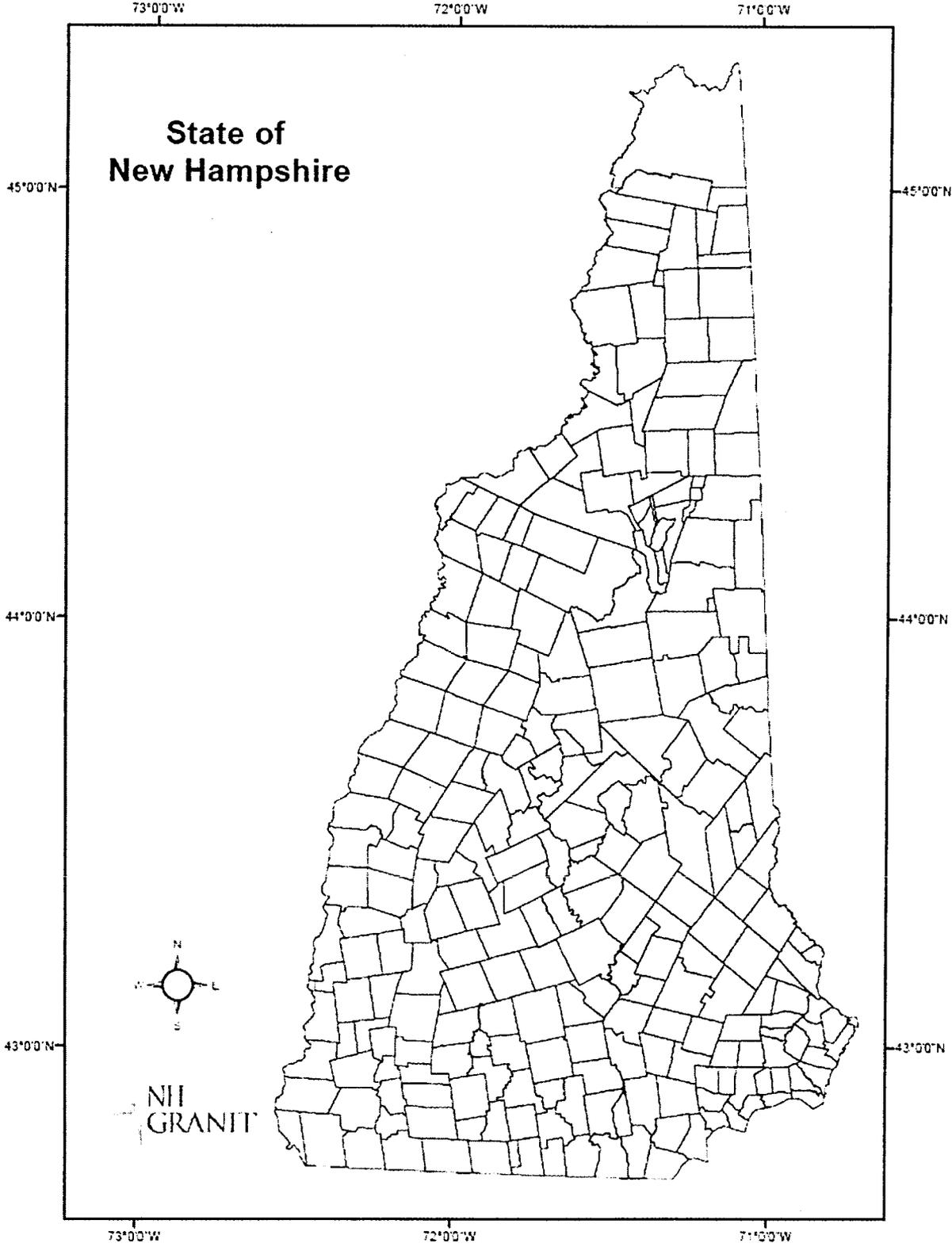
The agreement will terminate on September 30, 2016, but may be amended at any time by mutual consent of the parties. Any party may terminate this agreement by providing 60 days written notice to the other party. When an accepted agreement is cancelled by NHDOT, the USGS is authorized to collect costs incurred prior to cancellation of the agreement plus any termination costs.

USGS Financial Contact:		NHDOT Financial Contact:
Jim Almekinder	Name	Glenn Davison
US Geological Survey		NHDOT
1400 Independence Road, MS 317	Address	7 Hazen Drive P.O. Box 483
Rolla, MO 65401		Concord, NH 03302-0483
573-308-3549	Telephone	603-271-7145
jalmekinder@usgs.gov	E-Mail	GDavison@dot.state.nh.us

VIII. Technical Contacts:

USGS Technical Contact:		NHDOT Technical Contact:
Lin Neifert	Name	Fay Rubin
US Geological Survey		Earth Systems Research Center, University of New Hampshire
331 Commerce Way, Suite 2	Address	8 College Rd.
Pembroke, NH 03275-3718		Durham, NH 03824
802-229-4384	Telephone	603-862-4240
lineifert@usgs.gov	E-Mail	fay.rubin@unh.edu

Figure 1: Map showing extent of project area.



Approved by Attorney General

By: 

Date: 12/11/14

Title: Asst. Attorney General

Approved by Governor and Council

By: _____

Date: _____