



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



March 1, 2018

His Excellency, Governor Christopher T. Sununu
and The Honorable Council
State House
Concord, NH 03301

REQUESTED ACTION

Authorize the New Hampshire Department of Environmental Services (NHDES) to enter into a **SOLE SOURCE** Cooperative Project Agreement with University of New Hampshire, Sponsored Programs Administration (VC# 177867-B046), Durham, NH, in the amount of \$14,487, to construct a web mapping interface that provides tools for users to sketch online and attribute historic stone walls based on LIDAR data sets, effective upon Governor and Council approval through December 31, 2018. Funding is 100% Federal Funds.

Funding is available in the account as follows:

	<u>FY 2018</u>
03-44-44-440010-3852-0102-500731	\$14,487
Department of Environmental Services, State Mapping Program, Contract for Program Services	

EXPLANATION

NH Geological Survey (NHGS), a unit within the Commissioner's Office of the NH Department of Environmental Services, has been one of the leaders in promoting and using geospatial data in ways that provide societal benefits. NHDES was instrumental in securing funding to acquire high-resolution land surface elevation data (LiDAR) statewide, representing an investment of more than \$2 million of combined state and federal funds. The statewide LiDAR elevation dataset is far superior to any that has previously existed for New Hampshire. NHGS has a longstanding interest in digital terrain analysis and landform mapping. Stone walls represent a special and defining feature of the New Hampshire landscape. This request is to expand the awareness and use of this unprecedented LiDAR data resource by creating a crowdsourcing opportunity for students and other interested individuals to map the state's historic stone walls. NHGS has been working with the Division of Historical Resources in the Department of Natural and Cultural Resources to advance mutual interests in landform identification and mapping. This agreement to develop the required web mapping interface is **SOLE SOURCE** because the NH GRANIT project at the University of New Hampshire Earth Systems Research Center (UNH-ESRC) is recognized as New Hampshire's Statewide Geographic Information System (GIS) Clearinghouse and GRANIT currently hosts and distributes the state's LiDAR elevation dataset. This request applies to an agreement that is below the \$25,000 threshold because the cumulative total of contracts with UNH-ESRC for FY 2018 exceeds the threshold amount.

The full potential of the LiDAR elevations to serve the needs and interests of many different end users is dependent on easy access to the datasets in formats that can be readily interpreted and consumed. A web-based mapping interface based on LiDAR visualizations of the NH landscape will enable interested individuals to identify and map stone walls. This mapping interface will be designed for easy use without any special knowledge of geospatial data processing or GIS technology. Only access to a web browser and the internet will be needed. NH GRANIT will serve as the developer and host of the crowdsourcing application. NHGS will facilitate participation by the volunteers and monitor initial submissions. The proposed project will capitalize on public interest in NH's stone walls as demonstrated by the participants in a pilot mapping effort begun in January 2017 as a proof of concept.

Detailed maps of stone walls throughout the state will provide an inventory that will facilitate efforts by the state and local communities to monitor and preserve these iconic symbols of our shared heritage. Furthermore, the experience of viewing the landscape from a new and novel perspective (LiDAR) will enliven curiosity about other landforms within local landscapes and stimulate exploration into their origins and geologic past. People will be invited to view their everyday landscapes from a different perspective, both in time and space, and develop a lasting interest in history and geology. A successful project will expand appreciation of NH's settlement history among residents and visitors alike, while providing an educational opportunity in middle and high school to combine lessons in remote sensing (LiDAR) and GIS with place-based and local histories.

The agreement has been approved as to form, substance, and execution by the Office of the Attorney General.

We respectfully request your approval.



Robert R. Scott
Commissioner

COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE,

Department of Environmental Services

and the

University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, **Department of Environmental Services**, (hereinafter "State"), and the University System of New Hampshire, acting through **University of New Hampshire**, (hereinafter "Campus"), for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective date") and shall end on **12/31/18**. If the provision of services by Campus precedes the Effective date, all services performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

Project Title: **NH Stonewall Mapping Project**

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

State Project Administrator

Name: Frederick H. Chormann, Jr.
 Address: NH Dept of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095
 Phone: 603-271-1975

Campus Project Administrator

Name: Lisa Scigliano
 Address: University of New Hampshire
Sponsored Programs Administration
51 College Rd. Rm 116
Durham, NH 03824
 Phone: 603-862-0529

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports and related correspondence shall be directed to the individuals so designated.

State Project Director

Name: Frederick H. Chormann, Jr.
 Address: NH Dept of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095
 Phone: 603-271-1975

Campus Project Director

Name: Fay Rubin
 Address: Earth Systems Research Center
Morse Hall, Room 447
26 College Road
Durham, NH 03824
 Phone: 603-862-4240

F. Total State funds in the amount of \$14,487 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

Campus will cost-share _____ % of total costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. _____ from _____ under CFDA# _____. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as a part of this Project Agreement.

G. Check if applicable

Article(s) _____ of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

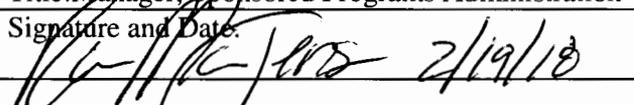
H. State has chosen **not to take** possession of equipment purchased under this Project Agreement.
 State has chosen **to take** possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the **University of New Hampshire** and the State of New Hampshire, **NH DES** have executed this Project Agreement.

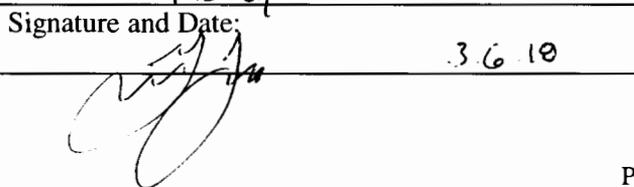
**By An Authorized Official of:
University of New Hampshire**

Name: Karen M. Jensen
Title: Manager, Sponsored Programs Administration
Signature and Date:

 2/19/18

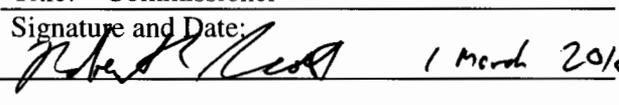
**By An Authorized Official of: the New
Hampshire Office of the Attorney General**

Name: Gordon L. Langdon
Title: Attorney
Signature and Date:

 3.6.18

**By An Authorized Official of:
NH Dept of Environmental Services**

Name: Robert R. Scott
Title: Commissioner
Signature and Date:

 1 March 2018

**By An Authorized Official of: the New
Hampshire Governor & Executive Council**

Name:
Title:
Signature and Date:

EXHIBIT A

A. Project Title: NH Stonewall Mapping

B. Project Period: upon G&C approval-12/31/18

C. Objectives:

D. Scope of Work: GRANIT staff at Earth Systems Research Center (ESRC) will construct a web mapping interface that presents various LIDAR data sets to users for their visual interpretation, and provides tools for users to sketch online and attribute stone walls based on those LIDAR data sets. The site will allow for “crowd-sourcing”, e.g. it will be available for public use with no log-in credentials required. GRANIT staff will also participate in project meetings, and assist in the development of the data sets displayed in the mapping interface.

E. Deliverables Schedule:

F. Budget and Invoicing Instructions: Campus will submit invoices to State on regular Campus invoice forms no more frequently than monthly and no less frequently than quarterly. Invoices will be based on actual project expenses incurred during the invoicing period, and shall show current and cumulative expenses by major cost categories as shown below. State will pay Campus within 30 days of receipt of each invoice. Campus will submit its final invoice not later than 60 days after the Project Period end date.

Budget Items	State Funding	Cost Sharing (if required)	Total
1. Salaries & Wages	7,069	0	7,069
2. Employee Fringe Benefits	2,976	0	2,976
3. Travel	0	0	0
4. Supplies and Services	670	0	670
5. Equipment	0	0	0
6. Facilities & Admin Costs	3,772	0	3,772
Subtotals	14,487	0	14,487
In Kind Contribution		0	0
Total Project Costs:			14,487

EXHIBIT B

Not Applicable