NH GRANIT
Town Boundary Monument Catalog

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Complex Systems Research Center
University of New Hampshire
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Presentation Outline

- GRANIT Data Mapper: http://mapper.granit.unh.edu

- GRANIT Town Boundary Monument Catalog: http://boundary.granit.unh.edu
  - Purpose of Site
  - Overview of Functionality
  - Submitting Data
  - Viewing Data
There were no features in any active layers for the area you identified.
GRANIT Data Mapper: mapper.granit.unh.edu
Town Boundary Monument Catalog:
http://boundary.granit.unh.edu

NH GRANIT Town Boundary Monument Catalog

Welcome to the NH GRANIT Town Boundary Monument Catalog, a statewide inventory of spatially referenced town monuments.

Objectives:
The primary objectives of the site are to:

- Build, document, and maintain a GIS-based inventory of town boundary monuments in New Hampshire.
- Provide a comprehensive resource to town officials, land surveyors, and others researching issues related to town boundary lines and monuments.

Over time, this resource will be used to improve the accuracy of town boundaries and produce a better digital representation of the corporate jurisdictions.

Make Your Contribution:
We invite registered users to submit coordinates and related information for collections of town monuments. These data will be made available to the public.

A Field Data Collection Form is available here to guide you in your town efforts.

It is important to note that the data collected through this site are intended for reconnaissance purposes only, and are not intended to be used for legal or other purposes.

We welcome any comments or suggestions you wish to offer.

This web resource is a cooperative effort of the GRANIT, the Thompson School of Applied Sciences.
Development of this site was generously funded by the NH Land Surveyors Association Municipal Boundaries Committee:
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Curt Crow
Rusty Lovell
Gerry Miller
Bob Moynihan
Stan Prescott II

CSRC/RCC staff:
Jennifer Lingeman
David Justice
Fay Rubin
Bob St. Lawrence
Town Boundary Monument Catalog

Purpose of site:

- Build, document, and maintain a GIS-based inventory of town boundary monuments in New Hampshire

- Provide comprehensive resource for town officials, land surveyors, and others in the state who are researching issues related to town boundary lines and monumentation.

- Not intended for legal boundary delineation purposes.

Long term:

- Improve accuracy of town boundary mapping
Basic Screens

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Login/Register

User Registration

Note that throughout these data submission pages, required fields are in red.

- First name:
- Last name:
- Affiliation:
- Email:
- Address:
- City:
- State:
- Zip code:
- Phone:
- Land surveyor status: LLS
- Choose a username:
- Password:
- Password (confirm):

Required fields: Red text
Submit Data - Overview

- User logs in/registers
- User submits a point
- User submits related documents (photos, etc.)
- System performs internal error check
- Point is added to database and is available
  - To view in tabular form
  - To download as .xls file
  - To view as map on GRANIT Data Mapper (geodetic control theme)
- NHLSA Committee reviews and flags data record
Submit Data

NH GRANIT Town Boundary Monument Catalog

Monument Information

Required fields are in red.

Monument(s) in town of:
This site serves as a repository for spatially referenced town boundary monuments.
Method used to collect position:

<table>
<thead>
<tr>
<th>Monument(s) in Town of</th>
<th>Select Town</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nashua</td>
</tr>
<tr>
<td></td>
<td>Derry</td>
</tr>
<tr>
<td></td>
<td>Derry</td>
</tr>
<tr>
<td></td>
<td>Dunstable</td>
</tr>
<tr>
<td></td>
<td>Dunstable</td>
</tr>
<tr>
<td></td>
<td>Dunstable</td>
</tr>
</tbody>
</table>

For more information on collection methods, click on the help icon, 

<table>
<thead>
<tr>
<th>Select Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Scaled off georeferenced map</td>
</tr>
<tr>
<td>Coordinate unknown/populate from online map</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Utility</td>
</tr>
</tbody>
</table>

GRANIT System
The Granite State Data System

Granite State Data System (UNH) Research Center (UNH) New England Geographic Information Science Association

East Kingston
Easton
Eaton
Ellington
Ellsworth
Enfield
Epping
Epsom
Errol
Enfield Location
Essex
Farming
Fitch
Franklin
Monument Information

Required fields are in red.

Collection Method:

GPS

GPS unit used:

Type of processing conducted:

Estimated Positional Error (EPE) as reported on your receiver:

Date of data collection

Please provide a 4 digit year and as much of the date as you can.

Were you the original field data collector?

Yes

Towns sharing this monument:

Hold down the control key (PC) or option key (Mac) to select multiple towns.

Dover
Dunham
Lee
Madbury

Enter the local identification number for the monument, if any:

Enter the local name for the monument, if any:

Location of monument:

Enter information about any local landmarks or reference points that would help to identify the location of this monument:

Other information, if any:

Coordinate system:

NH State Plane Feet NAD83

Supporting documents/images:

There is a 5 megabyte limit on all supporting documents and images.

Type:

Description:

Upload File

Submit and Exit  Submit and add additional monument

GRANIT System at Complex Systems Research Center (UNH)
Thompson School of Applied Sciences (UNH)
NH Land Surveyors Association
Monument Information

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Monument(s) in town of:
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Method used to collect position:

Instructions for collecting coordinates from the GRANIT Data Mapper:
When the GRANIT Data Mapper opens, you will see a map of the town you selected above. Please be sure all pop-up blockers are turned off before accessing the GRANIT Data Mapper.

Step 1: Zoom in closer to the approximate monument location

1. Click on the Zoom in tool located in the toolbar above the map area in the top left corner.
2. Click on the map and drag to draw a box around the area where the monument is located.

Step 2 (optional): Turn on an aerial photograph for reference

1. In the Layer Menu to the right of the map area, place a checkmark in the box under the Visible column next to NAIP 2003 Aerial Imagery.

2. Click the Apply button.
3. Zoom in close if necessary (see Step 1).

Step 3: Collect a coordinate of the monument location

1. Click on the XY Coordinate tool located in the toolbar above the map area.
2. Click once on the monument location.
3. A new window will appear containing the resulting coordinates in NH State Plane Feet. Click the "Add Point to the Town Boundary website" link.
XY Coordinate Tool Results

NEW HAMPSHIRE STATE PLANE COORDINATES

<table>
<thead>
<tr>
<th>X (FT)</th>
<th>Y (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1172443</td>
<td>241156</td>
</tr>
</tbody>
</table>

Add Point to the Town Boundary website
Assorted Data Submission Details

- Required fields vs. optional fields
- Site offers multiple options for coordinate entry, including US National Grid
- All coordinates entered are stored in NH State Plane feet, NAD83 (using NGS software).
- Original coordinate entry values are preserved.
- Size limitation on photos/docs – 5 MB.
- If collecting data in field, data sheet available on front page for download.
- Recommend full documentation.
Internal Error Checking

Bounding Rectangle

Intersection of Bounding Rectangles
Data Viewing

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Data Viewing

Tabular viewing options:

- Sort on any field in ascending/descending order
- Sort on multiple fields
- Add/drop fields from data view
- Filter (query) to view only subsets of records
- Save records as excel file
- View all details for a single record
  - Download associated photos/documents
  - View point on GRANIT Data Mapper
<table>
<thead>
<tr>
<th>Towns</th>
<th>Location</th>
<th>Collection Date</th>
<th>National Grid</th>
<th>Latitude</th>
<th>Longitude</th>
<th>State Plane X</th>
<th>State Plane Y</th>
<th>Method</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham, Lee</td>
<td>guest, guest</td>
<td>10/2005</td>
<td>1STCH405000791</td>
<td>43.18380</td>
<td>-70.96925</td>
<td>1172343</td>
<td>242457</td>
<td>GPS</td>
<td>Not Reviewed</td>
</tr>
<tr>
<td>Durham, Lee</td>
<td>Meynihan, Robert</td>
<td>10/2005</td>
<td>1STCH305000791</td>
<td>43.18217</td>
<td>-70.96833</td>
<td>1167475</td>
<td>212500</td>
<td>GPS</td>
<td>Not Reviewed</td>
</tr>
</tbody>
</table>

*GRANIT System at Complex Systems Research Center (UNH)*

Thompson School of Applied Sciences (UNH)

NH Land Surveyors Association
Another data viewing option:

Access geodetic control theme in GRANIT Data Mapper …
Monument ID #447

View Point on Map
Date of data collection:
Submitter: guest
guest
Workshop - August 11, 2007
How data was collected: Coordinates unknown/populate from online map
Towns involved: Durham, Lee
Coordinates: Latitude: 43.15851
Longitude: -70.96135
Northing (Y): 2411152
Easting (X): 1172443
National Grid: 19TCH4054880396
Coordinates (as entered): Coordinate Format: NH State Plane Feet NAD83
Northing (Y): 2411152
Easting (X): 1172443
Additional Info:

You are seeing a limited set of information because you are not logged in as a user of the Town Boundary Monument site. For full viewing privileges, please visit the site and login. (If you are a first-time user, you will need to register as a site user prior to logging in.)
Related Resources

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Related Resources

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Related Resources

NATIONAL GEODETIC SURVEY/NOAA
- General Web Site
  http://www.ngs.noaa.gov
- Online Geodetic Toolkit
  http://www.ngs.noaa.gov/TOOlK
- Downloadable PC Software
  http://www.ngs.noaa.gov/PC_PROD/pc_prod.shtml

NH STATE AGENCIES AND ORGANIZATIONS OF RELEVANCE
- NH Department of Transportation
  http://www.nh.gov/dot/
- NH Division of Archives and Records Management
  http://www.sos.nh.gov/archives/
- NH GRANIT Clearinghouse
  http://www.granit.unh.edu

NH STATUTES
  a. Tables of Contents
     - Title I: The State and Its Government (Chapters 1 - 21-Q)
       http://www.gencourt.state.nh.us/aht/html/NHTOC/NHTOC-I.htm
     - Title II: Counties (Chapters 22-30-D)
       http://www.gencourt.state.nh.us/aht/html/NHTOC/NHTOC-II.htm
     - Title III: Towns, Cities, Village Districts, and Unincorporated Places (Chapters 31 aft 53-E)
       http://www.gencourt.state.nh.us/aht/html/NHTOC/NHTOC-III.htm
  b. Relevant Statutes
     - Title I, Chapter 1: Perambulation of the New Hampshire Line
       http://www.gencourt.state.nh.us/aht/html/W1-1.htm
     - Title I, Chapter 1-A, New Hampshire Coordinate System
     - Title III, Chapter 51: Town Lines and Perambulations of Boundaries
       http://www.gencourt.state.nh.us/aht/html/51/51-1.htm

US NATIONAL GRID SYSTEM (USNGS)
- About the USNGS
- Federal Geographic Data Committee (FGDC) Standard
Questions or Comments?