

Proposal For Statewide Planimetrics

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GIS Director

MetroCOG

2013 - MetroCOG



2012 – State of CT



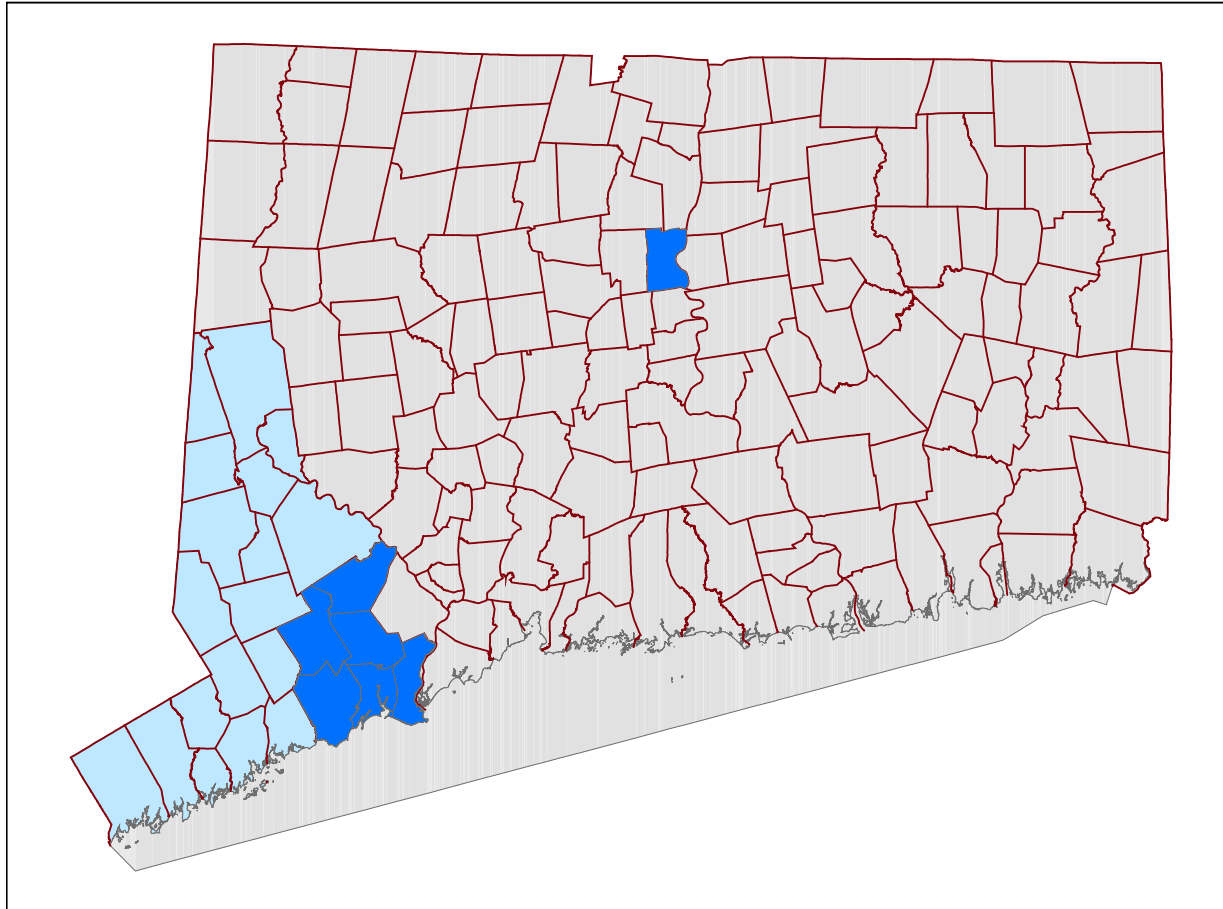
2016 – Imagery plus vectors



Statewide Planimetrics

- Features Captured by Photogrammetric or other methods
- Need Minimum Standard
- Patchwork approach – use best available
- Feature Level Metadata key
 - How: Photogrammetry, Heads-up Digitizing, Lidargrammetry, Drone, etc
 - Source Date: Date of Imagery or other source
 - Capture Date: Date Feature Mapped
 - Who Paid for Capture: Organization that paid for the feature to be captured
 - Who Captured: Organization that captured feature
 - Identifiers – Local/State

Building Footprints



Sources of Data

- State of CT DEEP - 2012 Impervious Areas
 - **1,490,668 Building Footprints**
 - <https://cteco.uconn.edu/projects/ms4/impervious2012.htm>
- Council of Governments
 - **MetroCOG 2013**
 - **WestCOG 2013 and 2015**
- State of CT DOT - Various Photogrammetry Projects
 - **Project #0063-0644**
- State of CT DAS Construction Services
 - State University and Community Colleges
 - Other facilities
- Municipalities
 - **City of Hartford...**
- Utility Companies
- Private
 - Land Use Permit digital submission

CT DEEP Impervious Layers

Buildings
Roads
Other

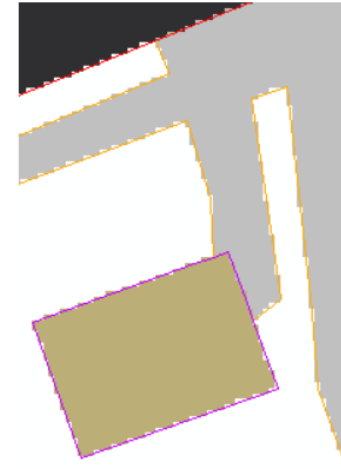
How is the statewide dataset different from the others? The graphics show it best. The lines show the edges of the statewide layers solid colors are the raster shapes and the outlines are the layers after they have been processed



The original layers in town vector and raster formats



The smoothed statewide vector dataset



Combining the two for comparisons sake. The statewide layers are the outlines (purple=buildings, red=roads, orange=other).

Programmatic Sources of Data

- Future Flights and Flight Buy-ups
- CT DOT
 - Photogrammetry Projects – Ground Surveys
- CT DAS Construction Services
 - New Construction – CAD As-builts
- Municipal Digital Submission
 - Land Use Application Process
 - Municipal Projects

Future Statewide Flights

- Still time for 2016 buy-ups
- Next Flight?

Department of Transportation

- Photogrammetry for Transportation Projects
- Specification for Aerial Photography and Photogrammetric Mapping - 1976
<http://www.ct.gov/dot/lib/dot/documents/dcsurvey/Aerialphoto.pdf>
- Recent example: INVITATION TO BID Aerial Photogrammetric Survey CT Department of Transportation State Project 56-316 I-95 Resurfacing, Bridge Rehabilitation, and Safety Improvements Town of Greenwich and City of Stamford, CT Bids for the completion of aerial photogrammetric survey, including aerial survey flights and preparation of 1"=40' Scale topographic mapping along I-95 in the Town of Greenwich and City of Stamford, Connecticut for CT DOT project 56-316, are being solicited by Kleinfelder on behalf of the Connecticut Department of Transportation. An invitation to bid package may be obtained from Raymond Culver, P.E., Project Professional, Kleinfelder, 500 Enterprise Drive, Suite 4B, Rocky Hill, CT 06067, telephone number 860-563-7775 (ext. 144), or email rculver@kleinfelder.com. Bids will be received by Kleinfelder until 12:00 noon, Wednesday April 26, 2017.

Department of Transportation



PRELIMINARY

- NOTES**
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR WATERWAYS AND MARINE FACILITIES.
 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR AIRPORTS AND AIRPORT FACILITIES.
 4. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR RAILROADS AND RAILROAD FACILITIES.
 5. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR TRANSPORTATION FACILITIES.
 6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR TRANSPORTATION FACILITIES.
 7. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CONNECTICUT STANDARD SPECIFICATIONS FOR TRANSPORTATION FACILITIES.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

HARTFORD - I-84
IN THE TOWN OF
HARTFORD

PROJECT NO. 83-04

A small map showing the project location within the city of Hartford. The map is divided into a grid with numbered blocks. Block 1 is highlighted in yellow, indicating the project location. Block 2 is also highlighted in yellow, and block 3 is highlighted in green.

Department of Transportation

NOTES:

- 1.) SURVEY BY DISTRICT 1 SURVEYS
- 2.) FIELD BOOKS:
- 3.) 400 FOOT GRID BASED ON NAD 83/CORS96
- 4.) VERTICAL DATUM BASED ON NAVD 88 (GEOID09)
- 5.) THE PROPERTY AND STREET LINES DEPICTED HAVE BEEN COMPILED FROM VARIOUS SOURCES AND ARE NOT TO BE CONSTRUED AS NECESSARILY BEING OBTAINED AS THE RESULT OF A FIELD SURVEY, NOR DO THEY REPRESENT A PROPERTY BOUNDARY OPINION
- 6.) MAPPING COMPILED FROM PHOTOGRAPHY DATED 3-27-2014
- 7.) PHOTOGRAMMETRY BY: QUANTUM SPATIAL
QUANTUM SPATIAL PROJECT NUMBER 1-140206.01

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

HARTFORD - I-84

IN THE TOWN OF

HARTFORD

PROJECT NO. 63-644

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SURVEYED BY:
PLOTTED BY:
CHECKED BY:
FILE:

DAS – Construction Services

- Consultant Procedure Manual
 - Section 3.3.6, Boundary & Topographic Survey Requirements page 44.
- <http://portal.ct.gov/-/media/DAS/Construction-Services/DAS-CS-Library/0000-Series/0400-Consultants-Procedure-Manual.pdf?la=en>

Municipal Digital Submission

- Newtown

http://www.newtown-ct.gov/sites/newtownct/files/uploads/gis_stds_map_rev01312011.pdf

- Stonington -

11.5 DIGITAL SUBMISSION REQUIREMENTS. Page 11-5 (page 75 in PDF)

http://www.stonington-ct.gov/sites/stoningtonct/files/file/file/technical_standards_document_final_3.21.11.pdf#page=75

Recommendations

- Current Projection NAD 83 (2011)
- Project existing to Current
- Yearly updates
- Snapshots kept
- Maintained at Municipal or Regional Level
- Identifiers
 - Municipal – Parcel ID, Building ID...
 - State – OPM Facility ID...
 - Federal – LOMA ID, Historic Property ID,...