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1. Delivering New Waste Barrels

In October of this year the Town implemented a change to its recycling program by switching to registered recycling barrels. Because the 96-gallon barrels did not meet the needs of all residents, the Town has allowed residents to exchange the barrels for a smaller size through an online request form, with the barrels to be swapped out on their collection days. The GIS team has assisted the Highways and Grounds team in Public Works to identify optimal routes between addresses requesting barrel swaps, helping cut down travel time and improving service efficiency.

In order to produce these maps, we identified the collection day of each resident requesting a new barrel and created lists for each collection day. From this list, we determined the best route between the Public Works complex on Keyes Rd and each address. In most cases, the first address to visit was not always the one closest to the Public Works building! Below is a sample of some of these route maps. Note: addresses and other identifying information have been removed from these maps.



Both of these routes cover some of the same parts of Town, but not all parts of these streets have the same collection date.

■ *Tristan Boyd*

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2. Planning for the 250th Patriots Day Anniversary – A Collaborative Effort

Each April, several towns in the Greater Boston area celebrate Patriots' Day with parades, battle reenactments, and road races, among other historically significant events. This coming year will mark the 250th anniversary of the Battles of Lexington and Concord, often associated with the phrase, “the shot heard 'round the world”, which ignited the beginning of the American Revolution.

The bicentennial anniversary in 1975 drew more than 100,000 visitors, including President Ford, and the centennial in 1875 drew 50,000 and subsequent mayhem when hungry and inebriated crowds invaded homes and pantries and forced police to close the Middlesex Hotel bar. Crowd estimates for 2025 are anecdotal at best, but nonetheless, much planning is needed!

An event of this magnitude requires complex coordination amongst public safety, public works, public health, local and state agencies, etc. Planned events, road closures, parking, alternative transportation, emergency services, equipment staging and deployment, food services, and personnel, to name a few, must be mapped, often in several iterations and at various scales.

Concord's GIS team has been involved in the Town's planning for this weekend of events over the past two years but has also begun efforts to coordinate maps and symbology with staff in the towns of Lexington, Lincoln, and Arlington, as well as the National Park Service, through an ArcGIS Online collaboration group. Since each town has its own events scheduled over the course of the weekend, the intent is for each to publish and maintain its own data within this group. Updates can then easily flow into already-configured web maps and applications used for planning and operations. The goal of this collaboration is to achieve accuracy, transparency, and efficiency

throughout what is expected to be an exceptionally busy weekend – one whose significance is considered by many to “still [be] heard ’round the world”.



- *Heather Bhowmick*

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3. GIS Team Showcases Innovation at Fall NEARC Conference 2024

This October, our GIS team had the opportunity to attend the Fall NEARC Conference in Burlington, Vermont. Over the course of three days, we joined GIS professionals from across the Northeast to share ideas, learn about new advancements, and present our own contributions to the field.

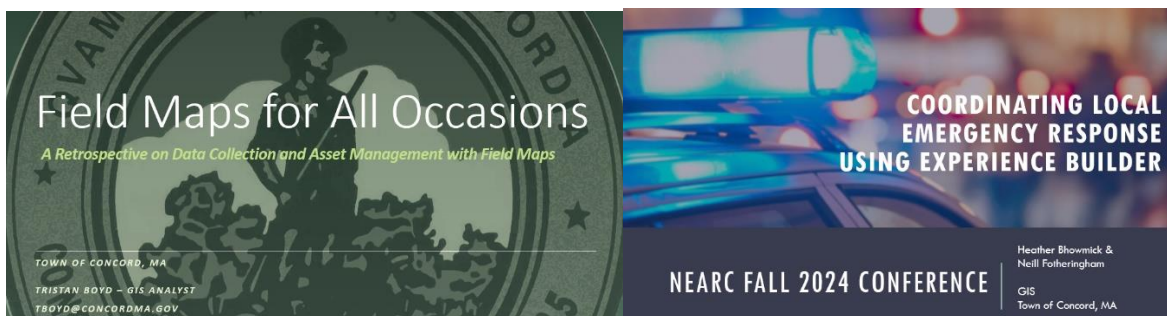
One of the highlights was presenting some of our recent projects. Heather and I delivered a presentation titled "*Coordinating Local Emergency Response Using Experience Builder*". We shared how, in March 2024, we collaborated with MEMA, students from Massachusetts Maritime Academy’s Emergency Management program, and various Town departments to conduct a simulated excessive rainfall and flooding event. During this exercise, we developed and utilized a custom web application designed to visualize and edit near real-time updates in an Emergency Operations Center (EOC) environment.

Our presentation highlighted the practical uses of applications such as Experience Builder and Dashboards, and showcased how we tailored it to fit the scope and constraints of the exercise. We

demonstrated the workflows and tools used, including data collection integration, dashboards, live data feeds, and Experience Builder. We also discussed lessons learned and ideas for future enhancements to this solution. The audience's questions and feedback offered fresh perspectives on ways to further refine and expand the application.

Tristan also took the stage to share his presentation, "*Field Maps for All Occasions*". Over the past couple of years, we've worked on the implementation of various Field Maps data collection projects across multiple departments in the Town of Concord. Tristan provided an in-depth look at some of those projects and how we've successfully integrated Field Maps to greatly improve workflows. He covered a few projects we've worked on, including catch basin cleaning with Highways & Grounds, hydrant flushing with Water & Sewer, and inventory management for the Natural Resources Commission. He also shared best practices for deploying and maintaining Field Maps solutions, with insights on customizations, logic trees, and integration with other Esri products.

Beyond presenting, the conference was an invaluable opportunity for professional growth. Sessions on topics like AI integration in GIS, advanced spatial analytics, and user-friendly cartography sparked ideas for future projects. Our time at NEARC underscored the importance of collaboration and continuous learning in the ever-evolving world of GIS. We look forward to applying these insights to better serve our Town and to sharing more at future conferences!

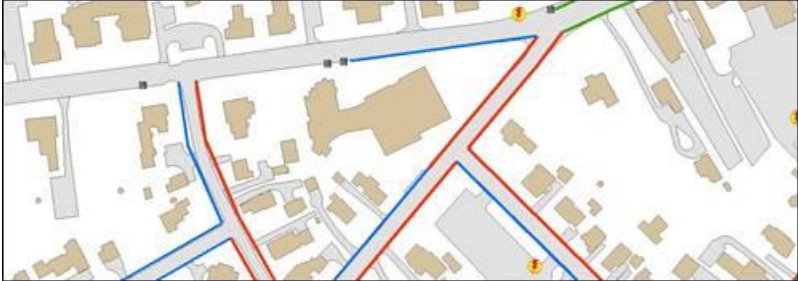

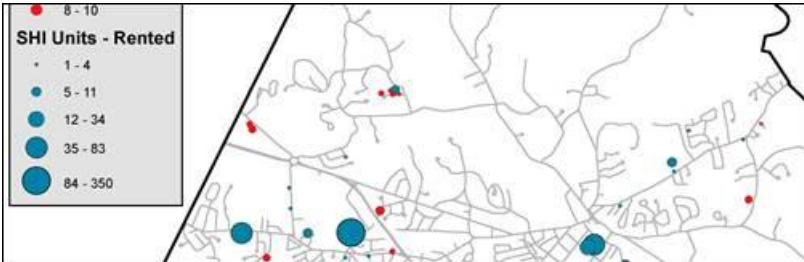



- *Neill Fotheringham*

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4. Map/App Gallery

CTRL-Click on a thumbnail to view a full-size map

Parking Webmap		Updated the Parking webmap with new regulations in the vicinity of the Main Library, pointed out by resident Bob Treitman.
Moratorium Roads		Updated CPW's Moratorium Roads map for Adrian Mohammed
Affordable Housing		Updated Affordable Housing map for Liz Rust
Topography		Developed a Topography map for Johnny in CMLP, to assist the smartmeter installation process

Tax Exempt Properties



Developed a Tax Exempt Properties map for Meredith Stone

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5. Nearmap Fall Flyover

The October Nearmap aerial photography flyover provided some interesting updates.

Rookery Lane has made some progress into Concord since a year ago:



Middlesex School will be building a Field House at A (upper left), and has relocated the parking area to B (lower right)



Great Meadows showed the effects of this past summer's dryness



- Jill Moonheron

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