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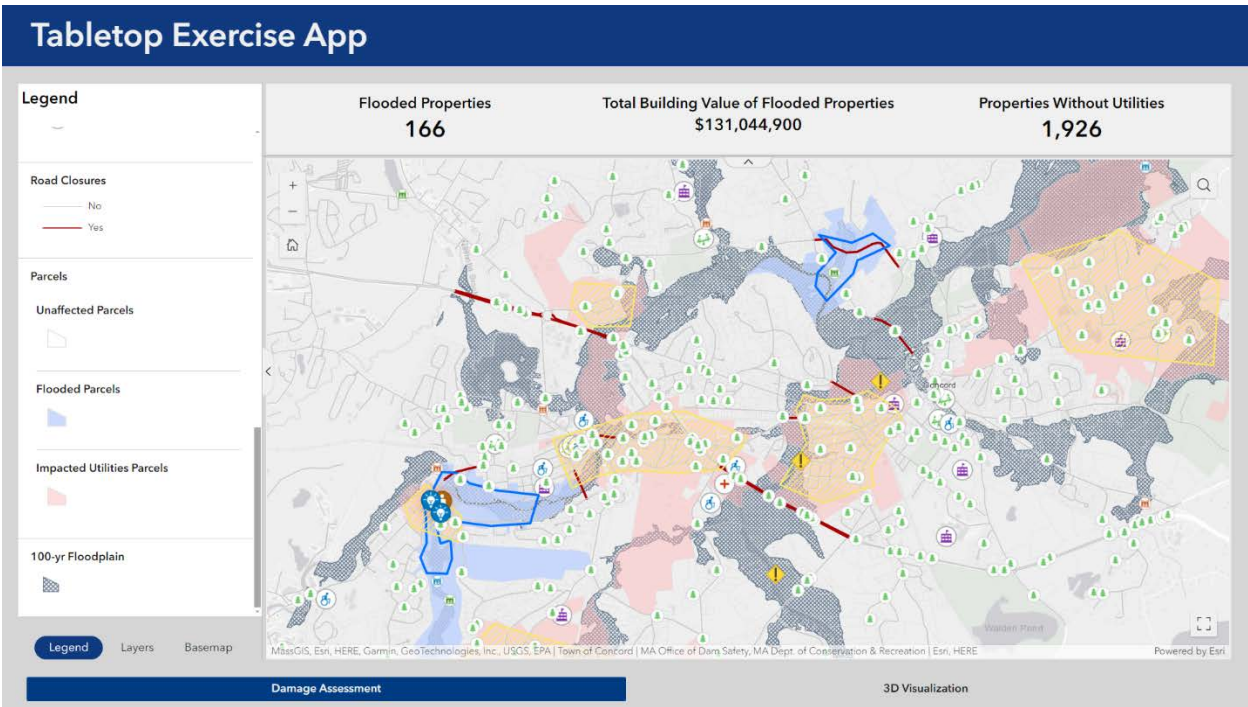
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### 1. Emergency Management Tabletop Exercise

On Tuesday, March 5th, several Town departments, members of MEMA, and other outside resources convened for a 5-hour Tabletop Exercise at the Concord Public Safety building, facilitated by a group of senior students from the Massachusetts Maritime Academy's Emergency Management program. The scenario depicted a 3-4 day stretch of excessive rainfall and heavy winds impacting Middlesex County, Massachusetts, which resulted in flooding of low-lying areas along the Sudbury, Concord, and Assabet Rivers, hundreds of downed trees/branches throughout town, and a failure of the Haywards Pond Dam. The purpose of this exercise was to practice procedures and assess strengths and weaknesses of critical transportation of emergency services, search and rescue operations, HAZMAT response, and debris management.

The GIS team created a web application, using ArcGIS Experience Builder, to edit and visualize near real-time updates in a simulated Emergency Operations Center (EOC). Mapped data included estimates of flooding extent, locations of debris in the roadway, road and bridge closures, other emergency response, vulnerable populations, and utility layers, such as water distribution, sewage and stormwater pipes, gas mains, and electrical utilities.



Spatial analysis can then be used to identify evacuation zones, estimate potential property damage, reroute traffic, and much more! Not only is it important to know the location of assets and infrastructure failures, but mapping and dashboard applications can help with the efficient coordination of response, resource management, and public communication. This exercise allowed the team to get a taste of what's possible but also illuminated challenges and the need for up-to-date and accessible data. There is more work to be done and several opportunities for creative solutions!

- *Heather Bhowmick*

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## 2. How GIS In Concord Has Changed

Since our last newsletter, both Heather and Tristan have celebrated their 1-year anniversary working with the Town! We're very grateful for all their work and contributions thus far, and we're excited thinking about what the future holds for our team! This had me thinking about some of the projects we've worked on over the past year and how we've been using GIS in new ways (several of which you may have read about in previous GIS Newsletter editions!)

Over the past year, we've made significant improvements in assisting departments with field data collection. Using tablets and the Field Maps application, we've been able to create customized layers and field attributes for departments to easily collect data on whatever they're working on. We've then been able to take that collected data and feed it into dashboards, to help staff better understand the scope of the events they're working on.

How we are creating our web mapping applications has also been changing. Using Experience Builder now instead of Web App Builder has allowed us to create advanced custom applications that can provide more functionality and better user interfaces than what was previously available. These applications can also house Scenes, allowing us to dabble with 3D interactive maps – something we hope to work more with in the future!

And those are just a few examples of how we've been evolving our utilization of GIS here in Concord! As we continue to support all our Town's departments with their spatial data needs with innovative solutions,

I'm eager to see what sorts of projects and requests you'll all have for us that we'll be reporting on in future GIS Newsletters! As always, please feel free to contact us with any GIS questions or requests that you may have.

- *Neill Fotheringham*

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### 3.

In January of this year the Massachusetts Department of Corrections announced the closure of MCI Concord, the State's oldest operating men's correctional facility. While the exact future of the prison land and buildings is uncertain, the Town of Concord is likely to play a significant role in reimagining the over 50-acre property. There are a variety of visions for the property, including housing, park space, commercial, and a reimagining of the Route 2 rotary. Concord GIS has been crafting maps and other visuals for the Town Manager's office and public committees as the Town crafts its own vision for the property.



**Above: MCI Concord parcel highlighted in yellow, with Route 2 rotary in the upper left corner, Commonwealth Ave on the left-hand side, and the Assabet River cutting from bottom center to upper right corner.**

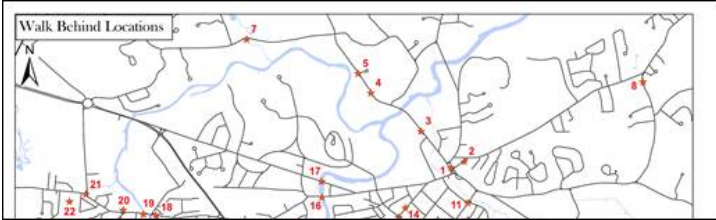
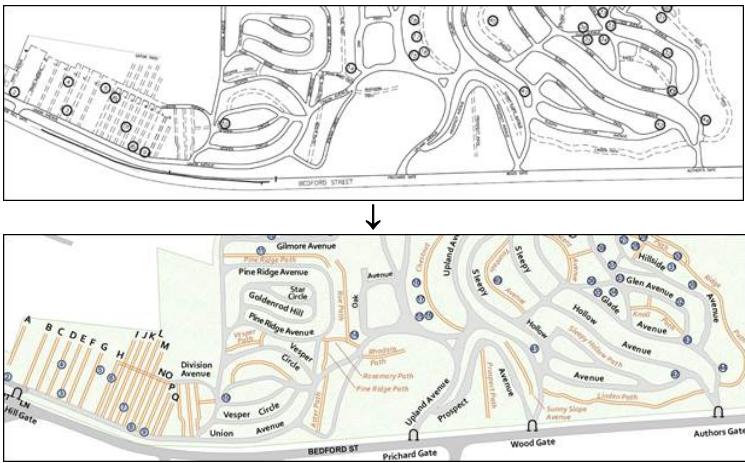

While there are a number of DOC-owned properties in Concord, only the prison parcel itself—at the corner of Commonwealth Avenue and Route 2—is going to be disposed of by the State. The property itself contains a number of structures of note, including historic buildings and a water treatment facility, that will need to be incorporated into any plan for the facility. As of now there is no singular vision for MCI Concord, and the road to redevelopment of the site will stretch far beyond the expected June 2024 closure. Concord GIS looks forward to providing maps and supporting documents to support the Town’s mission and vision for the future of the prison property.

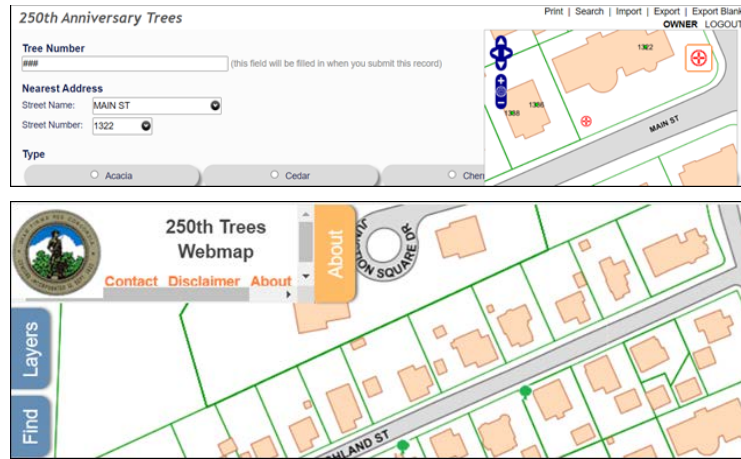
- *Tristan Boyd*

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## 4. Map/App Gallery

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

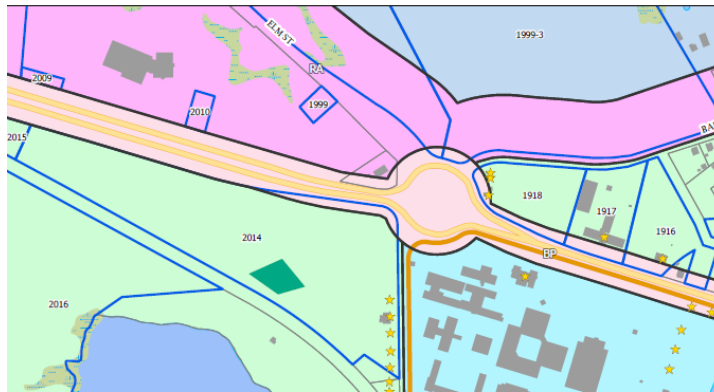
<p style="text-align: center;"><b>Walk-Behind Sidewalk Plow Maps</b></p>		<p>Cemetery Supervisor Tish Hopkins requested an update of these maps, which Public Works uses to make sure tricky sections of sidewalk are cleared after snowfall.</p>
<p style="text-align: center;"><b>Sleepy Hollow Graves of Interest</b></p>		<p>Tish also requested a refresh of this map, in honor of the upcoming 250<sup>th</sup> Anniversary, with an emphasis on improving readability.</p>
<p style="text-align: center;"><b>Cemetery Water Spigots</b></p>		<p>A third, new map for Tish: Cemetery water spigot and shut-off locations</p>
<p style="text-align: center;"><b>250<sup>th</sup> Anniversary Trees Initiative</b></p>		<p>Resident Christa Collins is leading an effort to plant 250 trees in Town, in</p>



honor of the upcoming anniversary. She asked for help mapping potential tree locations. We created an online, map-based data entry form and a webmap to assist her team

## MCI - Concord & Rt. 2 Rotary

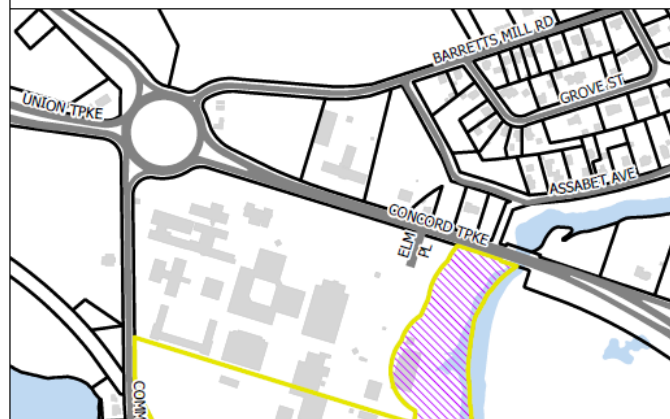
JANUARY 2024



MCI Concord Maps

## MCI Concord & Surrounds

Proposed Parcel Divisions - March 2024



This map was created by Concord GIS. The information is provided as a reasonably accurate point of reference, but is not intended to represent authoritative location, and is not to be used for conveyances. The Town of Concord shall not be held responsible for the accuracy or misuse of these data.

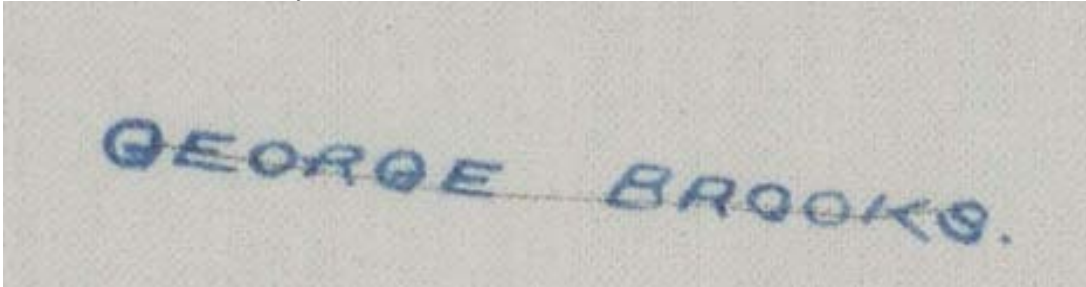
These two maps were part of separate requests for visuals relating to MCI Concord. Note the variety of information at our disposal for display regarding the property!

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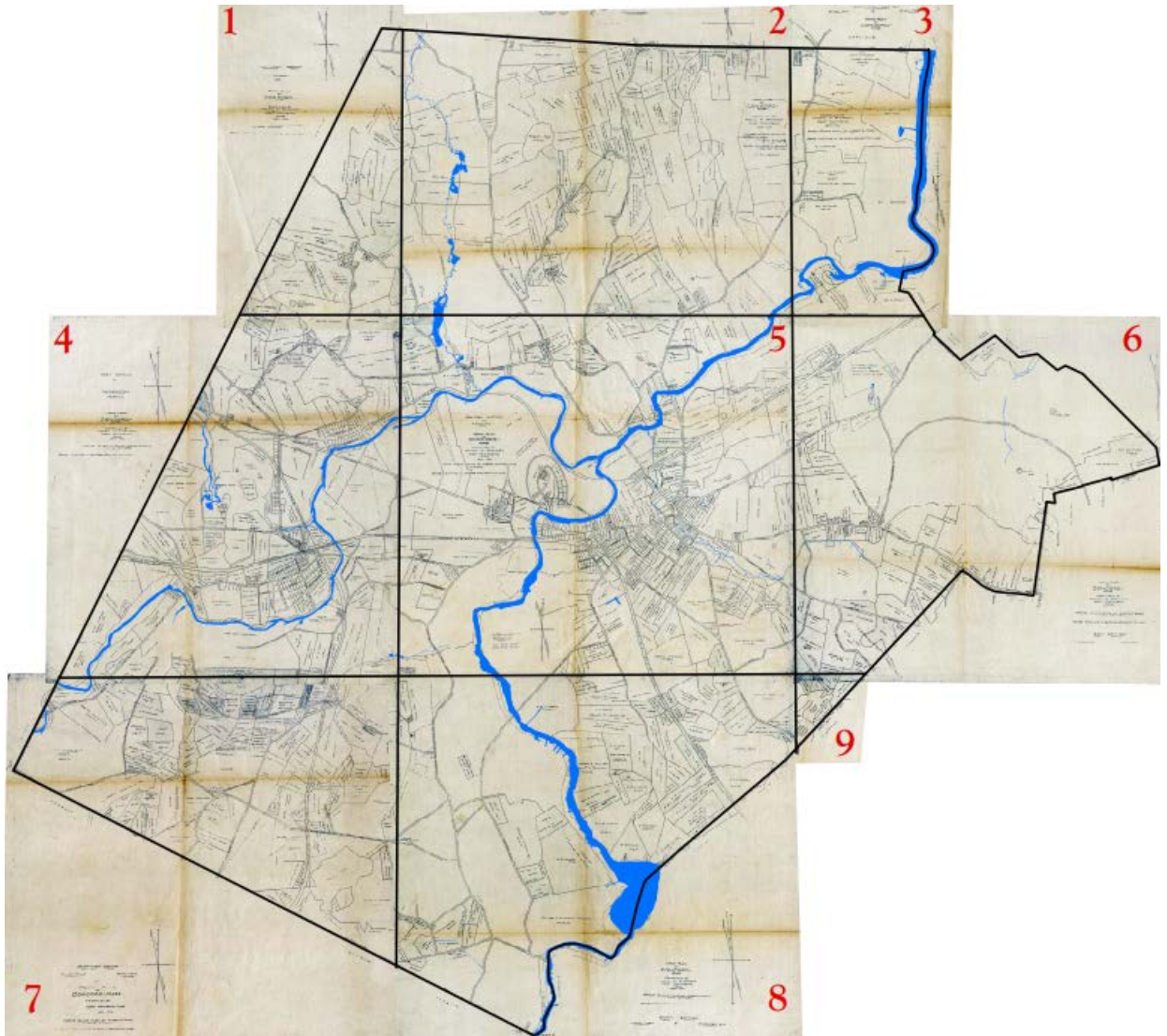
## 5. Stickney Parcel Maps

In the years from 1907 to 1910, **Frank W. Stickney** prepared a map of the Town of Concord, showing new Town boundaries as well as Parcel boundaries and Parcel Owner names. The inclusion of owner names makes these maps of particular interest to folks doing historic research.

A [binder](#) of these delicate old maps, which used to hang in the Select Board Room, is now at the library in the Town Archives. Municipal Archivist Nathaniel Smith obtained [CPC funding](#) to procure very-high-resolution scans of these maps for public, online viewing. The scan resolution is so fine, you can see the weave of the linen on which they were drawn:



I georeferenced all of the panels to align with the Town boundaries, and with each other to the extent possible:



You can view these maps, along with an overlay of the current Parcels layer [in this WebApp](#). Many thanks to Heather for transforming them into a properly-formatted basemap!

The plans in their original format can be viewed and downloaded on the [Town Archives Digital Repository](#).

Thanks for a fascinating project, Nate!

- *Jill Moonheron*

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